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ORDNANCE PAMPHLET 1112  
(SECOND REVISION)

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of 27 Sep 58

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# GUN MOUNT AND TURRET CATALOG



7 MARCH 1945

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UNITED STATES GOVERNMENT PRINTING OFFICE  
WASHINGTON : 1945

**DECLASSIFIED**

NAVY DEPARTMENT,  
BUREAU OF ORDNANCE,  
*Washington 25, D. C., March 1945*

~~RESTRICTED~~

**ORDNANCE PAMPHLET 1112 (SECOND REVISION)**

**GUN MOUNT AND TURRET CATALOG**

1. Ordnance Pamphlet 1112 (Second Revision) is a reference book. It is intended to make readily accessible the most frequently required data concerning the various types of gun mounts and turrets in general use on combatant and merchant ships.
2. This pamphlet will be revised, expanded, and issued at frequent intervals, as additional data are compiled.
3. This publication supersedes Ordnance Pamphlet 1112 (First Revision), which should be destroyed. Reference is made, on the catalog sheets, to Ordnance Pamphlets applicable to the subject mounts and turrets.
4. This publication is RESTRICTED and shall be safeguarded in accordance with the security provisions of U.S. Navy Regulations, 1920, Article 76.



G. F. HUSSEY, JR.,  
Rear Admiral, U. S. Navy,  
Chief of the Bureau of Ordnance.



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\* 4 pages each

## NOTES

Turrets and 8-inch mounts are designated as "2-Gun" or "3-Gun" turrets (or mounts) when there is a separate slide for each gun, as "Twin" or "Triple" turrets (or mounts) when two or three guns operate in a single slide. Because of long-established usage, however, all 5-inch and 6-inch mounts with two guns are designated as "Twins."

1-Pdr. and 6-Pdr. mounts, and 3"/23 Mount Mk. 13 Mod. 0, now obsolete, are omitted from this revision. They may be found in O.P. 1112 (1st Rev.)

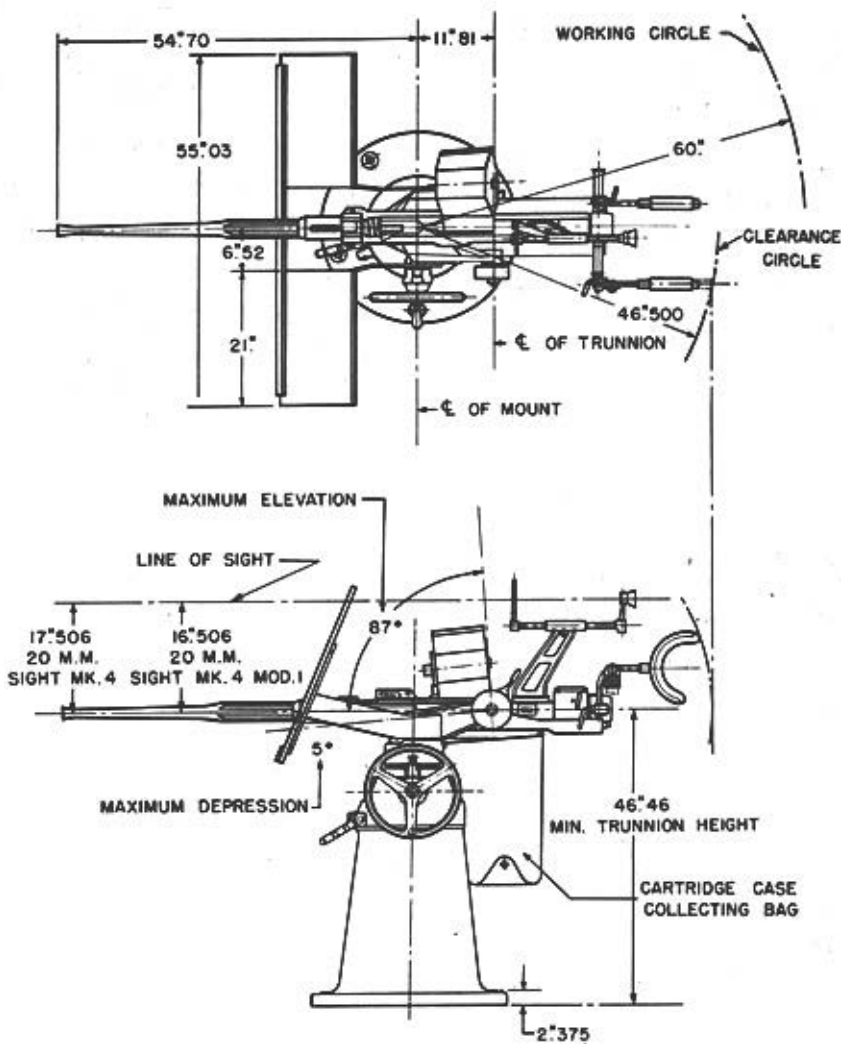
Every effort has been made to avoid errors in preparation of O.P. 1112. However, errors and omissions may be discovered in its use. Activities concerned are requested to inform the Bureau of Ordnance promptly of such errors so that they may be corrected.



**20-MM MOUNT, MARK 2 ALL MODS.****20-MM, ANTI-AIRCRAFT, SINGLE MOUNT, SHIELDED, PEDESTAL TYPE**

Note: Assembly number of mount is required for precise information. For assembly numbers see:

INDEX SKETCH 103308



GUN BARREL—20-MM  
20-MM MACHINE GUN MECHANISM  
MAGAZINE  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
WEIGHT OF SHIELD  
BRAKE LOAD

MK. 4 MODS. 0 OR 1  
MK. 2 MOD. 0 OR MK. 4 MOD. 0  
MK. 2 MOD. 0 OR MK. 4 MOD. 0  
MK. 2 MODS. 0 OR 1  
.5 IN.

Weights below are approximate  
1,695 LBS.  
250 LBS.  
1,785 LBS.

**20-MM, MARK 2 ALL MODS.**

# 20-MM MOUNT, MARK 2 ALL MODS.

20-MM, ANTIAIRCRAFT, SINGLE MOUNT, SHIELDED, PEDESTAL TYPE

## GUN AND AMMUNITION DATA

### GUN

|                              |                           |
|------------------------------|---------------------------|
| 20-mm, 70-Cal.               | Mk. 4 Mods. 0 or 1        |
| Max. Powder Pressure         | None Set                  |
| Wt. Gun Barrel and Mechanism | Appr. 150 Lbs.            |
| Max. Cyclic Rate of Fire     | Appr. 450 Rounds per Min. |

### BALLISTICS

|                 |                          |
|-----------------|--------------------------|
| Muzzle Velocity | 2,740 Feet per Second    |
| Max. Altitude   | 10,000 Feet at 87° Elev. |
| Max. Range      | 4,800 Yards at 35° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|          |                |                |
|----------|----------------|----------------|
| H. E.    | Mods. of Mk. 3 | Wt. .2714 Lbs. |
| H. E.-T  | Mods. of Mk. 4 | Wt. .2621 Lbs. |
| H. E.-T. | Mods. of Mk. 7 | Wt. .2714 Lbs. |
| A. P.-T. | Mods. of Mk. 9 | Wt. .2686 Lbs. |

#### Cartridge

|      |              |               |
|------|--------------|---------------|
| Case | Mk. 2 Mod. 0 |               |
|      | Mk. 4 Mod. 0 | Wt. .190 Lbs. |
|      | Mk. 3 Mod. 0 | Wt. .180 Lbs. |

|        |                |                |
|--------|----------------|----------------|
| Charge |                | Wt. 27.7 Grams |
| Primer | Mk. 30 Mod. 0, |                |
|        | Mk. 31 Mod. 0  |                |

## OPERATING SELECTION

Manual Free Swinging

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet Nos. (Mount)  | 909       |
| (Mech.)                          | 911       |
| Working Circle Drawing No.       | 299907    |
| General Arrangement Drawing Nos. |           |
| (Mech. Mk. 4 Mod. 0)             | 299825-26 |

## REMARKS

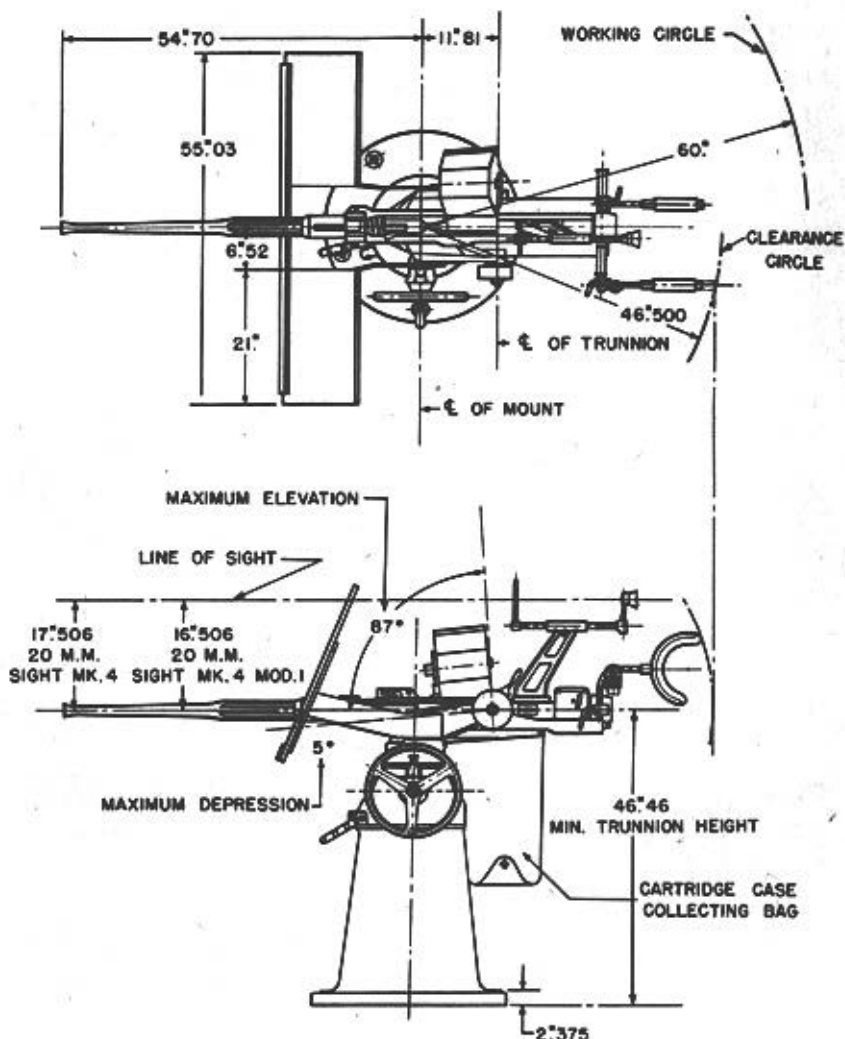
Elevation limits are minus 5° to plus 87°. Training is unlimited, except by length of power cable when mount is equipped with Mk. 14 Mod. 2 gunsight.

Adjustable trunnion height is handwheel operated through mechanical gearing to jack screw lift.

**20-MM MOUNT, MARK 4 ALL MODS.****20-MM, ANTI-AIRCRAFT, SINGLE MOUNT, SHIELDED, PEDESTAL TYPE**

Note: Assembly number of mount is required for precise information. For assembly numbers see:

INDEX SKETCH 103308



GUN BARREL—20-MM  
20-MM MACHINE GUN MECHANISM  
MAGAZINE  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
WEIGHT OF SHIELD  
BRAKE LOAD

MK. 4 MODS. 0 OR 1  
MK. 2 MOD. 0 OR MK. 4 MOD. 0  
MK. 2 MOD. 0 OR MK. 4 MOD. 0  
MK. 4 MODS. 0 OR 1  
.5 IN.

Weights below are approximate  
1,695 LBS.  
250 LBS.  
1,785 LBS.

**20-MM, MARK 4 ALL MODS.**

# 20-MM MOUNT, MARK 4 ALL MODS.

20-MM, ANTIAIRCRAFT, SINGLE MOUNT, SHIELDED, PEDESTAL TYPE

## GUN AND AMMUNITION DATA

### GUN

|                              |                           |
|------------------------------|---------------------------|
| 20-mm, 70-Cal.               | Mk. 4 Mods. 0 or 1        |
| Max. Powder Pressure         | None Set                  |
| Wt. Gun Barrel and Mechanism | Appr. 150 Lbs.            |
| Max. Cyclic Rate of Fire     | Appr. 450 Rounds per Min. |

### BALLISTICS

|                 |                          |
|-----------------|--------------------------|
| Muzzle Velocity | 2,740 Feet per Second    |
| Max. Altitude   | 10,000 Feet at 87° Elev. |
| Max. Range      | 4,800 Yards at 35° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|          |                |                |
|----------|----------------|----------------|
| H. E.    | Mods. of Mk. 3 | Wt. .2714 Lbs. |
| H. E.-T  | Mods. of Mk. 4 | Wt. .2621 Lbs. |
| H. E.-T. | Mods. of Mk. 7 | Wt. .2714 Lbs. |
| A. P.-T. | Mods. of Mk. 9 | Wt. .2686 Lbs. |

#### Cartridge

|      |              |               |
|------|--------------|---------------|
| Case | Mk. 2 Mod. 0 |               |
|      | Mk. 4 Mod. 0 | Wt. .190 Lbs. |
|      | Mk. 3 Mod. 0 | Wt. .180 Lbs. |

|        |                |                |
|--------|----------------|----------------|
| Charge |                | Wt. 27.7 Grams |
| Primer | Mk. 30 Mod. 0, |                |
|        | Mk. 31 Mod. 0  |                |

## OPERATING SELECTION

Manual Free Swinging

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet Nos. (Mount)   | 909       |
| (Mech.)                          | 911       |
| Working Circle Drawing No.       | 299907    |
| General Arrangement Drawing Nos. |           |
| (Mech. Mk. 4 Mod. 0)             | 299825-26 |
| (Mount)                          | 299741    |

## REMARKS

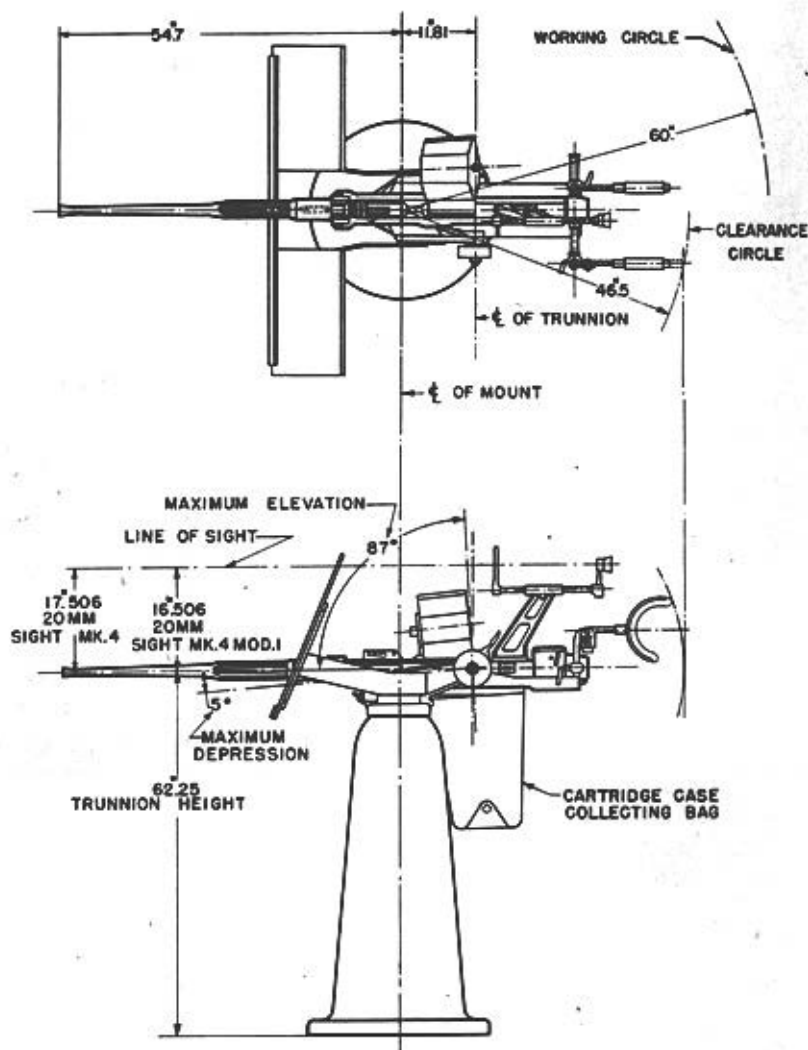
Elevation limits are minus 5° to plus 87° (except mount Mk. 4 Mod. 3—elevation plus 90°). Training is unlimited, except by length of power cable when mounts are equipped with Mk. 14 Mod. 2 gunsight.

Adjustable trunnion height is handwheel operated through mechanical gearing to jack screw lift.

**20-MM MOUNT, MARK 5 ALL MODS.****20-MM, ANTI-AIRCRAFT, SINGLE, OPEN OR SHIELDED, PEDESTAL TYPE**

Note: Assembly number of mount is required for precise information. For assembly numbers see:

INDEX SKETCH 103308



GUN BARREL—20-MM  
20-MM MACHINE GUN MECHANISM  
MAGAZINE  
SHIELD  
SHIELD THICKNESS

NONE

TOTAL WEIGHT OF ASSEMBLY  
WEIGHT OF SHIELD  
BRAKE LOAD

1,400 LBS.

MK. 4 MODS. 0 OR 1  
MK. 2 MOD. 0 OR MK. 4 MOD. 0  
MK. 2 MOD. 0 OR MK. 4 MOD. 0  
MK. 4 MOD. 0  
.5 IN.

Weights below are approximate  
1,540 LBS.  
250 LBS.  
1,785 LBS.

**20-MM, MARK 5 ALL MODS.**



# 20-MM MOUNT, MARK 5 ALL MODS.

20-MM, ANTIAIRCRAFT, SINGLE, OPEN OR SHIELDED, PEDESTAL TYPE

## GUN AND AMMUNITION DATA

### GUN

|                              |                           |
|------------------------------|---------------------------|
| 20-mm, 70-Cal.               | Mk. 4 Mods. 0 or 1        |
| Max. Powder Pressure         | None Set                  |
| Wt. Gun Barrel and Mechanism | Appr. 150 Lbs.            |
| Max. Cyclic Rate of Fire     | Appr. 450 Rounds per Min. |

### BALLISTICS

|                 |                          |
|-----------------|--------------------------|
| Muzzle Velocity | 2,740 Feet per Second    |
| Max. Altitude   | 10,000 Feet at 87° Elev. |
| Max. Range      | 4,800 Yards at 35° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|          |                |                |
|----------|----------------|----------------|
| H. E.    | Mods. of Mk. 3 | Wt. .2714 Lbs. |
| H. E.-T. | Mods. of Mk. 4 | Wt. .2621 Lbs. |
| H. E.-T. | Mods. of Mk. 7 | Wt. .2714 Lbs. |
| A. P.-T. | Mods. of Mk. 9 | Wt. .2686 Lbs. |

#### Cartridge Case

|              |               |
|--------------|---------------|
| Mk. 2 Mod. 0 |               |
| Mk. 4 Mod. 0 | Wt. .190 Lbs. |
| Mk. 3 Mod. 0 | Wt. .180 Lbs. |

#### Charge Primer

|                |                |
|----------------|----------------|
| Mk. 30 Mod. 0, |                |
| Mk. 31 Mod. 0  | Wt. 27.7 Grams |

## OPERATING SELECTION

Manual Free Swinging

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet Nos. (Mount)   | 909       |
| (Mech.)                          | 911       |
| Working Circle Drawing Nos.      | 299908    |
| General Arrangement Drawing Nos. |           |
| (Mech. Mk. 4 Mod. 0)             | 299825-26 |
| (Mount)                          | 299959    |
| (Wet Mount Mk. 5 Mod. 4) (Stand) | 330050    |

## REMARKS

Elevation limits are minus 5° to plus 87°. Training is unlimited, except by length of power cable when mounts are equipped with Mk. 14 Mod. 2 gunsight.

Mount Mk. 5 Mod. 4 is a wet mount.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

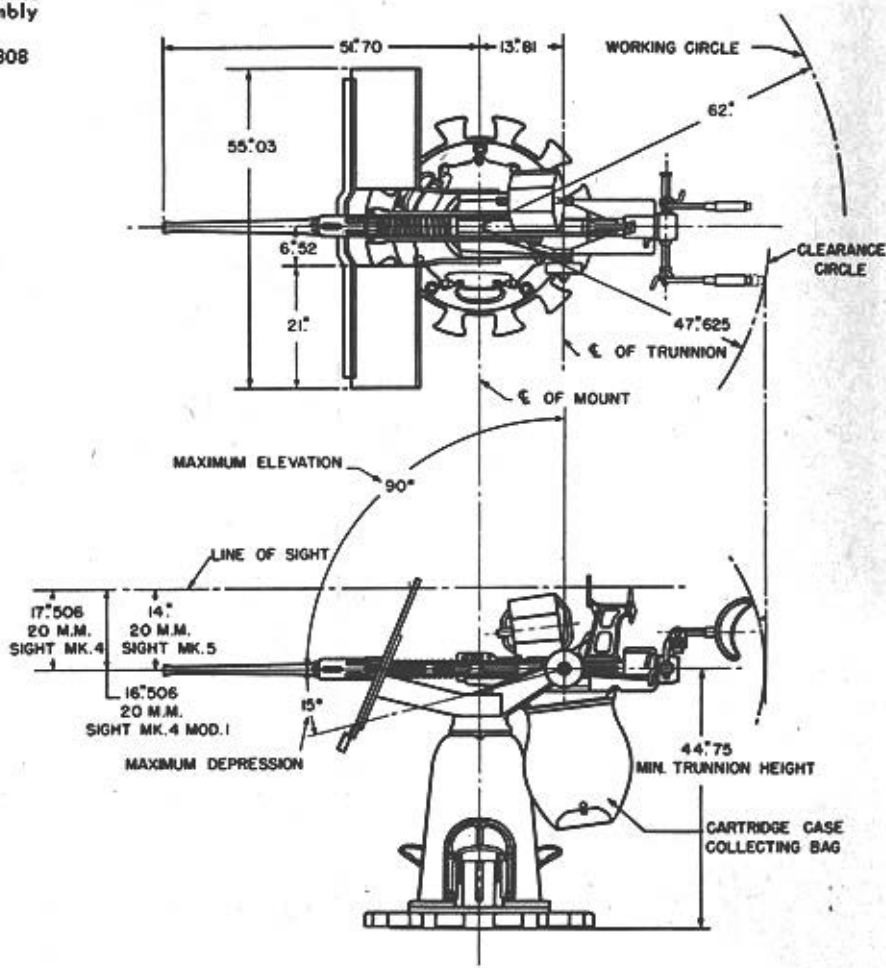
20-MM, MARK 5 ALL MODS.

**20-MM MOUNT, MARK 6 ALL MODS.**

20-MM, ANTIAIRCRAFT, SINGLE MOUNT, SHIELDED, PEDESTAL TYPE

**Note:** Assembly number of mount is required for precise information. For assembly numbers see:

INDEX SKETCH 103308



**GUN BARREL—20-MM  
20-MM MACHINE GUN MECHANISM  
MAGAZINE**

SHIELD THICKNESS

| TOTAL WEIGHT OF ASSEMBLY |     |
|--------------------------|-----|
| WEIGHT OF SHIELD         |     |
| BRAKE LOAD               |     |
| 1                        | 2   |
| 3                        | 4   |
| 5                        | 6   |
| 7                        | 8   |
| 9                        | 10  |
| 11                       | 12  |
| 13                       | 14  |
| 15                       | 16  |
| 17                       | 18  |
| 19                       | 20  |
| 21                       | 22  |
| 23                       | 24  |
| 25                       | 26  |
| 27                       | 28  |
| 29                       | 30  |
| 31                       | 32  |
| 33                       | 34  |
| 35                       | 36  |
| 37                       | 38  |
| 39                       | 40  |
| 41                       | 42  |
| 43                       | 44  |
| 45                       | 46  |
| 47                       | 48  |
| 49                       | 50  |
| 51                       | 52  |
| 53                       | 54  |
| 55                       | 56  |
| 57                       | 58  |
| 59                       | 60  |
| 61                       | 62  |
| 63                       | 64  |
| 65                       | 66  |
| 67                       | 68  |
| 69                       | 70  |
| 71                       | 72  |
| 73                       | 74  |
| 75                       | 76  |
| 77                       | 78  |
| 79                       | 80  |
| 81                       | 82  |
| 83                       | 84  |
| 85                       | 86  |
| 87                       | 88  |
| 89                       | 90  |
| 91                       | 92  |
| 93                       | 94  |
| 95                       | 96  |
| 97                       | 98  |
| 99                       | 100 |

MK. 4 MODS. 0 OR 1  
MK. 4 MOD. 0  
MK. 4 MOD. 0  
MK. 4 MODS. 0 OR 1  
5 IN.

Weights below are approximate

**20-MM, MARK 6 ALL MODS.**

# 20-MM MOUNT, MARK 6 ALL MODS.

20-MM, ANTIAIRCRAFT, SINGLE MOUNT, SHIELDED, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Pump (for varying trunnion height)  
NDS 14-0-12

4.5 Gals.

## GUN AND AMMUNITION DATA

### GUN

|                              |                           |
|------------------------------|---------------------------|
| 20-mm, 70-Cal.               | Mk. 4 Mods. 0 or 1        |
| Max. Powder Pressure         | None Set                  |
| Wt. Gun Barrel and Mechanism | Appr. 150 Lbs.            |
| Max. Cyclic Rate of Fire     | Appr. 450 Rounds per Min. |

### BALLISTICS

|                 |                          |
|-----------------|--------------------------|
| Muzzle Velocity | 2,740 Feet per Second    |
| Max. Altitude   | 10,000 Feet at 90° Elev. |
| Max. Range      | 4,800 Yards at 35° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|          |                |                |
|----------|----------------|----------------|
| H. E.    | Mods. of Mk. 3 | Wt. .2714 Lbs. |
| H. E.-T  | Mods. of Mk. 4 | Wt. .2621 Lbs. |
| H. E.-T. | Mods. of Mk. 7 | Wt. .2714 Lbs. |
| A. P.-T. | Mods. of Mk. 9 | Wt. .2686 Lbs. |

#### Cartridge

|      |              |               |
|------|--------------|---------------|
| Case | Mk. 2 Mod. 0 |               |
|      | Mk. 4 Mod. 0 | Wt. .190 Lbs. |
|      | Mk. 3 Mod. 0 | Wt. .180 Lbs. |

|        |                                 |                |
|--------|---------------------------------|----------------|
| Charge |                                 | Wt. 27.7 Grams |
| Primer | Mk. 30 Mod. 0,<br>Mk. 31 Mod. 0 |                |

## OPERATING SELECTION

Manual Free Swinging

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet Nos. (Mount)   | 909       |
| (Mech.)                          | 911       |
| Working Circle Drawing No.       | 300047    |
| General Arrangement Drawing Nos. |           |
| (Mech. Mk. 4 Mod. 0)             | 299825-26 |
| (Mount)                          | 299909-11 |

## REMARKS

Elevation limits are minus 15° to plus 90°. Training is unlimited, except by length of power cable when mounts are equipped with Mk. 14 Mod. 2 gunsight.

Mount is hydraulically operated by three pedals, to permit raising and lowering trunnions.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

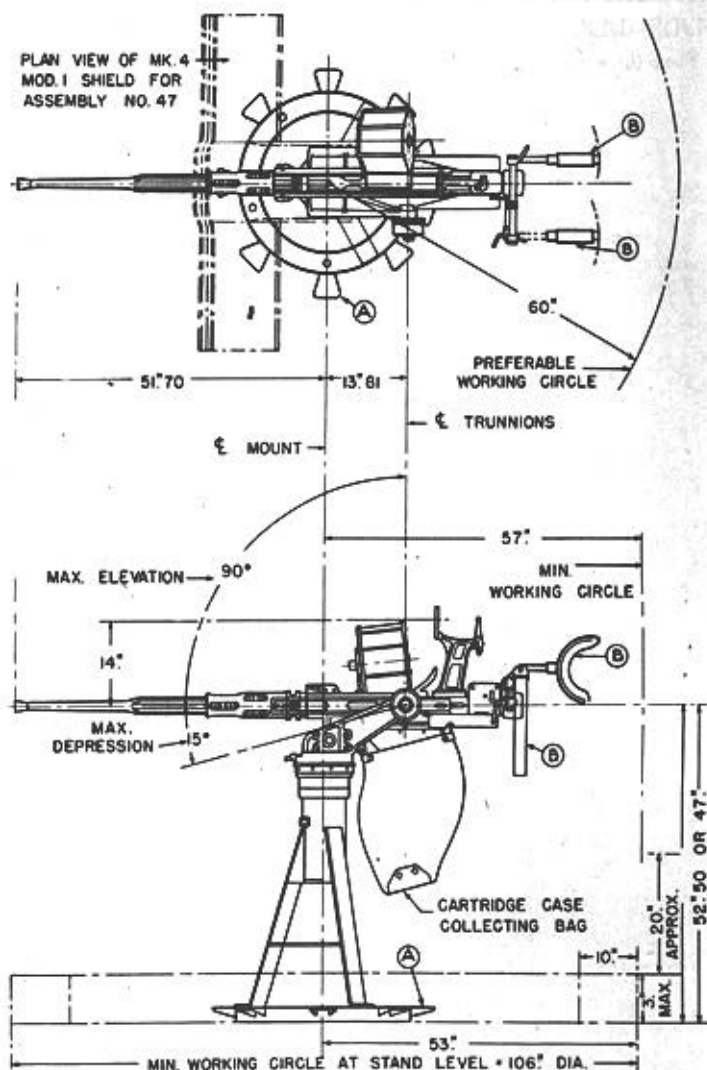
## 20-MM, MARK 6 ALL MODS.

# 20-MM MOUNT, MARK 10 ALL MODS.

20-MM, ANTIAIRCRAFT, SINGLE, OPEN OR SHIELDED, PEDESTAL TYPE

Note: Assembly number of mount is required for precise information. For assembly numbers see:

INDEX SKETCH 103308



GUN BARREL—20-MM  
20-MM MACHINE GUN MECHANISM  
MAGAZINE  
SHIELD  
SHIELD THICKNESS

NONE

OR

MK. 4 MODS. 0 OR 1  
MK. 2 MOD. 0 OR MK. 4 MOD. 0  
MK. 2 MOD. 0 OR MK. 4 MOD. 0  
MK. 4 MOD. 1 OR MK. 5 MOD. 0  
.5 IN.

TOTAL WEIGHT OF ASSEMBLY  
WEIGHT OF SHIELD  
BRAKE LOAD

700 TO 850 LBS.

Weights below are approximate  
950 TO 1,100 LBS.  
250 LBS.  
1,785 LBS.

20-MM, MARK 10 ALL MODS.



# 20-MM MOUNT, MARK 10 ALL MODS.

20-MM, ANTIAIRCRAFT, SINGLE, OPEN OR SHIELDED, PEDESTAL TYPE

## GUN AND AMMUNITION DATA

### GUN

|                              |                           |
|------------------------------|---------------------------|
| 20-mm, 70-Cal.               | Mk. 4 Mods. 0 or 1        |
| Max. Powder Pressure         | None Set                  |
| Wt. Gun Barrel and Mechanism | Appr. 150 Lbs.            |
| Max. Cyclic Rate of Fire     | Appr. 450 Rounds per Min. |

### BALLISTICS

|                 |                          |
|-----------------|--------------------------|
| Muzzle Velocity | 2,740 Feet per Second    |
| Max. Altitude   | 10,000 Feet at 90° Elev. |
| Max. Range      | 4,800 Yards at 35° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|          |                |                |
|----------|----------------|----------------|
| H. E.    | Mods. of Mk. 3 | Wt. .2714 Lbs. |
| H. E.-T  | Mods. of Mk. 4 | Wt. .2621 Lbs. |
| H. E.-T. | Mods. of Mk. 7 | Wt. .2714 Lbs. |
| A. P.-T. | Mods. of Mk. 9 | Wt. .2686 Lbs. |

#### Cartridge

|      |              |               |
|------|--------------|---------------|
| Case | Mk. 2 Mod. 0 |               |
|      | Mk. 4 Mod. 0 | Wt. .190 Lbs. |
|      | Mk. 3 Mod. 0 | Wt. .180 Lbs. |

|        |                                 |                |
|--------|---------------------------------|----------------|
| Charge |                                 | Wt. 27.7 Grams |
| Primer | Mk. 30 Mod. 0,<br>Mk. 31 Mod. 0 |                |

### OPERATING SELECTION

Manual Free Swinging

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet Nos. (Mount)   | 909       |
| (Mech.)                          | 911       |
| Working Circle Drawing Nos.      |           |
| (52".5 trun. ht.)                | 329826    |
| (47".0 trun. ht.)                | 367754    |
| General Arrangement Drawing Nos. |           |
| (Mech. Mk. 4 Mod. 0)             | 299825-26 |
| (Mount, 52".5 trun. ht.)         | 365907    |
| (Mount, 52".5 trun. ht.)         | 367551    |

### REMARKS

Elevation limits are minus 15° to plus 90°. Training is unlimited, except by length of power cable when mounts are equipped with Mk. 14 Mod. 2 gunsight.

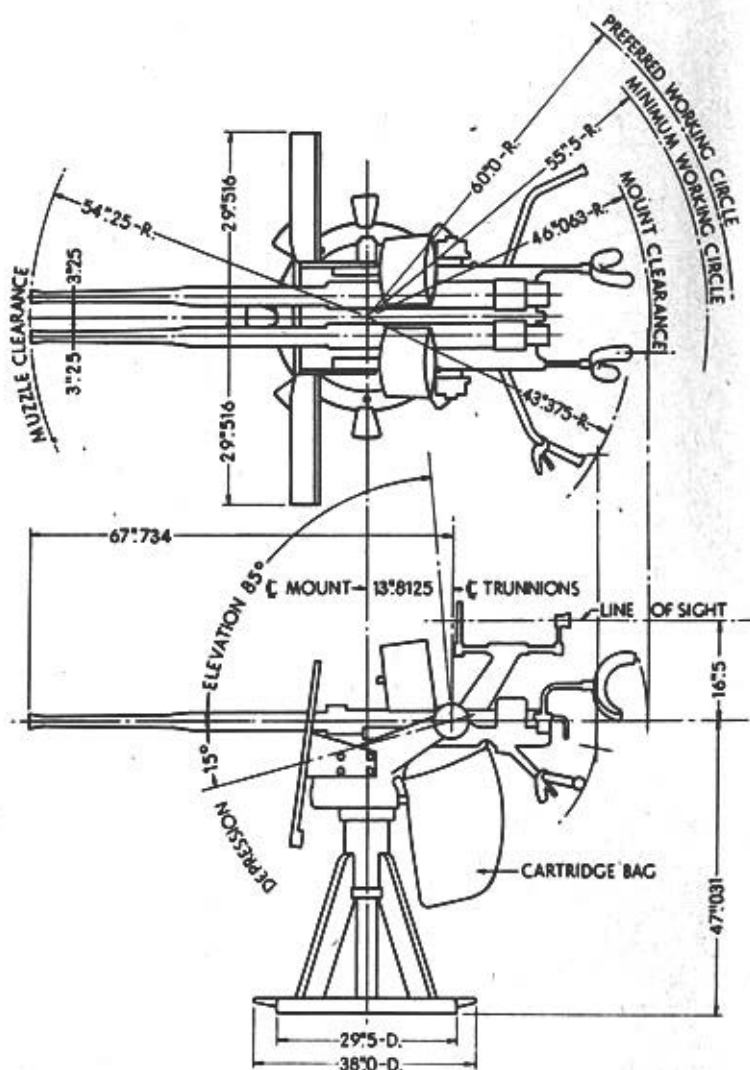
Mounts Mk. 10 Mods. 6, 7, 12, 13, 17, 19, 21, 23, 25 and 27 to 45, incl., have fixed trunnion height of 47 inches. All other earlier Mods. have fixed trunnion height of 52.5 inches.



**20-MM MOUNT, MARK 24 MOD. 5****20-MM, ANTIAIRCRAFT, TWIN, OPEN OR SHIELDED, PEDESTAL TYPE**

Note: Assembly number of mount is required for precise information. For assembly numbers see:

INDEX SKETCH 103308



GUN BARRELS—TWO 20-MM  
20-MM MACHINE GUN MECHANISMS (TWO)  
MAGAZINES

SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
WEIGHT OF SHIELD  
BRAKE LOAD, two guns

NONE

1,000 LBS.

MK. 4 MODS. 0 OR 1  
MK. 4 MOD. 1  
MK. 2 MOD. 0 OR MK. 4 MOD. 0 AND MK. 5 MOD. 0  
OR MK. 7 MOD. 0  
.5 IN.

Weights below are approximate  
1,400 LBS.  
250 LBS.  
3,570 LBS.

**20-MM TWIN, MARK 24 MOD. 5**

# 20-MM MOUNT, MARK 24 MOD. 5

20-MM, ANTI-AIRCRAFT, TWIN, OPEN OR SHIELDED, PEDESTAL TYPE

## GUN AND AMMUNITION DATA

### GUNS

|                                       |                           |
|---------------------------------------|---------------------------|
| Two 20-mm, 70-Cal.                    | Mk. 4 Mods. 0 or 1        |
| Max. Powder Pressure, per Gun         | None Set                  |
| Wt. Gun Barrel and Mechanism, per Gun | Appr. 150 Lbs.            |
| Max. Cyclic Rate of Fire, per Gun     | Appr. 450 Rounds per Min. |

### BALLISTICS

|                 |                          |
|-----------------|--------------------------|
| Muzzle Velocity | 2,740 Feet per Second    |
| Max. Altitude   | 10,000 Feet at 90° Elev. |
| Max. Range      | 4,800 Yards at 35° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|          |                |                |
|----------|----------------|----------------|
| H. E.    | Mods. of Mk. 3 | Wt. .2714 Lbs. |
| H. E.-T  | Mods. of Mk. 4 | Wt. .2621 Lbs. |
| H. E.-T. | Mods. of Mk. 7 | Wt. .2714 Lbs. |
| A. P.-T. | Mods. of Mk. 9 | Wt. .2686 Lbs. |

#### Cartridge

|      |              |               |
|------|--------------|---------------|
| Case | Mk. 2 Mod. 0 |               |
|      | Mk. 4 Mod. 0 | Wt. .190 Lbs. |
|      | Mk. 3 Mod. 0 | Wt. .180 Lbs. |

|        |  |                |
|--------|--|----------------|
| Charge |  | Wt. 27.7 Grams |
|--------|--|----------------|

|        |                                 |
|--------|---------------------------------|
| Primer | Mk. 30 Mod. 0,<br>Mk. 31 Mod. 0 |
|--------|---------------------------------|

### OPERATING SELECTION

Manual Free Swinging

### PAMPHLET AND DRAWING NUMBERS

|                                    |           |
|------------------------------------|-----------|
| Ordinance Pamphlet Nos. (Mount)    | 909       |
| (Mech.)                            | 911       |
| Working Circle Drawing No. (Mount) | 492496    |
| General Arrangement Drawing Nos.   |           |
| (Mount)                            | 492472-73 |
| (Mech. Mk. 4 Mod. 0)               | 299825-26 |

### REMARKS

Elevation limits are minus 15° to plus 90°. Training is unlimited, except by length of power cable when mounts are equipped with Mk. 14 Mod. 2 gunsight.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

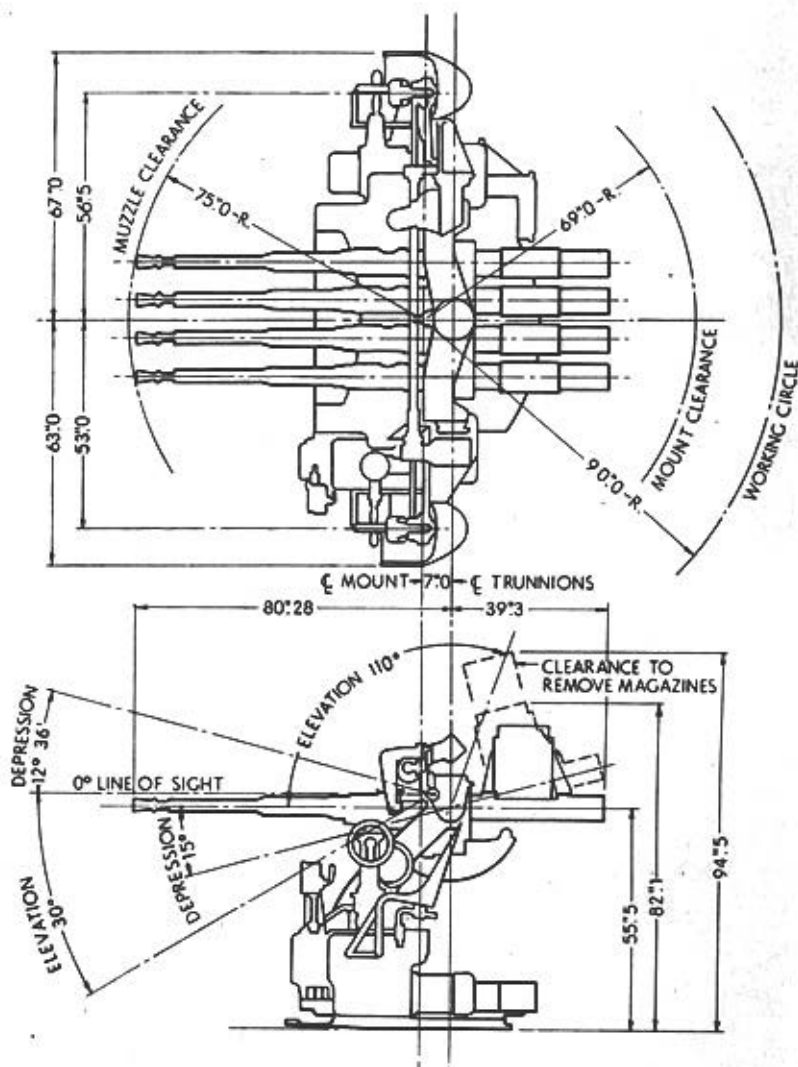
20-MM TWIN, MARK 24 MOD. 5

# 1.10-INCH MOUNT, MARK 2 MODS. 2-6

## 1.10-INCH, ANTI-AIRCRAFT, OPEN, QUADRUPLE GUN MOUNT

Note: Assembly number of mount is required for precise information. For assembly numbers see:

INDEX SKETCH 61665



GUN BARRELS—FOUR 1".10  
1".10 MACHINE GUN MECHANISMS  
SHIELD

TOTAL WEIGHT OF ASSEMBLY

OSCILLATING WEIGHT, four guns  
RECOILING WEIGHT, four guns  
BRAKE LOAD, four guns

MK. 1 MOD. 1  
MK. 1 MODS. 1 OR 2  
NONE

Weights below are approximate  
(Mk. 2 Mod. 2) 10,500 LBS.  
(Mk. 2 Mods. 3-6) 12,000 TO 14,000 LBS.  
5,000 LBS.  
840 LBS.  
17,500 LBS.

1".10 QUAD, MK. 2 MODS. 2-6

# 1.10-INCH MOUNT, MARK 2 MODS. 2-6

## 1.10-INCH, ANTI-AIRCRAFT, OPEN, QUADRUPLE GUN MOUNT

### OPERATION REQUIREMENTS

#### ELECTRIC

|                                                                     |                      |                    |
|---------------------------------------------------------------------|----------------------|--------------------|
| 1".10 Elevation Power Drive<br>Mk. 1 Mods. 0-2, Mk. 2<br>Mods. 0-2  | 3. HP.               | 440 V. 3 $\phi$ 60 |
| 1".10 Train Power Drive<br>Mk. 1 Mods. 0-2 (inc.<br>traverse drive) |                      | 230 V. D. C.       |
| Mk. 2 Mods. 0-2                                                     | 5. HP.               | 115 V. D. C.       |
| 1".10 Elevation Power Drive<br>Mk. 3 Mods. 0-2, Mk. 4<br>Mod. 0     | 3. HP.               | 440 V. 3 $\phi$ 60 |
| 1".10 Train Power Drive<br>Mk. 3 Mods. 0-2, Mk. 4<br>Mod. 0         | 3. HP.               |                    |
| Firing Indicator                                                    | 115 V. A. C.         |                    |
| Illumination Transformer<br>(for power drives)                      | 115 V. to 6 V. A. C. | 75 Watts           |

Note: Coolant motors vary in HP., according to ship.  
(BuShips cog.)

#### HYDRAULIC

|                          |                                     |                |
|--------------------------|-------------------------------------|----------------|
| Recoil Fluid             | N.S. 9045                           | 2 Qts. per Gun |
| Cooling System           | Water, or Water and Ethylene Glycol |                |
| Carrier Hydraulic Buffer | O.S. 1023                           |                |

#### POWER DRIVES

| MOUNT        | 1".10 ELEV. AND TRAIN<br>POWER DRIVES    | MFR.       |
|--------------|------------------------------------------|------------|
| Mk. 2 Mod. 3 | Mk. 1 Mods. 0-2<br>(inc. traverse drive) | Ford       |
| Mk. 2 Mod. 4 | Mk. 2 Mods. 0-2                          | Ford       |
| Mk. 2 Mod. 5 | Mk. 3 Mods. 0-2                          | Gen. Elec. |
| Mk. 2 Mod. 6 | Mk. 4 Mod. 0                             | Gen. Elec. |

### GUN AND AMMUNITION DATA

#### GUNS

|                                     |                             |
|-------------------------------------|-----------------------------|
| Four 1.10-Inch, 75-Cal.             | Mk. 1 Mod. 1                |
| Max. Powder Pressure, per Gun       | 18 Long Tons per Sq. In.    |
| Barrel Weight, per Gun              | 556 Lbs.                    |
| Max. Cyclic Rate of Fire            | Appr. 150 Rounds per Minute |
| Horizontal Sliding Breech Mechanism |                             |

#### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,700 Feet per Second        |
| Max. Altitude   | 19,000 Feet at 90° Elev.     |
| Max. Range      | 7,400 Yards at 40° 53' Elev. |

#### AMMUNITION—Fixed

|                     |                |               |
|---------------------|----------------|---------------|
| Typical Projectiles |                |               |
| A. A.               | Mods. of Mk. 1 | Wt. 0.917 Lb. |
| A. A.               | Mods. of Mk. 2 | Wt. 0.917 Lb. |
| Cartridge           |                |               |
| Case                | Mk. 1 Mod. 0   | Wt. 0.688 Lb. |
| Charge              |                | Wt. 120 Grams |
| Primer              | Mk. 19 Mod. 3  |               |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic  
(Mount Mk. 2 Mod. 2 has manual drive only)

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet Nos. (Mech.)  | 806       |
| (Mount)                          | 772       |
| Working Circle Drawing Nos.      |           |
| (Mount Mk. 2 Mods. 2, 3)         | 275181    |
| (Mount Mk. 2 Mod. 4)             | 242663    |
| (Mount Mk. 2 Mod. 5)             | 242664    |
| (Mount Mk. 2 Mod. 6)             | 242665    |
| General Arrangement Drawing Nos. |           |
| (Mech. Mk. 1 Mod. 1)             | 165918-22 |
| (Mech. Mk. 1 Mod. 2)             | 240745    |
| (Mount Mk. 2 Mod. 2)             | 275294-97 |
| (Mount Mk. 2 Mod. 3)             | 240769-72 |
| (Mount Mk. 2 Mod. 4)             | 240773-76 |
| (Mount Mk. 2 Mod. 5)             | 242007-10 |
| (Mount Mk. 2 Mod. 6)             | 242011-14 |

### REMARKS

Elevation limits are minus 15° to plus 110°. The maximum training possible from the locked position of the mount in either direction is 360°. (Total approximately 720°.) Mounts Mk. 2 Mods. 2 and 3 have a maximum traverse of 60° (30° either side of center).

Power-driven mounts have maximum speeds of 24° per second in elevation, 30° per second in train.

Power drives of 1".10 mount Mk. 2 Mod. 6 are interchangeable with power drives of 40-mm Mount Mk. 1 Mod. 2.

Normal length of recoil is approximately 3.25 inches.

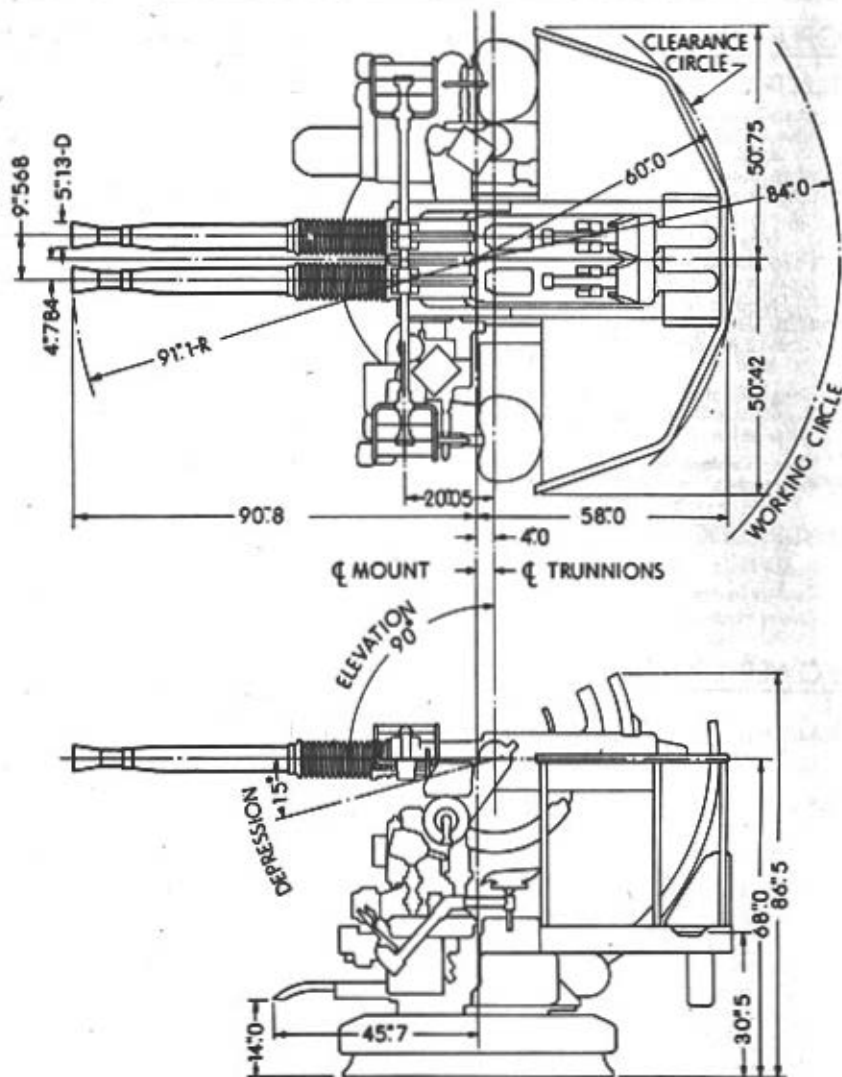
Power-driven mounts may be used with specific modifications of gun director Mk. 51.



**40-MM MOUNT, MARK 1 ALL MODS.****40-MM, ANTIAIRCRAFT, TWIN MOUNT, OPEN, BASE RING TYPE**

Note: Assembly number of mount is required for precise information. For assembly numbers see:

INDEX SKETCH 94890



GUN BARRELS—TWO 40-MM  
40-MM MACHINE GUN MECHANISMS

SHIELD

TOTAL WEIGHT OF ASSEMBLY

OSCILLATING WEIGHT, two guns

RECOILING WEIGHT, per gun  
BRAKE LOAD, per gun

\* Asterisk indicates equipment supporting parts of and controlled by gun fire control system Mods. of Mk. 63. (Mounts Mk. 1 Mods. 9-14.)

MK. 1 MOD. 0  
MK. 1 MODS. 0, 1, 2\* OR 3\* AND  
MK. 2 MODS. 0, 1, 2\* OR 3\*  
NONE

Weights below are approximate  
13,000 TO 13,200 LBS.  
\*14,700 TO 14,900 LBS.  
2,300 LBS.  
\*3,450 LBS.  
490 LBS.  
4,800 LBS.

**40-MM TWIN, MARK 1 ALL MODS.**

# 40-MM MOUNT, MARK 1 ALL MODS.

40-MM, ANTIAIRCRAFT, TWIN MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                                              |                              |                    |
|--------------------------------------------------------------|------------------------------|--------------------|
| 40-mm Elevation Power Drive                                  |                              |                    |
| Mk. 2 & Mods., Mk. 4 & Mods.                                 | 3. HP.                       |                    |
| Mk. 5 and Mods.                                              | 5. HP.                       |                    |
| 40-mm Train Power Drive                                      |                              | 440 V. 3 $\phi$ 60 |
| Mk. 2 & Mods., Mk. 5 & Mods.                                 | 5. HP.                       | 230 V. D. C.       |
| Mk. 4 & Mods.                                                | 3. HP.                       | 115 V. D. C.       |
| 40-mm Firing, Lighting and Cooling Circuit, Mk. 1 Mods. 0-5: |                              |                    |
| Coolant Motors (two)                                         | $\frac{1}{4}$ HP.            |                    |
| Firing Motor                                                 | $\frac{1}{2}$ HP.            |                    |
| Firing Solenoid, Mods. of Mk. 21 or Mods. of Mk. 22          | 115 V. A. C. 22 Amps. inrush |                    |
|                                                              | 1.5 Amps. steady             |                    |
| Firing Indicator                                             | 115 V. A. C.                 |                    |
| Illumination Transformer (for power drives)                  | 115 V. to 6 V.               | 75 Watts           |

### HYDRAULIC

|                                          |            |                     |
|------------------------------------------|------------|---------------------|
| Recoil Fluid                             | O. S. 1324 | 1.32 Pts. per Gun   |
| Cooling System                           |            |                     |
| Water, or                                |            |                     |
| Water & Ethylene Glycol                  |            | 13.75 Gals. per Gun |
| Mount Mk. 1 Mods. 6, 10*, 12*, 14* only: |            |                     |
| Speed Gear Oil                           | O. S. 2943 | 4.5 Gals.           |

## POWER DRIVES

| MOUNT                        | 40-MM ELEV. POWER DRIVE       | MFR.       |
|------------------------------|-------------------------------|------------|
| Mk. 1 Mod. 1                 | Mk. 2 Mods. 0-2               | Ford       |
| Mk. 1 Mods. 2, 9*, 11*, 13*  | Mk. 4 Mods. 0, 1              | Gen. Elec. |
| Mk. 1 Mods. 6, 10*, 12*, 14* | Mk. 5 Mods. 3-5, 9-11, 15-17  | York       |
| MOUNT                        | 40-MM TRAIN POWER DRIVE       | MFR.       |
| Mk. 1 Mod. 1                 | Mk. 2 Mods. 0-2               | Ford       |
| Mk. 1 Mods. 2, 9*, 11*, 13*  | Mk. 4 Mods. 0, 1              | Gen. Elec. |
| Mk. 1 Mods. 6, 10*, 12*, 14* | Mk. 5 Mods. 3-5, 12-14, 18-20 | York       |

## GUN AND AMMUNITION DATA

### GUNS

|                                         |                                                           |
|-----------------------------------------|-----------------------------------------------------------|
| Two 40-mm, 60-Cal.                      | Mk. 1 Mods. 0, 1, 2* or 3* and Mk. 2 Mods. 0, 1, 2* or 3* |
| Max. Powder Pressure, per Gun           | 19.5 Long Tons per Sq. In.                                |
| Barrel Weight, per Gun                  | 202 Lbs.                                                  |
| Max. Cyclic Rate of Fire                | Appr. 160 Rounds per Minute                               |
| Vertical Sliding Wedge Type Breechblock |                                                           |

### BALLISTICS

|                                            |                           |
|--------------------------------------------|---------------------------|
| Muzzle Velocity                            | 2,890 Feet per Second     |
| Max. Altitude                              | 22,800 Feet at 90° Elev.  |
| Max. Range                                 | 11,000 Yards at 42° Elev. |
| (Shell self-destroying at 4000-5000 yards) |                           |

### AMMUNITION—Fixed

| Typical Projectiles |                   |                    |               |
|---------------------|-------------------|--------------------|---------------|
| A. A.               | Mods. of Mk. 1    | Wt. one projectile | 1.98 Lbs.     |
| A. A.               | Mods. of Mk. 2    | Wt. one round      | 4.75 Lbs.     |
| A. P.               | Mods. of M 81     | Wt. one clip       | 20. Lbs.      |
| Cartridge           |                   |                    |               |
| Case                | Mk. 1 Mod. 0      | Wt.                | 1.89 Lbs.     |
|                     | Mk. 2 Mod. 0      | Wt.                | 1.93 Lbs.     |
|                     | Mk. 3 Mod. 0      | Wt.                | 1.53 Lbs.     |
| Charge              |                   |                    |               |
| Primer              | Mk. 21 Mods. 2, 3 |                    |               |
|                     | Mk. 22 Mods. 0, 1 |                    | Wt. 315 Grams |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic  
(Temporary Manual Drive only on Mount Mk. 1 Mod. 0)

## PAMPHLET AND DRAWING NUMBERS

|                                          |              |
|------------------------------------------|--------------|
| Ordnance Pamphlet Nos. (Mech.)           | 820          |
| (Mounts)                                 | 821          |
| Working Circle Drawing Nos.              | Sketch 87908 |
|                                          | *439512      |
| General Arrangement Drawing Nos. (Mech.) | 298650       |
|                                          | 298810       |
| (Mount Mk. 1 Mod. 0)                     | 346704       |
| (Mount Mk. 1 Mod. 1)                     | 298900       |
| (Mount Mk. 1 Mod. 2)                     | 346709       |
| (Mount Mk. 1 Mod. 6)                     | 345735       |

## REMARKS

Elevation limits are minus 15° to plus 90°. The maximum training possible from the locked position of the mount in either direction is approximately 360°. (Total approximately 720°.)

One revolution of the handwheel trains the mount 1° 7'; elevates or depresses the guns 2°.

Power-driven mounts have maximum speeds of 24° per second in elevation, 30° per second in train.

Normal length of recoil at 0° elevation is approximately 7.5 to 8 inches.

Mounts Mk. 1 Mods. 9-14 are used with gun fire control system Mods. of Mk. 63. Other power-driven mounts may be used with specific Mods. of gun directors Mk. 37, 50, 51, 57, 60.

\* Asterisk indicates equipment supporting parts of and controlled by gun fire control system Mods. of Mk. 63. (Mounts Mk. 1 Mods. 9-14.)

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

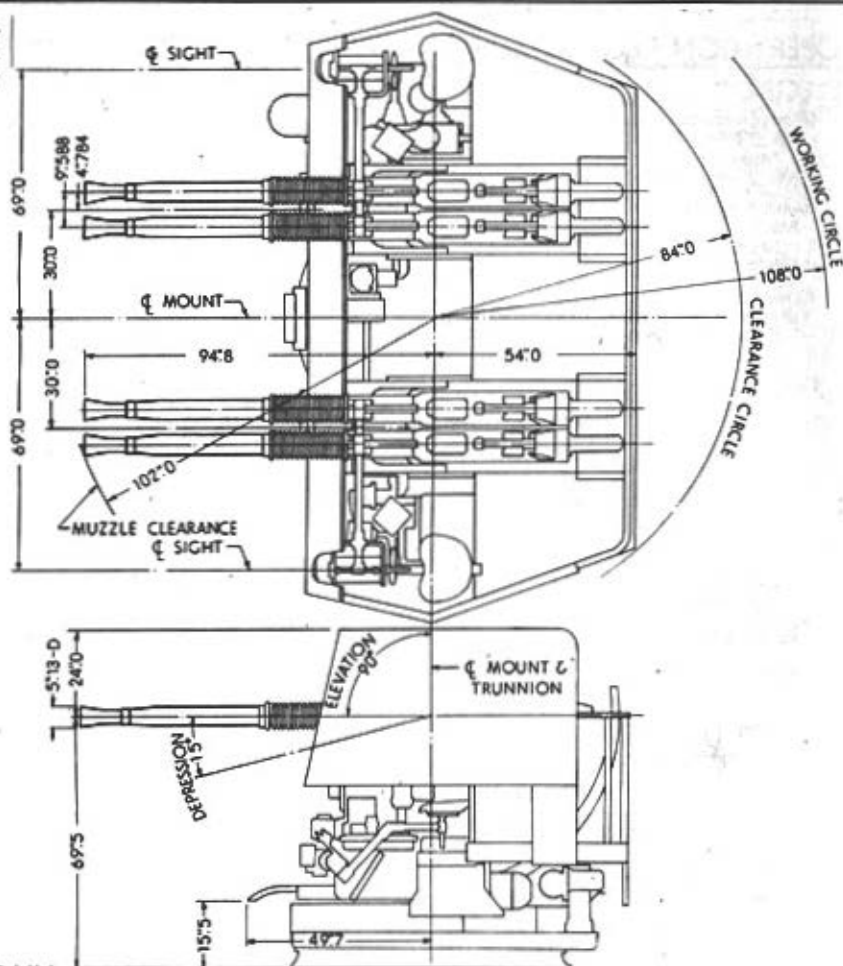
40-MM TWIN, MARK 1 ALL MODS.

# 40-MM MOUNT, MARK 2 ALL MODS.

## 40-MM, ANTI-AIRCRAFT, QUAD, OPEN OR SHIELDED, BASE RING TYPE

Note: Assembly number of mount is required for precise information. For assembly numbers see:

INDEX SKETCH 94890



GUN BARRELS—FOUR 40-MM  
40-MM MACHINE GUN MECHANISMS

INSTALLATION FOR  
MOUNT MARK 2 MODS.

SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY

WEIGHT OF SHIELD  
OSCILLATING WEIGHT, four guns

RECOILING WEIGHT, per gun  
BRAKE LOAD, per gun

\* Asterisk indicates equipment supporting parts of and controlled by gun fire control system Mods. of Mk. 63. (Mounts Mk. 2 Mods. 21-32.)

## 40-MM QUAD, MARK 2 ALL MODS.

MK. 1 MOD. 0  
TWO MK. 1 MODS. 0, 1, 2\* OR 3\* AND  
TWO MK. 1 MODS. 0, 1, 2\* OR 3\*  
COMBAT SHIPS AND LARGER AUXILIARIES

2, 6, 9, 11,  
13, 14, 17, 18,  
21\*, 23\*, 25\*,  
27\*, 29\*, 31\*,  
NONE

5, 8, 10, 12,  
15, 16, 19, 20,  
22\*, 24\*, 26\*,  
28\*, 30\*, 32\*,  
MK. 3 & MODS.  
.375 IN.

Weights below are approximate  
24,900 LBS.  
\*26,600 LBS.  
1,700 LBS.  
4,550 LBS.  
\*5,700 LBS.  
490 LBS.  
4,800 LBS.



# 40-MM MOUNT, MARK 2 ALL MODS.

40-MM, ANTI-AIRCRAFT, QUAD, OPEN OR SHIELDED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                                              |                                    |                    |
|--------------------------------------------------------------|------------------------------------|--------------------|
| 40-mm Elevation Power Drive                                  | 5. HP.                             |                    |
| 40-mm Train Power Drive                                      |                                    |                    |
| (Mk. 5 Mods. 0-14, 18-20)                                    | 5. HP.                             |                    |
| (Mk. 5 Mods. 15-17)                                          | 7.5 HP.                            | 440 V. 3 $\phi$ 60 |
| (Mk. 6 and Mods.)                                            | 7.5 HP.                            |                    |
| 40-mm Firing, Lighting and Cooling Circuit (Mk. 2 Mods. 1-5) |                                    | 230 V. D. C.       |
|                                                              |                                    | 115 V. D. C.       |
| Coolant Motors (four)                                        | $\frac{1}{4}$ HP.                  |                    |
| Firing Motors (two)                                          | $\frac{1}{5}$ HP.                  |                    |
| Firing Solenoids (two), Mods. of Mk. 21 or Mods. of Mk. 22   |                                    |                    |
| 115 V. A. C.                                                 | 22 Amps. inrush / 1.5 Amps. steady | (per solenoid)     |
| Firing Indicator                                             | 115 V.                             | A. C.              |
| Illumination Transformer (for power drives)                  | 115 V. to 6 V.                     | A. C. 75 Watts     |

### HYDRAULIC

|                                              |            |                     |
|----------------------------------------------|------------|---------------------|
| Recoil Fluid                                 | O. S. 1324 | 1.32 Pts. per Gun   |
| Cooling System                               |            |                     |
| Water, or                                    |            |                     |
| Water & Ethylene Glycol                      |            | 13.75 Gals. per Gun |
| Speed Gear Oil                               | O. S. 2943 |                     |
| (With 40-mm Train Power Drive Mk. 5 & Mods.) |            | 4.5 Gals.           |
| (With 40-mm Train Power Drive Mk. 6 & Mods.) |            | 5.5 Gals.           |

## POWER DRIVES—YORK

| MOUNT                                                   | 40-MM ELEV. POWER DRIVE     |
|---------------------------------------------------------|-----------------------------|
| Mk. 2 & all Mods. ex. 0                                 | Mk. 5 Mods. 0-2, 6-8, 12-14 |
| MOUNT                                                   | 40-MM TRAIN POWER DRIVE     |
| Mk. 2 Mods. 2, 5, 6, 8                                  | Mk. 5 Mods. 0-2, 9-11       |
| Mk. 2 Mods. 9-12                                        | Mk. 6 Mods. 0-2             |
| Mk. 2 Mods. 13, 15, 17, 19                              | Mk. 5 Mods. 6-8, 15-17      |
| Mk. 2 Mods. 14, 16, 18, 20 and *Mk. 2 Mods. 21-32 incl. | Mk. 6 Mods. 3-11            |

## GUN AND AMMUNITION DATA

### GUNS

|                                         |                                                         |
|-----------------------------------------|---------------------------------------------------------|
| Four 40-mm, 60-Cal.                     | Two Mk. 1 Mods. 0, 1 or 2 and Two Mk. 2 Mods. 0, 1 or 2 |
| Max. Powder Pressure, per Gun           | 19.5 Long Tons per Sq. In.                              |
| Barrel Weight, per Gun                  | 202 Lbs.                                                |
| Max. Cyclic Rate of Fire                | Appr. 160 Rounds per Minute                             |
| Vertical Sliding Wedge Type Breechblock |                                                         |

### BALLISTICS

|                                            |                           |
|--------------------------------------------|---------------------------|
| Muzzle Velocity                            | 2,890 Feet per Second     |
| Max. Altitude                              | 22,800 Feet at 90° Elev.  |
| Max. Range                                 | 11,000 Yards at 42° Elev. |
| (Shell self-destroying at 4000-5000 yards) |                           |

### AMMUNITION—Fixed

| Typical Projectiles |                              |
|---------------------|------------------------------|
| A. A. Mods of Mk. 1 | Wt. one projectile 1.98 Lbs. |
| A. A. Mods of Mk. 2 | Wt. one round 4.75 Lbs.      |
| A. P. Mods. of M 81 | Wt. one clip 20. Lbs.        |
| Cartridge           |                              |
| Case                |                              |
| Mk. 1 Mod. 0        | Wt. 1.89 Lbs.                |
| Mk. 2 Mod. 0        | Wt. 1.93 Lbs.                |
| Mk. 3 Mod. 0        | Wt. 1.53 Lbs.                |
| Charge              |                              |
| Primer              |                              |
| Mk. 21 Mods. 2, 3   | Wt. 315 Grams                |
| Mk. 22 Mods. 0, 1   |                              |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic  
(Temporary Manual Drive only on Mount Mk. 2 Mod. 0)

## PAMPHLET AND DRAWING NUMBERS

|                                  |              |
|----------------------------------|--------------|
| Ordnance Pamphlet Nos. (Mech.)   | 820          |
| (Mounts)                         | 822          |
| Working Circle Drawing Nos.      |              |
| (Open)                           | Sketch 87910 |
|                                  | *439513      |
| (Shielded)                       | Sketch 99008 |
|                                  | *439600      |
| General Arrangement Drawing Nos. |              |
| (Mech.)                          | 298650       |
|                                  | 298810       |
| (Mounts)                         | 299000       |
|                                  | 299096-98    |
|                                  | 299392       |
|                                  | 364700-03    |

## REMARKS

Elevation limits are minus 15° to plus 90°. The training angle is approximately 720°.  
One revolution of the handwheel trains the mount 1° 52'; elevates or depresses the guns 2°.  
Power-driven mounts have maximum speeds of 24" per second in elevation, 30" per second in train.  
Normal length of recoil at 0° elevation is approximately 7.5 to 8 inches.  
Mounts Mk. 2 Mods. 21-32 are used with gun fire control system Mods. of Mk. 63. Other power-driven mounts may be used with specific Mods. of gun directors Mk. 37, 50, 51, 57, 60.

\* Asterisk indicates equipment supporting parts of and controlled by gun fire control system Mods. of Mk. 63. (Mounts Mk. 2 Mods. 21-32.)

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

40-MM QUAD, MARK 2 ALL MODS.

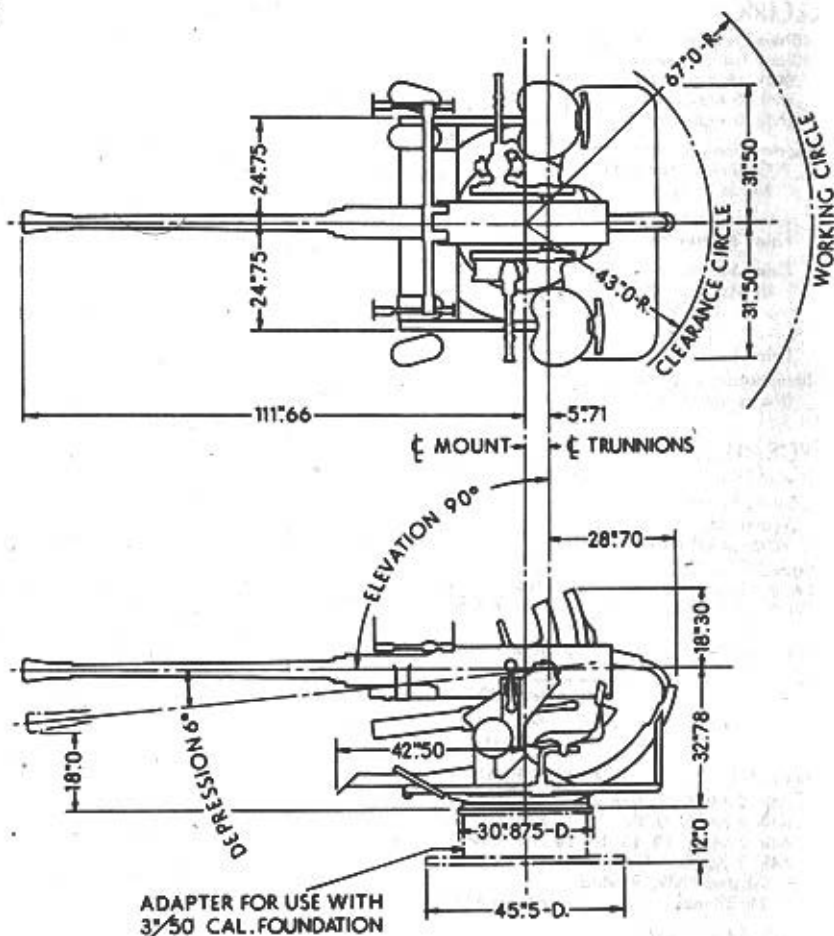


# 40-MM MOUNT, MARK 3 ALL MODS. INCL. M 3 (MARK 3 MOD. 0—ARMY SINGLE)

40-MM, ANTI-AIRCRAFT, SINGLE MOUNT, BASE RING TYPE

Note: Assembly number of mount is required for precise information. For assembly numbers see:

INDEX SKETCH 94890



GUN BARREL—40-MM  
40-MM MACHINE GUN MECHANISM

SHIELD

TOTAL WEIGHT OF ASSEMBLY, without drives  
with drives

OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD

M 1  
M 1 (MK. 5 MOD. 0) OR  
MODS. OF MK. 5  
NONE

Weights below are approximate  
2,440 LBS.  
4,200 LBS.  
1,042 LBS.  
415 LBS.  
4,800 LBS.

40-MM SINGLE, MARK 3 ALL MODS.

# 40-MM MOUNT, MARK 3 ALL MODS. INCL. M 3 (MARK 3 MOD. 0—ARMY SINGLE)

40-MM, ANTI-AIRCRAFT, SINGLE MOUNT, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC (Power-driven mounts only)

|                                     |                                |  |
|-------------------------------------|--------------------------------|--|
| 40-mm Elevation Power Drive         | 1. HP.                         |  |
| Mk. 10 Mods. 0, 1, 2                |                                |  |
| 40-mm Train Power Drive             | 440 V. 3 $\phi$ 60             |  |
| Mk. 10 Mods. 0, 1, 2                | 230 V. D.C.                    |  |
| 40-mm Firing Circuit, Mk. 5         | 115 V. D.C.                    |  |
| Mods. 0, 1, 2                       |                                |  |
| Firing Motor                        | $\frac{1}{2}$ HP.              |  |
| Firing Solenoid, Mods. of Mk. 21 or |                                |  |
| Mods. of Mk. 22 115 V. A.C.         | 22 Amps. inrush                |  |
|                                     | 1.5 Amps. steady               |  |
| Firing Indicator                    | 115 V. A.C.                    |  |
| Gun Sight, Mk. 14 Mod. 15           |                                |  |
| 115 V. A.C.                         | 30 Amps. (800 W.) Starting     |  |
|                                     | 200 W. (intermittently 500 W.) |  |
|                                     | Running                        |  |

### HYDRAULIC

|                            |            |           |
|----------------------------|------------|-----------|
| Recoil Fluid               | O. S. 1324 | 1.32 Pts. |
| Speed Gear Oil             |            |           |
| (Power-driven mounts only) | O. S. 2943 | 2 Gals.   |

## POWER DRIVES

|              |                      |              |
|--------------|----------------------|--------------|
|              | 40-MM ELEV. &        |              |
| MOUNT        | TRAIN POWER DRIVES   | MFR.         |
| Mk. 3 Mod. 4 | Mk. 10 Mods. 0, 1, 2 | Westinghouse |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                             |
|------------------------------|-----------------------------|
| 40-mm, 60-Cal.               | M 1                         |
| Max. Powder Pressure         | 19.5 Long Tons per Sq. In.  |
| Weight of Barrel Assembly    | 296 Lbs.                    |
| Max. Cyclic Rate of Fire     | Appr. 160 Rounds per Minute |
| Vertical Sliding Breechblock |                             |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,890 Feet per Second     |
| Max. Altitude   | 22,800 Feet at 90° Elev.  |
| Max. Range      | 11,000 Yards at 42° Elev. |

### AMMUNITION—Fixed

|                     |                              |
|---------------------|------------------------------|
| Typical Projectiles |                              |
| A. A. Mods of Mk. 1 | Wt. one projectile 1.98 Lbs. |
| A. A. Mods of Mk. 2 | Wt. one round 4.75 Lbs.      |
| A. P. Mods. of M 81 | Wt. one clip 20. Lbs.        |

|           |                   |
|-----------|-------------------|
| Cartridge |                   |
| Case      | Mk. 1 Mod. 0      |
|           | Mk. 2 Mod. 0      |
|           | Mk. 3 Mod. 0      |
| Charge    |                   |
| Primer    | Mk. 21 Mods. 2, 3 |
|           | Mk. 22 Mods. 0, 1 |
|           | Wt. 1.89 Lbs.     |
|           | Wt. 1.93 Lbs.     |
|           | Wt. 1.53 Lbs.     |
|           | Wt. 315 Grams     |

## OPERATING SELECTION

Power-driven mounts (Mk. 3 Mod. 4):  
Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                                  |               |
|--------------------------------------------------|---------------|
| Ordnance Pamphlet No. 1289 (Power-driven mounts) |               |
| War Department Technical Manuals                 | TM 9-252      |
|                                                  | TM 9-1252     |
| Working Circle Drawing Nos.                      |               |
| (Mount M 3)                                      | Sketch 119793 |
| (Mount Mk. 3 Mod. 4)                             | 440587        |
| General Arrangement Drawing Nos.                 | 374681        |
|                                                  | 395353-54     |

## REMARKS

Elevation limits are minus 6° to plus 90°. The training limit on power-driven mounts in either direction is 360°, total approximately 720°.

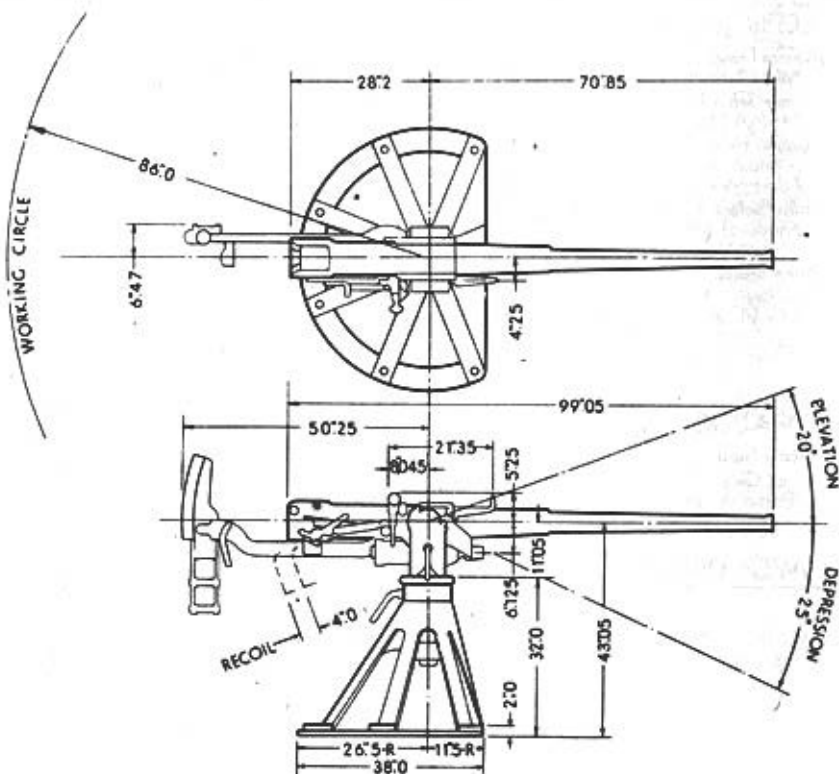
One revolution of the handwheel trains the mount 6.18°, elevates or depresses the gun 4.023°.

Power-driven mounts have maximum speeds of 24° per second in elevation; 30° per second in train.

Normal length of recoil is 7.4 to 8.3 inches; maximum 8.8 inches.

Power-driven mounts may be used with specific Mods. of gun director Mk. 51.

| ASSY.<br>NO.        | SKETCH<br>NO. |
|---------------------|---------------|
| Mount Mk. 5 Mod. 0  |               |
| 11                  | 5658          |
| 13                  | 5659          |
| 15                  | 5661          |
| 17                  | 5689          |
| 19                  | 5690          |
| 21                  | 5692          |
| Mount Mk. 5 Mod. 1  |               |
| 12                  | 5648          |
| 14                  | 5660          |
| 16                  | 5688          |
| 18                  | 5649          |
| 20                  | 5691          |
| 22                  | 5650          |
| 54                  | 7080          |
| Mount Mk. 5 Mod. 4  |               |
| 60                  | 12167         |
| 61                  | 12166         |
| Mount Mk. 5 Mod. 6  |               |
| 47                  | 6697          |
| Mount Mk. 5 Mod. 7  |               |
| 51                  | 6701          |
| Mount Mk. 5 Mod. 8  |               |
| 63                  | 54947         |
| 75                  | 62991         |
| Mount Mk. 5 Mod. 9  |               |
| 64                  | 54948         |
| Mount Mk. 5 Mod. 10 |               |
| 68                  | 62984         |
| 74                  | 62990         |
| Mount Mk. 5 Mod. 11 |               |
| 69                  | 62985         |



10,631 LBS.

**3-PDR., MARK 5 ALL MODS.**

# 3-PDR. MOUNT, MARK 5 ALL MODS.

3-PDR. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      4.5 Pts.

## GUN AND AMMUNITION DATA

### GUN

3-Pdr. 50-Cal.      Mk. 4 Mods. 0,  
Max. Powder Pressure      13.8 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism)      570 Lbs

### BALLISTICS

Muzzle Velocity      2,200 Feet per Second  
Maximum Range      6,800 Yards at 20° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

Common      Mk. 4 Mod. 1      Wt. 3.3 Lbs.

#### Cartridge

Case      Mk. 1 Mod. 0      Wt. 1.65 Lbs.

Charge      Nominal Wt. 300 Grams

Primer      Mk. 10 Mod. 9

## OPERATING SELECTION

Manual Free Swinging

## DRAWING NUMBERS

Working Circle Drawing Nos.      18203  
52540-42

General Arrangement Drawing Nos.      18353  
236425

## REMARKS

Elevation limits are minus 25° to plus 20°.

Length of recoil is 4 inches.



## 3-PDR. MOUNT, MARK 9 ALL MODS.

3-PDR. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
|-----------|------------|

|                    |  |
|--------------------|--|
| Mount Mk. 9 Mod. C |  |
|--------------------|--|

|    |      |
|----|------|
| 27 | 5662 |
|----|------|

|    |      |
|----|------|
| 28 | 5663 |
|----|------|

|    |      |
|----|------|
| 30 | 3678 |
|----|------|

|    |      |
|----|------|
| 44 | 6476 |
|----|------|

|    |      |
|----|------|
| 53 | 6717 |
|----|------|

|                    |  |
|--------------------|--|
| Mount Mk. 9 Mod. 1 |  |
|--------------------|--|

|    |      |
|----|------|
| 26 | 5693 |
|----|------|

|    |      |
|----|------|
| 29 | 5694 |
|----|------|

|    |      |
|----|------|
| 31 | 5695 |
|----|------|

|                    |  |
|--------------------|--|
| Mount Mk. 9 Mod. 2 |  |
|--------------------|--|

|    |       |
|----|-------|
| 55 | 12660 |
|----|-------|

|                    |  |
|--------------------|--|
| Mount Mk. 9 Mod. 3 |  |
|--------------------|--|

|    |       |
|----|-------|
| 58 | 12103 |
|----|-------|

|                    |  |
|--------------------|--|
| Mount Mk. 9 Mod. 4 |  |
|--------------------|--|

|    |       |
|----|-------|
| 65 | 59011 |
|----|-------|

|    |       |
|----|-------|
| 66 | 59012 |
|----|-------|

|    |       |
|----|-------|
| 67 | 59019 |
|----|-------|

|                    |  |
|--------------------|--|
| Mount Mk. 9 Mod. 5 |  |
|--------------------|--|

|    |       |
|----|-------|
| 70 | 62986 |
|----|-------|

|    |       |
|----|-------|
| 72 | 62988 |
|----|-------|

|    |       |
|----|-------|
| 73 | 62989 |
|----|-------|

|                    |  |
|--------------------|--|
| Mount Mk. 9 Mod. 6 |  |
|--------------------|--|

|    |       |
|----|-------|
| 71 | 62987 |
|----|-------|

|    |       |
|----|-------|
| 79 | 92829 |
|----|-------|

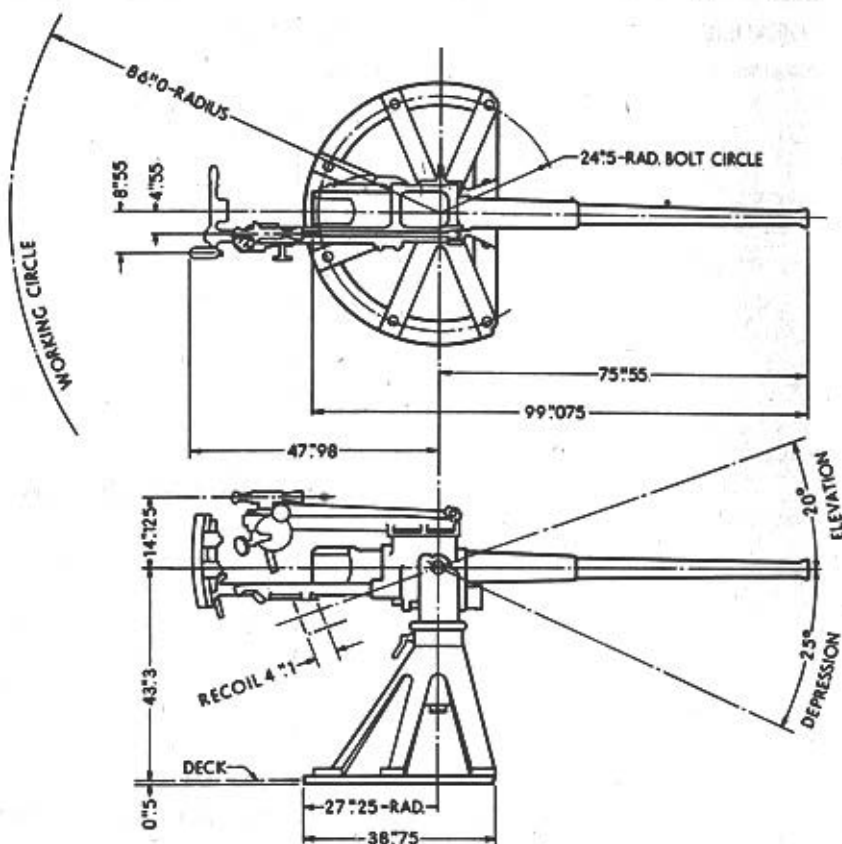
|                    |  |
|--------------------|--|
| Mount Mk. 9 Mod. 7 |  |
|--------------------|--|

|    |       |
|----|-------|
| 82 | 94820 |
|----|-------|

|    |       |
|----|-------|
| 83 | 94821 |
|----|-------|

|    |       |
|----|-------|
| 84 | 94832 |
|----|-------|

Note: Assembly number of mount is required for precise information.



GUN—3-PDR.  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 20° ELEV. FIRE

MK. 10 MODS. 0, 1, 2  
SALUTING BATTERIES

NONE

Weights below are approximate

1,550 LBS.

765 LBS.

600 LBS.

9,880 LBS.

9,910 LBS.

10,170 LBS.

3-PDR., MARK 9 ALL MODS.

# 3-PDR. MOUNT, MARK 9 ALL MODS.

3-PDR. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid

O. D. 1914

2 Pts.

## GUN AND AMMUNITION DATA

### GUN

3-Pdr. 50-Cal.

Mk. 10 Mods. 0, 1, 2

Max. Powder Pressure

13.8 Long Tons per Sq. In.

Barrel Weight (inc. breech mechanism)

575 Lbs.

### BALLISTICS

Muzzle Velocity

2,200 Feet per Second

Maximum Range

6,800 Yards at 20° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

Common

Mk. 4 Mod. 1

Wt. 3.3 Lbs.

#### Cartridge

Case

Mk. 1 Mod. 0

Wt. 1.65 Lbs.

Charge

Nominal Wt. 300 Grams

Primer

Mk. 10 Mod. 9

## OPERATING SELECTION

Manual Drive

## DRAWING NUMBERS

Working Circle Drawing Nos.

20381

24234

53049

General Arrangement Drawing Nos.

23651

235145

236425

## REMARKS

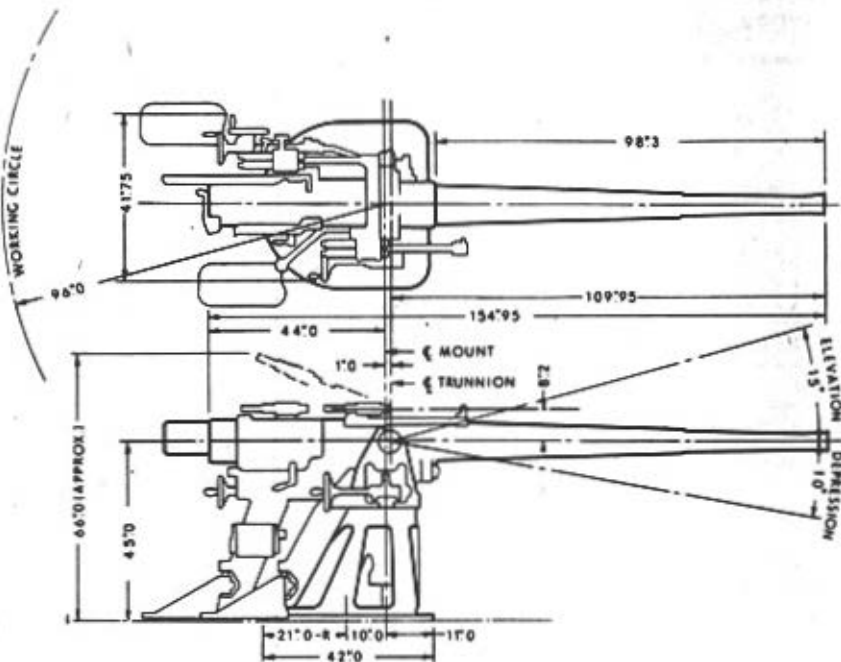
Elevation limits are minus 25° to plus 20°.

Length of recoil is 4 inches.

## 3-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 2            | 5385          |
| 3            | 3058          |
| 5            | 5387          |

**Note:** Assembly number of mount is required for precise information.



### GUN—3"/50 INSTALLATION FOR SHIELD

| TOTAL WEIGHT OF ASSEMBLY | OSCILLATING WEIGHT | RECOILING WEIGHT | BRAKE LOAD | TRUNNION PRESSURE HORIZ. FIRE | TRUNNION PRESSURE 15° ELEV. FIRE |
|--------------------------|--------------------|------------------|------------|-------------------------------|----------------------------------|
| 1000                     | 1000               | 1000             | 1000       | 1000                          | 1000                             |

MK. 3 MODS. 4, 7  
 AG-ARS-GAL-GYP-YN  
 NONE

Weights below are approximate

|             |
|-------------|
| 5,030 LBS.  |
| 3,400 LBS.  |
| 2,200 LBS.  |
| 33,370 LBS. |
| 33,550 LBS. |
| 34,490 LBS. |

**3"/50, MARK 4 MOD. 0**

# 3-IN. MOUNT, MARK 4 MOD. 0

3-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      7 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 50-Cal.      Mk. 3 Mods. 4, 7  
Max. Powder Pressure      17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism)      2,083 Lbs.

### BALLISTICS

Muzzle Velocity      2,700 Feet per Second  
Maximum Range      10,300 Yards at 15° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

|                |                   |                |
|----------------|-------------------|----------------|
| Common         | Mk. 3 Mod. 5      | Wt. 13. Lbs.   |
| Illuminating   | Mk. 25 Mod. 1     | Wt. 13.07 Lbs. |
| Armor Piercing | Mk. 29 Mods. 1, 2 | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7. Lbs.   |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

|                           |                   |          |
|---------------------------|-------------------|----------|
| Charge                    | Nominal Wt.       | 4. Lbs.  |
| Primer                    | Mk. 14 Mods. 0, 1 |          |
| Total Weight of Cartridge | Appr.             | 11. Lbs. |

## OPERATING SELECTION

Manual Drive

## DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Working Circle Drawing No.      | 21372 |
| General Arrangement Drawing No. | 22670 |

## REMARKS

Elevation limits are minus 10° to plus 15°. The training limit is determined by the installation.

Gun elevation per turn of the handwheel is 1° 10'. Gun train per turn of the handwheel is 1°.

Length of recoil is 8 inches.

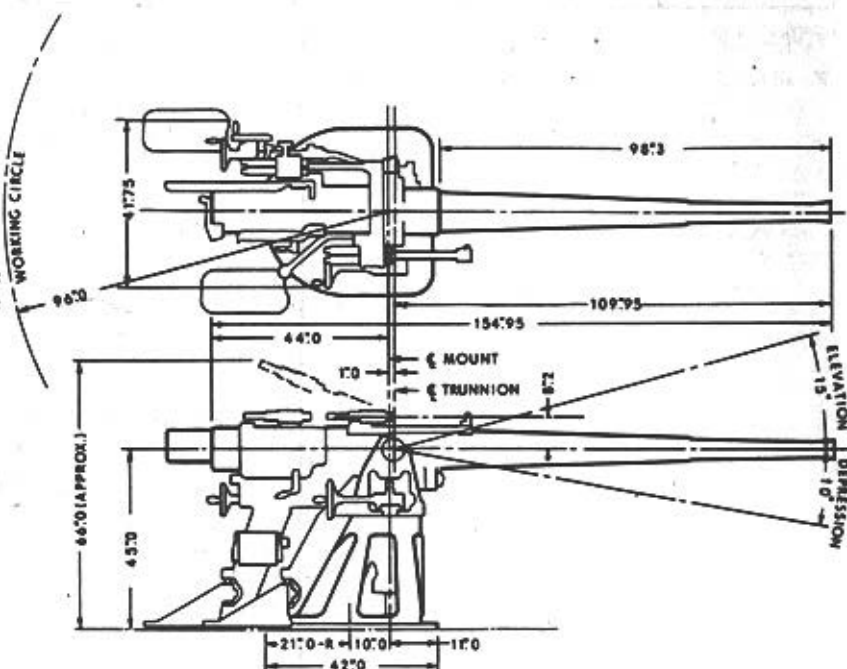


## 3-IN. MOUNT, MARK 4 MOD. 3

3-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 10           | 2852          |
| 11           | 5399          |
| 12           | 5400          |
| 13           | 5401          |
| 44           | 5483          |
| 46           | 5485          |
| 48           | 5488          |
| 306          | 14914         |
| 307          | 14915         |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 15° ELEV. FIRE

MK. 3 MODS. 4, 5, 7, 9  
GAGL  
NONE

Weights below are approximate  
5,070 LBS.  
3,400 LBS.  
2,200 LBS.  
33,370 LBS.  
33,550 LBS.  
34,490 LBS.

3"/50, MARK 4 MOD. 3

# 3-IN. MOUNT, MARK 4 MOD. 3

3-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

None, or

Illumination—Battery 6 V. 50 A. H.

### HYDRAULIC

Recoil Fluid O. D. 1914 8.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                       |                          |
|---------------------------------------|--------------------------|
| 3-In. 50-Cal.                         | Mk. 3 Mods. 4, 5, 7, 9   |
| Max. Powder Pressure                  | 17 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) | 2,083 Lbs.               |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,700 Feet per Second     |
| Maximum Range   | 10,300 Yards at 15° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|                |                   |                |
|----------------|-------------------|----------------|
| Common         | Mk. 3 Mod. 5      | Wt. 13. Lbs.   |
| Illuminating   | Mk. 25 Mod. 1     | Wt. 13.07 Lbs. |
| Armor Piercing | Mk. 29 Mods. 1, 2 | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7. Lbs.   |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

|                           |                     |
|---------------------------|---------------------|
| Charge                    | Nominal Wt. 4. Lbs. |
| Primer                    | Mk. 14 Mods. 0, 1   |
| Total Weight of Cartridge | Appr. 11. Lbs.      |

## OPERATING SELECTION

Manual Drive

## DRAWING NUMBERS

|                                 |                 |
|---------------------------------|-----------------|
| Working Circle Drawing Nos.     | 21372<br>244067 |
| General Arrangement Drawing No. | 243442          |

## REMARKS

Elevation limits are minus 10° to plus 15°. The training limit is determined by the installation.

Gun elevation per turn of the handwheel is 1° 10'. Gun train per turn of the handwheel is 1°.

Length of recoil is 8 inches.



# 3-IN. MOUNT, MARK 4 MOD. 8

3-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Illumination—Battery 6 V. 50 A. H.

### HYDRAULIC

Recoil Fluid O. D. 1914 8.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 50-Cal. Mk. 3 Mods. 4, 7, 8  
Max. Powder Pressure 17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism) 2,083 Lbs.

### BALLISTICS

Muzzle Velocity 2,700 Feet per Second  
Maximum Range 10,300 Yards at 15° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

|                |                   |                |
|----------------|-------------------|----------------|
| Common         | Mk. 3 Mod. 5      | Wt. 13. Lbs.   |
| Illuminating   | Mk. 25 Mod. 1     | Wt. 13.07 Lbs. |
| Armor Piercing | Mk. 29 Mods. 1, 2 | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7. Lbs.   |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

Charge Nominal Wt. 4. Lbs.

Primer Mk. 14 Mods. 0, 1

Total Weight of Cartridge Appr. 11. Lbs.

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Working Circle Drawing No.      | 37222 |
| General Arrangement Drawing No. | 47414 |

## REMARKS

Elevation limits are minus 10° to plus 15°. The training limit is determined by the installation.

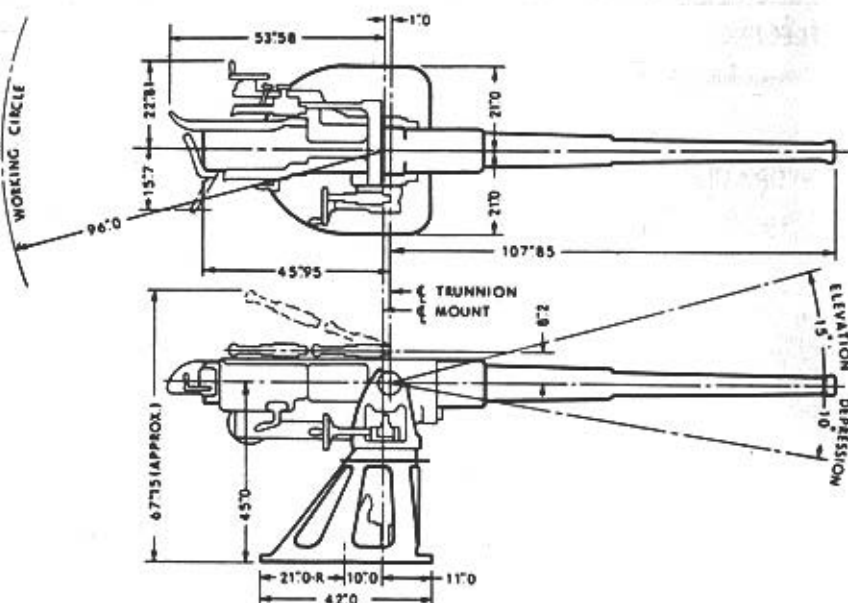
Length of recoil is 8 inches.



**3-IN. MOUNT, MARK 4 MOD. 12****3-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 38           | 5461          |
| 39           | 5462          |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 15° ELEV. FIRE

MK. 3 MODS. 4, 7  
PG  
NONE

Weights below are approximate

|  |             |
|--|-------------|
|  | 5,170 LBS.  |
|  | 3,500 LBS.  |
|  | 2,200 LBS.  |
|  | 33,370 LBS. |
|  | 33,550 LBS. |
|  | 34,440 LBS. |

**3"/50, MARK 4 MOD. 12**

# 3-IN. MOUNT, MARK 4 MOD. 12

3-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Illumination—Battery 6 V. 50 A. H.

### HYDRAULIC

Recoil Fluid O. D. 1914 8.9 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 50-Cal. Mk. 3 Mods. 4, 7  
Max. Powder Pressure 17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism) 2,083 Lbs.

### BALLISTICS

Muzzle Velocity 2,700 Feet per Second  
Maximum Range 10,300 Yards at 15° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

|                |                   |                |
|----------------|-------------------|----------------|
| Common         | Mk. 3 Mod. 5      | Wt. 13. Lbs.   |
| Illuminating   | Mk. 25 Mod. 1     | Wt. 13.07 Lbs. |
| Armor Piercing | Mk. 29 Mods. 1, 2 | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7. Lbs.   |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

Charge Nominal Wt. 4. Lbs.

Primer Mk. 14 Mods. 0, 1

Total Weight of Cartridge Appr. 11. Lbs.

## OPERATING SELECTION

Manual Drive

## DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Working Circle Drawing No.      | 52245 |
| General Arrangement Drawing No. | 47443 |

## REMARKS

Elevation limits are minus 10° to plus 15°. The training limit is determined by the installation.

Length of recoil is 8 inches.

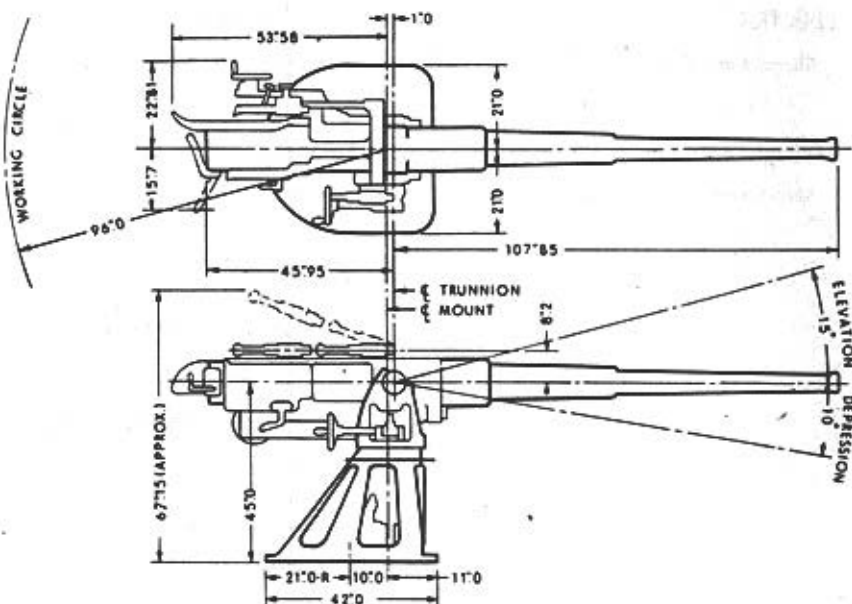
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

3"/50, MARK 4 MOD. 12

**3-IN. MOUNT, MARK 4 MOD. 13****3-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

|                    |                       |
|--------------------|-----------------------|
| ASSY.<br>NO.<br>62 | SKETCH<br>NO.<br>5507 |
|--------------------|-----------------------|

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 15° ELEV. FIRE

MK. 2 MOD. 1  
GAGL  
NONE

Weights below are approximate

5,130 LBS.

3,500 LBS.

2,200 LBS.

33,370 LBS.

33,550 LBS.

34,440 LBS.

**3"/50, MARK 4 MOD. 13**

# 3-IN. MOUNT, MARK 4 MOD. 13

3-IN. 50-CAL., S. P., SINGLE MOUNT OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      7.8 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                       |                          |
|---------------------------------------|--------------------------|
| 3-In. 50-Cal.                         | Mk. 2 Mod. 1             |
| Max. Powder Pressure                  | 13 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) | 2,128 Lbs.               |

### BALLISTICS

|                 |                          |
|-----------------|--------------------------|
| Muzzle Velocity | 2,100 Feet per Second    |
| Maximum Range   | 7,000 Yards at 15° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|                |                   |                |
|----------------|-------------------|----------------|
| Common         | Mk. 3 Mod. 5      | Wt. 13. Lbs.   |
| Illuminating   | Mk. 25 Mod. 1     | Wt. 13.07 Lbs. |
| Armor Piercing | Mk. 29 Mods. 1, 2 | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7. Lbs.   |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

|        |                      |
|--------|----------------------|
| Charge | Nominal Wt. 2.8 Lbs. |
|--------|----------------------|

|        |                   |
|--------|-------------------|
| Primer | Mk. 14 Mods. 0, 1 |
|--------|-------------------|

|                     |                |
|---------------------|----------------|
| Total Wt. Cartridge | Appr. 10. Lbs. |
|---------------------|----------------|

## OPERATING SELECTION

Manual Drive

## DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Working Circle Drawing No.      | 52245 |
| General Arrangement Drawing No. | 46915 |

## REMARKS

Elevation limits are minus 10° to plus 15°. The training limit is determined by the installation.

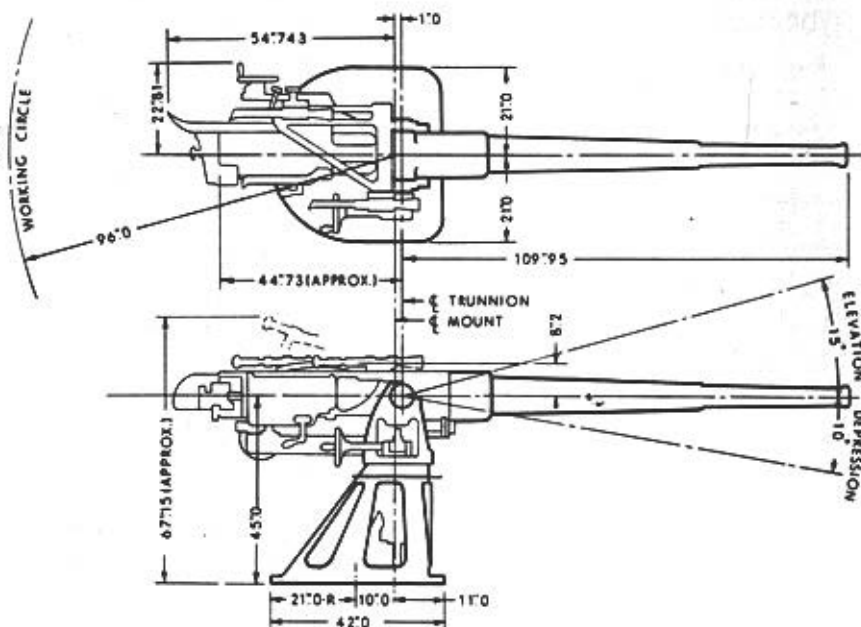
Length of recoil is 8 inches.



**3-IN. MOUNT, MARK 4 MOD. 17****3-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 119          | 7143          |
| 270          | 13231         |
| 271          | 13232         |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 15° ELEV. FIRE

MK. 3 MODS. 4, 6  
AG  
NONE

Weights below are approximate

5,160 LBS.  
3,500 LBS.  
2,200 LBS.  
33,370 LBS.  
33,550 LBS.  
34,440 LBS.

**3"/50, MARK 4 MOD. 17**

# 3-IN. MOUNT, MARK 4 MOD. 17

3-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

None, or

Illumination—Battery 6 V. 50 A. H.

### HYDRAULIC

Recoil Fluid O. D. 1914 8.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 50-Cal. Mk. 3 Mods. 4, 6  
Max. Powder Pressure 17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism) 2,083 Lbs.

### BALLISTICS

Muzzle Velocity 2,700 Feet per Second  
Maximum Range 10,300 Yards at 15° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

|                |                   |                |
|----------------|-------------------|----------------|
| Common         | Mk. 3 Mod. 5      | Wt. 13. Lbs.   |
| Illuminating   | Mk. 25 Mod. 1     | Wt. 13.07 Lbs. |
| Armor Piercing | Mk. 29 Mods. 1, 2 | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7. Lbs.   |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

Charge Nominal Wt. 4. Lbs.

Primer Mk. 14 Mods. 0, 1

Total Weight of Cartridge Appr. 11. Lbs.

## OPERATING SELECTION

Manual Drive

## DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Working Circle Drawing No.      | 52246 |
| General Arrangement Drawing No. | 46918 |

## REMARKS

Elevation limits are minus 10° to plus 15°. The training limit is determined by the installation.

Length of recoil is 8 inches.

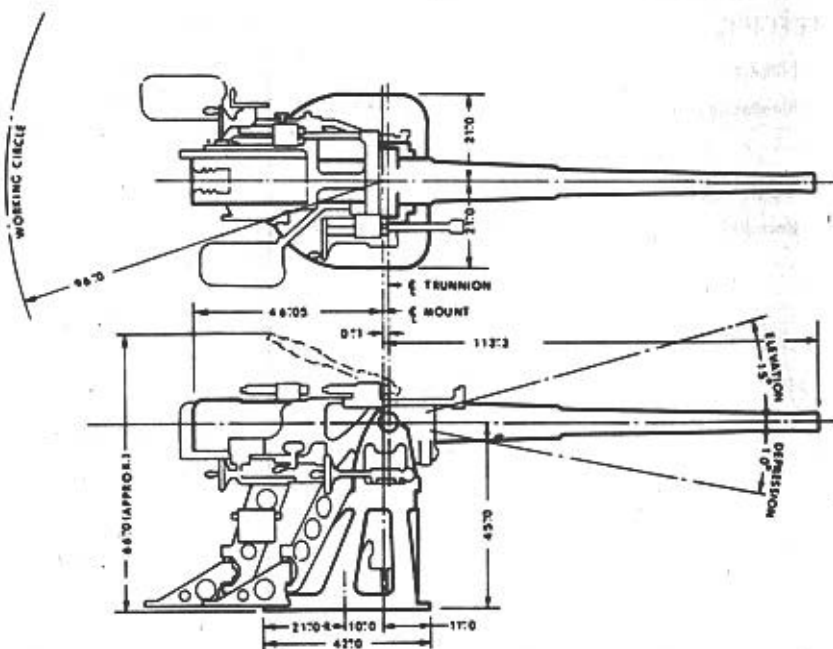
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

3"/50, MARK 4 MOD. 17

**3-IN. MOUNT, MARK 5 MOD. 0****3-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 51           | 3025          |
| 64           | 3518          |
| 81           | 6236          |
| 291          | 13552         |
| 292          | 13553         |
| 326          | 61663         |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 15° ELEV. FIRE

MK. 5 MODS. 0, 3  
GAGL-GAL-GAT-GYP-PYC-YO  
NONE

Weights below are approximate  
5,240 LBS.  
3,550 LBS.  
2,350 LBS.  
27,000 LBS.  
27,200 LBS.  
28,100 LBS.

**3"/50, MARK 5 MOD. 0**

# 3-IN. MOUNT, MARK 5 MOD. 0

3-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

None, or

Illumination—Battery 6 V. 50 A. H.

### HYDRAULIC

Recoil Fluid O. D. 1914 9.2 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                       |                          |
|---------------------------------------|--------------------------|
| 3-In. 50-Cal.                         | Mk. 5 Mods. 0, 3         |
| Max. Powder Pressure                  | 17 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) | 2,280 Lbs.               |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,700 Feet per Second     |
| Maximum Range   | 10,300 Yards at 15° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|                |                   |                |
|----------------|-------------------|----------------|
| Common         | Mk. 3 Mod. 5      | Wt. 13. Lbs.   |
| Illuminating   | Mk. 25 Mod. 1     | Wt. 13.07 Lbs. |
| Armor Piercing | Mk. 29 Mods. 1, 2 | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7. Lbs.   |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

|        |                     |
|--------|---------------------|
| Charge | Nominal Wt. 4. Lbs. |
|--------|---------------------|

|        |                   |
|--------|-------------------|
| Primer | Mk. 14 Mods. 0, 1 |
|--------|-------------------|

|                           |                |
|---------------------------|----------------|
| Total Weight of Cartridge | Appr. 11. Lbs. |
|---------------------------|----------------|

## OPERATING SELECTION

Manual Drive

## DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Working Circle Drawing No.      | 27318 |
| General Arrangement Drawing No. | 27320 |

## REMARKS

Elevation limits are minus 10° to plus 15°. The training limit is determined by the installation.

Gun elevation per turn of the handwheel is 1° 10'. Gun train per turn of the handwheel is 1°.

Length of recoil is 9.25 inches.



| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 57           | 5046          |
| 124          | 7173          |
| 293          | 13554         |
| 404          | 103138        |
| 406          | 103142        |
| 447          | 106809        |

Technical drawing of a gun mount showing elevation and depression angles and various dimensions. The drawing includes a curved line labeled "WORKING CIRCLE" and a vertical line labeled "ELEVATION 15°". Dimensions are provided in feet and inches, including 47'62", 37'04", 24'00", 9'57", 110'73", 45'0", 21'0"-8", 10'0", 42'0", 11'50", 21'0", 21'0", and 8'2". The drawing also shows a "MOUNT TRUNNION" and a "DEPRESSION 10°" angle.

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 15° ELEV. FIRE

Weights below are approximate

|           |             |
|-----------|-------------|
| 5,560 TO  | 5,640 LBS.  |
| 3,700 TO  | 3,760 LBS.  |
| 2,350 TO  | 2,400 LBS.  |
| 16,250 TO | 16,600 LBS. |
|           | 17,000 LBS. |
|           | 17,900 LBS. |

**3"/50, MARK 7 MOD. 0**

# 3-IN. MOUNT, MARK 7 MOD. 0

3-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

Mk. 2 Mod. 0

Illumination—Battery 6 V. 50 A.H.

Mk. 6 Mod. 1

Gun Firing and Illumination—Battery 6 V. 50 A.H.

Solenoids—Mk. 5 Mods. 6, 7 60 Amps.

### HYDRAULIC

Recoil Fluid O. D. 1914 11 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 50-Cal. Mk. 5 Mod. 0,

Mk. 6 Mod. 0 or Mk. 20 Mod. 0

Max. Powder Pressure 17 Long Tons per Sq. In.

Barrel Weight (inc. breech mechanism)

Mk. 5 Mod. 0 2,280 Lbs.

Mk. 6 Mod. 0 2,345 Lbs.

Mk. 20 Mod. 0 2,353 Lbs.

### BALLISTICS

Muzzle Velocity 2,700 Feet per Second

Maximum Range 10,300 Yards at 15° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

Common Mk. 3 Mod. 5 Wt. 13. Lbs.

Illuminating Mk. 25 Mod. 1 Wt. 13.07 Lbs.

Armor Piercing Mk. 29 Mods. 1, 2 Wt. 13.07 Lbs.

#### Cartridge

Case Mk. 3 Mod. 3 Wt. 7.88 Lbs.

Mk. 7 & Mods. Wt. 7. Lbs.

Mk. 9 & Mods. Wt. 6.54 Lbs.

Charge Nominal Wt. 4. Lbs.

Primer Mk. 14 Mods. 0, 1

Total Weight of Cartridge Appr. 11. Lbs.

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 122

Working Circle Drawing No. 30888

General Arrangement Drawing No. 31314

## REMARKS

Elevation limits are minus 10° to plus 15°. The maximum training limit is 360°.

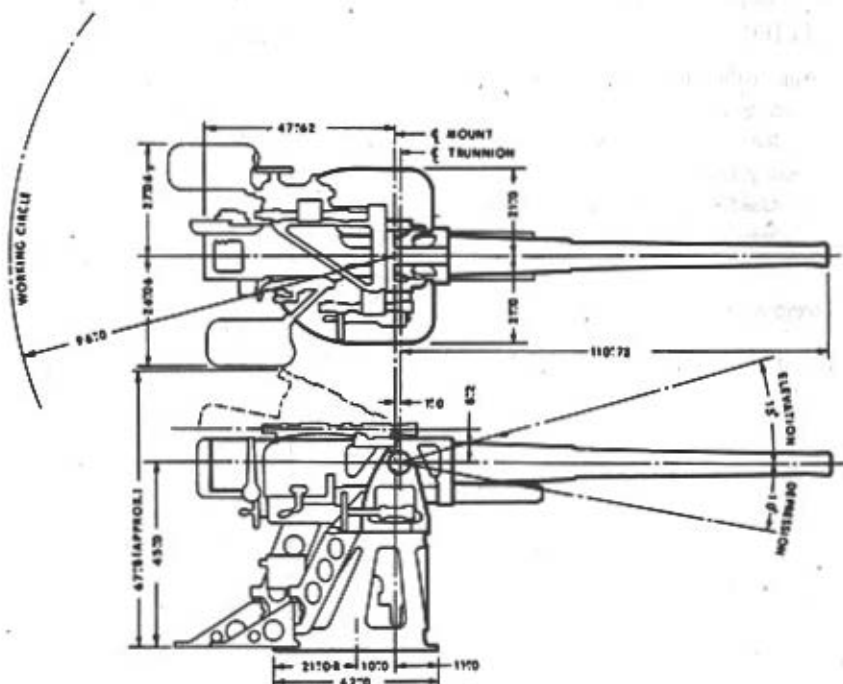
Gun elevation per turn of the handwheel is 1° 22'. Gun train per turn of the handwheel is 1° 41'.

Length of recoil is 16 inches.

**3-IN. MOUNT, MARK 7 MOD. 4****3-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 61           | 3359          |
| 82           | 6237          |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 15° ELEV. FIRE

MK. 6 MOD. 0  
MK. 6  
GAL  
NONE

Weights below are approximate  
5,480 LBS.  
3,670 LBS.  
2,350 LBS.  
16,600 LBS.  
17,000 LBS.  
17,900 LBS.

**3"/50, MARK 7 MOD. 4**

# 3-IN. MOUNT, MARK 7 MOD. 4

3-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Illumination—Battery 6 V. 50 A.H.

### HYDRAULIC

Recoil Fluid O. D. 1914 11 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 50-Cal. Mk. 6 Mod. 0  
Max. Powder Pressure 17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism) 2,345 Lbs.

### BALLISTICS

Muzzle Velocity 2,700 Feet per Second  
Maximum Range 10,300 Yards at 15° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

|                |                   |                |
|----------------|-------------------|----------------|
| Common         | Mk. 3 Mod. 5      | Wt. 13. Lbs.   |
| Illuminating   | Mk. 25 Mod. 1     | Wt. 13.07 Lbs. |
| Armor Piercing | Mk. 29 Mods. 1, 2 | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7. Lbs.   |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

Charge Nominal Wt. 4. Lbs.

Primer Mk. 14 Mods. 0, 1

Total Weight of Cartridge Appr. 11. Lbs.

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Ordnance Pamphlet No. 122       |       |
| Working Circle Drawing No.      | 30888 |
| General Arrangement Drawing No. | 31314 |

## REMARKS

Elevation limits are minus 10° to plus 15°. The maximum training limit is 360°.

Gun elevation per turn of the handwheel is 1° 22'. Gun train per turn of the handwheel is 1° 41'.

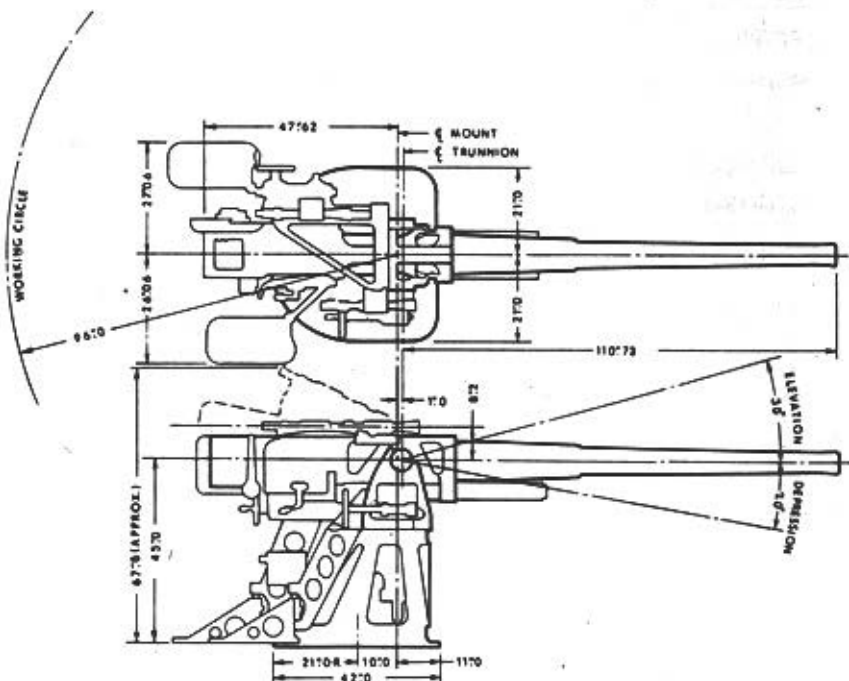
Length of recoil is 16 inches.



**3-IN. MOUNT, MARK 7 MOD. 10****3-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 241          | 12374         |
| 332          | 62339         |

Note: Assembly number of mount is required for precise information.



**GUN—3"/50**  
**INSTALLATION FOR**  
**SHIELD**

**TOTAL WEIGHT OF ASSEMBLY**  
**OSCILLATING WEIGHT**  
**RECOILING WEIGHT**  
**BRAKE LOAD**  
**TRUNNION PRESSURE HORIZ. FIRE**  
**TRUNNION PRESSURE 30° ELEV. FIRE**

**MK. 6 MODS. 0. 2**  
**IX**  
**NONE**

Weights below are approximate  
5,580 LBS.  
3,760 LBS.  
2,400 LBS.  
16,250 LBS.  
16,700 LBS.  
18,400 LBS.

**3"/50, MARK 7 MOD. 10**

# 3-IN. MOUNT, MARK 7 MOD. 10

3-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits—

Mk. 2 Mod. 0

Illumination—Battery 6 V. 50 A. H.

Mk. 6 Mod. 1

Gun Firing and Illumination—Battery 6 V. 50 A. H.

Solenoids—Mk. 5 Mods. 6, 7 60 Amps.

### HYDRAULIC

Recoil Fluid O. D. 1914 9.2 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                       |                          |
|---------------------------------------|--------------------------|
| 3-In. 50-Cal.                         | Mk. 6 Mods. 0, 2         |
| Max. Powder Pressure                  | 17 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) | 2,345 Lbs.               |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,700 Feet per Second     |
| Maximum Range   | 13,600 Yards at 30° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|                |                   |                |
|----------------|-------------------|----------------|
| Common         | Mk. 3 Mod. 5      | Wt. 13. Lbs.   |
| Illuminating   | Mk. 25 Mod. 1     | Wt. 13.07 Lbs. |
| Armor Piercing | Mk. 29 Mods. 1, 2 | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7. Lbs.   |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

Charge Nominal Wt. 4. Lbs.

Primer Mk. 14 Mods. 0, 1

Total Weight of Cartridge Appr. 11. Lbs.

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Ordnance Pamphlet No. 122       |       |
| Working Circle Drawing No.      | 30888 |
| General Arrangement Drawing No. | 60974 |

## REMARKS

Elevation limits are minus 20° to plus 30°. The maximum training limit is 360°.

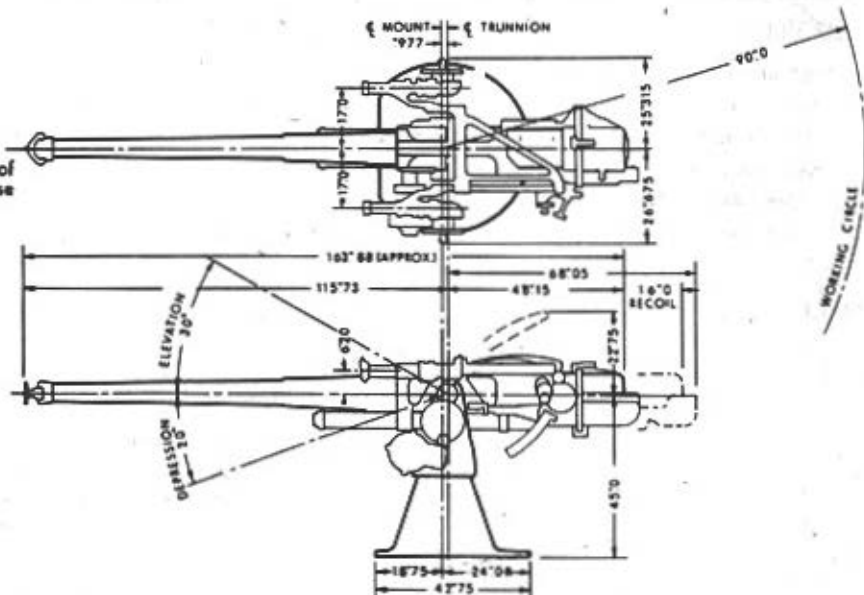
Gun elevation per turn of the handwheel is 2° 35' 5". Gun train per turn of the handwheel is 1° 50' 22".

Length of recoil is 16 inches.

## 3-IN. 50-CAL., S. P., SINGLE, WET, OPEN, PEDESTAL TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 259          | 12804         |
| 324          | 59275         |
| 357          | 94365         |
| 413          | 106274        |

**Note:** Assembly number of mount is required for precise information.



### GUN—3"/50 INSTALLATION FOR SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT

**BRAKE LOAD**  
**TRUNNION PRESSURE HORIZ. FIRE**  
**TRUNNION PRESSURE 30° ELEV. FIRE**

MK. 6 MODS. 4, 6, 7  
 BSS-SS  
 NONE

Weights below are approximate

|           |             |
|-----------|-------------|
| 5,310 TO  | 5,460 LBS.  |
| 3,430 TO  | 3,700 LBS.  |
| 2,350 TO  | 2,400 LBS.  |
| 16,600 TO | 17,350 LBS. |
|           | 17,700 LBS. |
|           | 19,300 LBS. |

**3"/50, MARK 7 MOD. 19**

# 3-IN. MOUNT, MARK 7 MOD. 19

3-IN. 50-CAL., S. P., SINGLE, WET, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      9.2 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                       |                          |
|---------------------------------------|--------------------------|
| 3-In. 50-Cal.                         | Mk. 6 Mods. 4, 6, 7      |
| Max. Powder Pressure                  | 17 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) | 2,345 Lbs.               |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,700 Feet per Second     |
| Maximum Range   | 13,600 Yards at 30° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|                |                   |                |
|----------------|-------------------|----------------|
| Common         | Mk. 3 Mod. 5      | Wt. 13. Lbs.   |
| Illuminating   | Mk. 25 Mod. 1     | Wt. 13.07 Lbs. |
| Armor Piercing | Mk. 29 Mods. 1, 2 | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7. Lbs.   |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

|        |                     |
|--------|---------------------|
| Charge | Nominal Wt. 4. Lbs. |
|--------|---------------------|

|        |                   |
|--------|-------------------|
| Primer | Mk. 14 Mods. 0, 1 |
|--------|-------------------|

|                           |                |
|---------------------------|----------------|
| Total Weight of Cartridge | Appr. 11. Lbs. |
|---------------------------|----------------|

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Ordnance Pamphlet No. 122       |       |
| Working Circle Drawing No.      | 67236 |
| General Arrangement Drawing No. | 66265 |

## REMARKS

Elevation limits are minus 20° to plus 30°. Maximum training limit is 360°.

Gun elevation per turn of the handwheel is 2°34'28".  
Gun train per turn of the handwheel is 2°51'41".

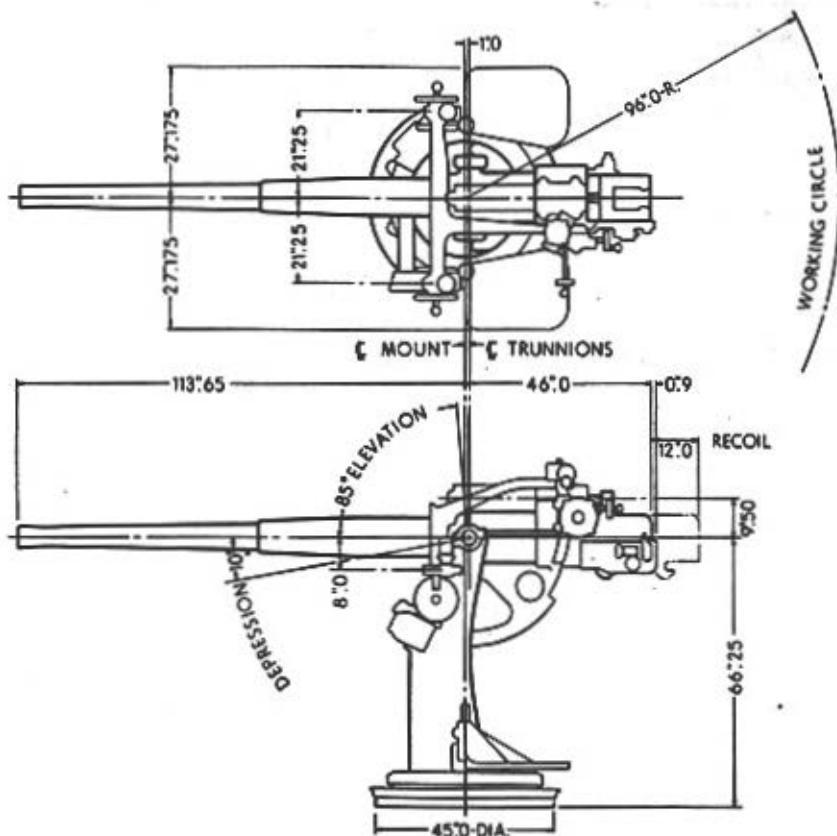
Length of recoil is 16 inches.



**3-IN. MOUNT, MARK 11 MOD. 0****3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 104       | 6730       |
| 133       | 12017      |
| 294       | 13555      |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 10 MODS. 0 OR 2  
AUXILIARIES  
NONE

Weights below are approximate  
6,820 TO 6,980 LBS.  
3,900 LBS.  
2,600 LBS.  
19,650 LBS.  
20,000 LBS.  
23,500 LBS.

**3"/50, MARK 11 MOD. 0**

# 3-IN. MOUNT, MARK 11 MOD. 0

3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuit: Mk. 3 Mod. 0  
Battery 6 V. 100 A. H.  
Solenoid Mk. 5 Mod. 5, 60 Amps.

### HYDRAULIC

Recoil Fluid O. D. 1914 6.08 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 50-Cal. Mk. 10 Mods. 0 or 2  
Max. Powder Pressure 17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism) 2,547 Lbs.

### BALLISTICS

Muzzle Velocity 2,700 Feet per Second  
Max. Altitude 29,800 Feet at 85° Elev.  
Max. Range 14,600 Yards at 45° Elev.

### AMMUNITION—Fixed

Typical Projectiles  
A. A. Mods. of Mk. 27 Wt. 13.05 Lbs.  
Illuminating Mk. 25 Mod. 1 Wt. 13.07 Lbs.  
Armor Piercing Mods. of Mk. 29 Wt. 13.07 Lbs.

Cartridge  
Case Mk. 3 Mod. 3 Wt. 7.88 Lbs.  
Mk. 7 & Mods. Wt. 7.0 Lbs.  
Mk. 9 & Mods. Wt. 6.54 Lbs.

Charge Nominal Wt. 4 Lbs.  
Primer Mk. 14 Mods. 0, 1  
Total Weight of Cartridge Appr. 11 Lbs.

### FUZE SETTER

Mk. 10 & Mods., Mk. 12 & Mods. or Wrench

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 119  
Working Circle Drawing No. 50211  
General Arrangement Drawing No. 50289

## REMARKS

Elevation limits are minus 10° to plus 85°. Maximum training limit is 360°.

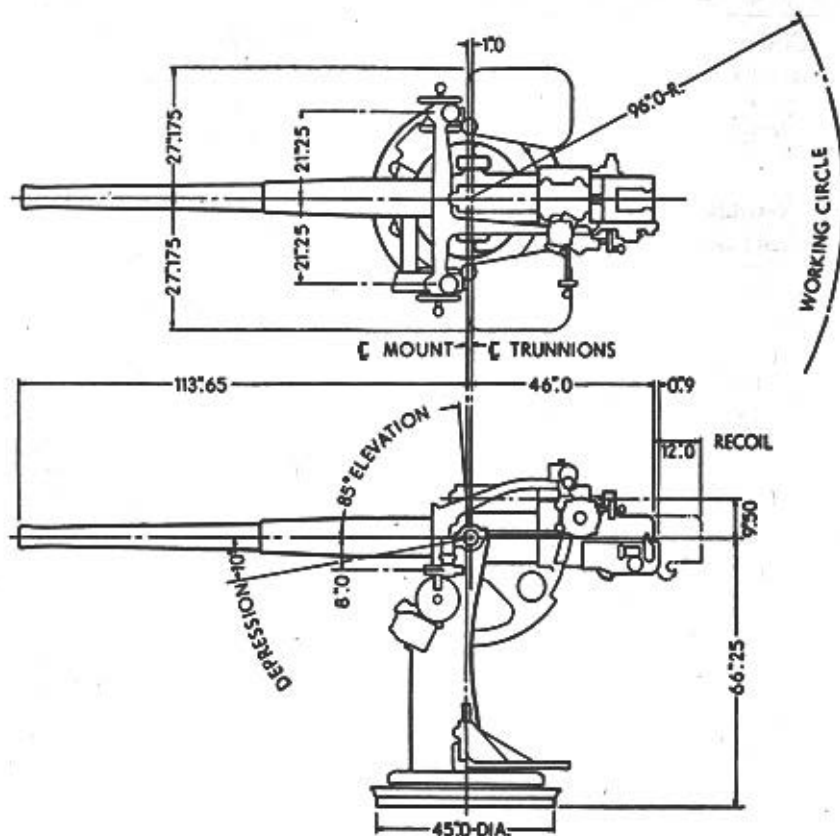
Gun elevation per turn of the handwheel is 2.99°. Gun train per turn of the handwheel is 3.085°.

Length of recoil is 12 inches.

**3-IN. MOUNT, MARK 11 MOD. 1****3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 106       | 6824       |
| 295       | 13556      |
| 296       | 13557      |
| 309       | 14944      |
| 311       | 14946      |
| 329       | 62054      |
| 333       | 62381      |
| 344       | 92800      |
| 346       | 92813      |
| 348       | 92821      |
| 350       | 93250      |
| 358       | 94366      |
| 359       | 94367      |
| 393       | 94947      |
| 415       | 106290     |
| 416       | 106291     |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

**3"/50, MARK 11 MOD. 1**

MK. 10 MODS. 0, 1, 2 OR 3  
CL—DD—AUXILIARIES  
NONE

Weights below are approximate  
6,820 TO 7,600 LBS.  
3,850 TO 4,020 LBS.  
2,650 LBS.  
20,000 LBS.  
20,450 LBS.  
24,040 LBS.

# 3-IN. MOUNT, MARK 11 MOD. 1

3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

#### Applicable Firing and Lighting Circuits:

Mk. 3 Mod. 0, Mk. 5 Mod. 9, Mk. 6 Mod. 0

#### Gun Firing and

Illumination—Battery 6 V. 100 A. H.  
Solenoid—Mk. 5 Mod. 5 60 Amps.

Mk. 5 Mod. 0

Gun Firing 120 V. D. C.  
Illumination—Battery 6 V. 100 A. H.  
Solenoid—Mk. 5 Mod. 1 3 Amps.

Mk. 5 Mod. 4, Mk. 5 Mod. 10

Gun Firing 120 V. A. C. or D. C.  
Illumination—Battery 6 V. 100 A. H.  
Solenoid—

Mk. 5 Mod. 3 (for A. C.) 27.5 Amps. inrush  
12.5 Amps. steady

Mk. 5 Mod. 1 (for D. C.) 3 Amps.

### HYDRAULIC

Recoil Fluid O. D. 1914 6.08 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 50-Cal. Mk. 10 Mods. 0, 1, 2 or 3  
Max. Powder Pressure 17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism) 2,547 Lbs.

### BALLISTICS

Muzzle Velocity 2,700 Feet per Second  
Max. Altitude 29,800 Feet at 85° Elev.  
Max. Range 14,600 Yards at 45° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

|                |                 |                |
|----------------|-----------------|----------------|
| A. A.          | Mods. of Mk. 27 | Wt. 13.05 Lbs. |
| Illuminating   | Mk. 25 Mod. 1   | Wt. 13.07 Lbs. |
| Armor Piercing | Mods. of Mk. 29 | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7.0 Lbs.  |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

Charge Nominal Wt. 4.5 Lbs.  
Primer Mk. 14 Mods. 0, 1

Total Weight of Cartridge Appr. 11. Lbs.

### FUZE SETTER

Mk. 10 & Mods., Mk. 12 & Mods. or Wrench

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Ordinance Pamphlet No. 119      |       |
| Working Circle Drawing No.      | 50211 |
| General Arrangement Drawing No. | 50289 |

## REMARKS

Elevation limits are minus 10° to plus 85°. Maximum training limit is 360°.

Gun elevation per turn of the handwheel is 2.99°. Gun train per turn of the handwheel is 3.085°.

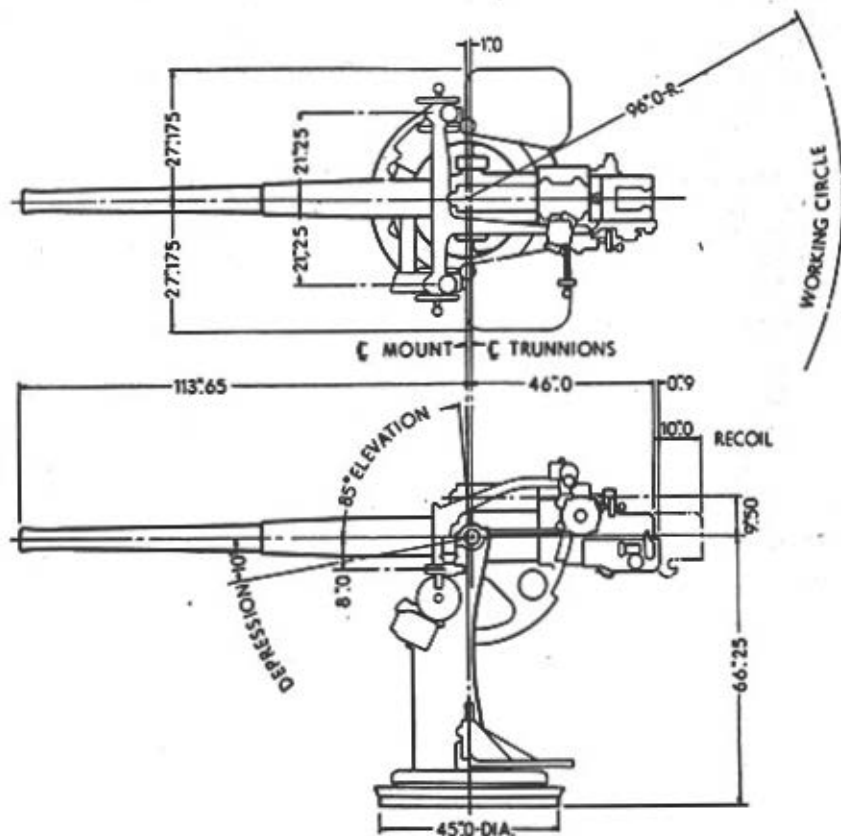
Length of recoil is 12 inches.



**3-IN. MOUNT, MARK 11 MOD. 2****3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 128       | 7343       |
| 260       | 12665      |
| 303       | 14172      |
| 305       | 14195      |
| 310       | 14945      |
| 312       | 14947      |
| 331       | 62336      |
| 337       | 62732      |
| 343       | 92405      |
| 345       | 92801      |
| 347       | 92814      |
| 351       | 93251      |
| 354       | 93993      |
| 394       | 94948      |
| 417       | 106223     |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 10 MODS. 0, 1, 2 OR 3  
CL—DD—AUXILIARIES  
NONE

Weights below are approximate  
6,820 TO 7,620 LBS.  
3,850 TO 4,040 LBS.  
2,650 LBS.  
22,500 LBS.  
22,800 LBS.  
26,350 LBS.

**3"/50, MARK 11 MOD. 2**

# 3-IN. MOUNT, MARK 11 MOD. 2

3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

Mk. 3 Mod. 0, Mk. 6 Mod. 0

|                                          |      |           |
|------------------------------------------|------|-----------|
| Gun Firing and Illumina-<br>tion—Battery | 6 V. | 100 A. H. |
| Solenoid—Mk. 5 Mod. 5                    |      | 60 Amps.  |

Mk. 5 Mod. 0

|                       |        |           |
|-----------------------|--------|-----------|
| Gun Firing            | 120 V. | D. C.     |
| Illumination—Battery  | 6 V.   | 100 A. H. |
| Solenoid—Mk. 5 Mod. 1 |        | 3 Amps.   |

Mk. 5 Mod. 4, Mk. 5 Mod. 10

|                      |        |                |
|----------------------|--------|----------------|
| Gun Firing           | 120 V. | A. C. or D. C. |
| Illumination—Battery | 6 V.   | 100 A. H.      |
| Solenoid—            |        |                |

|                          |                   |
|--------------------------|-------------------|
| Mk. 5 Mod. 3 (for A. C.) | 27.5 Amps. inrush |
|                          | 12.5 Amps. steady |

|                          |         |
|--------------------------|---------|
| Mk. 5 Mod. 1 (for D. C.) | 3 Amps. |
|--------------------------|---------|

### HYDRAULIC

|              |            |          |
|--------------|------------|----------|
| Recoil Fluid | O. D. 1914 | 5.8 Qts. |
|--------------|------------|----------|

## GUN AND AMMUNITION DATA

### GUN

|                                       |                           |
|---------------------------------------|---------------------------|
| 3-In. 50-Cal.                         | Mk. 10 Mods. 0, 1, 2 or 3 |
| Max. Powder Pressure                  | 17 Long Tons per Sq. In.  |
| Barrel Weight (inc. breech mechanism) | 2,547 Lbs.                |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,700 Feet per Second     |
| Max. Altitude   | 29,800 Feet at 85° Elev.  |
| Max. Range      | 14,600 Yards at 45° Elev. |

### AMMUNITION—Fixed

|                     |                 |                |
|---------------------|-----------------|----------------|
| Typical Projectiles |                 |                |
| A. A.               | Mods. of Mk. 27 | Wt. 13.05 Lbs. |
| Illuminating        | Mk. 25 Mod. 1   | Wt. 13.07 Lbs. |
| Armor Piercing      | Mods. of Mk. 29 | Wt. 13.07 Lbs. |

|                           |                   |                |
|---------------------------|-------------------|----------------|
| Cartridge                 |                   |                |
| Case                      | Mk. 3 Mod. 3      | Wt. 7.88 Lbs.  |
|                           | Mk. 7 & Mods.     | Wt. 7.0 Lbs.   |
|                           | Mk. 9 & Mods.     | Wt. 6.54 Lbs.  |
| Charge                    | Nominal Wt.       | 4. Lbs.        |
| Primer                    | Mk. 14 Mods. 0, 1 |                |
| Total Weight of Cartridge |                   | Appr. 11. Lbs. |

### FUZE SETTER

Mk. 10 & Mods., Mk. 12 & Mods. or Wrench

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Ordinance Pamphlet No. 119      |       |
| Working Circle Drawing No.      | 50211 |
| General Arrangement Drawing No. | 50289 |

## REMARKS

Elevation limits are minus 10° to plus 85°. Maximum training limit is 360°.

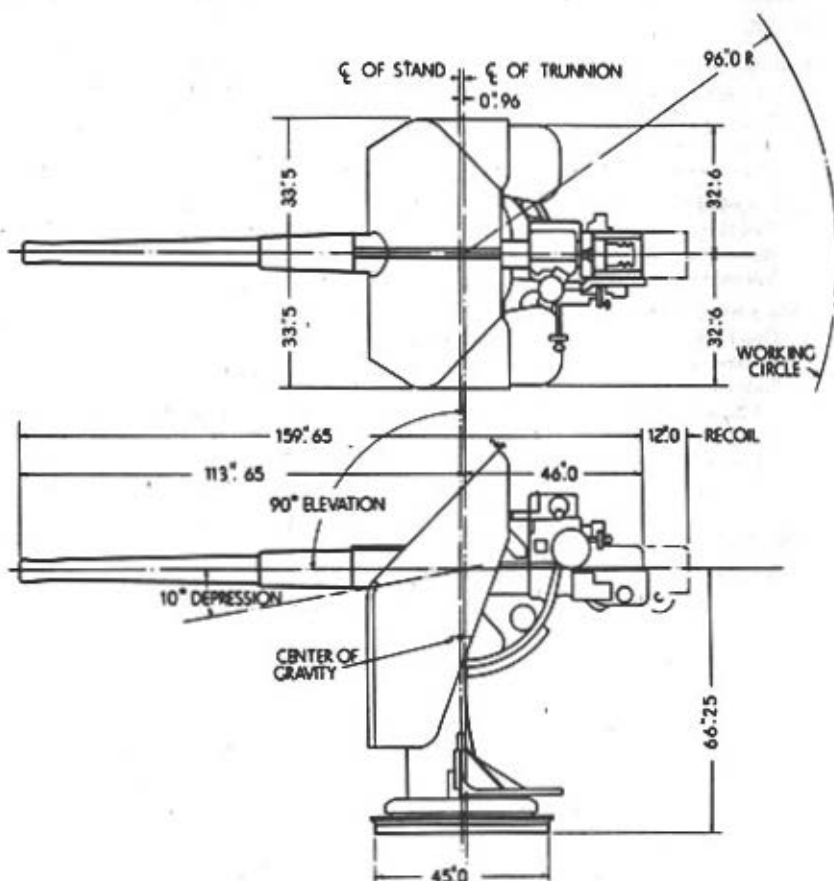
Gun elevation per turn of the handwheel is 2.99°. Gun train per turn of the handwheel is 3.085°.

Length of recoil is 10 inches.

**3-IN. MOUNT, MARK 11 MOD. 5****3-IN. 50-CAL., D. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE**

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 314          | 54429         |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SPRAY SHIELD

TOTAL WEIGHT OF ASSEMBLY  
SHIELD WEIGHT  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 90° ELEV. FIRE

MK. 10 MOD. 0  
DMS-PC

MK. 11 MOD. 0

Weights below are approximate

7,860 LBS.

727 LBS.

4,950 LBS.

2,650 LBS.

20,000 LBS.

20,600 LBS.

24,950 LBS.

**3"/50, MARK 11 MOD. 5**

# 3-IN. MOUNT, MARK 11 MOD. 5

3-IN. 50-CAL., D. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuit: Mk. 5 Mod. 0  
Gun Firing 120 V. D. C.  
Illumination—Battery 6 V. 100 A. H.  
Solenoid—Mk. 5 Mod 1 3 Amps.

### HYDRAULIC

Recoil Fluid O. D. 1914 7.89 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 50-Cal. Mk. 10 Mod. 0  
Max. Powder Pressure 17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism) 2,568 Lbs.

### BALLISTICS

Muzzle Velocity 2,700 Feet per Second  
Max. Altitude 29,900 Feet at 90° Elev.  
Max. Range 14,600 Yards at 45° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

|                |               |                |
|----------------|---------------|----------------|
| A. A.          | Mk. 27        | Wt. 13.05 Lbs. |
| Illuminating   | Mk. 25 Mod. 1 | Wt. 13.07 Lbs. |
| Armor Piercing | Mk. 29        | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7.0 Lbs.  |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

Charge Nominal Wt. 4 Lbs.

Primer Mk. 14 Mods. 0, 1

Total Weight of Cartridge Appr. 11 Lbs.

### FUZE SETTER

Hand Wrench

### OPERATING SELECTION

Manual Drive

### PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 119       |        |
| Working Circle Drawing No.      | 133222 |
| General Arrangement Drawing No. | 133221 |

### REMARKS

Elevation limits are minus 10° to plus 90°. Maximum training limit is 360°.

The rate of elevation per turn of the handwheel is 2.99°

The rate of training per turn of the handwheel is 3.085°

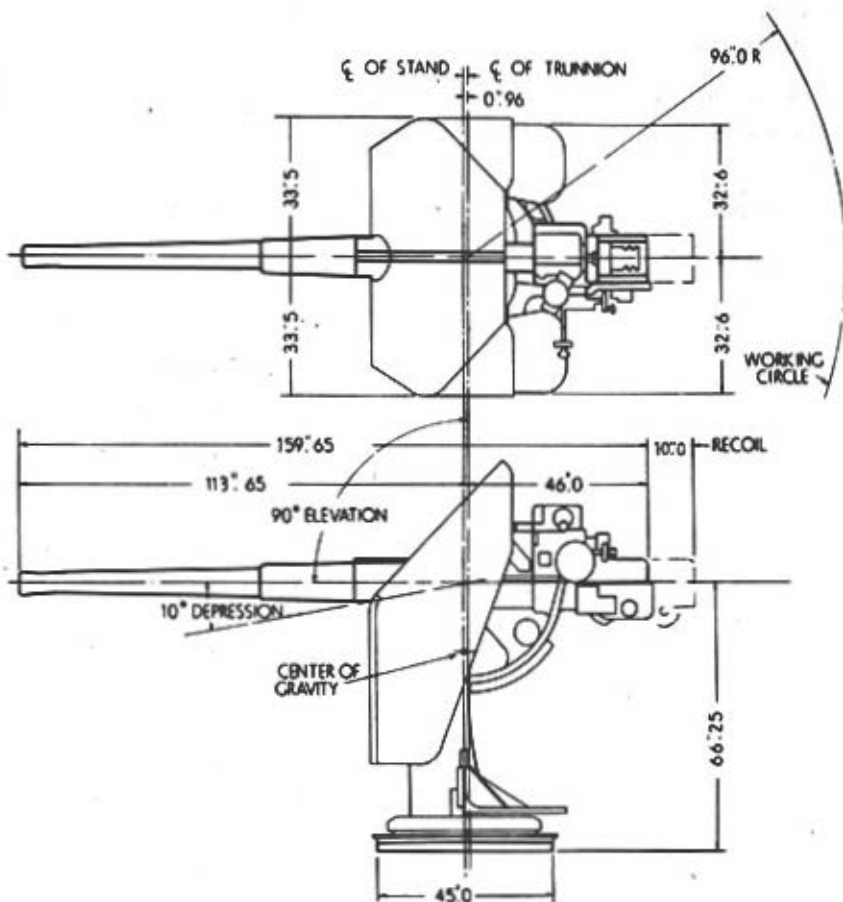
Length of recoil is 12 inches.



**3-IN. MOUNT, MARK 11 MOD. 6****3-IN. 50-CAL., D. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 315          | 54431         |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SPRAY SHIELD

TOTAL WEIGHT OF ASSEMBLY

SHIELD WEIGHT

OSCILLATING WEIGHT

RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 90° ELEV. FIRE

MK. 10 MOD. 0

DMS

MK. 11 MOD. 0

Weights below are approximate

7,890 LBS.

727 LBS.

4,950 LBS.

2,650 LBS.

23,300 LBS.

23,800 LBS.

28,250 LBS.

**3"/50, MARK 11 MOD. 6**

# 3-IN. MOUNT, MARK 11 MOD. 6

3-IN. 50-CAL., D. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuit: Mk. 5 Mod. 0  
Gun Firing 120 V. D. C.  
Illumination—Battery 6 V. 100 A. H.  
Solenoid—Mk. 5 Mod. 1 3 Amps.

### HYDRAULIC

Recoil Fluid O. D. 1914 6.58 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                       |                          |
|---------------------------------------|--------------------------|
| 3-In. 50-Cal.                         | Mk. 10 Mod. 0            |
| Max. Powder Pressure                  | 17 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) | 2,568 Lbs.               |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,700 Feet per Second     |
| Max. Altitude   | 29,900 Feet at 90° Elev.  |
| Max. Range      | 14,600 Yards at 45° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|                |               |                |
|----------------|---------------|----------------|
| A. A.          | Mk. 25 Mod. 1 | Wt. 13.05 Lbs. |
| Illuminating   | Mk. 25 Mod. 1 | Wt. 13.07 Lbs. |
| Armor Piercing | Mk. 25 Mod. 1 | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7.0 Lbs.  |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

|        |                |      |
|--------|----------------|------|
| Charge | Nominal Wt. 4. | Lbs. |
|--------|----------------|------|

|        |                   |  |
|--------|-------------------|--|
| Primer | Mk. 14 Mods. 0, 1 |  |
|--------|-------------------|--|

|                           |           |      |
|---------------------------|-----------|------|
| Total Weight of Cartridge | Appr. 11. | Lbs. |
|---------------------------|-----------|------|

## FUZE SETTER

Hand Wrench

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 119       |        |
| Working Circle Drawing No.      | 133222 |
| General Arrangement Drawing No. | 133221 |

## REMARKS

Elevation limits are minus 10° to plus 90°. Maximum training limit is 360°.

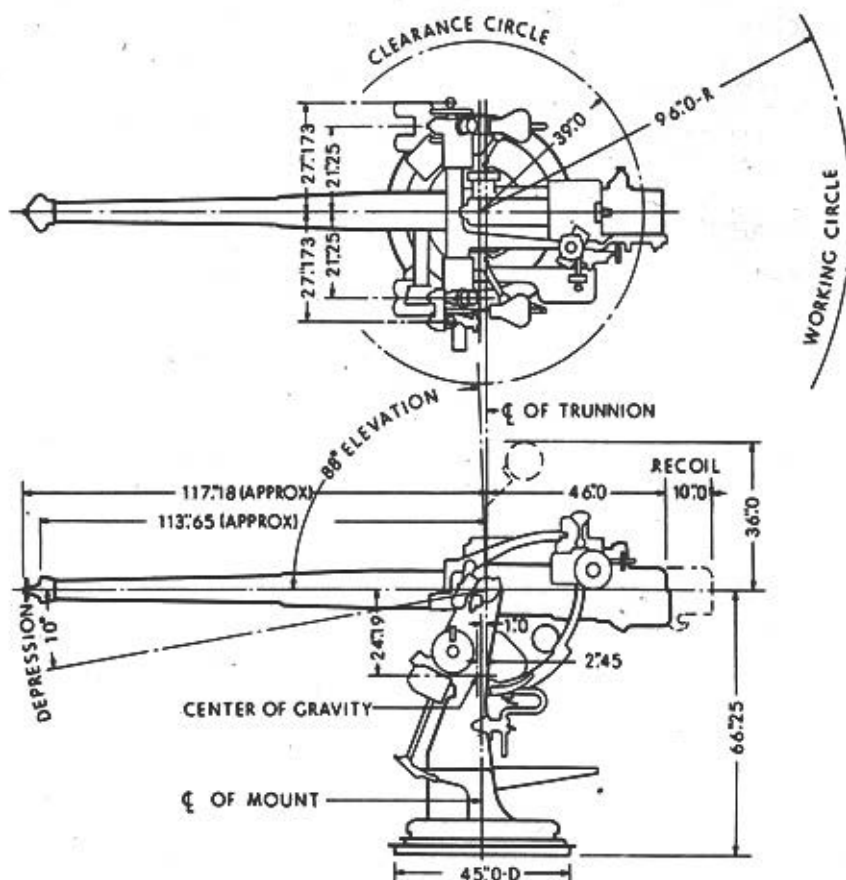
The rate of elevation per turn of the handwheel is 2.99°.  
The rate of training per turn of the handwheel is 3.085°.

Length of recoil is 10 inches.

**3-IN. MOUNT, MARK 11 MOD. 8****3-IN. 50-CAL., D. P., SINGLE, OPEN, WET, PEDESTAL TYPE**

|                     |                        |
|---------------------|------------------------|
| ASSY.<br>NO.<br>320 | SKETCH<br>NO.<br>56518 |
|---------------------|------------------------|

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 88° ELEV. FIRE

MK. 17 MOD. 0  
SS  
NONE

Weights below are approximate  
7,680 LBS.  
3,950 LBS.  
2,620 LBS.  
23,500 LBS.  
24,000 LBS.  
28,500 LBS.

**3"/50, MARK 11 MOD. 8**

# 3-IN. MOUNT, MARK 11 MOD. 8

3-IN. 50-CAL., D. P., SINGLE, OPEN, WET, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      6.58 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                       |                          |
|---------------------------------------|--------------------------|
| 3-In. 50-Cal.                         | Mk. 17 Mod. 0            |
| Max. Powder Pressure                  | 17 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) | 2,568 Lbs.               |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,700 Feet per Second     |
| Max. Altitude   | 29,900 Feet at 88° Elev.  |
| Max. Range      | 14,600 Yards at 45° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|                |               |                |
|----------------|---------------|----------------|
| A. A.          | Mk. 27        | Wt. 13.05 Lbs. |
| Illuminating   | Mk. 25 Mod. 1 | Wt. 13.07 Lbs. |
| Armor Piercing | Mk. 29        | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7.0 Lbs.  |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

Charge      Nominal Wt. 4. Lbs.

Primer      Mk. 14 Mods. 0, 1

Total Weight of Cartridge      Appr. 11. Lbs.

### FUZE SETTER

Hand Wrench

### OPERATING SELECTION

Manual Drive

### PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 119       |        |
| Working Circle Drawing No.      | 151948 |
| General Arrangement Drawing No. | 152281 |

### REMARKS

Elevation limits are minus 10° to plus 88°. Maximum training limit is 360°.

The rate of elevation per turn of the handwheel is 2.99°. The rate of training per turn of the handwheel is 3.085°.

Length of recoil is 10 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

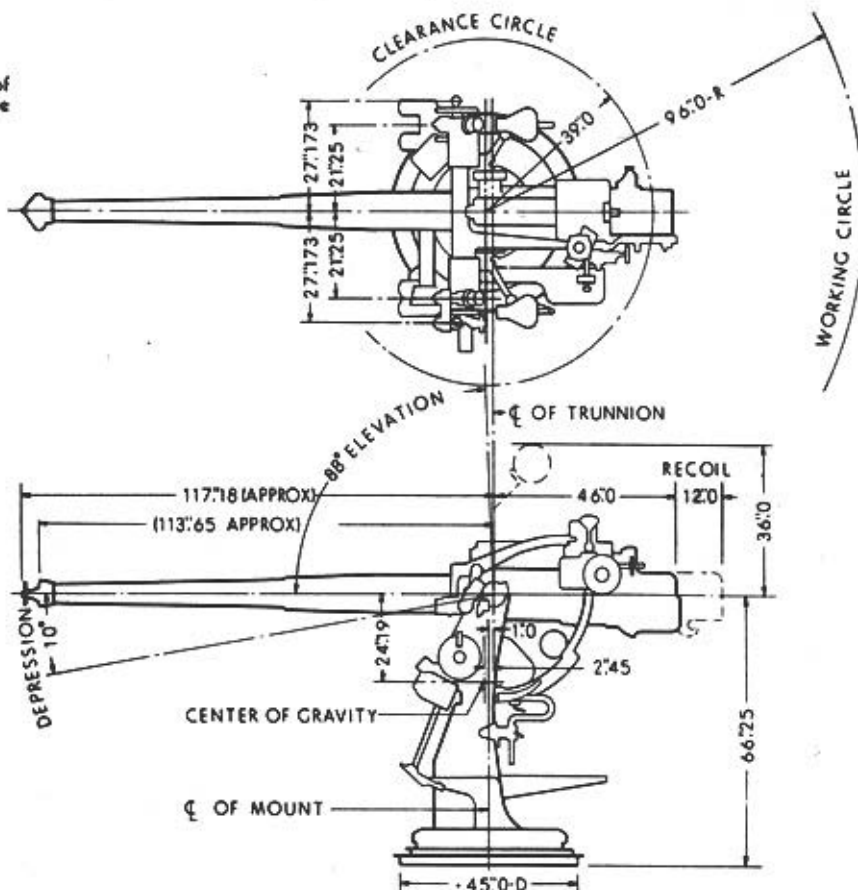
3"/50, MARK 11 MOD. 8



**3-IN. MOUNT, MARK 11 MOD. 9****3-IN. 50-CAL., D. P., SINGLE, OPEN, WET, PEDESTAL TYPE**

|                     |                        |
|---------------------|------------------------|
| ASSY.<br>NO.<br>328 | SKETCH<br>NO.<br>62051 |
|---------------------|------------------------|

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 88° ELEV. FIRE

MK. 17 MOD. 1  
SS  
NONE

Weights below are approximate  
7,710 LBS.  
4,010 LBS.  
2,600 LBS.  
20,170 LBS.  
20,600 LBS.  
24,170 LBS.

**3"/50, MARK 11 MOD. 9**

# 3-IN. MOUNT, MARK 11 MOD. 9

3-IN. 50-CAL., D. P., SINGLE, OPEN, WET, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      7.89 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 50-Cal.      Mk. 17 Mod. 1  
Max. Powder Pressure      17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism)      2,547 Lbs.

### BALLISTICS

Muzzle Velocity      2,700 Feet per Second  
Max. Altitude      29,900 Feet at 88° Elev.  
Max. Range      14,600 Yards at 45° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

|                |               |                |
|----------------|---------------|----------------|
| A. A.          | Mk. 27        | Wt. 13.05 Lbs. |
| Illuminating   | Mk. 25 Mod. 1 | Wt. 13.07 Lbs. |
| Armor Piercing | Mk. 29        | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7.0 Lbs.  |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

Charge      Nominal Wt. 4 Lbs.

Primer      Mk. 14 Mods. 0, 1

Total Weight of Cartridge      Appr. 11 Lbs.

### FUZE SETTER

Hand Wrench

### OPERATING SELECTION

Manual Drive

### PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 119       |        |
| Working Circle Drawing No.      | 151948 |
| General Arrangement Drawing No. | 152281 |

### REMARKS

Elevation limits are minus 10° to plus 88°. Maximum training limit is 360°.

The rate of elevation per turn of the handwheel is 2.99°.

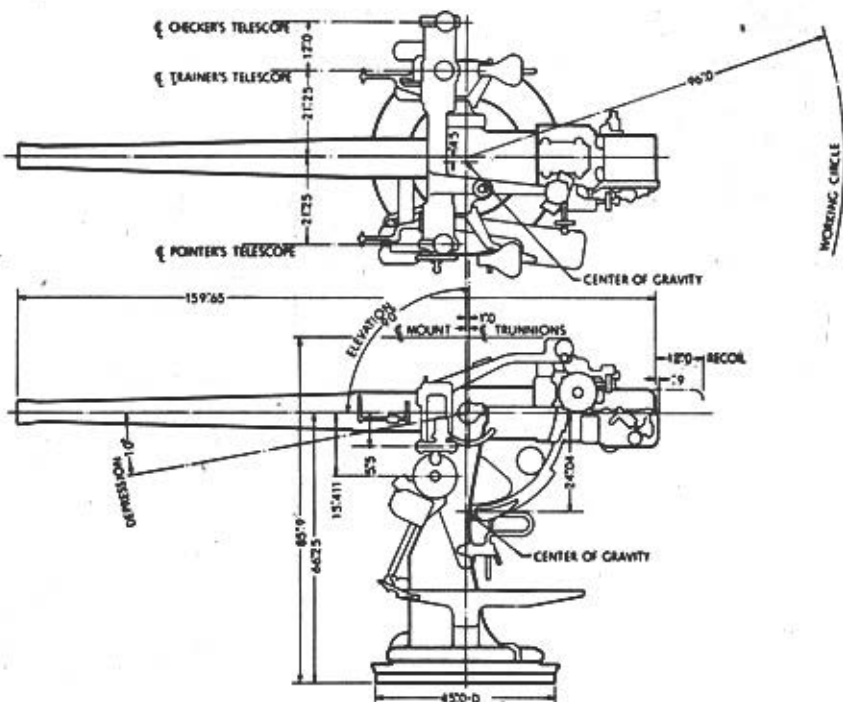
The rate of training per turn of the handwheel is 3.085°.

Length of recoil is 12 inches.

**3-IN. MOUNT, MARK 11 MOD. 10****3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 463          | 107611        |
| 464          | 107692        |
| 465          | 107701        |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

MK. 10 MODS. 0 OR 2

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

NONE  
Weights below are approximate  
7,520 LBS.  
4,030 LBS.  
2,650 LBS.  
19,710 LBS.  
20,100 LBS.  
23,700 LBS.

**3"/50, MARK 11 MOD. 10**

# 3-IN. MOUNT, MARK 11 MOD. 10

3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

#### Applicable Firing and Lighting Circuits:

Mk. 5 Mod. 10

Gun Firing 120 V. D. C. or A. C.

Illumination—Battery 6 V. 100 A. H.

Solenoid Mk. 5 Mod. 1 (D. C.) 3 Amps.

Mk. 5 Mod. 3 (A. C.) 27.5 Amps. inrush

12.5 Amps. steady

Mk. 6 Mod. 0

Gun Firing and Illumination—Battery 6 V. 100 A. H.

Solenoid Mk. 5 Mod. 5 60 Amps.

### HYDRAULIC

Recoil Fluid O. D. 1914 6.08 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 50-Cal. Mk. 10 Mods. 0 or 2

Max. Powder Pressure 17 Long Tons per Sq. In.

Barrel Weight (inc. breech mechanism) 2,576 Lbs.

### BALLISTICS

Muzzle Velocity 2,700 Feet per Second

Max. Altitude 29,800 Feet at 85° Elev.

Max. Range 14,600 Yards at 45° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

A. A. Mods. of Mk. 27 Wt. 13.05 Lbs.

Illuminating Mk. 25 Mod. 1 Wt. 13.07 Lbs.

Armor Piercing Mods. of Mk. 29 Wt. 13.07 Lbs.

#### Cartridge

Case Mk. 3 Mod. 3 Wt. 7.88 Lbs.

Mk. 7 & Mods. Wt. 7.0 Lbs.

Mk. 9 & Mods. Wt. 6.54 Lbs.

Charge Nominal Wt. 4. Lbs.

Primer Mk. 14 Mods. 0, 1

Total Weight of Cartridge Appr. 11. Lbs.

### FUZE SETTER

Mk. 10 & Mods. or Hand Wrench

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordinance Pamphlet No. 119

Working Circle Drawing No. 250529

General Arrangement Drawing No. 250528

## REMARKS

Elevation limits are minus 10° to plus 85° or 90°. Maximum training limit is 360°

The rate of elevation per turn of the handwheel is 2.99°. The rate of training per turn of the handwheel is 3.085°.

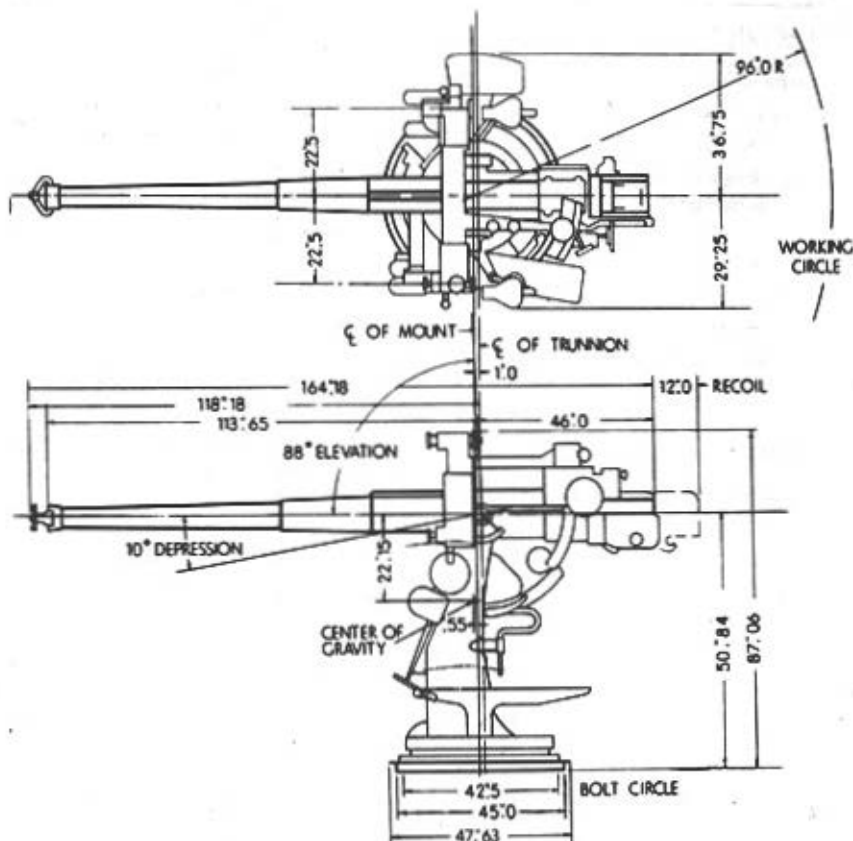
Length of recoil is 12 inches.



**3-IN. MOUNT, MARK 11 MOD. 11****3-IN. 50-CAL., D. P., SINGLE, OPEN, WET, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 355          | 94357         |

Note: Assembly number of mount is required for precise information.



**GUN—3"/50**  
**INSTALLATION FOR**  
**SHIELD**

**MK. 17, MOD. 0**  
**SS**  
**NONE**

**TOTAL WEIGHT OF ASSEMBLY**  
**OSCILLATING WEIGHT**  
**RECOILING WEIGHT**  
**BRAKE LOAD**  
**TRUNNION PRESSURE HORIZ. FIRE**  
**TRUNNION PRESSURE 88° ELEV. FIRE**

Weights below are approximate  
 7,400 LBS.  
 3,980 LBS.  
 2,600 LBS.  
 21,100 LBS.  
 21,400 LBS.  
 24,900 LBS.

**3"/50, MARK 11 MOD. 11**

# 3-IN. MOUNT, MARK 11 MOD. 11

3-IN. 50-CAL., D. P., SINGLE, OPEN, WET, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      7.89 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                       |                          |
|---------------------------------------|--------------------------|
| 3-In. 50-Cal.                         | Mk. 17 Mod. 0            |
| Max. Powder Pressure                  | 17 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) | 2,568 Lbs.               |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,700 Feet per Second     |
| Max. Altitude   | 29,900 Feet at 88° Elev.  |
| Max. Range      | 14,600 Yards at 45° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|                |               |                |
|----------------|---------------|----------------|
| A. A.          | Mk. 27        | Wt. 13.05 Lbs. |
| Illuminating   | Mk. 25 Mod. 1 | Wt. 13.07 Lbs. |
| Armor Piercing | Mk. 29        | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7.0 Lbs.  |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

Charge      Nominal Wt. 4 Lbs.

Primer      Mk. 14 Mods. 0, 1

Total Weight of Cartridge      Appr. 11 Lbs.

## FUZE SETTER

Hand Wrench

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 119       |        |
| Working Circle Drawing No.      | 238497 |
| General Arrangement Drawing No. | 238498 |

## REMARKS

Elevation limits are minus 10° to plus 88°. Maximum training limit is 360°.

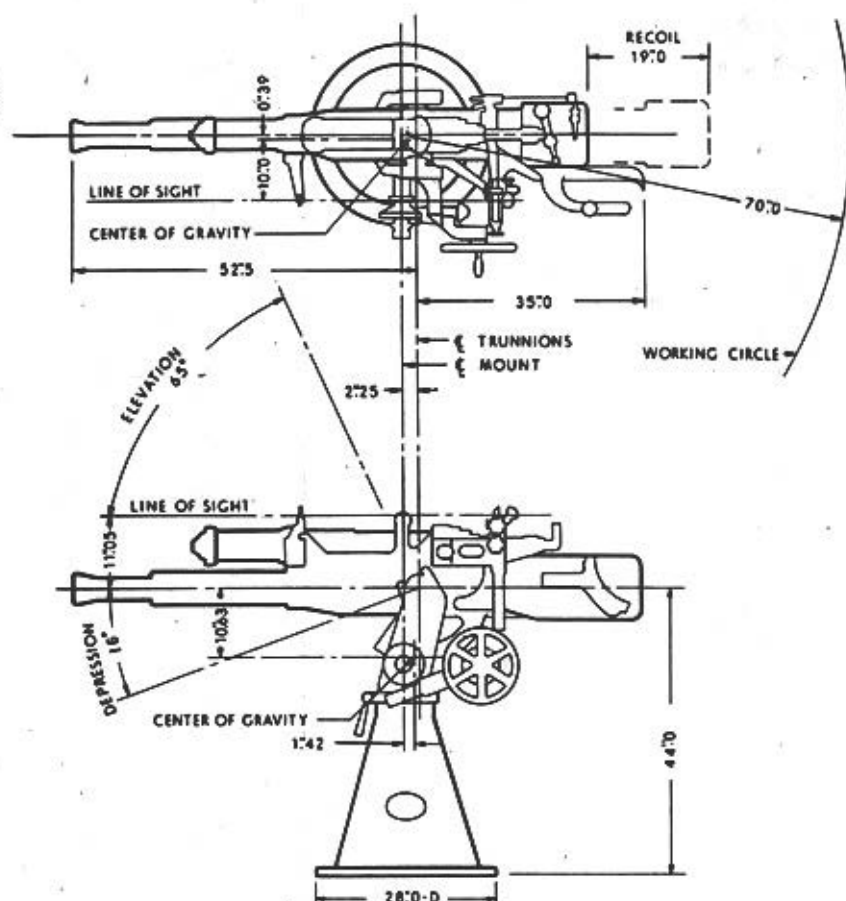
The rate of elevation per turn of the handwheel is 2.99°. The rate of training per turn of the handwheel is 3.085°.

Length of recoil is 12 inches.

**3-IN. MOUNT, MARK 14 MOD. 0****3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 125          | 12003         |

Note: Assembly number of mount is required for precise information.



GUN—3"/23  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 65° ELEV. FIRE

MK. 14 MOD. 0  
AUXILIARIES  
NONE

Weights below are approximate  
1,510 LBS.  
960 LBS.  
600 LBS.  
14,710 LBS.  
14,750 LBS.  
15,340 LBS.

**3"/23, MARK 14 MOD. 0**

# 3-IN. MOUNT, MARK 14 MOD. 0

3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid                      O. D. 1914                      4.56 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 23-Cal.                                              Mk. 14 Mod. 0  
Max. Powder Pressure                      13 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism)                      593 Lbs.

### BALLISTICS

Muzzle Velocity                      1,650 Feet per Second  
Max. Altitude                      16,000 Feet at 65° Elev.  
Max. Range                      10,100 Yards at 45° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

|              |                   |               |
|--------------|-------------------|---------------|
| A. A.        | Mk. 26 Mods: 1, 2 | Wt. 12.9 Lbs. |
| Common       | Mk. 3 Mod. 7      | Wt. 13.0 Lbs. |
| Illuminating | Mods. of Mk. 22   | Wt. 13.0 Lbs. |
| Illuminating | Mk. 28 Mod. 1     | Wt. 13.0 Lbs. |

#### Cartridge

|                           |              |                      |
|---------------------------|--------------|----------------------|
| Case                      | Mk. 2 Mod. 0 | Wt. 2.2 Lbs.         |
| Charge                    |              | Nominal Wt. 1.3 Lbs. |
| Primer                    | Mk. 2 Mod. 9 |                      |
| Total Weight of Cartridge |              | Appr. 3.6 Lbs.       |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 128       |        |
| Working Circle Drawing No.      | 245676 |
| General Arrangement Drawing No. | 238907 |

## REMARKS

Elevation limits are minus 15° to plus 65°. Maximum training limit is 360°.

Length of recoil is 19 inches.

This is referred to as a "Boat Gun."

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

3"/23, MARK 14 MOD. 0

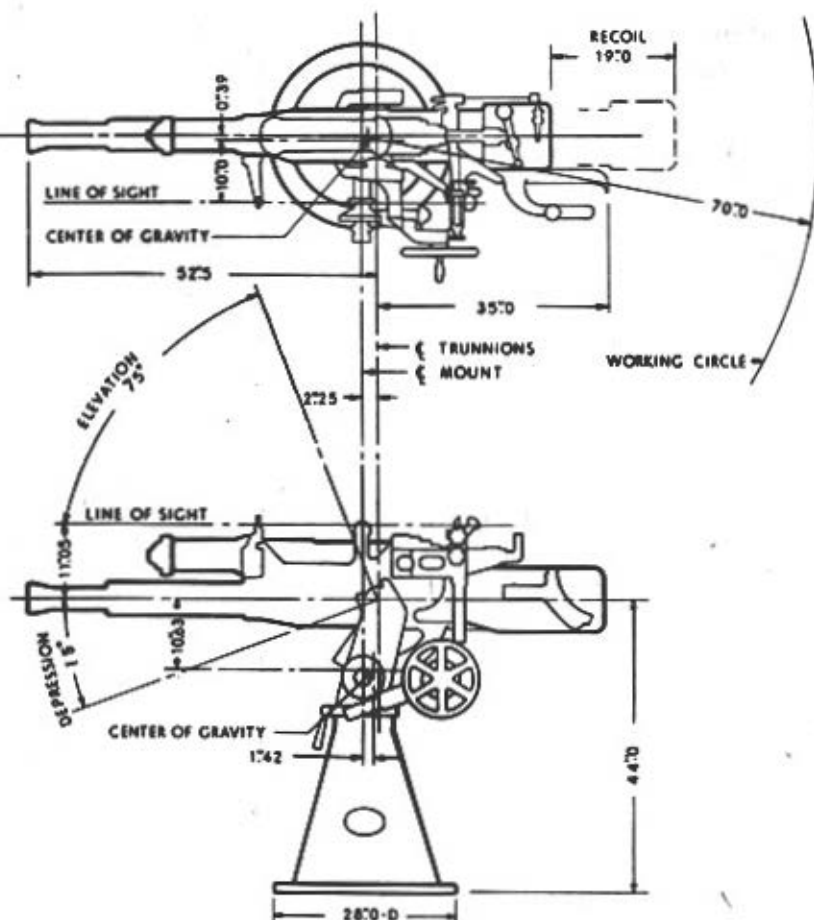


# 3-IN. MOUNT, MARK 14 MOD. 1

## 3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 134          | 12056         |
| 298          | 13571         |

Note: Assembly number of mount is required for precise information.



GUN—3"/23  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 75° ELEV. FIRE

MK. 14 MOD. 0  
AUXILIARIES  
NONE

Weights below are approximate  
1,600 LBS.  
960 LBS.  
600 LBS.  
14,710 LBS.  
14,750 LBS.  
15,340 LBS.

3"/23, MARK 14 MOD. 1

# 3-IN. MOUNT, MARK 14 MOD. 1

3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      4.56 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 23-Cal.      Mk. 14 Mod. 0  
Max. Powder Pressure      13 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism)      593 Lbs.

### BALLISTICS

Muzzle Velocity      1,650 Feet per Second  
Max. Altitude      18,000 Feet at 75° Elev.  
Max. Range      10,100 Yards at 45° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

|              |                   |               |
|--------------|-------------------|---------------|
| A. A.        | Mk. 26 Mods. 1, 2 | Wt. 12.9 Lbs. |
| Common       | Mk. 3 Mod. 7      | Wt. 13.0 Lbs. |
| Illuminating | Mods. of Mk. 22   | Wt. 13.0 Lbs. |
| Illuminating | Mk. 28 Mod. 1     | Wt. 13.0 Lbs. |

#### Cartridge

|                           |              |                      |
|---------------------------|--------------|----------------------|
| Case                      | Mk. 2 Mod. 0 | Wt. 2.2 Lbs.         |
| Charge                    |              | Nominal Wt. 1.3 Lbs. |
| Primer                    | Mk. 2 Mod. 9 |                      |
| Total Weight of Cartridge |              | Appr. 3.6 Lbs.       |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 128       |        |
| Working Circle Drawing No.      | 245676 |
| General Arrangement Drawing No. | 238907 |

## REMARKS

Elevation limits are minus 15° to plus 75°. Maximum training limit is 360°.

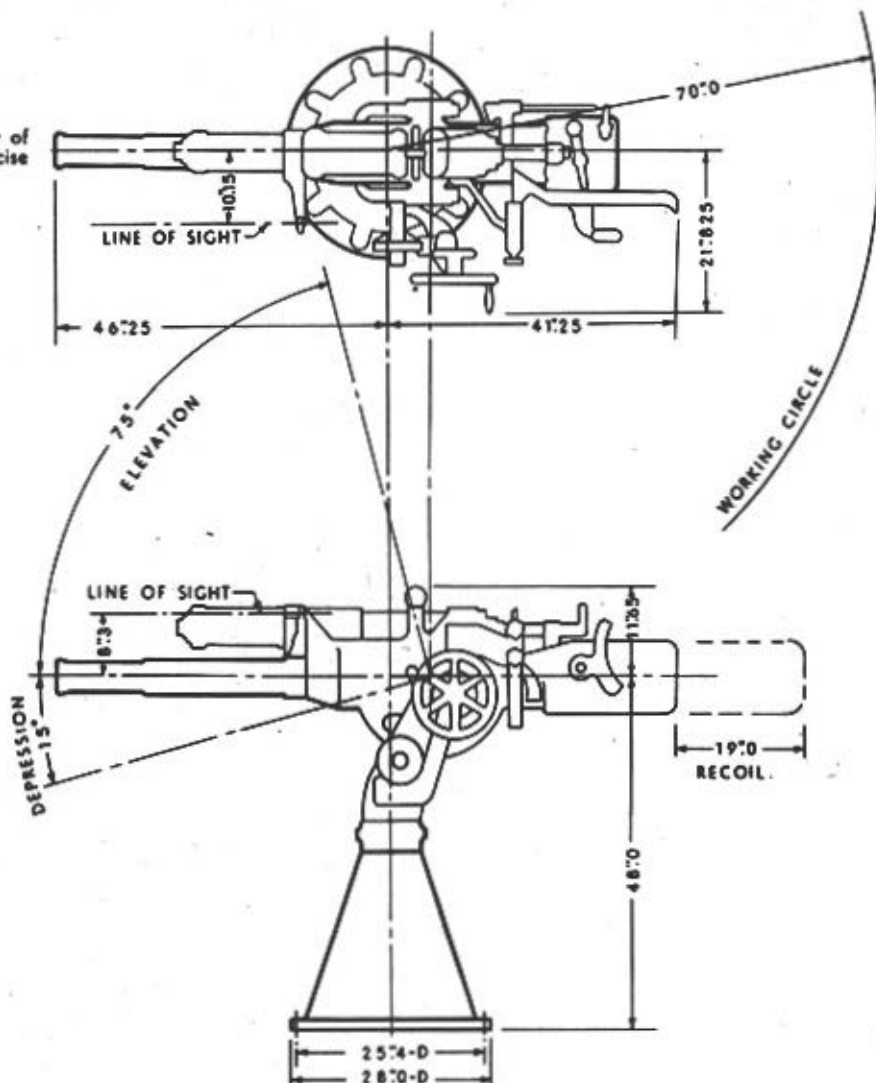
Length of recoil is 19 inches.

This is referred to as a "Boat Gun."

**3-IN. MOUNT, MARK 14 MOD. 2****3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 299          | 13910         |
| 349          | 93071         |
| 401          | 102838        |

Note: Assembly number of mount is required for precise information.



GUN—3"/23  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 75° ELEV. FIRE

MK. 14 MOD. 0  
AUX.—DD  
NONE

Weights below are approximate  
1,600 OR 2,000 LBS.  
960 OR 980 LBS.  
600 LBS.  
14,230 LBS.  
14,270 LBS.  
15,190 LBS.

**3"/23, MARK 14 MOD. 2**

# 3-IN. MOUNT, MARK 14 MOD. 2

3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid                      O. D. 1914                      4.56 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                       |                          |
|---------------------------------------|--------------------------|
| 3-In. 23-Cal.                         | Mk. 14 Mod. 0            |
| Max. Powder Pressure                  | 13 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) | 593 Lbs.                 |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 1,650 Feet per Second     |
| Max. Altitude   | 18,000 Feet at 75° Elev.  |
| Max. Range      | 10,100 Yards at 45° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|              |                   |               |
|--------------|-------------------|---------------|
| A. A.        | Mk. 26 Mods. 1, 2 | Wt. 12.9 Lbs. |
| Common       | Mk. 3 Mod. 7      | Wt. 13.0 Lbs. |
| Illuminating | Mods. of Mk. 22   | Wt. 13.0 Lbs. |
| Illuminating | Mk. 28 Mod. 1     | Wt. 13.0 Lbs. |

#### Cartridge

|                           |              |                      |
|---------------------------|--------------|----------------------|
| Case                      | Mk. 2 Mod. 0 | Wt. 2.2 Lbs.         |
| Charge                    |              | Nominal Wt. 1.3 Lbs. |
| Primer                    | Mk. 2 Mod. 9 |                      |
| Total Weight of Cartridge |              | Appr. 3.6 Lbs.       |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Ordnance Pamphlet No. 128       |       |
| Working Circle Drawing No.      | 94470 |
| General Arrangement Drawing No. | 94469 |

## REMARKS

Elevation limits are minus 15° to plus 75°. Maximum training limit is 360°

Length of recoil is 19 inches.

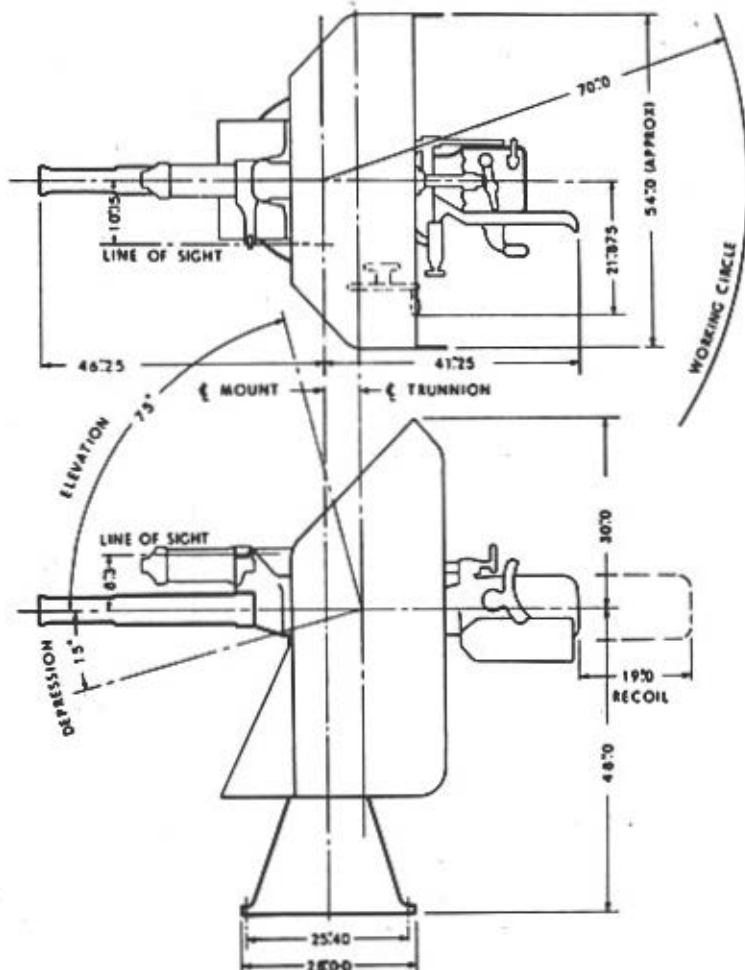
This is referred to as a "Boat Gun."



**3-IN. MOUNT, MARK 14 MOD. 3****3-IN. 23-CAL., D. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE**

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 313          | 54426         |

Note: Assembly number of mount is required for precise information.



GUN—3"/23  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
SHIELD WEIGHT  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 75° ELEV. FIRE

MK. 14 MOD. 0  
CHPR

MK. 10 MOD. 0

Weights below are approximate

2,090 LBS.

420 LBS.

1,440 LBS.

600 LBS.

14,710 LBS.

14,800 LBS.

16,100 LBS.

**3"/23, MARK 14 MOD. 3**

# 3-IN. MOUNT, MARK 14 MOD. 3

3-IN. 23-CAL., D. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      4.56 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 23-Cal.      Mk. 14 Mod. 0  
Max. Powder Pressure      13 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism)      593 Lbs.

### BALLISTICS

Muzzle Velocity      1,650 Feet per Second  
Max. Altitude      18,000 Feet at 75° Elev.  
Max. Range      10,100 Yards at 45° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

|              |                   |               |
|--------------|-------------------|---------------|
| A. A.        | Mk. 26 Mods. 1, 2 | Wt. 12.9 Lbs. |
| Common       | Mk. 3 Mod. 7      | Wt. 13.0 Lbs. |
| Illuminating | Mods. of Mk. 22   | Wt. 13.0 Lbs. |
| Illuminating | Mk. 28 Mod. 1     | Wt. 13.0 Lbs. |

#### Cartridge

|                           |              |                      |
|---------------------------|--------------|----------------------|
| Case                      | Mk. 2 Mod. 0 | Wt. 2.2 Lbs.         |
| Charge                    |              | Nominal Wt. 1.3 Lbs. |
| Primer                    | Mk. 2 Mod. 9 |                      |
| Total Weight of Cartridge |              | Appr. 3.6 Lbs.       |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 128       |        |
| Working Circle Drawing No.      | 133211 |
| General Arrangement Drawing No. | 94469  |

## REMARKS

Elevation limits are minus 15° to plus 75°. Maximum training limit is 360°.

Length of recoil is 19 inches.

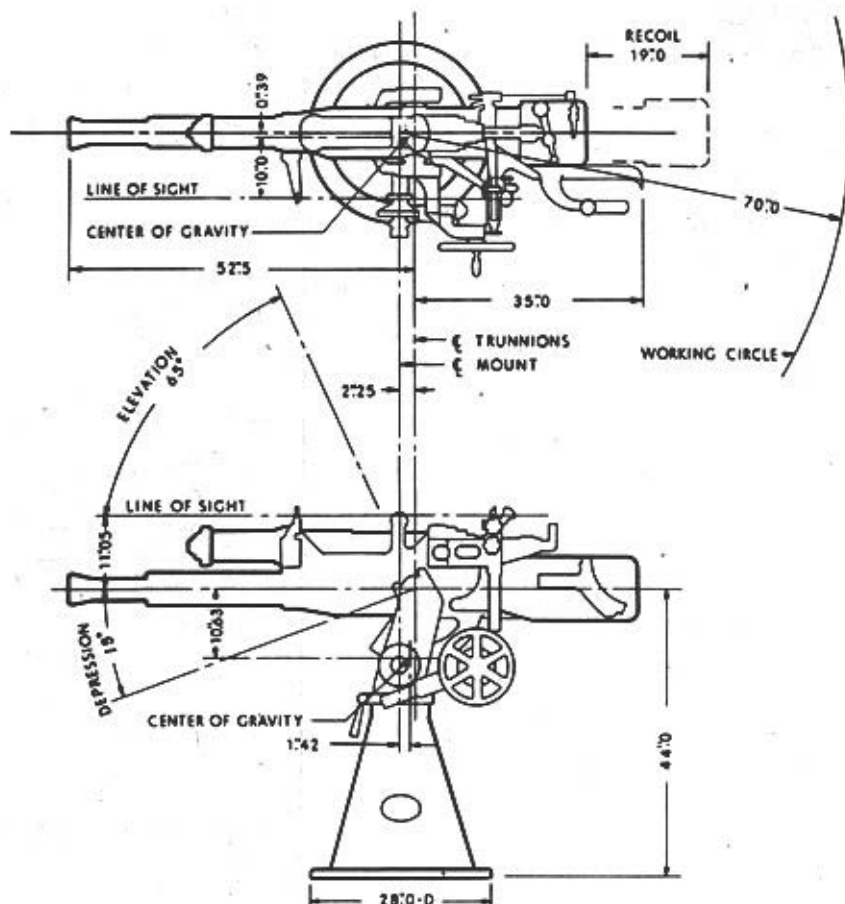
This is referred to as a "Boat Gun."

# 3-IN. MOUNT, MARK 14 MOD. 4

## 3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 317          | 54940         |

Note: Assembly number of mount is required for precise information.



GUN—3"/23  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 65° ELEV. FIRE

MK. 14 MOD. 0  
GPC  
NONE

Weights below are approximate  
1,530 LBS.  
960 LBS.  
600 LBS.  
14,710 LBS.  
14,750 LBS.  
15,340 LBS.

3"/23, MARK 14 MOD. 4

# 3-IN. MOUNT, MARK 14 MOD. 4

3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

|              |            |           |
|--------------|------------|-----------|
| Recoil Fluid | O. D. 1914 | 4.56 Qts. |
|--------------|------------|-----------|

## GUN AND AMMUNITION DATA

### GUN

|                                       |                          |
|---------------------------------------|--------------------------|
| 3-In. 23-Cal.                         | Mk. 14 Mod. 0            |
| Max. Powder Pressure                  | 13 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) | 593 Lbs.                 |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 1,650 Feet per Second     |
| Max. Altitude   | 16,000 Feet at 65° Elev.  |
| Max. Range      | 10,100 Yards at 45° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|              |                   |               |
|--------------|-------------------|---------------|
| A. A.        | Mk. 26 Mods. 1, 2 | Wt. 12.9 Lbs. |
| Common       | Mk. 3 Mod. 7      | Wt. 13.0 Lbs. |
| Illuminating | Mods. of Mk. 22   | Wt. 13.0 Lbs. |
| Illuminating | Mk. 28 Mod. 1     | Wt. 13.0 Lbs. |

#### Cartridge

|                           |              |                      |
|---------------------------|--------------|----------------------|
| Case                      | Mk. 2 Mod. 0 | Wt. 2.2 Lbs.         |
| Charge                    |              | Nominal Wt. 1.3 Lbs. |
| Primer                    | Mk. 2 Mod. 9 |                      |
| Total Weight of Cartridge |              | Appr. 3.6 Lbs.       |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 128       |        |
| Working Circle Drawing No.      | 245676 |
| General Arrangement Drawing No. | 238907 |

## REMARKS

Elevation limits are minus 15° to plus 65°. Maximum training limit is 360°

Length of recoil is 19 inches.

This is referred to as a "Boat Gun."

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

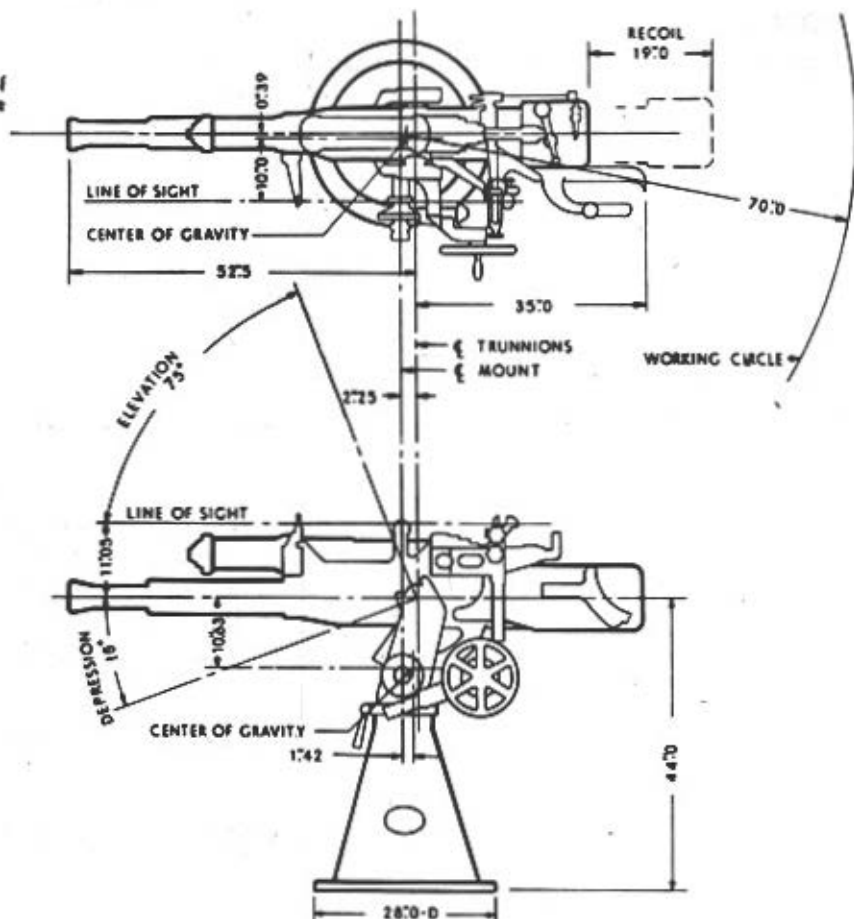
3"/23, MARK 14 MOD. 4



**3-IN. MOUNT, MARK 14 MOD. 5****3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 318          | 54941         |

Note: Assembly number of mount is required for precise information.



GUN—3"/23  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 75° ELEV. FIRE

MARK 14 MOD. 0  
GPC  
NONE

Weights below are approximate

|  |             |
|--|-------------|
|  | 1,610 LBS.  |
|  | 960 LBS.    |
|  | 600 LBS.    |
|  | 14,710 LBS. |
|  | 14,750 LBS. |
|  | 15,340 LBS. |

**3"/23, MARK 14 MOD. 5**

# 3-IN. MOUNT, MARK 14 MOD. 5

3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid                      O. D. 1914                      4.56 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                       |                          |
|---------------------------------------|--------------------------|
| 3-In. 23-Cal.                         | Mk. 14 Mod. 0            |
| Max. Powder Pressure                  | 13 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) | 593 Lbs.                 |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 1,650 Feet per Second     |
| Max. Altitude   | 18,000 Feet at 75° Elev.  |
| Max. Range      | 10,100 Yards at 45° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|              |                   |               |
|--------------|-------------------|---------------|
| A. A.        | Mk. 26 Mods. 1, 2 | Wt. 12.9 Lbs. |
| Common       | Mk. 3 Mod. 7      | Wt. 13.0 Lbs. |
| Illuminating | Mods. of Mk. 22   | Wt. 13.0 Lbs. |
| Illuminating | Mk. 28 Mod. 1     | Wt. 13.0 Lbs. |

#### Cartridge

|                           |              |                      |
|---------------------------|--------------|----------------------|
| Case                      | Mk. 2 Mod. 0 | Wt. 2.2 Lbs.         |
| Charge                    |              | Nominal Wt. 1.3 Lbs. |
| Primer                    | Mk. 2 Mod. 9 |                      |
| Total Weight of Cartridge |              | Appr. 3.6 Lbs.       |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 128       |        |
| Working Circle Drawing No.      | 245676 |
| General Arrangement Drawing No. | 238907 |

## REMARKS

Elevation limits are minus 15° to plus 75°. Maximum training limit is 360°.

Length of recoil is 19 inches.

This is referred to as a "Boat Gun."

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

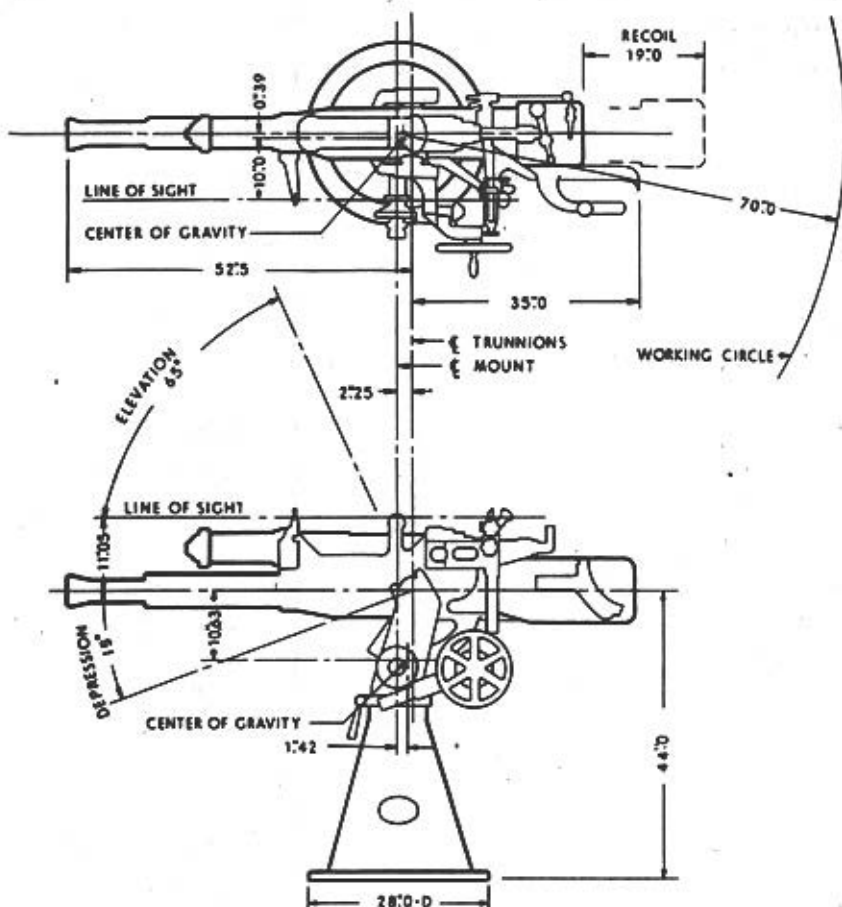
3"/23, MARK 14 MOD. 5

# 3-IN. MOUNT, MARK 14 MOD. 7

## 3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 327          | 61961         |

Note: Assembly number of mount is required for precise information.



GUN—3"/23  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 65° ELEV. FIRE

MK. 14 MOD. 0  
COAO  
NONE

Weights below are approximate  
1,520 LBS.  
960 LBS.  
600 LBS.  
14,710 LBS.  
14,750 LBS.  
15,340 LBS.

### 3"/23, MARK 14 MOD. 7

# 3-IN. MOUNT, MARK 14 MOD. 7

3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid                      O. D. 1914                      4.56 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 23-Cal.                      Mk. 14 Mod. 0  
Max. Powder Pressure                      13 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism)                      593 Lbs.

### BALLISTICS

Muzzle Velocity                      1,650 Feet per Second  
Max. Altitude                      16,000 Feet at 65° Elev.  
Max. Range                      10,100 Yards at 45° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

|              |                   |               |
|--------------|-------------------|---------------|
| A. A.        | Mk. 26 Mods. 1, 2 | Wt. 12.9 Lbs. |
| Common       | Mk. 3 Mod. 7      | Wt. 13.0 Lbs. |
| Illuminating | Mods. of Mk. 22   | Wt. 13.0 Lbs. |
| Illuminating | Mk. 28 Mod. 1     | Wt. 13.0 Lbs. |

#### Cartridge

|                           |              |                      |
|---------------------------|--------------|----------------------|
| Case                      | Mk. 2 Mod. 0 | Wt. 2.2 Lbs.         |
| Charge                    |              | Nominal Wt. 1.3 Lbs. |
| Primer                    | Mk. 2 Mod. 9 |                      |
| Total Weight of Cartridge |              | Appr. 3.6 Lbs.       |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 128       |        |
| Working Circle Drawing No.      | 245676 |
| General Arrangement Drawing No. | 238907 |

## REMARKS

Elevation limits are minus 15° to plus 65°. Maximum training limit is 360°.

Length of recoil is 19 inches.

This is referred to as a "Boat Gun."

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

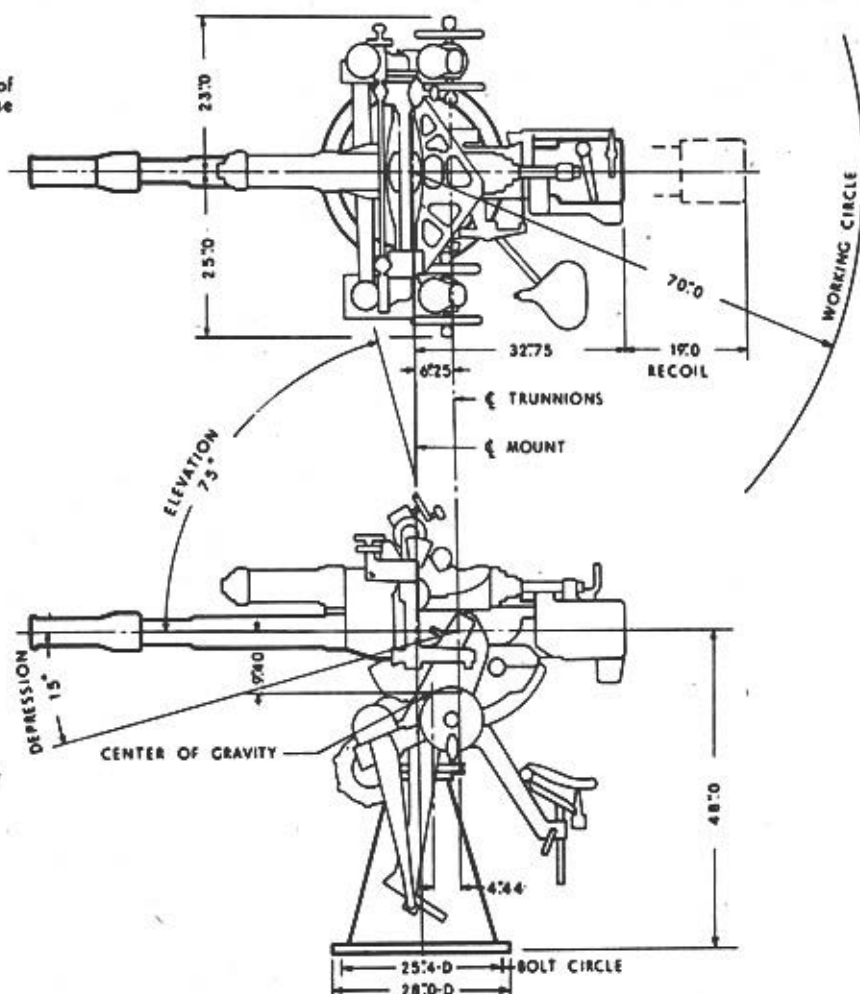
3"/23, MARK 14 MOD. 7



**3-IN. MOUNT, MARK 14 MOD. 8****3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 330          | 62316         |

Note: Assembly number of mount is required for precise information.



GUN—3"/23  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 75° ELEV. FIRE

MARK 14 MOD. 1  
PC-SC  
NONE

Weights below are approximate  
2,520 LBS.  
1,520 LBS.  
730 LBS.  
11,640 LBS.  
11,740 LBS.  
13,130 LBS.

**3"/23, MARK 14 MOD. 8**

# 3-IN. MOUNT, MARK 14 MOD. 8

3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      4.56 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                       |                          |
|---------------------------------------|--------------------------|
| 3-In. 23-Cal.                         | Mk. 14 Mod. 1            |
| Max. Powder Pressure                  | 13 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) | 658 Lbs.                 |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 1,650 Feet per Second     |
| Max. Altitude   | 18,000 Feet at 75° Elev.  |
| Max. Range      | 10,100 Yards at 45° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|              |                   |               |
|--------------|-------------------|---------------|
| A. A.        | Mk. 26 Mods. 1, 2 | Wt. 12.9 Lbs. |
| Common       | Mk. 3 Mod. 7      | Wt. 13.0 Lbs. |
| Illuminating | Mods. of Mk. 22   | Wt. 13.0 Lbs. |
| Illuminating | Mk. 28 Mod. 1     | Wt. 13.0 Lbs. |

#### Cartridge

|                           |              |                      |
|---------------------------|--------------|----------------------|
| Case                      | Mk. 2 Mod. 0 | Wt. 2.2 Lbs.         |
| Charge                    |              | Nominal Wt. 1.3 Lbs. |
| Primer                    | Mk. 2 Mod. 9 |                      |
| Total Weight of Cartridge |              | Appr. 3.6 Lbs.       |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 128        |           |
| Working Circle Drawing No.       | 232255    |
| General Arrangement Drawing Nos. | 232884-86 |
|                                  | 232979    |

## REMARKS

Elevation limits are minus 15° to plus 75°. Maximum training limit is 360°.

Length of recoil is 19 inches.

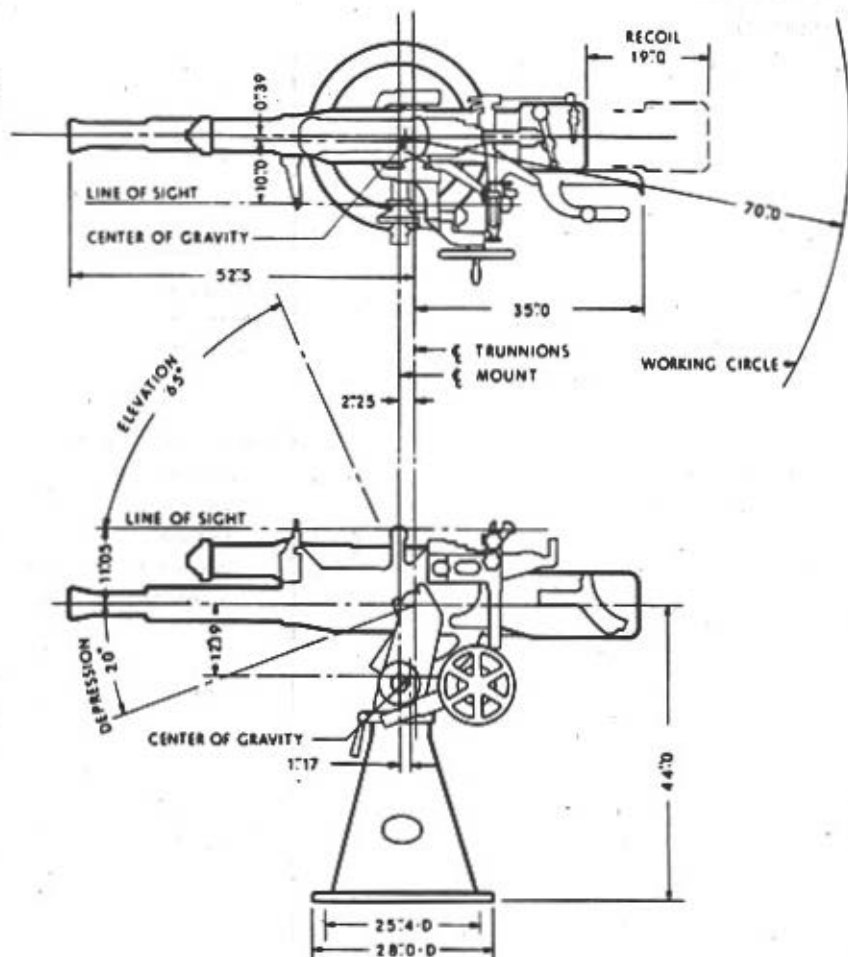
This is referred to as a "Boat Gun."

# 3-IN. MOUNT, MARK 14 MOD. 10

3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 356          | 94362         |

Note: Assembly number of mount is required for precise information.



GUN—3"/23  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 65° ELEV. FIRE

MK. 14 MOD. 0  
GPC-GSC  
NONE

Weights below are approximate.

1,970 LBS.  
960 LBS.  
600 LBS.  
14,000 LBS.  
14,080 LBS.  
15,000 LBS.

3"/23, MARK 14 MOD. 10

# 3-IN. MOUNT, MARK 14 MOD. 10

3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      4.56 Qts.

## GUN AND AMMUNITION DATA.

### GUN

|                                       |                          |
|---------------------------------------|--------------------------|
| 3-In. 23-Cal.                         | Mk. 14 Mod. 0            |
| Max. Powder Pressure                  | 13 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) | 593 Lbs.                 |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 1,650 Feet per Second     |
| Max. Altitude   | 16,000 Feet at 65° Elev.  |
| Max. Range      | 10,100 Yards at 45° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|              |                   |               |
|--------------|-------------------|---------------|
| A. A.        | Mk. 26 Mods. 1, 2 | Wt. 12.9 Lbs. |
| Common       | Mk. 3 Mod. 7      | Wt. 13.0 Lbs. |
| Illuminating | Mods. of Mk. 22   | Wt. 13.0 Lbs. |
| Illuminating | Mk. 28 Mod. 1     | Wt. 13.0 Lbs. |

#### Cartridge

|                           |              |                      |
|---------------------------|--------------|----------------------|
| Case                      | Mk. 2 Mod. 0 | Wt. 2.2 Lbs.         |
| Charge                    |              | Nominal Wt. 1.3 Lbs. |
| Primer                    | Mk. 2 Mod. 9 |                      |
| Total Weight of Cartridge |              | Appr. 3.6 Lbs.       |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 128       |        |
| Working Circle Drawing No.      | 238905 |
| General Arrangement Drawing No. | 238907 |

## REMARKS

Elevation limits are minus 20° to plus 65°. Maximum training limit is 360°.

Length of recoil is 19 inches.

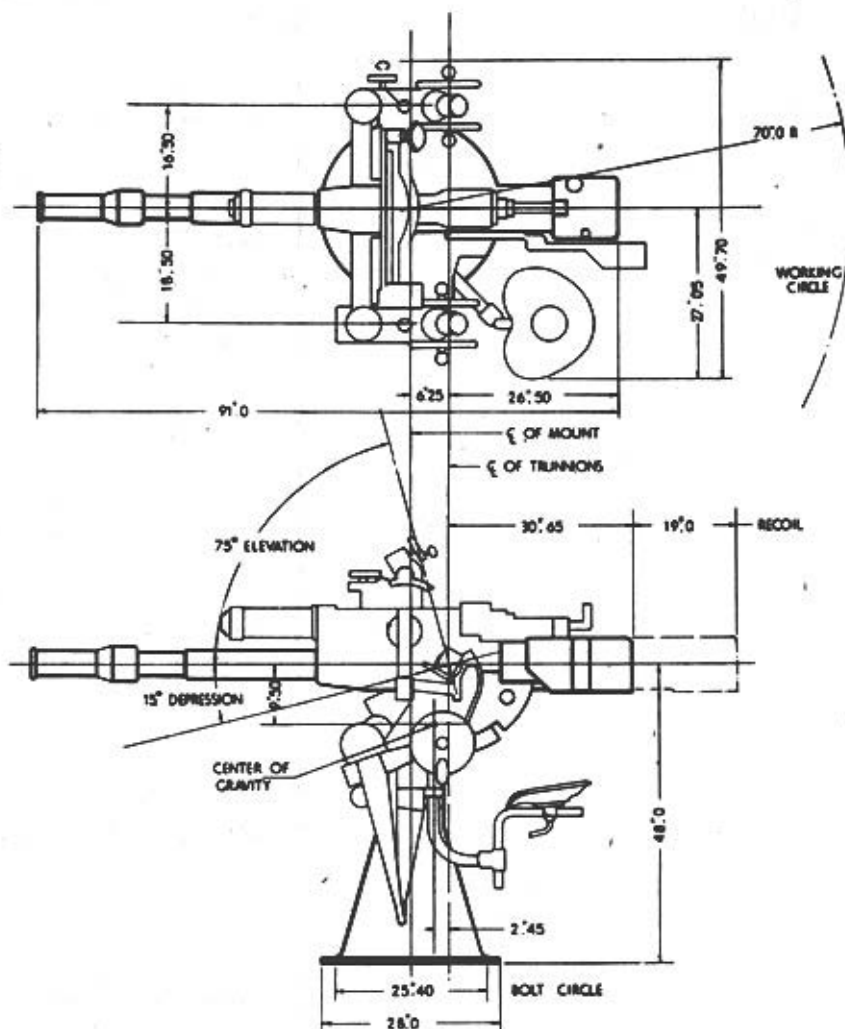
This is referred to as a "Boat Gun."



**3-IN. MOUNT, MARK 14 MOD. 11****3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO | SKETCH<br>NO. |
|-------------|---------------|
| 353         | 93261         |
| 390         | 94843         |
| 391         | 94844         |
| 392         | 94845         |

Note: Assembly number of mount is required for precise information.



GUN—3"/23  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 75° ELEV. FIRE

MARK 14 MOD. 1  
GPC-PC-PY-PYC  
NONE

Weights below are approximate  
2,530 LBS.  
1,520 LBS.  
735 LBS.  
11,440 LBS.  
11,540 LBS.  
12,940 LBS.

**3"/23, MARK 14 MOD. 11**

# 3-IN. MOUNT, MARK 14 MOD. 11

3-IN. 23-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Illumination—Battery 6 V. 50 A. H.

### HYDRAULIC

Recoil Fluid O. D. 1914 4.56 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 23-Cal. Mk. 14 Mod. 1  
Max. Powder Pressure 13 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism) 658 Lbs.

### BALLISTICS

Muzzle Velocity 1,650 Feet per Second  
Max. Altitude 18,000 Feet at 75° Elev.  
Max. Range 10,100 Yards at 45° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

|              |                   |               |
|--------------|-------------------|---------------|
| A. A.        | Mk. 26 Mods. 1, 2 | Wt. 12.9 Lbs. |
| Common       | Mk. 3 Mod. 7      | Wt. 13.0 Lbs. |
| Illuminating | Mods. of Mk. 22   | Wt. 13.0 Lbs. |
| Illuminating | Mk. 28 Mod. 1     | Wt. 13.0 Lbs. |

#### Cartridge

|                           |              |                      |
|---------------------------|--------------|----------------------|
| Case                      | Mk. 2 Mod. 0 | Wt. 2.2 Lbs.         |
| Charge                    |              | Nominal Wt. 1.3 Lbs. |
| Primer                    | Mk. 2 Mod. 9 |                      |
| Total Weight of Cartridge |              | Appr. 3.6 Lbs.       |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 128        |           |
| Working Circle Drawing No.       | 239181    |
| General Arrangement Drawing Nos. | 239177-80 |

## REMARKS

Elevation limits are minus 15° to plus 75°. Maximum training limit is 360°.

Length of recoil is 19 inches.

This is referred to as a "Boat Gun."

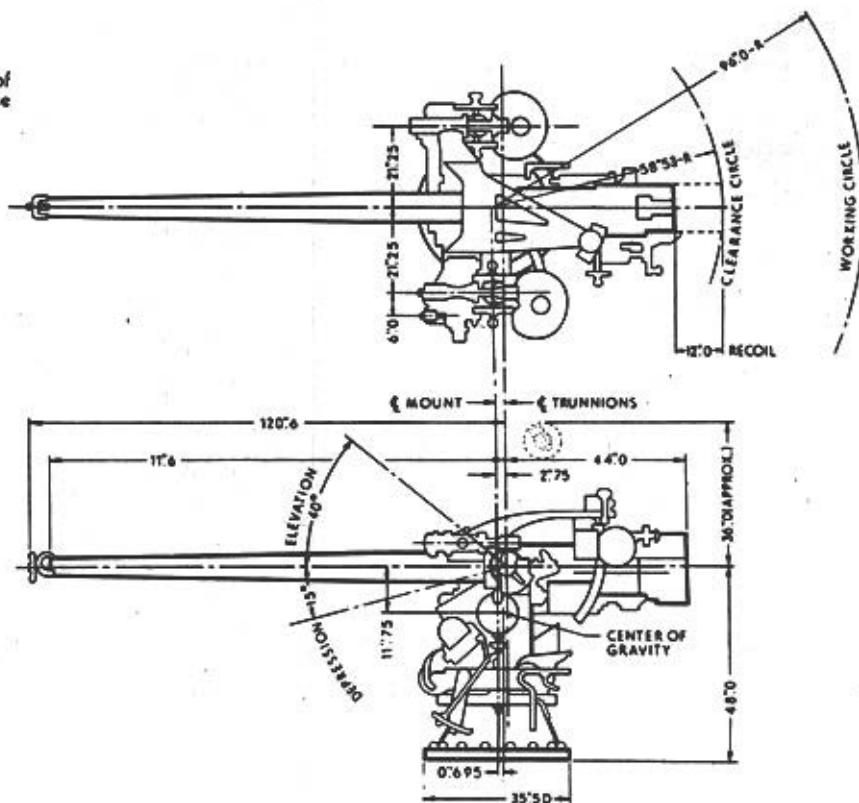
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

3"/23, MARK 14 MOD. 11

**3-IN. MOUNT, MARK 18 MOD. 0****3-IN. 50-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE**

|       |        |
|-------|--------|
| ASSY. | SKETCH |
| NO.   | NO.    |
| 323   | 59257  |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

MARK 19 MOD. 0  
SS  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 40° ELEV. FIRE

Weights below are approximate  
6,500 LBS.  
3,180 LBS.  
2,230 LBS.  
21,150 LBS.  
21,450 LBS.  
23,630 LBS.

**3"/50, MARK 18 MOD. 0**

# 3-IN. MOUNT, MARK 18 MOD. 0

3-IN. 50-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      7.83 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 3-In. 50-Cal.                | Mk. 19 Mod. 0            |
| Max. Powder Pressure         | 17 Long Tons per Sq. In. |
| Weight of Gun and Housing    | 2,166 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,700 Feet per Second     |
| Max. Range      | 10,000 Yards at 40° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|                |                   |                |
|----------------|-------------------|----------------|
| Common         | Mk. 3 Mod. 5      | Wt. 13. Lbs.   |
| Illuminating   | Mk. 25 Mod. 1     | Wt. 13.07 Lbs. |
| Armor Piercing | Mk. 29 Mods. 1, 2 | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7. Lbs.   |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

|                           |                     |
|---------------------------|---------------------|
| Charge                    | Nominal Wt. 4. Lbs. |
| Primer                    | Mk. 14 Mods. 0, 1   |
| Total Weight of Cartridge | Appr. 11. Lbs.      |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 761        |           |
| Working Circle Drawing No.       | 196582    |
| General Arrangement Drawing Nos. | 205924-28 |
|                                  | 205932    |

## REMARKS

Elevation limits are minus 15° to plus 40°. Maximum training limit is 360°.

The rate of elevation per turn of the handwheel is 3°. The rate of training per turn of the handwheel is 2.7°.

Length of recoil is 12 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

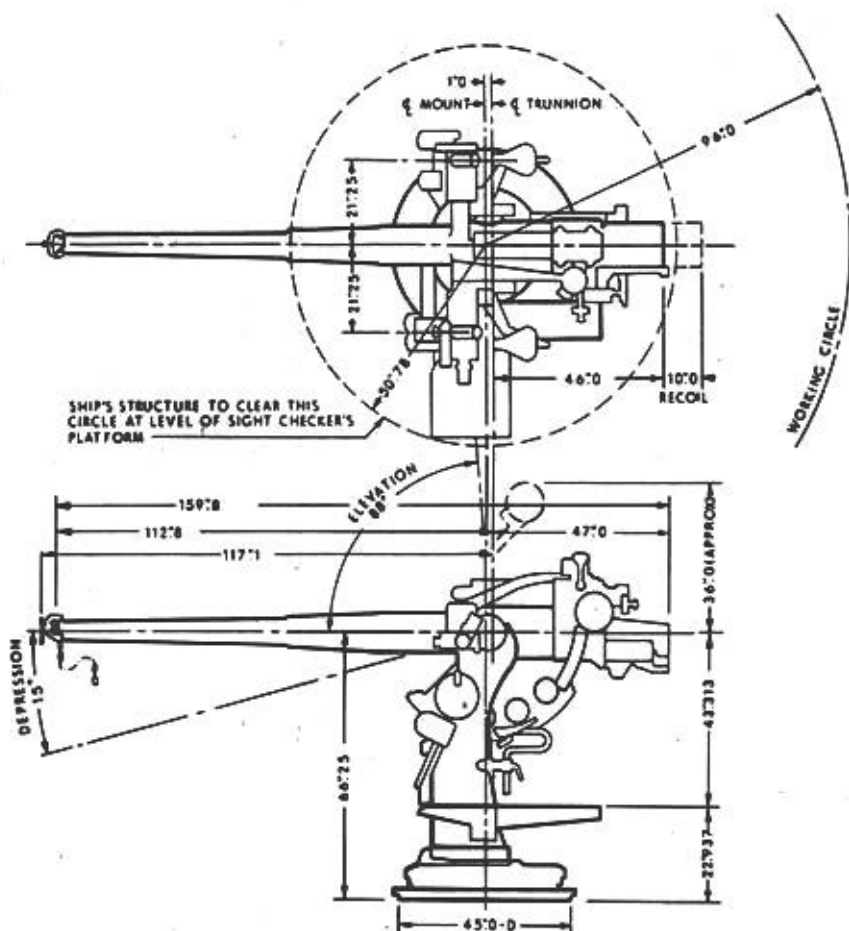
3"/50, MARK 18 MOD. 0



**3-IN. MOUNT, MARK 19 MOD. 0****3-IN. 50-CAL., D. P., SINGLE, OPEN, WET, PEDESTAL TYPE**

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 325          | 59383         |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

MARK 19 MOD. 0  
SS  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 88° ELEV. FIRE

Weights below are approximate  
8,200 LBS.  
3,980 LBS.  
2,910 LBS.  
21,050 LBS.  
21,520 LBS.  
25,500 LBS.

**3"/50, MARK 19 MOD. 0**

# 3-IN. MOUNT, MARK 19 MOD. 0

3-IN. 50-CAL., D. P., SINGLE, OPEN, WET, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914'      6.23 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 50-Cal.      Mk. 18 Mod. 0  
Max. Powder Pressure      17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism)      2,805 Lbs.

### BALLISTICS

Muzzle Velocity      2,700 Feet per Second  
Max. Altitude      29,900 Feet at 88° Elev.  
Max. Range      14,600 Yards at 45° Elev.

### AMMUNITION—Fixed

#### Typical Projectiles

|                |                 |                |
|----------------|-----------------|----------------|
| A. A.          | Mods. of Mk. 27 | Wt. 13.05 Lbs. |
| Illuminating   | Mk. 25 Mod. 1   | Wt. 13.07 Lbs. |
| Armor Piercing | Mods. of Mk. 29 | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7.0 Lbs.  |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

Charge      Nominal Wt. 4. Lbs

Primer      Mk. 14 Mods. 0, 1

Total Weight of Cartridge      Appr. 11. Lbs.

### FUZE SETTER

Hand Wrench

### OPERATING SELECTION

Manual Drive

### DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Working Circle Drawing No.      | 175769 |
| General Arrangement Drawing No. | 179584 |

### REMARKS

Elevation limits are minus 15° to plus 88°. Maximum training limit is 360°.

The rate of elevation per turn of the handwheel is 2° 59' 24".

The rate of training per turn of the handwheel is 2° 42'.

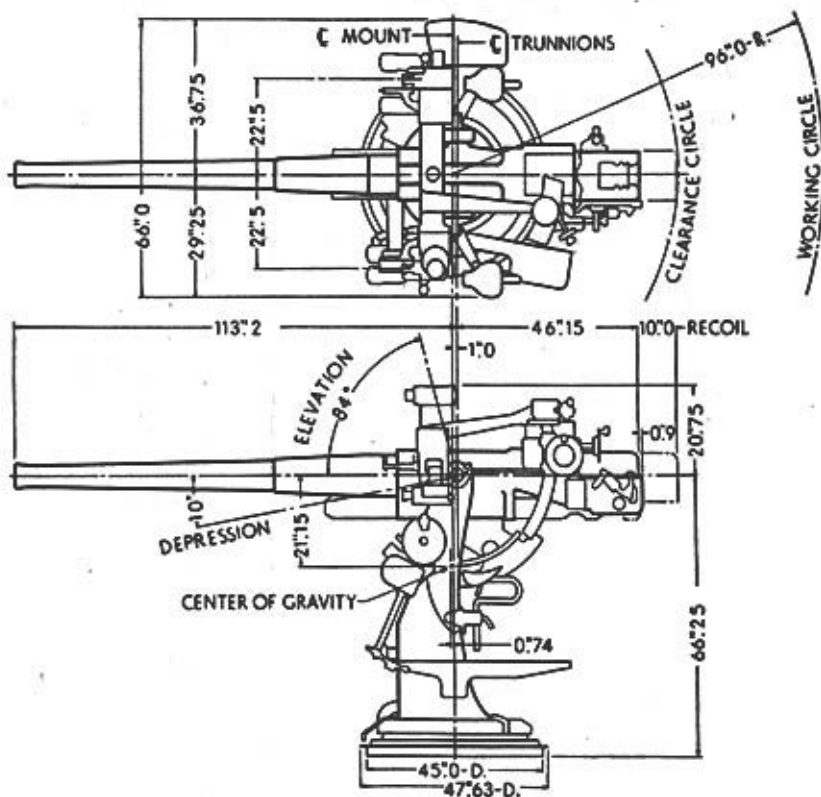
Length of recoil is 10 inches.

# 3-IN. MOUNT, MARK 20 MOD. 1

3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 335       | 62495      |
| 338       | 62823      |
| 395       | 102800     |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 84° ELEV. FIRE

MK. 20 MODS. 0, 1 OR 2  
AUXILIARIES  
NONE

Weights below are approximate  
7,070 OR 7,430 LBS.  
4,145 OR 4,390 LBS.  
2,400 LBS.  
23,100 OR 25,200 LBS.  
25,500 LBS.  
29,300 LBS.

3"/50, MARK 20 MOD. 1

# 3-IN. MOUNT, MARK 20 MOD. 1

3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

Mk. 5 Mod. 5  
Gun Firing 120 V. A. C.  
Illumination Transformer 117 V. to 6 V. 50 Watts  
Stand-by Illumination—Battery 6 V. 100 A. H.  
Solenoid—Mk. 5 Mod. 3 27.5 Amps. inrush  
12.5 Amps. steady

Mk. 5 Mod. 6  
Gun Firing 120 V. D. C.  
Illumination—Battery 6 V. 100 A. H.  
Solenoid—Mk. 5 Mod. 1 3 Amps.

Mk. 5 Mod. 7  
Gun Firing and Illumination—Battery 6 V. D. C. 100 A. H.  
Solenoid—Mk. 5 Mod. 5 60 Amps.

### HYDRAULIC

Recoil Fluid O. D. 1914 6.32 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 50-Cal. Mk. 20 Mods. 0, 1 or 2  
Max. Powder Pressure 17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism) 2,339 Lbs.

### BALLISTICS

Muzzle Velocity 2,700 Feet per Second  
Max. Altitude 29,800 Feet at 84° Elev.  
Max. Range 14,600 Yards at 45° Elev.

### AMMUNITION—Fixed

Typical Projectiles  
A. A. Mods. of Mk. 27 Wt. 13.05 Lbs.  
Illuminating Mk. 25 Mod. 1 Wt. 13.07 Lbs.  
Armor Piercing Mods. of Mk. 29 Wt. 13.07 Lbs.

Cartridge  
Case Mk. 3 Mod. 3 Wt. 7.88 Lbs.  
Mk. 7 & Mods. Wt. 7.0 Lbs.  
Mk. 9 & Mods. Wt. 6.54 Lbs.

Charge Nominal Wt. 4. Lbs.  
Primer Mk. 14 Mods. 0, 1  
Total Weight of Cartridge Appr. 11. Lbs.

### FUZE SETTER

Mk. 10 & Mods., Mk. 12 & Mods. or Wrench

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 811  
Working Circle Drawing No. 233513  
General Arrangement Drawing No. 233514

## REMARKS

Elevation limits are minus 10° to plus 84°. The training limit varies with the installation; maximum 360°.

One revolution of the handwheels trains the mount 2°52'48"; elevates or depresses the gun 3°.

Length of recoil is 10 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

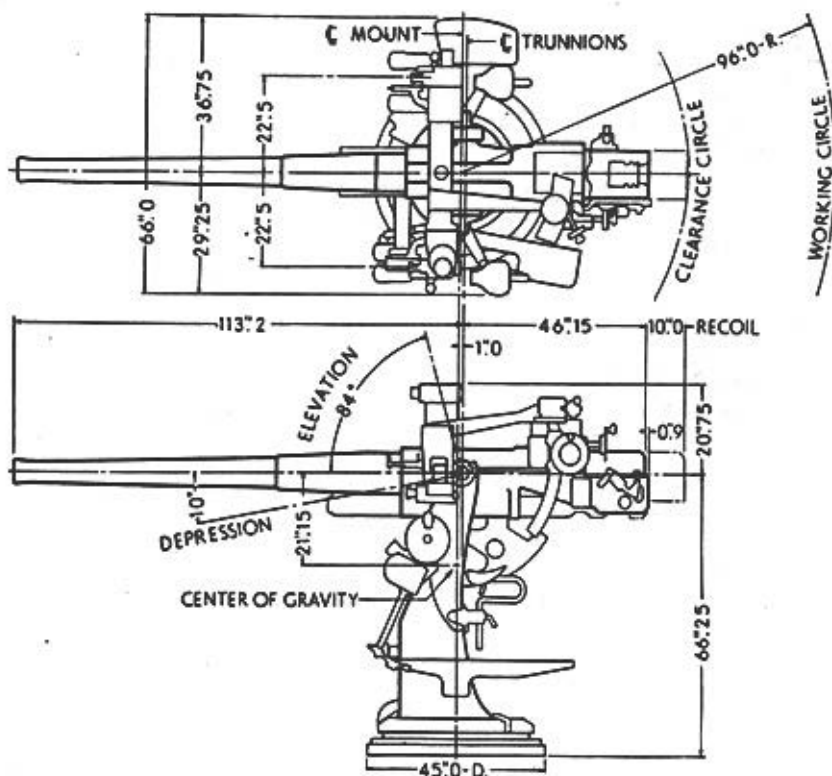
3"/50 MARK 20 MOD. 1



**3-IN. MOUNT, MARK 20 MOD. 3****3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 340       | 92396      |
| 360       | 94370      |
| 474       | 108332     |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 84° ELEV. FIRE

MK. 20 MODS. 0 OR 1  
AUXILIARIES  
NONE

Weights below are approximate  
7,500 OR 7,800 LBS.  
4,130 OR 4,310 LBS.  
2,400 LBS.  
25,200 LBS.  
25,500 LBS.  
29,300 LBS.

**3"/50, MARK 20 MOD. 3**

# 3-IN. MOUNT, MARK 20 MOD. 3

3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

#### Applicable Firing and Lighting Circuits:

|                                     |                |                                         |  |
|-------------------------------------|----------------|-----------------------------------------|--|
| Mk. 5 Mod. 5                        |                |                                         |  |
| Gun Firing                          | 120 V. A. C.   |                                         |  |
| Illumination Transformer            | 117 V. to 6 V. | 50 Watts                                |  |
| Stand-by Illumination—Battery       | 6 V.           | 100 A. H.                               |  |
| Solenoid—Mk. 5 Mod. 3               |                | 27.5 Amps. inrush,<br>12.5 Amps. steady |  |
| Mk. 5 Mod. 6                        |                |                                         |  |
| Gun Firing                          | 120 V. D. C.   |                                         |  |
| Illumination—Battery                | 6 V.           | 100 A. H.                               |  |
| Solenoid—Mk. 5 Mod. 1               |                | 3 Amps.                                 |  |
| Mk. 5 Mod. 7                        |                |                                         |  |
| Gun Firing and Illumination—Battery | 6 V. D. C.     | 100 A. H.                               |  |
| Solenoid—Mk. 5 Mod. 5               |                | 60 Amps.                                |  |

### HYDRAULIC

|              |            |           |
|--------------|------------|-----------|
| Recoil Fluid | O. D. 1914 | 6.32 Qts. |
|--------------|------------|-----------|

## GUN AND AMMUNITION DATA

### GUN

|                                       |                          |
|---------------------------------------|--------------------------|
| 3-In. 50-Cal.                         | Mk. 20 Mods. 0 or 1      |
| Max. Powder Pressure                  | 17 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) | 2,339 Lbs.               |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,700 Feet per Second     |
| Max. Altitude   | 29,800 Feet at 84° Elev.  |
| Max. Range      | 14,600 Yards at 45° Elev. |

### AMMUNITION—Fixed

|                           |                   |                |
|---------------------------|-------------------|----------------|
| Typical Projectiles       |                   |                |
| A. A.                     | Mods. of Mk. 27   | Wt. 13.05 Lbs. |
| Illuminating              | Mk. 25 Mod. 1     | Wt. 13.07 Lbs. |
| Armor Piercing            | Mods. of Mk. 29   | Wt. 13.07 Lbs. |
| Cartridge                 |                   |                |
| Case                      | Mk. 3 Mod. 3      | Wt. 7.88 Lbs.  |
|                           | Mk. 7 & Mods.     | Wt. 7.0 Lbs.   |
|                           | Mk. 9 & Mods.     | Wt. 6.54 Lbs.  |
| Charge                    | Nominal Wt. 4.    | Lbs.           |
| Primer                    | Mk. 14 Mods. 0, 1 |                |
| Total Weight of Cartridge | Appr. 11.         | Lbs.           |

### FUZE SETTER

Mk. 10 & Mods., Mk. 12 & Mods. or Wrench

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 811       |        |
| Working Circle Drawing No.      | 232925 |
| General Arrangement Drawing No. | 232972 |

## REMARKS

Elevation limits are minus 10° to plus 84°. The training limit varies with the installation; maximum 360°.

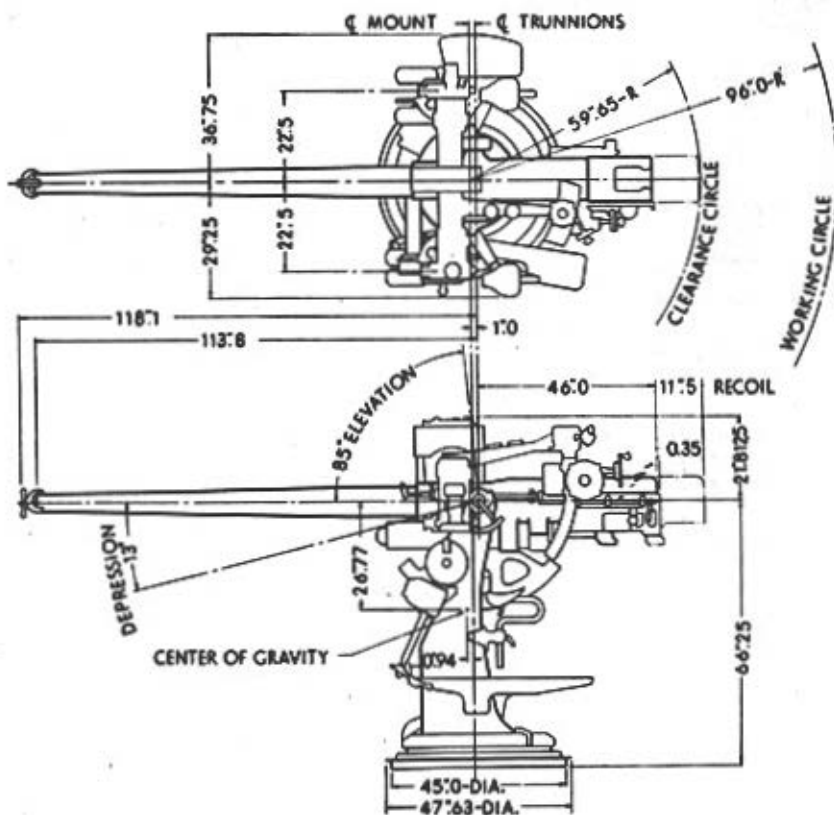
One revolution of the handwheels trains the mount 2°52'84"; elevates or depresses the gun 3°.

Length of recoil is 10 inches.

**3-IN. MOUNT, MARK 21 MOD. 0****3-IN. 50-CAL., D. P., SINGLE, OPEN, PEDESTAL, WET MOUNT**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 342       | 92433      |
| 420       | 103202     |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

MK. 21 MOD. 1  
SS  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate  
7,380 LBS.  
3,540 LBS.  
1,850 LBS.  
27,500 LBS.  
26,700 LBS.  
29,400 LBS.

**3"/50, MARK 21 MOD. 0**

# 3-IN. MOUNT, MARK 21 MOD. 0

3-IN. 50-CAL., D. P., SINGLE, OPEN, PEDESTAL, WET MOUNT

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid                      O. D. 1914                      7.19 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 3-In. 50-Cal.                | Mk. 21 Mod. 1            |
| Max. Powder Pressure         | 17 Long Tons per Sq. In. |
| Barrel Weight                | 1,240 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,700 Feet per Second     |
| Max. Altitude   | 29,800 Feet at 85° Elev.  |
| Max. Range      | 14,600 Yards at 45° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|                |                 |                |
|----------------|-----------------|----------------|
| A. A.          | Mods. of Mk. 27 | Wt. 13.05 Lbs. |
| Illuminating   | Mk. 25 Mod. 1   | Wt. 13.07 Lbs. |
| Armor Piercing | Mods. of Mk. 29 | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7.0 Lbs.  |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

Charge                      Nominal Wt. 4. Lbs.

Primer                      Mk. 14 Mods. 0, 1

Total Weight of Cartridge                      Appr. 11. Lbs.

## FUZE SETTER

Hand Wrench

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 811       |        |
| Working Circle Drawing No.      | 237383 |
| General Arrangement Drawing No. | 237385 |

## REMARKS

Elevation limits are minus 13° to plus 85°. The training limit varies with the installation; maximum 360°.

One revolution of the handwheels trains the mount 2°52'48"; elevates or depresses the gun 3°.

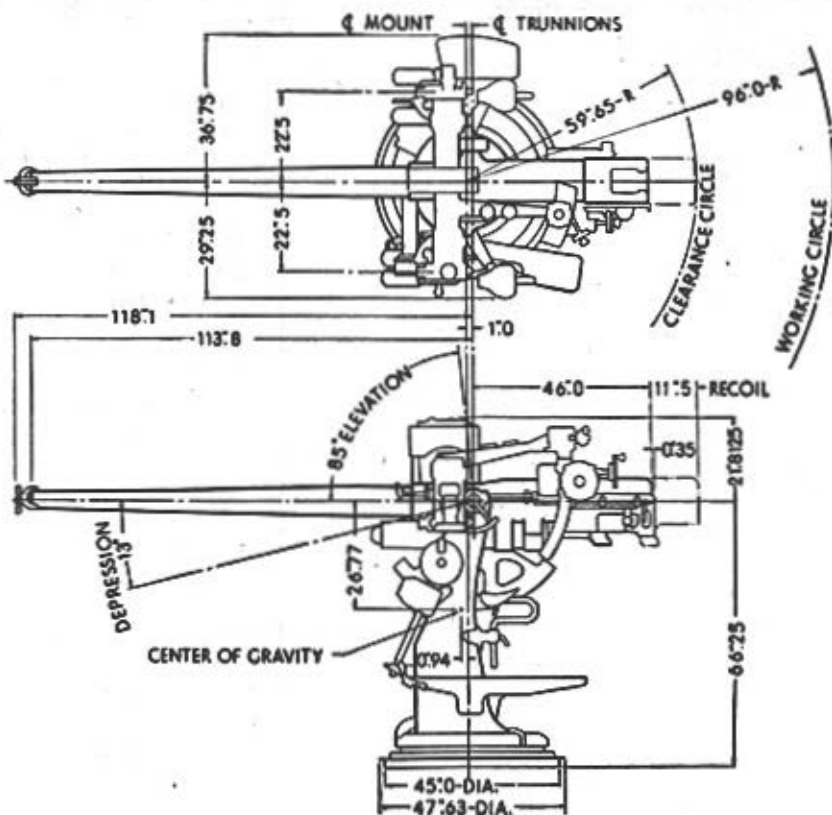
Length of recoil is 11.50 inches.



**3-IN. MOUNT, MARK 21 MOD. 1****3-IN. 50-CAL., D. P., SINGLE, OPEN, PEDESTAL, WET MOUNT**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 407       | 103272     |
| 421       | 106232     |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

MK. 21 MOD. 1  
SS  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate  
7,390 LBS.  
3,600 LBS.  
1,850 LBS.  
27,500 LBS.  
26,700 LBS.  
29,400 LBS.

**3"/50, MARK 21 MOD. 1**

# 3-IN. MOUNT, MARK 21 MOD. 1

3-IN. 50-CAL., D. P., SINGLE, OPEN, PEDESTAL, WET MOUNT

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid O. D. 1914 7.19 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 3-In. 50-Cal.                | Mk. 21 Mod. 1            |
| Max. Powder Pressure         | 17 Long Tons per Sq. In. |
| Barrel Weight                | 1,240 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,700 Feet per Second     |
| Max. Altitude   | 29,800 Feet at 85° Elev.  |
| Max. Range      | 14,600 Yards at 45° Elev. |

### AMMUNITION—Fixed

|                           |                   |                |
|---------------------------|-------------------|----------------|
| Typical Projectiles       |                   |                |
| A. A.                     | Mk. 27            | Wt. 13.05 Lbs. |
| Illuminating              | Mk. 25 Mod. 1     | Wt. 13.07 Lbs. |
| Armor Piercing            | Mk. 29            | Wt. 13.07 Lbs. |
| Cartridge                 |                   |                |
| Case                      | Mk. 3 Mod. 3      | Wt. 7.88 Lbs.  |
|                           | Mk. 7 & Mods.     | Wt. 7.0 Lbs.   |
|                           | Mk. 9 & Mods.     | Wt. 6.54 Lbs.  |
| Charge                    | Nominal Wt.       | 4 Lbs.         |
| Primer                    | Mk. 14 Mods. 0, 1 |                |
| Total Weight of Cartridge |                   | Appr. 11 Lbs.  |

### FUZE SETTER

Hand Wrench

### OPERATING SELECTION

Manual Drive

### PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 811       |        |
| Working Circle Drawing No.      | 237383 |
| General Arrangement Drawing No. | 237385 |

### REMARKS

Elevation limits are minus 13° to plus 85°. The training limit varies with the installation, maximum 360°.

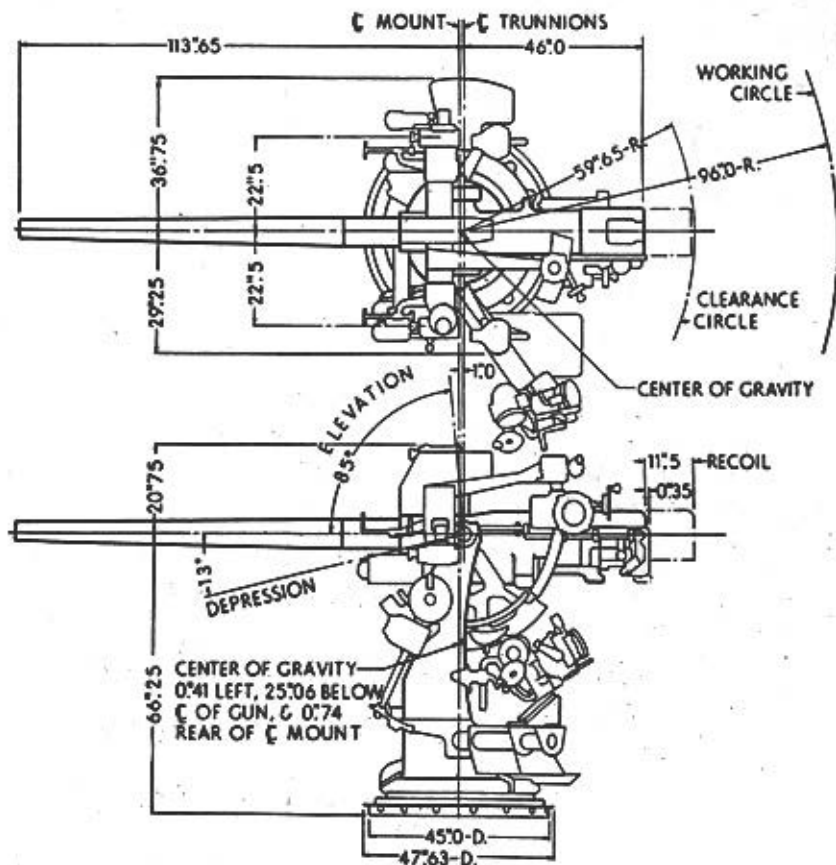
One revolution of the handwheels trains the mount 2°52'48"; elevates or depresses the gun 3°.

Length of recoil is 11.50 inches.

**3-IN. MOUNT, MARK 22 MOD. 0****3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 352       | 93260      |
| 402       | 103127     |
| 405       | 103139     |
| 412       | 103294     |
| 419       | 106229     |
| 469       | 108311     |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 21 MOD. 0 OR MK. 22 MOD. 0  
BB—CL—DD—DE—AUXILIARIES  
NONE

Weights below are approximate  
6,700 TO 7,510 LBS.  
3,180 TO 3,780 LBS.  
1,850 LBS.  
27,500 LBS.  
27,500 LBS.  
31,100 LBS.

**3"/50, MARK 22 MOD. 0**

# 3-IN. MOUNT, MARK 22 MOD. 0

3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL, TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

|                                               |                   |                   |
|-----------------------------------------------|-------------------|-------------------|
| Mk. 5 Mod. 11                                 |                   |                   |
| Gun Firing                                    | 120 V. A. C.      |                   |
| Illumination Transformer                      | 117 V. to 6 V.    | 50 Watts          |
| Stand-by Illumination—                        |                   |                   |
| Battery                                       | 6 V.              | 100 A. H.         |
| Solenoid—Mk. 5 Mod. 3                         | 27.5 Amps. inrush | 12.5 Amps. steady |
| Mk. 5 Mod. 25 (6 V. Fuze Setter Illumination) |                   |                   |
| Mk. 5 Mod. 12                                 |                   |                   |
| Gun Firing                                    | 120 V. D. C.      |                   |
| Illumination—Battery                          | 6 V.              | 100 A. H.         |
| Solenoid—Mk. 5 Mod. 1                         |                   | 3 Amps.           |
| Mk. 5 Mod. 26 (6 V. Fuze Setter Illumination) |                   |                   |
| Mk. 5 Mod. 13                                 |                   |                   |
| Gun Firing and Illumina-                      |                   |                   |
| tion—Battery                                  | 6 V. D. C.        | 100 A. H.         |
| Solenoid—Mk. 5 Mod. 5                         |                   | 60 Amps.          |
| Mk. 5 Mod. 27 (6 V. Fuze Setter Illumination) |                   |                   |
| Mk. 10 Mod. 0                                 |                   |                   |
| Gun Firing                                    | 120 V. A. C.      |                   |
| Illumination Transformer                      | 117 V. to 6 V.    | 75 Watts          |
| Stand-by Illumination—                        |                   |                   |
| Battery                                       | 6 V.              | 100 A. H.         |
| Solenoid—Mk. 14 Mod. 1                        | 6.6 Amps. inrush  | 1.4 Amps. steady  |

### HYDRAULIC

|              |            |           |
|--------------|------------|-----------|
| Recoil Fluid | O. D. 1914 | 7.19 Qts. |
|--------------|------------|-----------|

## GUN AND AMMUNITION DATA

### GUN

|                              |                                |
|------------------------------|--------------------------------|
| 3-In. 50-Cal.                | Mk. 21 Mod. 0 or Mk. 22 Mod. 0 |
| Max. Powder Pressure         | 17 Long Tons per Sq. In.       |
| Barrel Weight                | 1,240 Lbs.                     |
| Vertical Sliding Breechblock |                                |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,700 Feet per Second     |
| Max. Altitude   | 29,800 Feet at 85° Elev.  |
| Max. Range      | 14,600 Yards at 45° Elev. |

### AMMUNITION—Fixed

|                           |                   |                |
|---------------------------|-------------------|----------------|
| Typical Projectiles       |                   |                |
| A. A.                     | Mods. of Mk. 27   | Wt. 13.05 Lbs. |
| Illuminating              | Mk. 25 Mod. 1     | Wt. 13.07 Lbs. |
| Armor Piercing            | Mods. of Mk. 29   | Wt. 13.07 Lbs. |
| Cartridge                 |                   |                |
| Case                      | Mk. 3 Mod. 3      | Wt. 7.88 Lbs.  |
|                           | Mk. 7 & Mods.     | Wt. 7.0 Lbs.   |
|                           | Mk. 9 & Mods.     | Wt. 6.54 Lbs.  |
| Charge                    | Nominal Wt.       | 4. Lbs.        |
| Primer                    | Mk. 14 Mods. 0, 1 |                |
| Total Weight of Cartridge |                   | Appr. 11. Lbs. |

### FUZE SETTER

|                                                           |  |
|-----------------------------------------------------------|--|
| Mk. 10 & Mods., Mods. of Mk. 11, Mk. 12 & Mods. or Wrench |  |
|-----------------------------------------------------------|--|

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |        |
|----------------------------------|--------|
| Ordnance Pamphlet No. 811        |        |
| Working Circle Drawing Nos.      | 238286 |
|                                  | 252939 |
| General Arrangement Drawing Nos. | 238288 |
|                                  | 245661 |
|                                  | 252938 |

## REMARKS

Elevation limits are minus 10° or minus 13° to plus 85°. The training limit varies with the installation; maximum 360°.

One revolution of the handwheels trains the mount 2°52'48"; elevates or depresses the gun 3°.

Length of recoil is 11.50 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

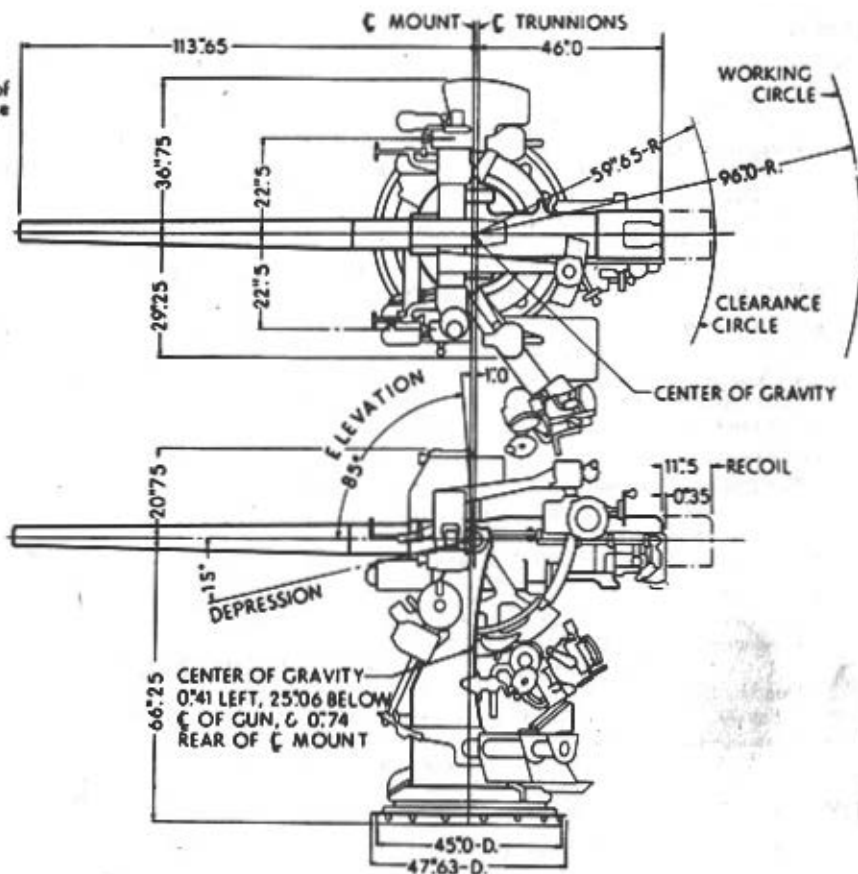
3"/50, MARK 22 MOD. 0



**3-IN. MOUNT, MARK 22 MOD. 1****3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

|                     |                        |
|---------------------|------------------------|
| ASSY.<br>NO.<br>388 | SKETCH<br>NO.<br>94833 |
|---------------------|------------------------|

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 21 MOD. 0  
AUXILIARIES  
NONE

Weights below are approximate  
7,510 LBS.  
3,650 LBS.  
1,850 LBS.  
27,500 LBS.  
27,740 LBS.  
31,130 LBS.

**3"/50, MARK 22 MOD. 1**

# 3-IN. MOUNT, MARK 22 MOD. 1

3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

Mk. 5 Mod. 11

Gun Firing 120 V. A. C.

Illumination Transformer

120 V. to 6 V. 50 Watts

Stand-by Illumination—

Battery 6 V. 100 A. H.

Solenoid—Mk. 5 Mod. 3 27.5 Amps. inrush

12.5 Amps. steady

Mk. 5 Mod. 25 (6 V. Fuze Setter Illumination)

Mk. 5 Mod. 12

Gun Firing 120 V. D. C.

Illumination—Battery 6 V. 100 A. H.

Solenoid—Mk. 5 Mod. 1 3 Amps.

Mk. 5 Mod. 26 (6 V. Fuze Setter Illumination)

Mk. 5 Mod. 13

Gun Firing and Illumina-

tion—Battery 6 V. 100 A. H.

Solenoid—Mk. 5 Mod. 5 60 Amps.

Mk. 5 Mod. 27 (6 V. Fuze Setter Illumination)

### HYDRAULIC

Recoil Fluid

O. D. 1914

7.19 Qts.

## GUN AND AMMUNITION DATA

### GUN

3 In. 50-Cal.

Mk. 21 Mod. 0

Max. Powder Pressure

17 Long Tons per Sq. In.

Barrel Weight

1,240 Lbs.

Vertical Sliding Breechblock

### BALLISTICS

Muzzle Velocity

2,700 Feet per Second

Max. Altitude

29,800 Feet at 85° Elev.

Max. Range

14,600 Yards at 45° Elev.

### AMMUNITION—Fixed

Typical Projectiles

A. A.

Mods. of Mk. 27

Wt. 13.05 Lbs.

Illuminating

Mk. 25 Mod. 1

Wt. 13.07 Lbs.

Armor Piercing

Mods. of Mk. 29

Wt. 13.07 Lbs.

Cartridge

Case

Mk. 3 Mod. 3

Wt. 7.88 Lbs.

Mk. 7 & Mods.

Wt. 7.0 Lbs.

Mk. 9 & Mods.

Wt. 6.54 Lbs.

Charge

Nominal Wt. 4 Lbs.

Primer

Mk. 14 Mods. 0, 1

Total Weight of Cartridge

Appr. 11 Lbs.

### FUZE SETTER

Mk. 10 & Mods., Mk. 11 Mods. 1 or 2

### OPERATING SELECTION

Manual Drive

### PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 811

Working Circle Drawing No.

238286

General Arrangement Drawing No.

238288

### REMARKS

Elevation limits are minus 15° to plus 85°. Maximum training limit is 360°.

The rate of elevation per turn of the handwheel is 3°. The rate of training per turn of the handwheel is 2° 52' 48".

Length of recoil is 11.5 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

3"/50, MARK 22 MOD. 1



# 3-IN. MOUNT, MARK 22 MODS. 2, 3

3-IN. 50-CAL., D. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      7.19 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 50-Cal.      Mk. 21 Mod. 0 or Mk. 22 Mod. 0  
Max. Powder Pressure      17 Long Tons per Sq. In.  
Barrel Weight      1,240 Lbs.  
Vertical Sliding Breechblock

### BALLISTICS

Muzzle Velocity      2,700 Feet per Second  
Max. Altitude      29,800 Feet at 85° Elev.  
Max. Range      14,600 Yards at 45° Elev.

### AMMUNITION—Fixed

Typical Projectiles  
A. A.      Mods. of Mk. 27      Wt. 13.05 Lbs.  
Illuminating      Mk. 25 Mod. 1      Wt. 13.07 Lbs.  
Armor Piercing      Mods. of Mk. 29      Wt. 13.07 Lbs.

Cartridge  
Case      Mk. 3 Mod. 3      Wt. 7.88 Lbs.  
                                         Mk. 7 & Mods.      Wt. 7.0 Lbs.  
                                         Mk. 9 & Mods.      Wt. 6.54 Lbs.

Charge      Nominal Wt. 4 Lbs.  
Primer      Mk. 14 Mods. 0, 1  
Total Weight of Cartridge      Appr. 11 Lbs.

### FUZE SETTER

Hand Wrench

### OPERATING SELECTION

Manual Drive

### PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 811  
Working Circle Drawing No.      241968  
General Arrangement Drawing No.      241967

### REMARKS

Elevation limits are minus 13° to plus 85°. Maximum training limit is 360°.

The rate of elevation per turn of the handwheel is 3°. The rate of training per turn of the handwheel is 2° 52' 48".

Length of recoil is 11.5 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

3"/50, MARK 22 MODS. 2, 3



| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 448          | 107085        |
| 468          | 108309        |
| 470          | 108312        |
| 473          | 108327        |
| 483          | 138191        |

**ELEVATION**

**DEPRESSION**

**CENTER OF GRAVITY**

**C MOUNT**

**TRUNNIONS**

**WORKING CIRCLE**

**CLEARANCE CIRCLE**

**RECOIL**

**0°:41 LEFT OF, C 25°:78 BELOW C GUN, C 0°:15 FORWARD OF C MOUNT**

**59°:55-R**

**96°:10-R**

**90°:85 APPROX.**

**22°:5**

**22°:5**

**113°:65**

**85°**

**46°:0**

**11°:5**

**0°:35**

**20°:75**

**66°:25**

**45°:0-D**

**47°:63-D**

**3"/50, MARK 22 MOD. 4**

Weights below are approximate  
7,200 TO 7,800 LBS.  
3,600 TO 3,700 LBS.  
1,850 LBS.  
27,500 LBS.  
27,700 LBS.  
31,100 LBS.

# 3-IN. MOUNT, MARK 22 MOD. 4

3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuit: Mk. 10 Mod. 0  
Gun Firing 120 V. A. C.  
Illumination  
Transformer 117 V. to 6 V. 75 Watts  
Stand-by Illumination—Battery 6 V. 100 A. H.  
Solenoid—Mk. 14 Mod. 1 6.6 Amps. inrush  
1.4 Amps. steady

### HYDRAULIC

Recoil Fluid O. D. 1914 7.19 Qts.

## INDICATORS

| ELEVATION            | SPEEDS | MFR.          |
|----------------------|--------|---------------|
| Mk. 21 & Mods.       | 2 & 36 | Control Inst. |
| TRAIN                |        |               |
| Mk. 23 Mods. 3 to 12 | 1 & 36 | Control Inst. |

## GUN AND AMMUNITION DATA

### GUN

|                              |                                |
|------------------------------|--------------------------------|
| 3-In. 50-Cal.                | Mk. 21 Mod. 0 or Mk. 22 Mod. 0 |
| Max. Powder Pressure         | 17 Long Tons per Sq. In.       |
| Barrel Weight                | 1,240 Lbs.                     |
| Vertical Sliding Breechblock |                                |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,700 Feet per Second     |
| Max. Altitude   | 29,800 Feet at 85° Elev.  |
| Max. Range      | 14,600 Yards at 45° Elev. |

### AMMUNITION—Fixed

|                           |                   |                |
|---------------------------|-------------------|----------------|
| Typical Projectiles       |                   |                |
| A. A.                     | Mods. of Mk. 27   | Wt. 13.05 Lbs. |
| Illuminating              | Mk. 25 Mod. 1     | Wt. 13.07 Lbs. |
| Armor Piercing            | Mods. of Mk. 29   | Wt. 13.07 Lbs. |
| Cartridge                 |                   |                |
| Case                      | Mk. 3 Mod. 3      | Wt. 7.88 Lbs.  |
|                           | Mk. 7 & Mods.     | Wt. 7.0 Lbs.   |
|                           | Mk. 9 & Mods.     | Wt. 6.54 Lbs.  |
| Charge                    | Nominal Wt.       | 4. Lbs.        |
| Primer                    | Mk. 14 Mods. 0, 1 |                |
| Total Weight of Cartridge |                   | Appr. 11. Lbs. |

## FUZE SETTER

Mods. of Mk. 11 or Mk. 12 & Mods.

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |        |
|----------------------------------|--------|
| Ordnance Pamphlet No. 811        |        |
| Working Circle Drawing Nos.      | 250281 |
|                                  | 252941 |
| General Arrangement Drawing Nos. | 250280 |
|                                  | 252940 |

## REMARKS

Elevation limits are minus 10° or minus 13° to plus 85°. The training limit varies with the installation; maximum 360°.

One revolution of the handwheels trains the mount 2°52'48"; elevates or depresses the gun 3°.

Length of recoil is 11.50 inches.

This mount may be used with specific modifications of gun directors Mk. 50 or Mk. 51.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

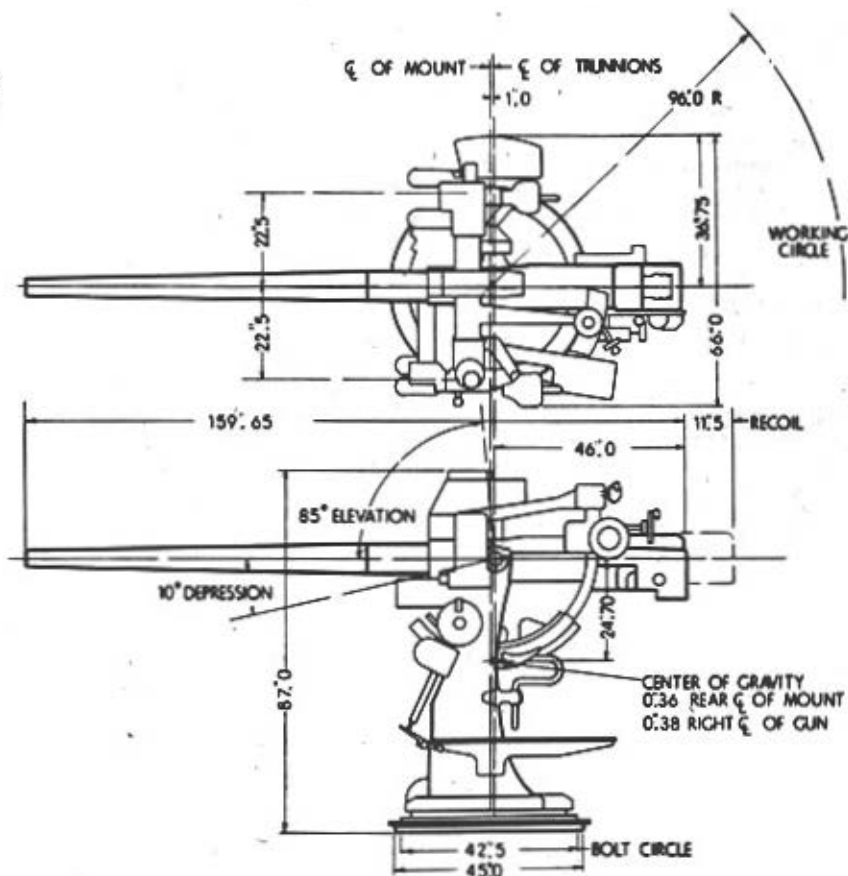
3"/50, MARK 22 MOD. 4

# 3-IN. MOUNT, MARK 22 MOD. 6

3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 425          | 106342        |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 21 MOD. 0 OR MK. 22 MOD. 0  
AP  
NONE

Weights below are approximate  
7,300 LBS.  
3,600 LBS.  
1,850 LBS.  
27,500 LBS.  
27,700 LBS.  
31,100 LBS.

3"/50, MARK 22 MOD. 6

# 3-IN. MOUNT, MARK 22 MOD. 6

3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

Mk. 5 Mod. 11

Gun Firing 120 V. A. C.

Illumination Transformer  
120 V. to 6 V. 50 Watts

Stand-by Illumination—

Battery 6 V. 100 A. H.

Solenoid—Mk. 5 Mod. 3 27.5 Amps. inrush  
12.5 Amps. steady

Mk. 5 Mod. 25 (6 V. Fuze Setter Illumination)

Mk. 5 Mod. 12

Gun Firing 120 V. D. C.

Illumination—Battery 6 V. 100 A. H.

Solenoid—Mk. 5 Mod. 1 3 Amps.

Mk. 5 Mod. 26 (6 V. Fuze Setter Illumination)

Mk. 5 Mod. 13

Gun Firing and Illumina-  
tion—Battery 6 V. 100 A. H.

Solenoid—Mk. 5 Mod. 5 60 Amps.

Mk. 5 Mod. 27 (6 V. Fuze Setter Illumination)

### HYDRAULIC

Recoil Fluid O. D. 1914 7.19 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 50-Cal. Mk. 21 Mod. 0 or Mk. 22 Mod. 0  
Max. Powder Pressure 17 Long Tons per Sq. In.  
Barrel Weight 1,240 Lbs.  
Vertical Sliding Breechblock

### BALLISTICS

Muzzle Velocity 2,700 Feet per Second  
Max. Altitude 29,800 Feet at 85° Elev.  
Max. Range 14,600 Yards at 45° Elev.

### AMMUNITION—Fixed

Typical Projectiles  
A. A. Mods. of Mk. 27 Wt. 13.05 Lbs.  
Illuminating Mk. 25 Mod. 1 Wt. 13.07 Lbs.  
Armor Piercing Mods. of Mk. 29 Wt. 13.07 Lbs.

#### Cartridge

Case Mk. 3 Mod. 3 Wt. 7.88 Lbs.  
Mk. 7 & Mods. Wt. 7.0 Lbs.  
Mk. 9 & Mods. Wt. 6.54 Lbs.

Charge Nominal Wt. 4. Lbs.

Primer Mk. 14 Mods. 0, 1

Total Weight of Cartridge Appr. 11. Lbs.

## FUZE SETTER

Mk. 10 & Mods.

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 811  
Working Circle Drawing No. 248718  
General Arrangement Drawing No. 248717

## REMARKS

Elevation limits are minus 10° to plus 85°. Maximum training limit is 360°.

The rate of elevation per turn of the handwheel is 3°. The rate of training per turn of the handwheel is 2° 52' 48".

Length of recoil is 11.5 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

3"/50, MARK 22 MOD. 6

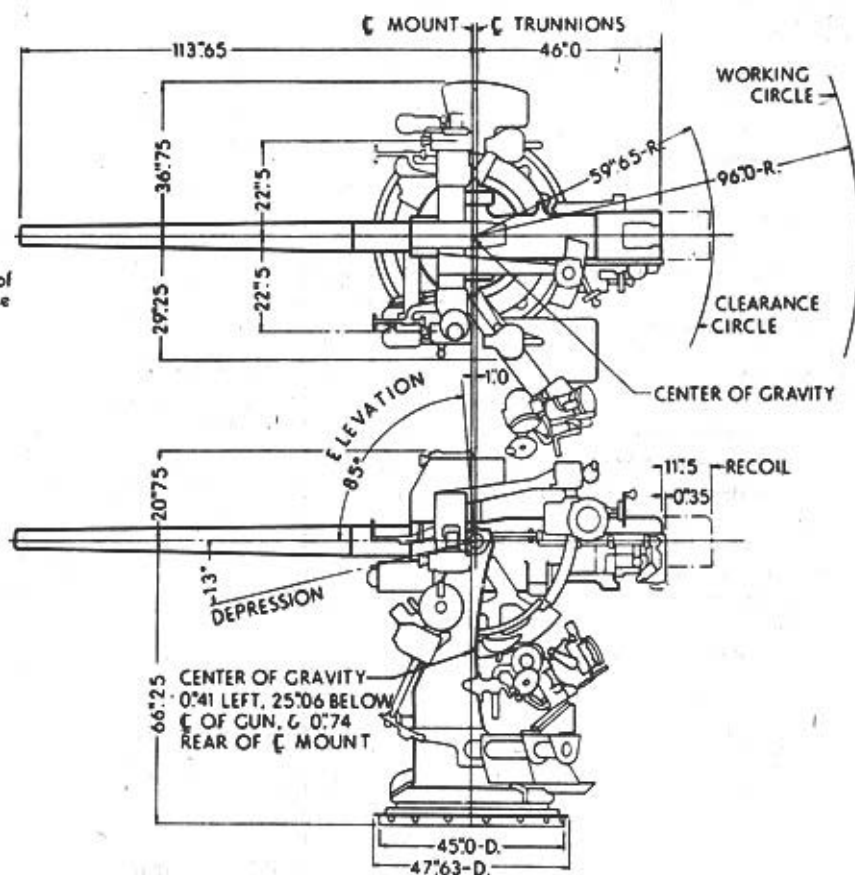


# 3-IN. MOUNT, MARK 22 MODS. 16, 17

## 3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY.                | SKETCH |
|----------------------|--------|
| Mount Mk. 22 Mod. 16 |        |
| 443                  | 106786 |
| 444                  | 106790 |
| Mount Mk. 22 Mod. 17 |        |
| 445                  | 106799 |
| 446                  | 106800 |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

MK. 21 MOD. 0

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

NONE

Weights below are approximate  
7,340 TO 7,500 LBS.  
3,630 TO 3,770 LBS.  
1,850 LBS.  
27,500 LBS.  
27,700 LBS.  
31,100 LBS.

### 3"/50, MARK 22 MODS. 16, 17

# 3-IN. MOUNT, MARK 22 MODS. 16, 17

3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

Mk. 5 Mod. 11

Gun Firing 120 V. A. C.

Illumination Transformer

120 V. to 6 V.

50 Watts

Stand-by Illumination—

Battery 6 V.

100 A. H.

Solenoid—Mk. 5 Mod. 3

27.5 Amps. inrush

12.5 Amps. steady

Mk. 5 Mod. 25 (6 V. Fuze Setter Illumination)

Mk. 5 Mod. 12

Gun Firing 120 V. D. C.

Illumination—Battery 6 V.

100 A. H.

Solenoid—Mk. 5 Mod. 1

3 Amps.

Mk. 5 Mod. 26 (6 V. Fuze Setter Illumination)

Mk. 5 Mod. 13

Gun Firing and Illumina-

tion—Battery 6 V.

100 A. H.

Solenoid—Mk. 5 Mod. 5

60 Amps.

Mk. 5 Mod. 27 (6 V. Fuze Setter Illumination)

### HYDRAULIC

Recoil Fluid

O. D. 1914

7.19 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 50-Cal.

Mk. 21 Mod. 0

Max. Powder Pressure

17 Long Tons per Sq. In.

Barrel Weight

1,240 Lbs.

Vertical Sliding Breechblock

### BALLISTICS

Muzzle Velocity

2,700 Feet per Second

Max. Altitude

29,800 Feet at 85° Elev.

Max. Range

14,600 Yards at 45° Elev.

### AMMUNITION—Fixed

Typical Projectiles

A. A.

Mods. of Mk. 27

Wt. 13.05 Lbs.

Illuminating

Mk. 25 Mod. 1

Wt. 13.07 Lbs.

Armor Piercing

Mods. of Mk. 29

Wt. 13.07 Lbs.

Cartridge

Case

Mk. 3 Mod. 3

Wt. 7.88 Lbs.

Mk. 7 & Mods.

Wt. 7.0 Lbs.

Mk. 9 & Mods.

Wt. 6.54 Lbs.

Charge

Nominal Wt. 4 Lbs.

Primer

Mk. 14 Mods. 0, 1

Total Weight of Cartridge

Appr. 11 Lbs.

### FUZE SETTER

Mk. 12 & Mods

### OPERATING SELECTION

Manual Drive

### PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 811

Working Circle Drawing No.

238286

General Arrangement Drawing No.

238288

### REMARKS

Elevation limits are minus 13° to plus 85°. Maximum training limit is 360°.

The rate of elevation per turn of the handwheel is 3°. The rate of training per turn of the handwheel is 2° 52' 48".

Length of recoil is 11.5 inches.

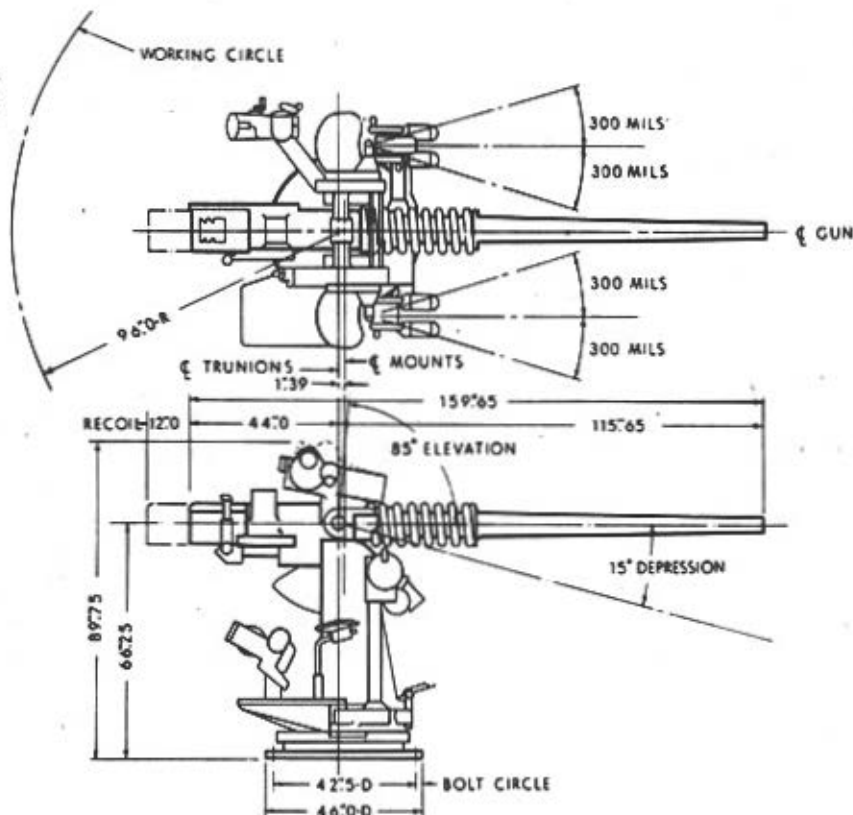
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

3"/50, MARK 22 MODS. 16, 17

**3-IN. MOUNT, MARK 24 MOD. 0****3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 411          | 103277        |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 22 MODS. 2 OR 3  
MERCHANT SHIPS  
NONE

Weights below are approximate

|  |             |
|--|-------------|
|  | 8,235 LBS.  |
|  | 3,740 LBS.  |
|  | 1,910 LBS.  |
|  | 25,670 LBS. |
|  | 25,940 LBS. |
|  | 29,400 LBS. |

**3"/50, MARK 24 MOD. 0**

# 3-IN. MOUNT, MARK 24 MOD. 0

3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuit: Mk. 11 Mod. 0

Gun Firing 120 V. A. C.

Illumination Transformer

120 V. to 6 V. 75 Watts

Stand-by Firing and

Illumination—Battery 6 V 100 A. H.

Solenoid—Mk. 25 Mod. 0 A. C. 10 Amps. inrush  
1.7 Amps. steady  
D. C. 4.5 Amps.

### HYDRAULIC

Recoil Fluid O. D. 1914 2.34 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 3-In. 50-Cal.                | Mk. 22 Mods. 2 or 3      |
| Max. Powder Pressure         | 17 Long Tons per Sq. In. |
| Barrel Weight                | 1,242 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,700 Feet per Second     |
| Max. Altitude   | 29,800 Feet at 85° Elev.  |
| Max. Range      | 14,600 Yards at 45° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|                |                 |                |
|----------------|-----------------|----------------|
| A. A.          | Mods. of Mk. 27 | Wt. 13.05 Lbs. |
| Illuminating   | Mk. 25 Mod. 1   | Wt. 13.07 Lbs. |
| Armor Piercing | Mods. of Mk. 29 | Wt. 13.07 Lbs. |

#### Cartridge

|      |               |               |
|------|---------------|---------------|
| Case | Mk. 3 Mod. 3  | Wt. 7.88 Lbs. |
|      | Mk. 7 & Mods. | Wt. 7.0 Lbs.  |
|      | Mk. 9 & Mods. | Wt. 6.54 Lbs. |

|        |                     |
|--------|---------------------|
| Charge | Nominal Wt. 4. Lbs. |
| Primer | Mk. 14 Mods. 0, 1   |

|                           |                |
|---------------------------|----------------|
| Total Weight of Cartridge | Appr. 11. Lbs. |
|---------------------------|----------------|

### FUZE SETTER

Mk. 11 Mod. 2

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 984

Working Circle Drawing No. 365126

General Arrangement Drawing Nos. 365500-03

## REMARKS

Elevation limits are minus 15° to plus 85°. Maximum training limit is 360°

The rate of elevation per turn of the handwheel is 3".  
The rate of training per turn of the handwheel is 8° 58' at high speed.

Length of recoil is 12 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

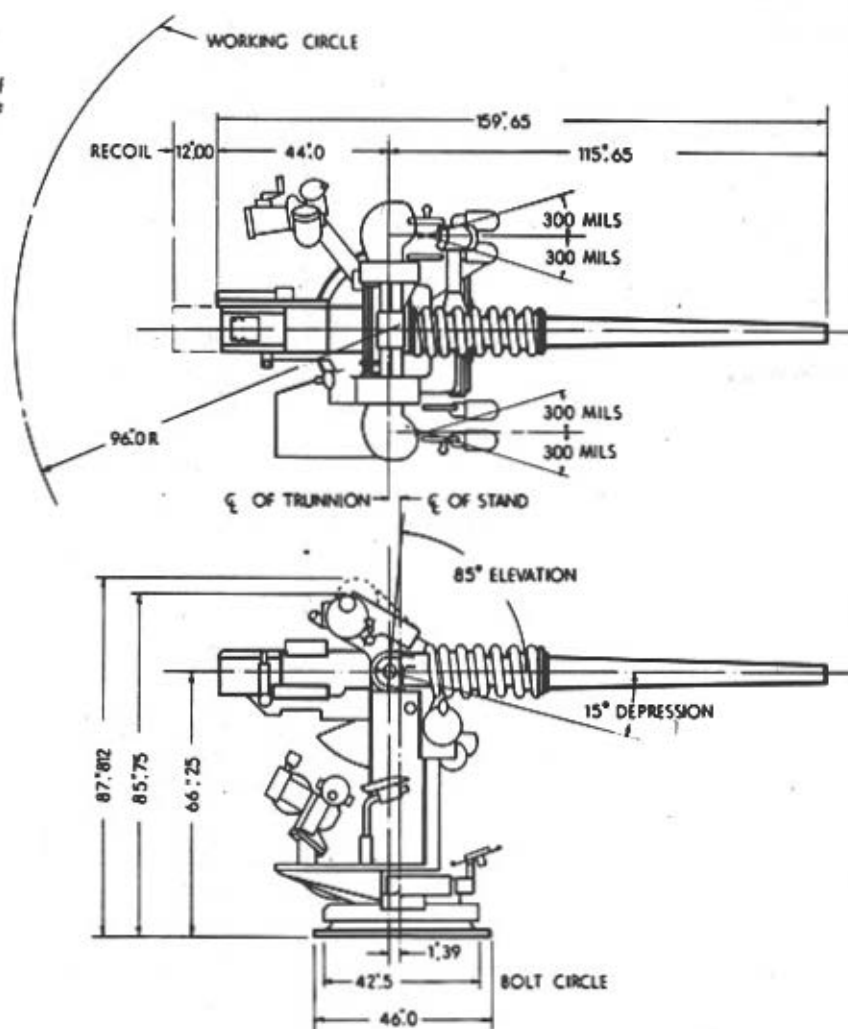
3"/50, MARK 24 MOD. 0



**3-IN. MOUNT, MARK 24 MOD. 1****3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 467          | 100156        |
| 472          | 108318        |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 22 MODS. 2 OR 3  
MERCHANT SHIPS  
NONE

Weights below are approximate  
8,235 LBS.  
3,740 LBS.  
1,910 LBS.  
25,670 LBS.  
25,940 LBS.  
29,400 LBS.

**3"/50, MARK 24 MOD. 1**

# 3-IN. MOUNT, MARK 24 MOD. 1

3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

Mk. 11 Mods. 1 or 2

Gun Firing 120 V. A. C.

Illumination Transformer

120 V. to 6 V.

75 Watts

Stand-by Firing and

Illumination—Battery 6 V.

100 A. H.

Solenoid—Mk. 25 Mods. 0 or 1

A. C. 10 Amps. inrush

1.7 Amps. steady

D. C. 4.5 Amps.

### HYDRAULIC

Recoil Fluid

O. D. 1914

2.34 Qts.

## GUN AND AMMUNITION DATA

### GUN

3-In. 50-Cal.

Mk. 22 Mods. 2 or 3

Max. Powder Pressure

17 Long Tons per Sq. In.

Barrel Weight

1,242 Lbs.

Vertical Sliding Breechblock

### BALLISTICS

Muzzle Velocity

2,700 Feet per Second

Max. Altitude

29,800 Feet at 85° Elev.

Max. Range

14,600 Yards at 45° Elev.

### AMMUNITION—Fixed

Typical Projectiles

A. A.

Mods. of Mk. 27

Wt. 13.05 Lbs.

Illuminating

Mk. 25 Mod. 1

Wt. 13.07 Lbs.

Armor Piercing

Mods. of Mk. 29

Wt. 13.07 Lbs.

Cartridge

Case

Mk. 3 Mod. 3

Wt. 7.88 Lbs.

Mk. 7 & Mods.

Wt. 7.0 Lbs.

Mk. 9 & Mods.

Wt. 6.54 Lbs.

Charge

Nominal Wt. 4. Lbs.

Primer

Mk. 14 Mods. 0, 1

Total Weight of Cartridge

Appr. 11. Lbs.

### FUZE SETTER

Mk. 11 Mods. 1 or 2; Mk. 12 & Mods.

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 984

Working Circle Drawing No.

365148

General Arrangement Drawing Nos.

365504-07

## REMARKS

Elevation limits are minus 15° to plus 85°. Maximum training limit is 360°.

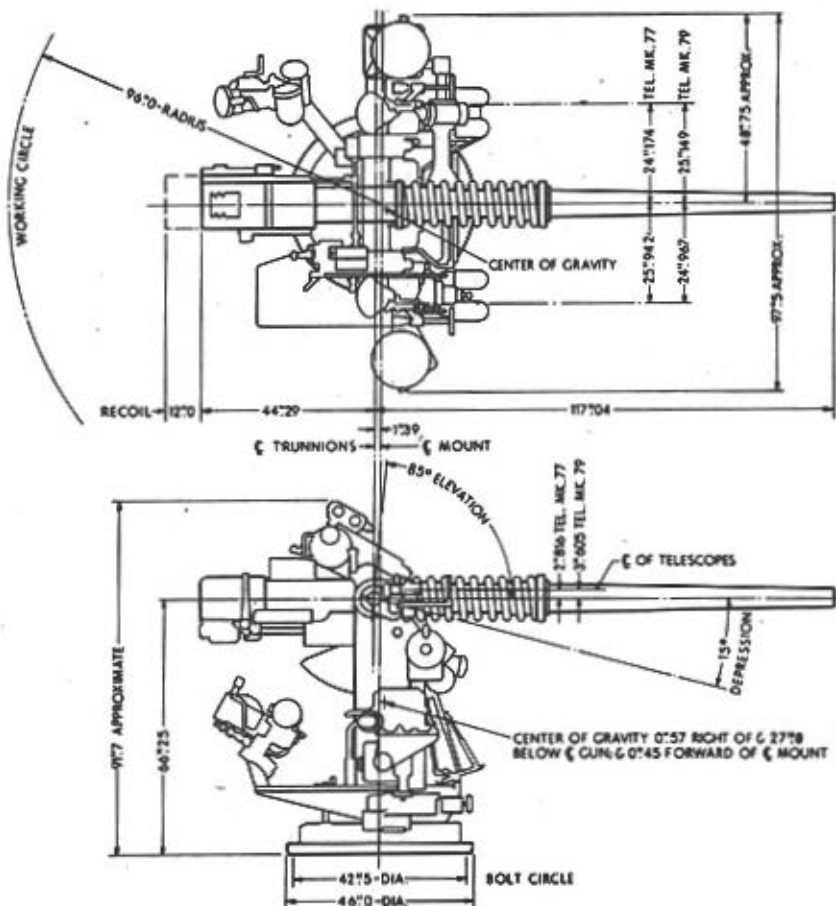
The rate of elevation per turn of the handwheel is 3°. The rate of training per turn of the handwheel is 5° 56 $\frac{3}{4}$ ' at high speed.

Length of recoil is 12 inches.

**3-IN. MOUNT, MARK 24 MOD. 2****3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 479          | 108420        |

Note: Assembly number of mount is required for precise information.



GUN—3"/50  
INSTALLATION FOR  
SHIELD

MK. 22 MODS. 2 OR 3

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

NONE

Weights below are approximate  
9,369 LBS.  
3,783 LBS.  
1,908 LBS.  
25,670 LBS.  
25,940 LBS.  
29,400 LBS.

**3"/50, MARK 24 MOD. 2**

# 3-IN. MOUNT, MARK 24 MOD. 2

3-IN. 50-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuit: Mk. 12 Mod. 0  
Gun Firing 120 V. A.C.  
Illumination Transformer 120 V. to 6 V. 75 Watts  
Stand-by Firing and  
Illumination—Battery 6 V. 100 A. H.  
Solenoid—Mk. 25 Mod. 1 A.C. 10 Amps. inrush  
1.7 Amps. steady  
D.C. 4.5 Amps.

### HYDRAULIC

Recoil Fluid O. D. 1914 2.34 Qts.

## INDICATORS

| ELEVATION          | SPEEDS | MFR.          |
|--------------------|--------|---------------|
| Mk. 21 Mod. 4      | 2 & 36 | Control Inst. |
| TRAIN              |        |               |
| Mk. 23 Mods. 3, 12 | 1 & 36 | Control Inst. |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 3-In. 50-Cal.                | Mk. 22 Mods. 2 or 3      |
| Max. Powder Pressure         | 17 Long Tons per Sq. In. |
| Barrel Weight                | 1,242 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                  |                           |
|------------------|---------------------------|
| Muzzle Velocity  | 2,700 Feet per Second     |
| Maximum Altitude | 29,800 Feet at 85° Elev.  |
| Maximum Range    | 14,600 Yards at 45° Elev. |

### AMMUNITION—Fixed

|                     |                   |                |
|---------------------|-------------------|----------------|
| Typical Projectiles |                   |                |
| A. A.               | Mods. of Mk. 27   | Wt. 13.05 Lbs. |
| Illuminating        | Mk. 25 Mod. 1     | Wt. 13.07 Lbs. |
| Armor Piercing      | Mods. of Mk. 29   | Wt. 13.07 Lbs. |
| Cartridge           |                   |                |
| Case                | Mk. 3 Mod. 3      | Wt. 7.88 Lbs.  |
|                     | Mk. 7 & Mods.     | Wt. 7.0 Lbs.   |
|                     | Mk. 9 & Mods.     | Wt. 6.54 Lbs.  |
| Charge              | Nominal Wt. 4.    | Lbs.           |
| Primer              | Mk. 14 Mods. 0, 1 |                |
| Total Wt. Cartridge | Appr. 11.         | Lbs.           |

## FUZE SETTER

Mk. 11 Mod. 1

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 984       |        |
| Working Circle Drawing No.      | 258285 |
| General Arrangement Drawing No. | 258284 |

## REMARKS

Elevation limits are minus 15° to plus 85°. Maximum training limit is 360°.

The rate of elevation per turn of the handwheel is 3". The rate of training per turn of the handwheel is 5° 56 $\frac{3}{4}$ ' at high speed.

Length of recoil is 12 inches.

This mount may be used with gun directors Mk. 51 Mods. 2 or 3.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

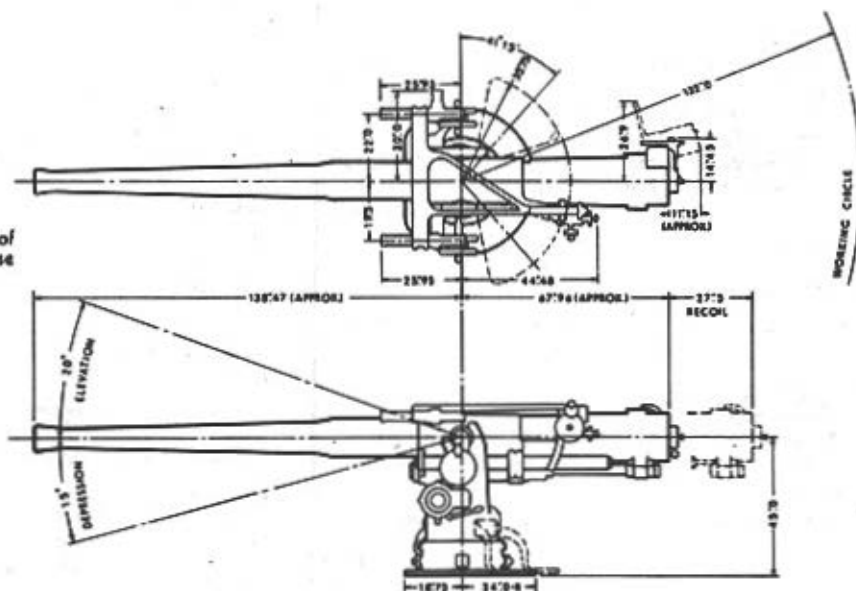
3"/50, MARK 24 MOD. 2



**4-IN. MOUNT, MARK 12 MOD. 0****4-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 40           | 6130          |
| 53           | 6533          |
| 60           | 6895          |
| 65           | 7098          |
| 246          | 103209        |
| 248          | 103211        |
| 249          | 103212        |

Note: Assembly number of mount is required for precise information.



GUN—4"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
MAXIMUM TRUNNION PRESSURE

MK. 9 MODS. 0, 2, 4, 5, 16  
SS-AUX.—MERCHANT SHIPS  
NONE

Weights below are approximate  
10,140 TO 10,660 LBS.  
7,430 TO 7,750 LBS.  
5,800 OR 6,100 LBS.  
34,400 OR 36,000 LBS.  
39,400 LBS.

**4"/50, MARK 12 MOD. 0**

# 4-IN. MOUNT, MARK 12 MOD. 0

4-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:  
None or

Mk. 11 Mod. 0

Illumination

6 V. Battery

Mk. 13 Mod. 0

Gun Firing and Illumination

6 V. Battery

### HYDRAULIC

Recoil Fluid

O. D. 1914

10.64 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                        |                            |
|----------------------------------------|----------------------------|
| 4-In. 50-Cal.                          | Mk. 9 Mods. 0, 2, 4, 5, 16 |
| Max. Powder Pressure                   | 17 Long Tons per Sq. In.   |
| Barrel Weights (inc. breech mechanism) |                            |
| Mk. 9 Mods. 0, 2, 4, 5                 | 5,900 Lbs.                 |
| Mk. 9 Mod. 16                          | 5,575 Lbs.                 |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,900 Feet per Second     |
| Maximum Range   | 16,200 Yards at 20° Elev. |

### AMMUNITION—Fixed

Gun Mk. 9 Mods. 0 through 4

#### Projectiles

|        |                                 |         |      |
|--------|---------------------------------|---------|------|
| Common | Mk. 6 Mods. 0, 1, 2, 3, 4, 5, 7 | Wt. 33. | Lbs. |
|--------|---------------------------------|---------|------|

#### Cartridge

|        |                   |           |          |      |
|--------|-------------------|-----------|----------|------|
| Case   | Mk. 2 Mod. 0      | Wt. 17.25 | Lbs.     |      |
| Case   | Mk. 2 Mod. 3      | Wt. 15.1  | Lbs.     |      |
| Charge |                   | Nominal   | Wt. 14.5 | Lbs. |
| Primer | Mk. 13 Mods. 0, 1 |           |          |      |

Gun Mk. 9 Mods. 5 through 24

#### Projectiles

|        |                         |         |      |
|--------|-------------------------|---------|------|
| Common | Mk. 6 Mod. 6            | Wt. 33. | Lbs. |
| Common | Mk. 10 Mods. 0, 1, 2, 3 | Wt. 33. | Lbs. |

#### Cartridge (for above)

|        |                   |           |          |      |
|--------|-------------------|-----------|----------|------|
| Case   | Mk. 2 Mod. 0      | Wt. 17.25 | Lbs.     |      |
| Case   | Mk. 2 Mod. 3      | Wt. 15.1  | Lbs.     |      |
| Charge |                   | Nominal   | Wt. 14.5 | Lbs. |
| Primer | Mk. 13 Mods. 0, 1 |           |          |      |

#### Projectiles

|              |                   |          |      |
|--------------|-------------------|----------|------|
| Common       | Mk. 16 Mods. 1, 2 | Wt. 33.  | Lbs. |
| H. C.        | Mk. 15 Mod. 1     | Wt. 33.  | Lbs. |
| Illuminating | Mods. of Mk. 14   | Wt. 34.7 | Lbs. |

#### Cartridge (for above)

|        |                   |          |          |      |
|--------|-------------------|----------|----------|------|
| Case   | Mk. 2 Mod. 1      | Wt. 17.  | Lbs.     |      |
| Case   | Mk. 2 Mod. 4      | Wt. 14.9 | Lbs.     |      |
| Charge |                   | Nominal  | Wt. 14.5 | Lbs. |
| Primer | Mk. 13 Mods. 0, 1 |          |          |      |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 165

Working Circle Drawing No.

45313

General Arrangement Drawing No.

46679

## REMARKS

Elevation limits are minus 15° to plus 20°. The training limit varies up to 360°.

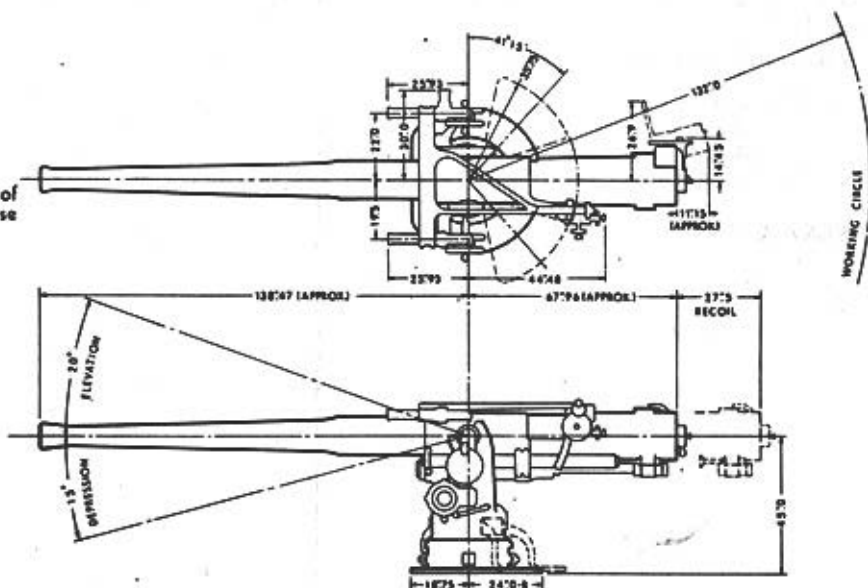
Gun elevation per turn of the handwheel at high speed is 2° 43' 50". Gun train per turn of the handwheel at high speed is 3° 2' 40".

Length of recoil is 27.5 inches.

**4-IN. MOUNT, MARK 12 MOD. 1****4-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 58           | 6078          |
| 247          | 103210        |
| 250          | 103213        |
| 251          | 103214        |
| 252          | 103215        |

Note: Assembly number of mount is required for precise information.



**GUN—4"/50**  
**INSTALLATION FOR**  
**SHIELD**

**TOTAL WEIGHT OF ASSEMBLY**  
**OSCILLATING WEIGHT**  
**RECOILING WEIGHT**  
**BRAKE LOAD**  
**MAXIMUM TRUNNION PRESSURE**

**4"/50, MARK 12 MOD. 1**

**MK. 9 MODS. 2, 5, 16**  
**DD-AUX.—MERCHANT SHIPS**  
**NONE**

Weights below are approximate  
 10,140 TO 10,470 LBS.  
 7,430 TO 7,760 LBS.  
 5,800 OR 6,100 LBS.  
 34,400 OR 36,000 LBS.  
 39,400 LBS.

# 4-IN. MOUNT, MARK 12 MOD. 1

4-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

Mk. 11 Mod. 0

Illumination

Mk. 13 Mod. 0

Gun Firing and Illumination

6 V. Battery

6 V. Battery

### HYDRAULIC

Recoil Fluid

O. D. 1914

10.64 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                        |                          |
|----------------------------------------|--------------------------|
| 4-In. 50-Cal.                          | Mk. 9 Mods. 2, 5, 16     |
| Max. Powder Pressure                   | 17 Long Tons per Sq. In. |
| Barrel Weights (inc. breech mechanism) |                          |
| Mk. 9 Mods. 2, 5                       | 5,900 Lbs.               |
| Mk. 9 Mod. 16                          | 5,575 Lbs.               |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,900 Feet per Second     |
| Maximum Range   | 16,200 Yards at 20° Elev. |

### AMMUNITION—Fixed

Gun Mk. 9 Mods. 0 through 4

Projectiles

|        |                                 |         |      |
|--------|---------------------------------|---------|------|
| Common | Mk. 6 Mods. 0, 1, 2, 3, 4, 5, 7 | Wt. 33. | Lbs. |
|--------|---------------------------------|---------|------|

Cartridge

|      |              |           |      |
|------|--------------|-----------|------|
| Case | Mk. 2 Mod. 0 | Wt. 17.25 | Lbs. |
|------|--------------|-----------|------|

|      |              |          |      |
|------|--------------|----------|------|
| Case | Mk. 2 Mod. 3 | Wt. 15.1 | Lbs. |
|------|--------------|----------|------|

|        |  |                  |      |
|--------|--|------------------|------|
| Charge |  | Nominal Wt. 14.5 | Lbs. |
|--------|--|------------------|------|

Primer Mk. 13 Mods. 0, 1

Gun Mk. 9 Mods. 5 through 24

Projectiles

|        |              |         |      |
|--------|--------------|---------|------|
| Common | Mk. 6 Mod. 6 | Wt. 33. | Lbs. |
|--------|--------------|---------|------|

|        |                         |         |      |
|--------|-------------------------|---------|------|
| Common | Mk. 10 Mods. 0, 1, 2, 3 | Wt. 33. | Lbs. |
|--------|-------------------------|---------|------|

Cartridge (for above)

|      |              |           |      |
|------|--------------|-----------|------|
| Case | Mk. 2 Mod. 0 | Wt. 17.25 | Lbs. |
|------|--------------|-----------|------|

|      |              |          |      |
|------|--------------|----------|------|
| Case | Mk. 2 Mod. 3 | Wt. 15.1 | Lbs. |
|------|--------------|----------|------|

|        |  |                  |      |
|--------|--|------------------|------|
| Charge |  | Nominal Wt. 14.5 | Lbs. |
|--------|--|------------------|------|

Primer Mk. 13 Mods. 0, 1

Projectiles

|        |                   |         |      |
|--------|-------------------|---------|------|
| Common | Mk. 16 Mods. 1, 2 | Wt. 33. | Lbs. |
|--------|-------------------|---------|------|

|       |               |         |      |
|-------|---------------|---------|------|
| H. C. | Mk. 15 Mod. 1 | Wt. 33. | Lbs. |
|-------|---------------|---------|------|

|              |                 |          |      |
|--------------|-----------------|----------|------|
| Illuminating | Mods. of Mk. 14 | Wt. 34.7 | Lbs. |
|--------------|-----------------|----------|------|

Cartridge (for above)

|      |              |         |      |
|------|--------------|---------|------|
| Case | Mk. 2 Mod. 1 | Wt. 17. | Lbs. |
|------|--------------|---------|------|

|      |              |          |      |
|------|--------------|----------|------|
| Case | Mk. 2 Mod. 4 | Wt. 14.9 | Lbs. |
|------|--------------|----------|------|

|        |  |                  |      |
|--------|--|------------------|------|
| Charge |  | Nominal Wt. 14.5 | Lbs. |
|--------|--|------------------|------|

Primer Mk. 13 Mods. 0, 1

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 165

Working Circle Drawing Nos.

45313

53195

General Arrangement Drawing Nos.

46679

53074

## REMARKS

Elevation limits are minus 15° to plus 20°. The training limit varies up to 360°.

Gun elevation per turn of the handwheel at high speed is 2° 43' 50". Gun train per turn of the handwheel at high speed is 3° 2' 40".

Length of recoil is 27.5 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

4"/50, MARK 12 MOD. 1

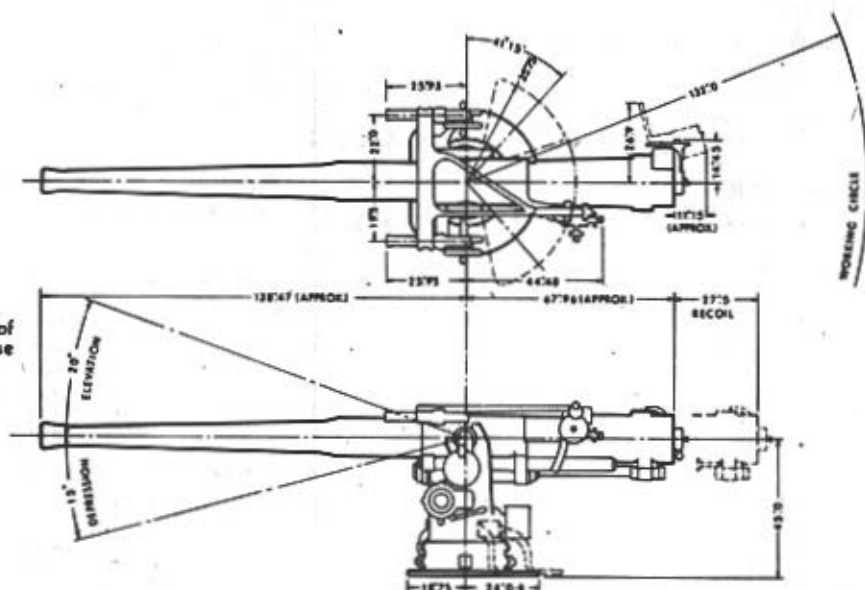


## 4-IN. MOUNT, MARK 12 MOD. 2

4-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 61        | 6986       |
| 71        | 7480       |
| 153       | 14041      |
| 159       | 14177      |
| 218       | 92378      |
| 219       | 92379      |
| 220       | 92380      |
| 221       | 92381      |
| 222       | 92382      |
| 223       | 92383      |
| 269       | 107854     |

Note: Assembly number of mount is required for precise information.



GUN—4"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
MAXIMUM TRUNNION PRESSURE

MK. 9 MODS. 2, 5, 7, 8, 16  
DD-AUX.—MERCHANT SHIPS  
NONE

Weights below are approximate  
10,460 TO 10,840 LBS.  
7,700 TO 7,760 LBS.  
6,100 LBS.  
34,400 TO 38,900 LBS.  
42,100 LBS.

4"/50, MARK 12 MOD. 2

# 4-IN. MOUNT, MARK 12 MOD. 2

4-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

|                                              |              |
|----------------------------------------------|--------------|
| Mk. 11 Mod. 0<br>Illumination                | 6 V. Battery |
| Mk. 13 Mod. 0<br>Gun Firing and Illumination | 6 V. Battery |

### HYDRAULIC

|              |            |            |
|--------------|------------|------------|
| Recoil Fluid | O. D. 1914 | 10.64 Qts. |
|--------------|------------|------------|

## GUN AND AMMUNITION DATA

### GUN

|                                       |                            |
|---------------------------------------|----------------------------|
| 4-In. 50-Cal.                         | Mk. 9 Mods. 2, 5, 7, 8, 16 |
| Max. Powder Pressure                  | 17 Long Tons per Sq. In.   |
| Barrel Weight (inc. breech mechanism) |                            |
| Mk. 9 Mods. 2, 5, 8                   | 5,900 Lbs.                 |
| Mk. 9 Mods. 7, 16                     | 5,575 Lbs.                 |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,900 Feet per Second     |
| Maximum Range   | 16,200 Yards at 20° Elev. |

### AMMUNITION—Fixed

Gun Mk. 9 Mods. 0 through 4

#### Projectiles

|        |                                 |         |      |
|--------|---------------------------------|---------|------|
| Common | Mk. 6 Mods. 0, 1, 2, 3, 4, 5, 7 | Wt. 33. | Lbs. |
|--------|---------------------------------|---------|------|

#### Cartridge

|        |                   |                  |      |
|--------|-------------------|------------------|------|
| Case   | Mk. 2 Mod. 0      | Wt. 17.25        | Lbs. |
| Case   | Mk. 2 Mod. 3      | Wt. 15.1         | Lbs. |
| Charge |                   | Nominal Wt. 14.5 | Lbs. |
| Primer | Mk. 13 Mods. 0, 1 |                  |      |

Gun Mk. 9 Mods. 5 through 24

#### Projectiles

|        |                         |         |      |
|--------|-------------------------|---------|------|
| Common | Mk. 6 Mod. 6            | Wt. 33. | Lbs. |
| Common | Mk. 10 Mods. 0, 1, 2, 3 | Wt. 33. | Lbs. |

#### Cartridge (for above)

|        |                   |                  |      |
|--------|-------------------|------------------|------|
| Case   | Mk. 2 Mod. 0      | Wt. 17.25        | Lbs. |
| Case   | Mk. 2 Mod. 3      | Wt. 15.1         | Lbs. |
| Charge |                   | Nominal Wt. 14.5 | Lbs. |
| Primer | Mk. 13 Mods. 0, 1 |                  |      |

#### Projectiles

|              |                   |          |      |
|--------------|-------------------|----------|------|
| Common       | Mk. 16 Mods. 1, 2 | Wt. 33.  | Lbs. |
| H. C.        | Mk. 15 Mod. 1     | Wt. 33.  | Lbs. |
| Illuminating | Mods. of Mk. 14   | Wt. 34.7 | Lbs. |

#### Cartridge (for above)

|        |                   |                  |      |
|--------|-------------------|------------------|------|
| Case   | Mk. 2 Mod. 1      | Wt. 17.          | Lbs. |
| Case   | Mk. 2 Mod. 4      | Wt. 14.9         | Lbs. |
| Charge |                   | Nominal Wt. 14.5 | Lbs. |
| Primer | Mk. 13 Mods. 0, 1 |                  |      |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Ordnance Pamphlet No. 165       |       |
| Working Circle Drawing No.      | 53195 |
| General Arrangement Drawing No. | 53074 |

## REMARKS

Elevation limits are minus 15° to plus 20°. The training limit varies up to 360°.

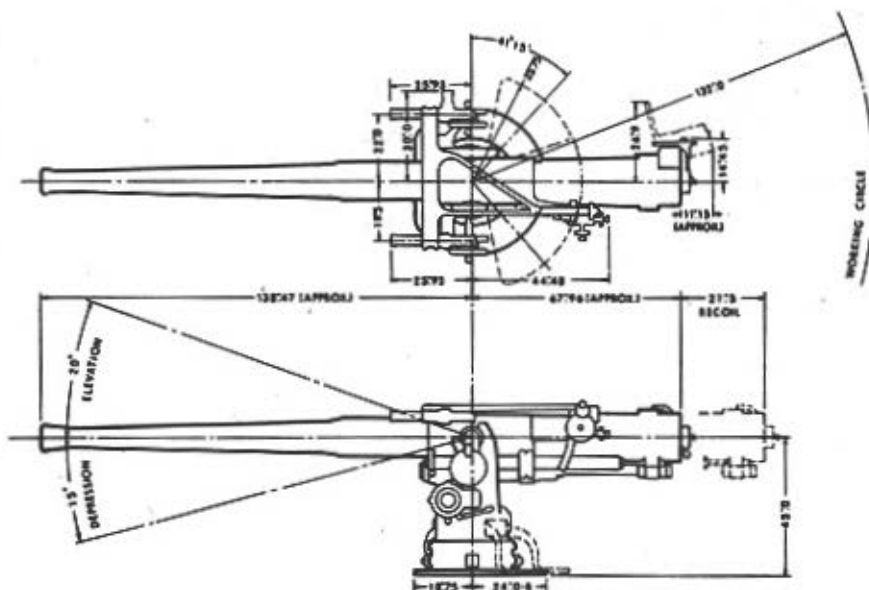
Gun elevation per turn of the handwheel at high speed is 2° 43' 50". Gun train per turn of the handwheel at high speed is 3° 2' 40".

Length of recoil is 27.5 inches.

## 4-IN. MOUNT, MARK 12 MOD. 3

4-IN. 50-CAL., S. P., SINGLE, OPEN OR SHIELDED, PEDESTAL TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 68           | 7159          |
| 73           | 12639         |
| 125          | 12649         |
| 126          | 12666         |
| 132          | 13566         |
| 156          | 14174         |
| 157          | 14175         |
| 158          | 14176         |
| 160          | 14178         |
| 161          | 14179         |
| 185          | 54905         |
| 196          | 54925         |
| 215          | 62493         |
| 216          | 62825         |
| 224          | 92384         |
| 225          | 92385         |
| 226          | 92386         |
| 227          | 92387         |
| 228          | 92388         |
| 229          | 92389         |
| 235          | 92853         |
| 244          | 92993         |
| 253          | 103216        |
| 267          | 107852        |
| 268          | 107853        |
| 271          | 108350        |



Note: Assembly number of mount is required for precise information.

GUN—4"/50  
INSTALLATION FOR  
SPRAY SHIELD (ON ASSY. 196 ONLY)  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
WEIGHT OF SHIELD  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
MAXIMUM TRUNNION PRESSURE

MK. 9 MODS. 0, 2, 5, 6, 7, 8, 16  
DD-AUX.—MERCHANT SHIPS  
MK. 22 MOD. 0  
.187 IN.

Weights below are approximate  
10,390 TO 10,980 LBS.  
827 LBS.  
7,700 TO 7,900 LBS.  
6,100 LBS.  
43,360 TO 48,800 LBS.  
52,000 LBS.

4"/50, MARK 12 MOD. 3

# 4-IN. MOUNT, MARK 12 MOD. 3

4-IN. 50-CAL., S. P., SINGLE, OPEN OR SHIELDED, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

None or

Mk. 4 Mod. 2

Gun Firing

Transformer

110 V. to 20 V.

200 Watts

Stand-by Firing

6 V. Battery

Illumination

6 V. Battery

Mk. 4 Mod. 3

Gun Firing

Transformer

110 V. to 20 V.

200 Watts

Illumination and Stand-by Firing

6 V. Battery

Mk. 11 Mod. 0

Illumination

6 V. Battery

Mk. 13 Mod. 0

Gun Firing and Illumination

6 V. Battery

### HYDRAULIC

Recoil Fluid

O. D. 1914

9.6 Qts.

## RECEIVERS AND INDICATORS

ELEVATION

SPEEDS

MFR.

None or

Mk. 1 Mod. 3 (Rec.)

60/7 & 60

NYNY

Mk. 7 Mod. 7 (Ind.)

2 & 36

Gen. Elec. & Ford

TRAINING

None or

Mk. 1 Mods. 0, 1 (Rec.)

1 & 60

NYNY

Mk. 7 Mod. 3 (Ind.)

1 & 36

Gen. Elec.

## GUN AND AMMUNITION DATA

### GUN

4-In. 50-Cal.

Mk. 9 Mods. 0, 2, 5, 6, 7, 8, 16

Max. Powder Pressure

17 Long Tons per Sq. In.

Barrel Weight (inc. breech mechanism)

Mk. 9 Mods. 0, 2, 5, 6, 8

5,900 Lbs.

Mk. 9 Mods. 7, 16

5,575 Lbs.

### BALLISTICS

Muzzle Velocity

2,900 Feet per Second

Maximum Range

16,200 Yards at 20° Elev.

### AMMUNITION—Fixed

Gun Mk. 9 Mods. 0 through 4

Projectiles

Common Mk. 6 Mods. 0, 1, 2, 3, 4, 5, 7 Wt. 33. Lbs.

Cartridge

Case Mk. 2 Mod. 0

Wt. 17.25 Lbs.

Case Mk. 2 Mod. 3

Wt. 15.1 Lbs.

Charge

Nominal Wt. 14.5 Lbs.

Primer

Mk. 13 Mods. 0, 1

Gun Mk. 9 Mods. 5 through 24

Projectiles

Common Mk. 6 Mod. 6 Wt. 33. Lbs.

Common Mk. 10 Mods. 0, 1, 2, 3 Wt. 33. Lbs.

Cartridge (for above)

Case Mk. 2 Mod. 0

Wt. 17.25 Lbs.

Case Mk. 2 Mod. 3

Wt. 15.1 Lbs.

Charge

Nominal Wt. 14.5 Lbs.

Primer

Mk. 13 Mods. 0, 1

Projectiles

Common Mk. 16 Mods. 1, 2 Wt. 33. Lbs.

H. C. Mk. 15 Mod. 1 Wt. 33. Lbs.

Illuminating Mods. of Mk. 14 Wt. 34.7 Lbs.

Cartridge (for above)

Case Mk. 2 Mod. 1

Wt. 17. Lbs.

Case Mk. 2 Mod. 4

Wt. 14.9 Lbs.

Charge

Nominal Wt. 14.5 Lbs.

Primer

Mk. 13 Mods. 0, 1

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordinance Pamphlet No. 165

Working Circle Drawing No.

53195

General Arrangement Drawing Nos.

53074

239702

## REMARKS

Elevation limits are minus 15° to plus 20°. The training limit varies up to 360°.

Gun elevation per turn of the handwheel at high speed is 2° 43' 50". Gun train per turn of the handwheel at high speed is 3° 2' 40".

Length of recoil is 21.5 inches.

This mount may be used with specific modifications of gun directors Mk. 7 or Mk. 8.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

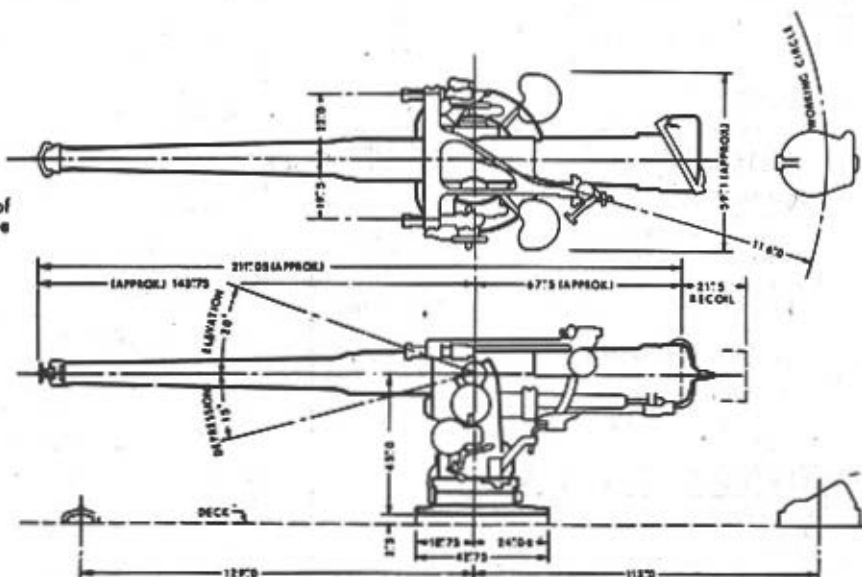
4"/50, MARK 12 MOD. 3



**4-IN. MOUNT, MARK 12 MOD. 6****4-IN. 50-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 129          | 12835         |
| 130          | 12836         |
| 186          | 54909         |
| 187          | 54910         |
| 203          | 56540         |
| 207          | 58840         |

Note: Assembly number of mount is required for precise information.



GUN—4"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
MAXIMUM TRUNNION PRESSURE

MK. 9 MODS. 5, 18, 21  
SS  
NONE

Weights below are approximate  
10,870 TO 10,940 LBS.  
8,010 TO 8,080 LBS.  
6,250 LBS.  
44,750 LBS.  
48,100 LBS.

**4"/50, MARK 12 MOD. 6**

# 4-IN. MOUNT, MARK 12 MOD. 6

4-IN. 50-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      9.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                       |                          |
|---------------------------------------|--------------------------|
| 4-In. 50-Cal.                         | Mk. 9 Mods. 5, 18, 21    |
| Max. Powder Pressure                  | 17 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) |                          |
| Mk. 9 Mod. 5                          | 5,900 Lbs.               |
| Mk. 9 Mods. 18, 21                    | 5,575 Lbs.               |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,900 Feet per Second     |
| Maximum Range   | 16,200 Yards at 20° Elev. |

### AMMUNITION—Fixed

Gun Mk. 9 Mods. 5 through 24

|                       |                         |                  |      |
|-----------------------|-------------------------|------------------|------|
| Projectiles           |                         |                  |      |
| Common                | Mk. 6 Mod. 6            | Wt. 33.          | Lbs. |
| Common                | Mk. 10 Mods. 0, 1, 2, 3 | Wt. 33.          | Lbs. |
| Cartridge (for above) |                         |                  |      |
| Case                  | Mk. 2 Mod. 0            | Wt. 17.25        | Lbs. |
| Case                  | Mk. 2 Mod. 3            | Wt. 15.1         | Lbs. |
| Charge                |                         | Nominal Wt. 14.5 | Lbs. |
| Primer                | Mk. 13 Mods. 0, 1       |                  |      |
| Projectiles           |                         |                  |      |
| Common                | Mk. 16 Mods. 1, 2       | Wt. 33.          | Lbs. |
| H. C.                 | Mk. 15 Mod. 1           | Wt. 33.          | Lbs. |
| Illuminating          | Mk. 14                  | Wt. 34.7         | Lbs. |
| Cartridge (for above) |                         |                  |      |
| Case                  | Mk. 2 Mod. 1            | Wt. 17.          | Lbs. |
| Case                  | Mk. 2 Mod. 4            | Wt. 14.9         | Lbs. |
| Charge                |                         | Nominal Wt. 14.5 | Lbs. |
| Primer                | Mk. 13 Mods. 0, 1       |                  |      |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Ordnance Pamphlet No. 165       |       |
| Working Circle Drawing No.      | 66439 |
| General Arrangement Drawing No. | 66489 |

## REMARKS

Elevation limits are minus 15° to plus 20°. The training limit varies up to 360°.

Gun elevation per turn of the handwheel at high speed is 2° 43' 50". Gun train per turn of the handwheel at high speed is 3° 2' 40".

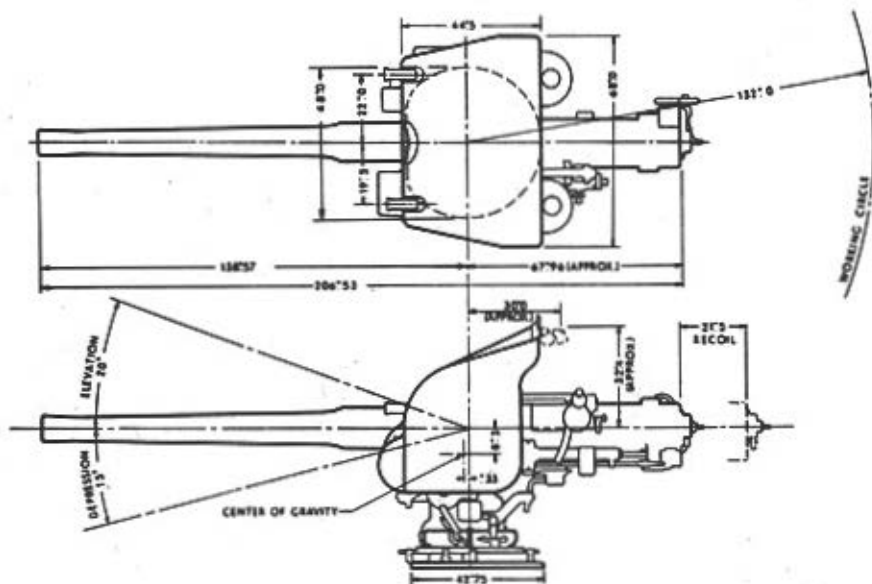
Length of recoil is 21.5 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

4"/50, MARK 12 MOD. 6

**4-IN. MOUNT, MARK 12 MOD. 10****4-IN. 50-CAL., S. P., SINGLE, OPEN OR SHIELDED, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 139          | 13597         |
| 141          | 13599         |
| 142          | 13900         |
| 143          | 13901         |
| 144          | 13902         |
| 168          | 14344         |
| 170          | 14346         |
| 171          | 14347         |
| 172          | 14348         |
| 173          | 14349         |
| 192          | 54919         |
| 194          | 54921         |
| 230          | 92390         |
| 231          | 92391         |
| 232          | 92392         |
| 237          | 94796         |
| 238          | 94797         |
| 239          | 94798         |
| 240          | 94799         |
| 241          | 94800         |
| 242          | 94801         |
| 243          | 94802         |
| 266          | 107750        |
| 272          | 108377        |



Note: Assembly number of mount is required for precise information.

GUN—4"/50  
INSTALLATION FOR  
SPRAY SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
WEIGHT OF SHIELD  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
MAXIMUM TRUNNION PRESSURE

MK. 9 MODS. 2, 5, 7, 16  
DD

NONE, MK. 21 MOD. 2 OR MK. 23 MOD. 0  
.196 IN.

Weights below are approximate  
10,830 TO 12,060 LBS.  
736 OR 703 LBS.  
7,700 TO 7,750 LBS.  
6,100 LBS.  
43,360 TO 48,800 LBS.  
52,000 LBS.

**4"/50, MARK 12 MOD. 10**

# 4-IN. MOUNT, MARK 12 MOD. 10

4-IN. 50-CAL., S. P., SINGLE, OPEN OR SHIELDED, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

|                                  |                 |              |
|----------------------------------|-----------------|--------------|
| Mk. 4 Mod. 1                     |                 |              |
| Gun Firing                       |                 |              |
| Transformer                      | 110 V. to 20 V. | 200 Watts    |
| Illumination and Stand-by Firing |                 | 6 V. Battery |
| Mk. 4 Mod. 2                     |                 |              |
| Gun Firing                       |                 |              |
| Transformer                      | 110 V. to 20 V. | 200 Watts    |
| Stand-by Firing                  |                 | 6 V. Battery |
| Illumination                     |                 | 6 V. Battery |
| Mk. 11 Mod. 0                    |                 |              |
| Illumination                     |                 | 6 V. Battery |
| Mk. 13 Mod. 0                    |                 |              |
| Gun Firing and Illumination      |                 | 6 V. Battery |

### HYDRAULIC

|              |            |          |
|--------------|------------|----------|
| Recoil Fluid | O. D. 1914 | 9.6 Qts. |
|--------------|------------|----------|

### RECEIVERS

|              |           |      |
|--------------|-----------|------|
| ELEVATION    | SPEEDS    | MFR. |
| Mk. 1 Mod. 3 | 60/7 & 60 | NYNY |
| TRAINING     |           |      |
| Mk. 1 Mod. 1 | 1 & 60    | NYNY |

## GUN AND AMMUNITION DATA

### GUN

|                                       |                          |
|---------------------------------------|--------------------------|
| 4-In. 50-Cal.                         | Mk. 9 Mods. 2, 5, 7, 16  |
| Max. Powder Pressure                  | 17 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) |                          |
| Mk. 9 Mods. 2, 5                      | 5,900 Lbs.               |
| Mk. 9 Mods. 7, 16                     | 5,575 Lbs.               |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,900 Feet per Second     |
| Maximum Range   | 16,200 Yards at 20° Elev. |

### AMMUNITION—Fixed

Gun Mk. 9 Mods. 0 through 4

|             |                                 |                       |
|-------------|---------------------------------|-----------------------|
| Projectiles |                                 |                       |
| Common      | Mk. 6 Mods. 0, 1, 2, 3, 4, 5, 7 | Wt. 33. Lbs.          |
| Cartridge   |                                 |                       |
| Case        | Mk. 2 Mod. 0                    | Wt. 17.25 Lbs.        |
| Case        | Mk. 2 Mod. 3                    | Wt. 15.1 Lbs.         |
| Charge      |                                 | Nominal Wt. 14.5 Lbs. |
| Primer      | Mk. 13 Mods. 0, 1               |                       |

Gun Mk. 9 Mods. 5 through 24

|                       |                         |                       |
|-----------------------|-------------------------|-----------------------|
| Projectiles           |                         |                       |
| Common                | Mk. 6 Mod. 6            | Wt. 33. Lbs.          |
| Common                | Mk. 10 Mods. 0, 1, 2, 3 | Wt. 33. Lbs.          |
| Cartridge (for above) |                         |                       |
| Case                  | Mk. 2 Mod. 0            | Wt. 17.25 Lbs.        |
| Case                  | Mk. 2 Mod. 3            | Wt. 15.1 Lbs.         |
| Charge                |                         | Nominal Wt. 14.5 Lbs. |
| Primer                | Mk. 13 Mods. 0, 1       |                       |
| Projectiles           |                         |                       |
| Common                | Mk. 16 Mods. 1, 2       | Wt. 33. Lbs.          |
| H. C.                 | Mk. 15 Mod. 1           | Wt. 33. Lbs.          |
| Illuminating          | Mods. of Mk. 14         | Wt. 34.7 Lbs.         |
| Cartridge (for above) |                         |                       |
| Case                  | Mk. 2 Mod. 1            | Wt. 17. Lbs.          |
| Case                  | Mk. 2 Mod. 4            | Wt. 14.9 Lbs.         |
| Charge                |                         | Nominal Wt. 14.5 Lbs. |
| Primer                | Mk. 13 Mods. 0, 1       |                       |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |        |
|----------------------------------|--------|
| Ordinance Pamphlet No. 165       | 53195  |
| Working Circle Drawing Nos.      | 134979 |
|                                  | 240536 |
|                                  | 244272 |
| General Arrangement Drawing Nos. | 53074  |
|                                  | 237315 |
|                                  | 240529 |
|                                  | 243799 |

## REMARKS

Elevation limits are minus 15° to plus 20°. The training limit varies up to 360°.

Gun elevation per turn of the handwheel at high speed is 2° 43' 50". Gun train per turn of the handwheel at high speed is 3° 2' 40".

Length of recoil is 21.5 inches.

This mount may be used with specific modifications of gun directors Mk. 7 or Mk. 8.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

4"/50, MARK 12 MOD. 10

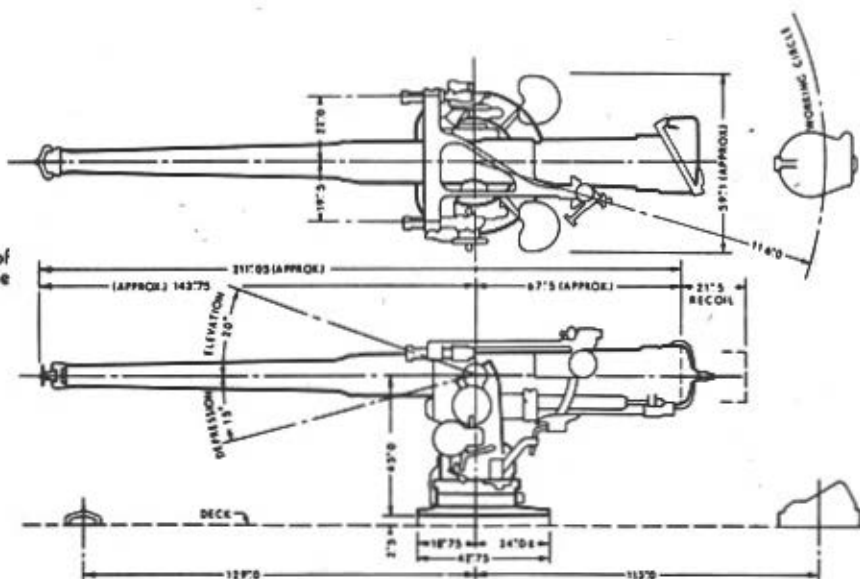


## 4-IN. MOUNT, MARK 12 MOD. 11

4-IN. 50-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 146          | 13913         |
| 152          | 14008         |
| 188          | 54911         |
| 189          | 54912         |
| 206          | 58839         |
| 208          | 58841         |
| 209          | 58842         |
| 264          | 106818        |

Note: Assembly number of mount is required for precise information.



GUN—4"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
MAXIMUM TRUNNION PRESSURE

MK. 9 MODS. 5, 18, 19, 20, 21  
SS-AUX.  
NONE

Weights below are approximate  
10,860 TO 10,940 LBS.  
7,750 TO 8,080 LBS.  
6,100 LBS.  
43,360 LBS.  
46,900 LBS.

4"/50, MARK 12 MOD. 11

# 4-IN. MOUNT, MARK 12 MOD. 11

4-IN. 50-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

None or

Mk. 13 Mod. 0

Gun Firing and Illumination

6 V. Battery

### HYDRAULIC

Recoil Fluid

O. D. 1914

9.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                       |                               |
|---------------------------------------|-------------------------------|
| 4-In. 50-Cal.                         | Mk. 9 Mods. 5, 18, 19, 20, 21 |
| Max. Powder Pressure                  | 17 Long Tons per Sq. In.      |
| Barrel Weight (inc. breech mechanism) |                               |
| Mk. 9 Mods. 5, 20                     | 5,900 Lbs.                    |
| Mk. 9 Mods. 18, 19, 21                | 5,575 Lbs.                    |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,900 Feet per Second     |
| Maximum Range   | 16,200 Yards at 20° Elev. |

### AMMUNITION—Fixed

Gun Mk. 9 Mods. 5 through 24

|                       |                         |                  |      |
|-----------------------|-------------------------|------------------|------|
| Projectiles           |                         |                  |      |
| Common                | Mk. 6 Mod. 6            | Wt. 33.          | Lbs. |
| Common                | Mk. 10 Mods. 0, 1, 2, 3 | Wt. 33.          | Lbs. |
| Cartridge (for above) |                         |                  |      |
| Case                  | Mk. 2 Mod. 0            | Wt. 17.25        | Lbs. |
| Case                  | Mk. 2 Mod. 3            | Wt. 15.1         | Lbs. |
| Charge                |                         | Nominal Wt. 14.5 | Lbs. |
| Primer                | Mk. 13 Mods. 0, 1       |                  |      |
| Projectiles           |                         |                  |      |
| Common                | Mk. 16 Mods. 1, 2       | Wt. 33.          | Lbs. |
| H. C.                 | Mk. 15 Mod. 1           | Wt. 33.          | Lbs. |
| Illuminating          | Mods. of Mk. 14         | Wt. 34.7         | Lbs. |
| Cartridge (for above) |                         |                  |      |
| Case                  | Mk. 2 Mod. 1            | Wt. 17.          | Lbs. |
| Case                  | Mk. 2 Mod. 4            | Wt. 14.9         | Lbs. |
| Charge                |                         | Nominal Wt. 14.5 | Lbs. |
| Primer                | Mk. 13 Mods. 0, 1       |                  |      |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |       |
|----------------------------------|-------|
| Ordnance Pamphlet No. 165        |       |
| Working Circle Drawing Nos.      | 53195 |
|                                  | 66439 |
| General Arrangement Drawing Nos. | 53074 |
|                                  | 66489 |

## REMARKS

Elevation limits are minus 15° to plus 20°. The training limit varies up to 360°.

Gun elevation per turn of the handwheel at high speed is 2° 13' 42". Gun train per turn of the handwheel at high speed is 3° 24' 50".

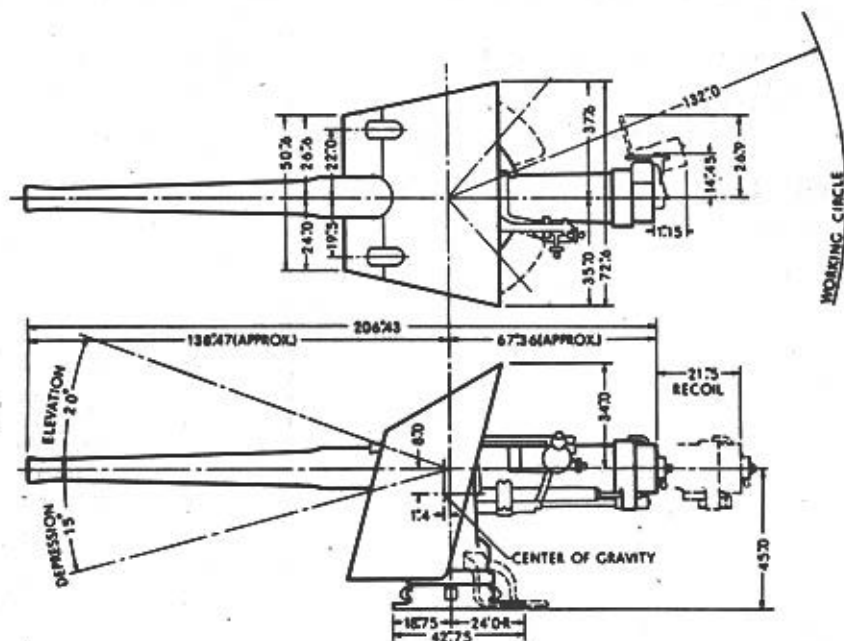
Length of recoil is 21.5 inches.

## 4-IN. MOUNT, MARK 12 MOD. 13

4-IN. 50-CAL., S. P., SINGLE, OPEN OR SHIELDED, PEDESTAL TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 149       | 13921      |
| 151       | 13923      |
| 176       | 14352      |
| 178       | 14354      |
| 190       | 54939      |
| 193       | 54938      |
| 195       | 54922      |
| 205       | 56546      |
| 210       | 59010      |
| 211       | 59023      |
| 213       | 62491      |
| 233       | 92393      |
| 234       | 92394      |
| 245       | 102824     |

Note: Assembly number of mount is required for precise information.



GUN—4"/50  
INSTALLATION FOR  
SPRAY SHIELD  
SHIELD THICKNESS  
WEIGHT OF SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
MAXIMUM TRUNNION PRESSURE

|                     |                  |               |
|---------------------|------------------|---------------|
| NONE, MK. 21 MOD. 2 | MK. 22 MOD. 0 OR | MK. 23 MOD. 0 |
| 0". 196             | 0". 187          | 0". 196       |
| 736 LBS.            | 827 LBS.         | 703 LBS.      |

Weights below are approximate  
10,520 TO 11,320 LBS.  
7,700 LBS.  
6,100 LBS.  
43,360 TO 48,800 LBS.  
52,100 LBS.

4"/50, MARK 12 MOD. 13

# 4-IN. MOUNT, MARK 12 MOD. 13

4-IN. 50-CAL., S. P., SINGLE, OPEN OR SHIELDED, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

None or

Mk. 4 Mod. 1

Mk. 4 Mod. 3

Gun Firing

Transformer 110 V. to 20 V.

Illumination and Stand-by Firing

200 Watts

6 V. Battery

Mk. 4 Mod. 2

Gun Firing

Transformer 110 V. to 20 V.

Stand-by Firing

Illumination

200 Watts

6 V. Battery

6 V. Battery

### HYDRAULIC

Recoil Fluid

O. D. 1914

9.6 Qts.

## RECEIVERS AND INDICATORS

### ELEVATION

Mk. 1 Mods. 2, 3 (Rec.)

Mk. 7 Mod. 7 (Ind.)

### SPEEDS

60/7 & 60

2 & 36

### MFR.

NYNY

Gen. Elec. & Ford

### TRAINING

Mk. 1 Mods. 0, 1 (Rec.)

Mk. 7 Mod. 3 (Ind.)

1 & 60

1 & 36

NYNY

Gen. Elec.

## GUN AND AMMUNITION DATA

### GUN

4-In. 50-Cal.

Max. Powder Pressure

Barrel Weight (inc. breech mechanism)

Mk. 9 Mod. 5

Mk. 9 Mods. 7, 16

Mk. 9 Mods. 5, 7, 16

17 Long Tons per Sq. In.

5,900 Lbs.

5,575 Lbs.

### BALLISTICS

Muzzle Velocity

Maximum Range

2,900 Feet per Second

16,200 Yards at 20° Elev.

### AMMUNITION—Fixed

Gun Mk. 9 Mods. 5 through 24

#### Projectiles

Common Mk. 6 Mod. 6

Common Mk. 10 Mods. 0, 1, 2, 3

Wt. 33.

Wt. 33.

Lbs.

Lbs.

#### Cartridge (for above)

Case Mk. 2 Mod. 0

Case Mk. 2 Mod. 3

Charge

Primer Mk. 13 Mods. 0, 1

Wt. 17.25

Wt. 15.1

Nominal Wt. 14.5

Lbs.

Lbs.

#### Projectiles

Common Mk. 16 Mods. 1, 2

H. C. Mk. 15 Mod. 1

Illuminating Mk. 14

Wt. 33.

Wt. 33.

Wt. 34.7

Lbs.

Lbs.

#### Cartridge (for above)

Case Mk. 2 Mod. 1

Case Mk. 2 Mod. 4

Charge

Primer Mk. 13 Mods. 0, 1

Wt. 17.

Wt. 14.9

Nominal Wt. 14.5

Lbs.

Lbs.

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 165

Working Circle Drawing Nos.

53195

134979

246241

General Arrangement Drawing Nos.

237315

246240

## REMARKS

Elevation limits are minus 15° to plus 20°. The training limit varies up to 360°.

Gun elevation per turn of the handwheel at high speed is 2° 13' 42". Gun train per turn of the handwheel at high speed is 3° 24' 50".

Length of recoil is 21.5 inches.

This mount may be used with specific modifications of gun directors Mk. 7 or Mk. 8.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

4"/50, MARK 12 MOD. 13



| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 155          | 14161         |
| 179          | 14355         |
| 197          | 55946         |
| 204          | 56541         |
| 214          | 62492         |
| 254          | 103246        |

Technical drawing of a gun mount showing elevation and depression angles, dimensions, and labels like "CENTER OF GRAVITY" and "WORKING CIRCLE".

Labels and dimensions include:

- ELEVATION 10°
- DEPRESSION 15°
- 13857
- 20453
- 67794
- 2123 RECOL
- CENTER OF GRAVITY
- WORKING CIRCLE
- 13270
- 4850
- 3070
- 3270
- 2718
- 1175
- 4520
- 6775

Weights below are approximate

|        |      |
|--------|------|
| 10,830 | LBS. |
| 736    | LBS. |
| 7,740  | LBS. |
| 6,100  | LBS. |
| 44,000 | LBS. |
| 47,300 | LBS. |

**4"/50, MARK 12 MOD. 18**

# 4-IN. MOUNT, MARK 12 MOD. 18

4-IN. 50-CAL., S. P., SINGLE, OPEN OR SHIELDED, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

None or

Mk. 4 Mod. 1

Gun Firing

Transformer 110 V. to 20 V.  
Illumination and Stand-by Firing

200 Watts  
6 V. Battery

Mk. 4 Mod. 2

Gun Firing

Transformer 110 V. to 20 V.  
Stand-by Firing  
Illumination

200 Watts  
6 V. Battery  
6 V. Battery

Mk. 11 Mod. 0

Illumination

6 V. Battery

Mk. 13 Mod. 0

Gun Firing and Illumination

6 V. Battery

### HYDRAULIC

Recoil Fluid

O. D. 1914

9.6 Qts.

### RECEIVERS

ELEVATION

None or

Mk. 1 Mod. 3

SPEEDS

60/7 & 60

MFR.

NYNY

TRAINING

None or

Mk. 1 Mod. 1

1 & 60

NYNY

## GUN AND AMMUNITION DATA

### GUN

4-In. 50-Cal.

Max. Powder Pressure

Barrel Weight (inc. breech mechanism)

Mk. 9 Mod. 5

Mk. 9 Mods. 7, 16

Mk. 9 Mods. 5, 7, 16

17 Long Tons per Sq. In.

5,900 Lbs.

5,575 Lbs.

### BALLISTICS

Muzzle Velocity

2,900 Feet per Second

Maximum Range

16,200 Yards at 20° Elev.

### AMMUNITION—Fixed

Gun Mk. 9 Mods. 5 through 24

Projectiles

Common

Mk. 6 Mod. 6

Wt. 33. Lbs.

Common

Mk. 10 Mods. 0, 1, 2, 3

Wt. 33. Lbs.

Cartridge (for above)

Case

Mk. 2 Mod. 0

Wt. 17.25 Lbs.

Case

Mk. 2 Mod. 3

Wt. 15.1 Lbs.

Charge

Nominal Wt. 14.5 Lbs.

Primer

Mk. 13 Mods. 0, 1

Projectiles

Common

Mk. 16 Mods. 1, 2

Wt. 33. Lbs.

H. C.

Mk. 15 Mod. 1

Wt. 33. Lbs.

Illuminating

Mods. of Mk. 14

Wt. 34.7 Lbs.

Cartridge (for above)

Case

Mk. 2 Mod. 1

Wt. 17. Lbs.

Case

Mk. 2 Mod. 4

Wt. 14.9 Lbs.

Charge

Nominal Wt. 14.5 Lbs.

Primer

Mk. 13 Mods. 0, 1

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 165

Working Circle Drawing Nos.

53195

246665

General Arrangement Drawing No.

142881

## REMARKS

Elevation limits are minus 15° to plus 20°. The training limit varies up to 360°.

Gun elevation per turn of the handwheel at high speed is 2° 43' 50". Gun train per turn of the handwheel at high speed is 3° 2' 40".

Length of recoil is 21.5 inches.

This mount may be used with specific modifications of gun directors Mk. 7 or Mk. 8.

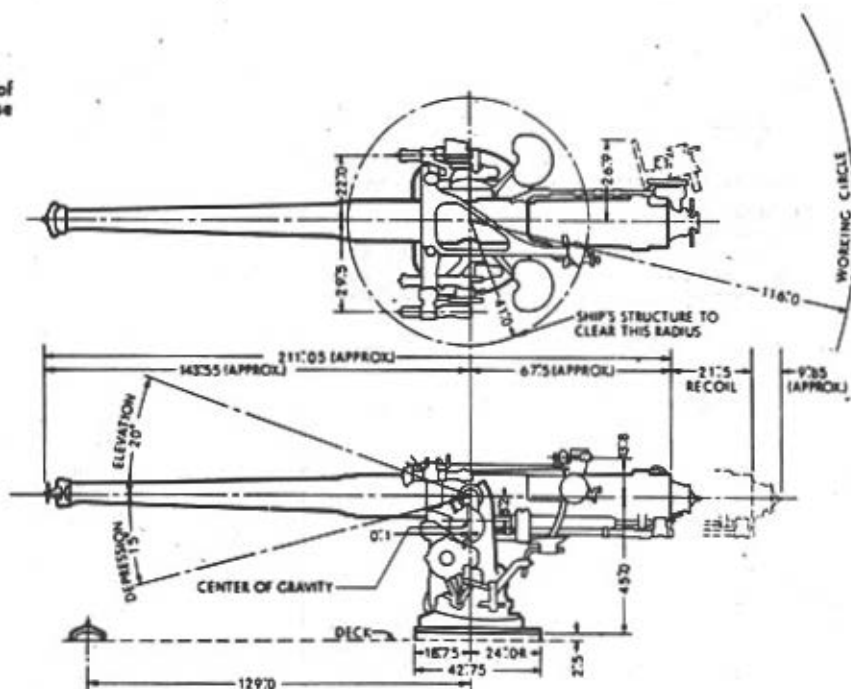
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

4"/50, MARK 12 MOD. 18

**4-IN. MOUNT, MARK 12 MOD. 21****4-IN. 50-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE**

|       |        |
|-------|--------|
| ASSY. | SKETCH |
| NO.   | NO.    |
| 199   | 55929  |

Note: Assembly number of mount is required for precise information.



GUN—4"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
MAXIMUM TRUNNION PRESSURE

MK. 9 MOD. 21

SS

NONE

Weights below are approximate

10,800 LBS.

8,080 LBS.

6,150 LBS.

43,050 LBS.

48,100 LBS.

**4"/50, MARK 12 MOD. 21**

# 4-IN. MOUNT, MARK 12 MOD. 21

4-IN. 50-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      9.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

4-In. 50-Cal.      Mk. 9 Mod. 21  
Max. Powder Pressure      17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism)      5,575 Lbs.

### BALLISTICS

Muzzle Velocity      2,900 Feet per Second  
Maximum Range      16,200 Yards at 20° Elev.

### AMMUNITION—Fixed

Gun Mk. 9 Mods. 5 through 24

|        | Projectiles             |                  |      |
|--------|-------------------------|------------------|------|
| Common | Mk. 6 Mod. 6            | Wt. 33.          | Lbs. |
| Common | Mk. 10 Mods. 0, 1, 2, 3 | Wt. 33.          | Lbs. |
|        | Cartridge (for above)   |                  |      |
| Case   | Mk. 2 Mod. 0            | Wt. 17.25        | Lbs. |
| Case   | Mk. 2 Mod. 3            | Wt. 15.1         | Lbs. |
| Charge |                         | Nominal Wt. 14.5 | Lbs. |
| Primer | Mk. 13 Mods. 0, 1       |                  |      |

|              | Projectiles       |          |      |
|--------------|-------------------|----------|------|
| Common       | Mk. 16 Mods. 1, 2 | Wt. 33.  | Lbs. |
| H. C.        | Mk. 15 Mod. 1     | Wt. 33.  | Lbs. |
| Illuminating | Mods. of Mk. 14   | Wt. 34.7 | Lbs. |

|        | Cartridge (for above) |                  |      |
|--------|-----------------------|------------------|------|
| Case   | Mk. 2 Mod. 1          | Wt. 17.          | Lbs. |
| Case   | Mk. 2 Mod. 4          | Wt. 14.9         | Lbs. |
| Charge |                       | Nominal Wt. 14.5 | Lbs. |
| Primer | Mk. 13 Mods. 0, 1     |                  |      |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordinance Pamphlet No. 165  
Working Circle Drawing No.      144290  
General Arrangement Drawing No.      144291

## REMARKS

Elevation limits are minus 15° to plus 20°. The training limit varies up to 360°.

Gun elevation per turn of the handwheel at high speed is 2° 13' 42". Gun train per turn of the handwheel at high speed is 3° 24' 50".

Length of recoil is 21.5 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

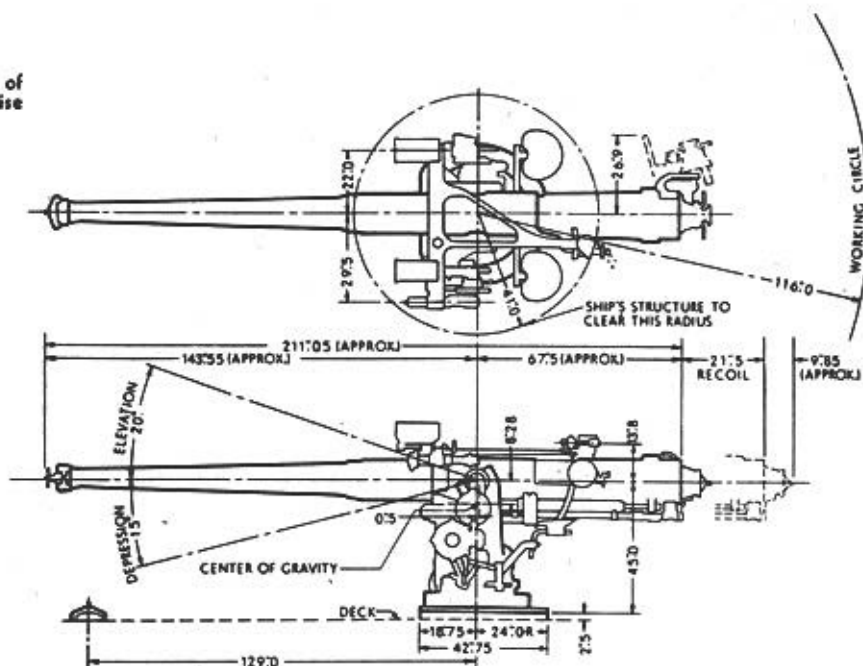
4"/50, MARK 12 MOD. 21



**4-IN. MOUNT, MARK 12 MOD. 38****4-IN. 50-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE**

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 258          | 106447        |

Note: Assembly number of mount is required for precise information.



GUN—4"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
MAXIMUM TRUNNION PRESSURE

MK. 9 MOD. 23  
SS  
NONE

Weights below are approximate  
11,200 LBS.  
8,080 LBS.  
6,250 LBS.  
38,780 LBS.  
42,230 LBS.

**4"/50, MARK 12 MOD. 38**

# 4-IN. MOUNT, MARK 12 MOD. 38

4-IN. 50-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      8.36 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                      |                          |
|----------------------|--------------------------|
| 4-In. 50-Cal.        | Mk. 9 Mod. 23            |
| Max. Powder Pressure | 17 Long Tons per Sq. In. |
| Barrel Weight        | 5,653 Lbs.               |
| Breech Weight        | 450 Lbs.                 |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,900 Feet per Second     |
| Maximum Range   | 16,200 Yards at 20° Elev. |

### AMMUNITION—Fixed

Gun Mk. 9 Mods. 5 through 24

|                       |                         |                  |      |
|-----------------------|-------------------------|------------------|------|
| Projectiles           |                         |                  |      |
| Common                | Mk. 6 Mod. 6            | Wt. 33.          | Lbs. |
| Common                | Mk. 10 Mods. 0, 1, 2, 3 | Wt. 33.          | Lbs. |
| Cartridge (for above) |                         |                  |      |
| Case                  | Mk. 2 Mod. 0            | Wt. 17.25        | Lbs. |
| Case                  | Mk. 2 Mod. 3            | Wt. 15.1         | Lbs. |
| Charge                |                         | Nominal Wt. 14.5 | Lbs. |
| Primer                | Mk. 13 Mods. 0, 1       |                  |      |
| Projectiles           |                         |                  |      |
| Common                | Mk. 16 Mods. 1, 2       | Wt. 33.          | Lbs. |
| H. C.                 | Mk. 15 Mod. 1           | Wt. 33.          | Lbs. |
| Illuminating          | Mods. of Mk. 14         | Wt. 34.7         | Lbs. |
| Cartridge (for above) |                         |                  |      |
| Case                  | Mk. 2 Mod. 1            | Wt. 17.          | Lbs. |
| Case                  | Mk. 2 Mod. 4            | Wt. 14.9         | Lbs. |
| Charge                |                         | Nominal Wt. 14.5 | Lbs. |
| Primer                | Mk. 13 Mods. 0, 1       |                  |      |

### OPERATING SELECTION

Manual Drive

### PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 165       |        |
| Working Circle Drawing No.      | 248754 |
| General Arrangement Drawing No. | 248753 |

### REMARKS

Elevation limits are minus 15° to plus 20°. The training limit varies up to 360°.

Gun elevation per turn of the handwheel at high speed is 2° 13' 42". Gun train per turn of the handwheel at high speed is 3° 24' 50".

Length of recoil is 21.5 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

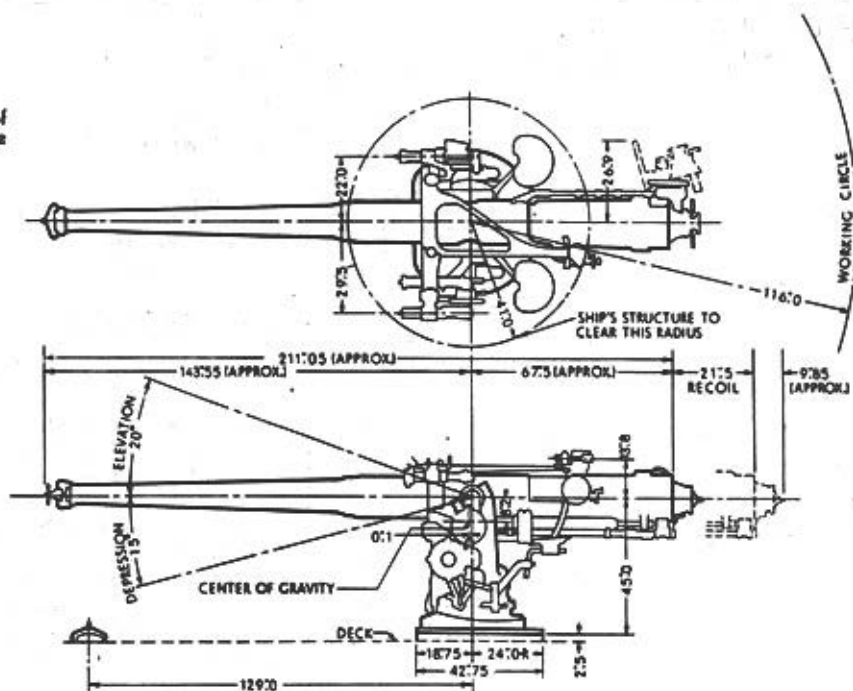
4"/50, MARK 12 MOD. 38

# 4-IN. MOUNT, MARK 12 MOD. 40

## 4-IN. 50-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 259          | 106448        |
| 260          | 106449        |

Note: Assembly number of mount is required for precise information.



GUN—4"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
MAXIMUM TRUNNION PRESSURE

MK. 9 MODS. 16 OR 21  
SS  
NONE

Weights below are approximate  
11,370 LBS.  
8,020 LBS.  
6,250 LBS.  
38,780 LBS.  
42,230 LBS.

### 4"/50, MARK 12 MOD. 40

# 4-IN. MOUNT, MARK 12 MOD. 40

4-IN. 50-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid O. D. 1914 9.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

4-In. 50-Cal. Mk. 9 Mods. 16 or 21  
Max. Powder Pressure 17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism) 5,575 Lbs.

### BALLISTICS

Muzzle Velocity 2,900 Feet per Second  
Maximum Range 16,200 Yards at 20° Elev.

### AMMUNITION—Fixed

Gun Mk. 9 Mods. 5 through 24

|        | Projectiles             |           |      |
|--------|-------------------------|-----------|------|
| Common | Mk. 6 Mod. 6            | Wt. 33.   | Lbs. |
| Common | Mk. 10 Mods. 0, 1, 2, 3 | Wt. 33.   | Lbs. |
|        | Cartridge (for above)   |           |      |
| Case   | Mk. 2 Mod. 0            | Wt. 17.25 | Lbs. |
| Case   | Mk. 2 Mod. 3            | Wt. 15.1  | Lbs. |
| Charge | Nominal                 | Wt. 14.5  | Lbs. |
| Primer | Mk. 13 Mods. 0, 1       |           |      |

|              | Projectiles           |          |      |
|--------------|-----------------------|----------|------|
| Common       | Mk. 16 Mods. 1, 2     | Wt. 33.  | Lbs. |
| H. C.        | Mk. 15 Mod. 1         | Wt. 33.  | Lbs. |
| Illuminating | Mods. of Mk. 14       | Wt. 34.7 | Lbs. |
|              | Cartridge (for above) |          |      |
| Case         | Mk. 2 Mod. 1          | Wt. 17.  | Lbs. |
| Case         | Mk. 2 Mod. 4          | Wt. 14.9 | Lbs. |
| Charge       | Nominal               | Wt. 14.5 | Lbs. |
| Primer       | Mk. 13 Mods. 0, 1     |          |      |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 165  
Working Circle Drawing No. 144290  
General Arrangement Drawing No. 144291

## REMARKS

Elevation limits are minus 15° to plus 20°. The training limit varies up to 360°.

Gun elevation per turn of the handwheel at high speed is 2° 43' 50". Gun train per turn of the handwheel at high speed is 3° 2' 40".

Length of recoil is 21.5 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

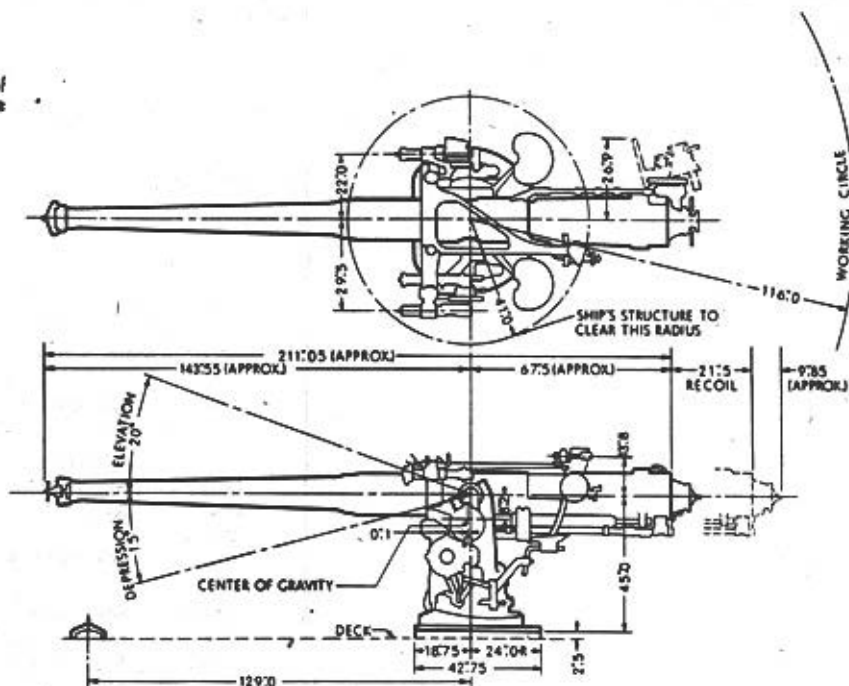
4"/50, MARK 12 MOD. 40



**4-IN. MOUNT, MARK 12 MOD. 41****4-IN. 50-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 261          | 106750        |

Note: Assembly number of mount is required for precise information.



GUN—4"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
MAXIMUM TRUNNION PRESSURE

MK. 9 MODS. 16 OR 21  
SS  
NONE

Weights below are approximate  
11,370 LBS.  
8,020 LBS.  
6,250 LBS.  
38,780 LBS.  
42,230 LBS.

**4"/50, MARK 12 MOD. 41**

# 4-IN. MOUNT, MARK 12 MOD. 41

4-IN. 50-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      9.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

4-In. 50-Cal.      Mk. 9 Mods. 16 or 21  
Max. Powder Pressure      17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism)      5,575 Lbs.

### BALLISTICS

Muzzle Velocity      2,900 Feet per Second  
Maximum Range      16,200 Yards at 20° Elev.

### AMMUNITION—Fixed

Gun Mk. 9 Mods. 5 through 24

| Projectiles           |                         |           |      |
|-----------------------|-------------------------|-----------|------|
| Common                | Mk. 6 Mod. 6            | Wt. 33.   | Lbs. |
| Common                | Mk. 10 Mods. 0, 1, 2, 3 | Wt. 33.   | Lbs. |
| Cartridge (for above) |                         |           |      |
| Case                  | Mk. 2 Mod. 0            | Wt. 17.25 | Lbs. |
| Case                  | Mk. 2 Mod. 3            | Wt. 15.1  | Lbs. |
| Charge                | Nominal                 | Wt. 14.5  | Lbs. |
| Primer                | Mk. 13 Mods. 0, 1       |           |      |
| Projectiles           |                         |           |      |
| Common                | Mk. 16 Mods. 1, 2       | Wt. 33.   | Lbs. |
| H. C.                 | Mk. 15 Mod. 1           | Wt. 33.   | Lbs. |
| Illuminating          | Mods. of Mk. 14         | Wt. 34.7  | Lbs. |
| Cartridge (for above) |                         |           |      |
| Case                  | Mk. 2 Mod. 1            | Wt. 17.   | Lbs. |
| Case                  | Mk. 2 Mod. 4            | Wt. 14.9  | Lbs. |
| Charge                | Nominal                 | Wt. 14.5  | Lbs. |
| Primer                | Mk. 13 Mods. 0, 1       |           |      |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 165  
Working Circle Drawing No.      144290  
General Arrangement Drawing No.      144291

## REMARKS

Elevation limits are minus 15° to plus 20°. The training limit varies up to 360°.

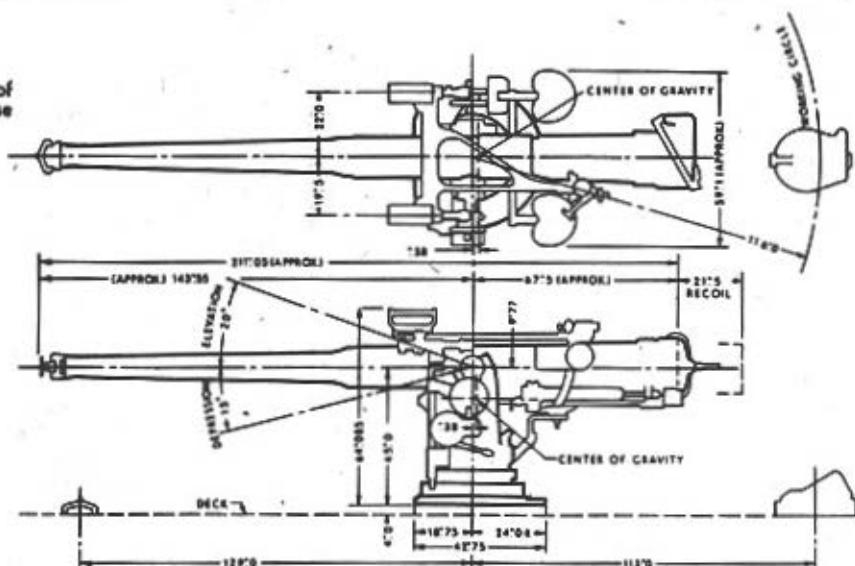
Gun elevation per turn of the handwheel at high speed is 2° 13' 42". Gun train per turn of the handwheel at high speed is 3° 24' 50".

Length of recoil is 21.5 inches.

**4-IN. MOUNT, MARK 12 MOD. 43****4-IN. 50-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE**

|                     |                         |
|---------------------|-------------------------|
| ASSY.<br>NO.<br>263 | SKETCH<br>NO.<br>106814 |
|---------------------|-------------------------|

Note: Assembly number of mount is required for precise information.



GUN—4"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
MAXIMUM TRUNNION PRESSURE

MK. 9 MODS. 15, 16, 20, 21 OR 24  
SS  
NONE

Weights below are approximate  
11,360 LBS.  
8,010 LBS.  
6,250 LBS.  
38,780 LBS.  
42,230 LBS.

**4"/50, MARK 12 MOD. 43**

# 4-IN. MOUNT, MARK 12 MOD. 43

4-IN. 50-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      9.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

4-In. 50-Cal.      Mk. 9 Mods. 15, 16, 20, 21 or 24  
Max. Powder Pressure      17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism)      5,575 Lbs.

### BALLISTICS

Muzzle Velocity      2,900 Feet per Second  
Maximum Range      16,200 Yards at 20° Elev.

### AMMUNITION—Fixed

Gun Mk. 9 Mods. 5 through 24

#### Projectiles

|        |                         |         |      |
|--------|-------------------------|---------|------|
| Common | Mk. 6 Mod. 6            | Wt. 33. | Lbs. |
| Common | Mk. 10 Mods. 0, 1, 2, 3 | Wt. 33. | Lbs. |

#### Cartridge (for above)

|        |                   |           |      |
|--------|-------------------|-----------|------|
| Case   | Mk. 2 Mod. 0      | Wt. 17.25 | Lbs. |
| Case   | Mk. 2 Mod. 3      | Wt. 15.1  | Lbs. |
| Charge | Nominal           | Wt. 14.5  | Lbs. |
| Primer | Mk. 13 Mods. 0, 1 |           |      |

#### Projectiles

|              |                   |          |      |
|--------------|-------------------|----------|------|
| Common       | Mk. 16 Mods. 1, 2 | Wt. 33.  | Lbs. |
| H. C.        | Mk. 15 Mod. 1     | Wt. 33.  | Lbs. |
| Illuminating | Mods. of Mk. 14   | Wt. 34.7 | Lbs. |

#### Cartridge (for above)

|        |                   |          |      |
|--------|-------------------|----------|------|
| Case   | Mk. 2 Mod. 1      | Wt. 17.  | Lbs. |
| Case   | Mk. 2 Mod. 4      | Wt. 14.9 | Lbs. |
| Charge | Nominal           | Wt. 14.5 | Lbs. |
| Primer | Mk. 13 Mods. 0, 1 |          |      |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 165       |        |
| Working Circle Drawing No.      | 249469 |
| General Arrangement Drawing No. | 144291 |

## REMARKS

Elevation limits are minus 15° to plus 20°. The training limit varies up to 360°.

Gun elevation per turn of the handwheel at high speed is 2° 13' 42". Gun train per turn of the handwheel at high speed is 3° 24' 50".

Length of recoil is 21.5 inches.



|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 273          | 108399        |

The drawing consists of two views of the gun mount. The upper view is a plan view showing the gun's profile and the circular 'CLEARANCE CIRCLE' and 'WORKING CIRCLE'. Dimensions include a barrel length of 22'0", a distance of 19'5" from the muzzle to the breech, and a breech length of 9'5". The 'CLEARANCE CIRCLE' has a radius of 116'0" and the 'WORKING CIRCLE' has a radius of 116'0". The 'CENTER OF GRAVITY' is marked. The lower view is an elevation view showing the gun's profile and the 'DECK'. Dimensions include a barrel length of 216'285 (APPROX), a distance of 143'55 (APPROX) from the muzzle to the breech, a distance of 67'5 (APPROX) from the breech to the base, and a distance of 21'5 (RECOIL) from the base to the muzzle. The barrel is shown at an 'ELEVATION 20°' and a 'DEPRESSION 15°'. The base is shown at a 'DECK' level. The 'CENTER OF GRAVITY' is marked. The drawing is labeled '16" GUN' and '16" GUN'.

Weights below are approximate

|             |
|-------------|
| 11,150 LBS. |
| 8,050 LBS.  |
| 6,250 LBS.  |
| 44,750 LBS. |
| 45,470 LBS. |
| 48,100 LBS. |

**4"/50, MARK 12 MOD. 44**

# 4-IN. MOUNT, MARK 12 MOD. 44

4-IN. 50-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid                      O. D. 1914                      9.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

4-In. 50-Cal.                      Mk. 9 Mods. 16, 21, 22, 23 or 24  
Maximum Powder Pressure                      17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism)                      Appr. 5,900 Lbs.

### BALLISTICS

Muzzle Velocity                      2,900 Feet per Second  
Maximum Range                      16,200 Yards at 20° Elev.

### AMMUNITION—Fixed

Gun Mk. 9 Mods. 5 through 24

#### Projectiles

|        |                         |         |      |
|--------|-------------------------|---------|------|
| Common | Mk. 6 Mod. 6            | Wt. 33. | Lbs. |
| Common | Mk. 10 Mods. 0, 1, 2, 3 | Wt. 33. | Lbs. |

#### Cartridge (for above)

|        |                   |                  |      |
|--------|-------------------|------------------|------|
| Case   | Mk. 2 Mod. 0      | Wt. 17.25        | Lbs. |
| Case   | Mk. 2 Mod. 3      | Wt. 15.1         | Lbs. |
| Charge |                   | Nominal Wt. 14.5 | Lbs. |
| Primer | Mk. 13 Mods. 0, 1 |                  |      |

#### Projectiles

|              |                   |          |      |
|--------------|-------------------|----------|------|
| Common       | Mk. 16 Mods. 1, 2 | Wt. 33.  | Lbs. |
| H. C.        | Mk. 15 Mod. 1     | Wt. 33.  | Lbs. |
| Illuminating | Mods. of Mk. 14   | Wt. 34.7 | Lbs. |

#### Cartridge (for above)

|        |                   |                  |      |
|--------|-------------------|------------------|------|
| Case   | Mk. 2 Mod. 1      | Wt. 17.          | Lbs. |
| Case   | Mk. 2 Mod. 4      | Wt. 14.9         | Lbs. |
| Charge |                   | Nominal Wt. 14.5 | Lbs. |
| Primer | Mk. 13 Mods. 0, 1 |                  |      |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 165       |        |
| Working Circle Drawing No.      | 254055 |
| General Arrangement Drawing No. | 254054 |

## REMARKS

Elevation limits are minus 15° to plus 20°. The training limit varies up to 360°.

Gun elevation per turn of the handwheel at high speed is 2° 13' 42". Gun train per turn of the handwheel at high speed is 3° 24' 50".

Length of recoil is 21.5 inches.

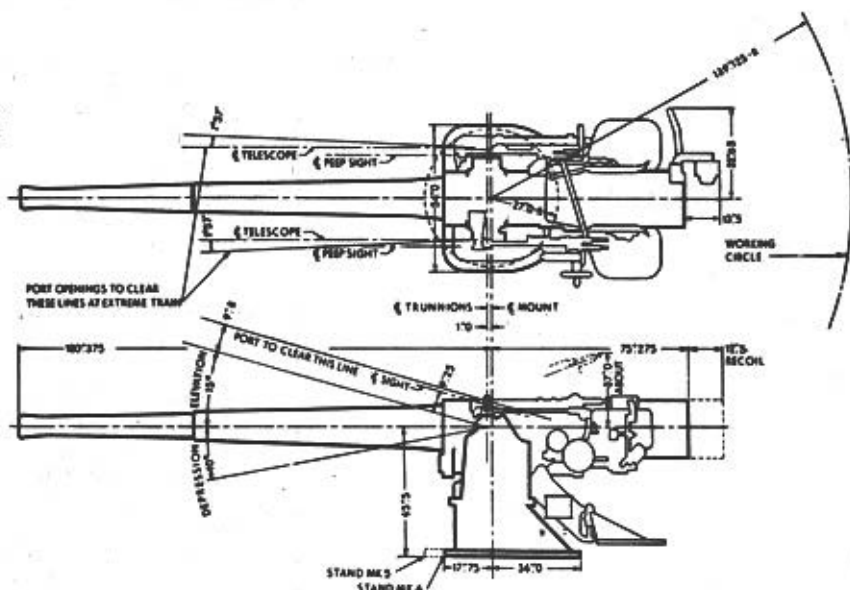
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

4"/50, MARK 12 MOD. 44

**5-IN. MOUNT, MARK 9 MOD. 4****5-IN. 50-CAL., S. P., SINGLE, OPEN, PEDESTAL TYPE**

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 17           | 5523          |
| 194          | 14334         |

Note: Assembly number of mount is required for precise information.



GUN—5"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 15° ELEV. FIRE

MK. 5 MODS. 0, 1  
IX  
NONE

Weights below are approximate  
20,400 LBS.  
15,000 LBS.  
11,000 LBS.  
93,500 LBS.  
94,700 LBS.  
98,500 LBS.

**5"/50, MARK 9 MOD. 4**

# 5-IN. MOUNT, MARK 9 MOD. 4

5-IN. 50-CAL., S. P., SINGLE, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Gun Firing and Illumination—Battery 6 V. 50 A. H.

### PNEUMATIC

Gas Ejector 50 Cu. Ft. Free Air per Min. at 150 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 Appr. 29 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                        |                            |
|----------------------------------------|----------------------------|
| 5-In. 50-Cal.                          | Mk. 5 Mods. 0, 1           |
| Max. Powder Pressure                   | 16.5 Long Tons per Sq. In. |
| Barrel Weight, (inc. breech mechanism) | 10,300 Lbs.                |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 3,000 Feet per Second     |
| Maximum Range   | 14,400 Yards at 15° Elev. |

### AMMUNITION—Bag

#### Typical Projectiles

|               |                     |                     |
|---------------|---------------------|---------------------|
| Common        | Mk. 15 Mods. 12, 14 | Wt. 50 Lbs.         |
| Powder Charge |                     | Nominal Wt. 21 Lbs. |
| Primer        | Mk. 15 Mod. 1       |                     |

## OPERATING SELECTION

Manual Drive

## DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Working Circle Drawing No.      | 25700 |
| General Arrangement Drawing No. | 37387 |

## REMARKS

Elevation limits are minus 10° to plus 15°. The training limit is determined by the installation.

Gun elevation per turn of the handwheel is 42'. Gun train per turn of the handwheel is 1°.

Length of recoil is 12.5 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

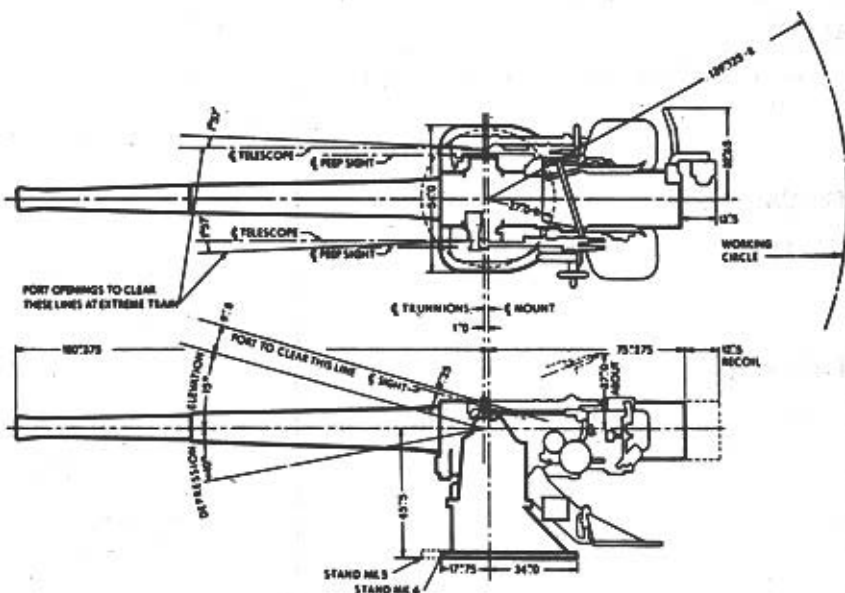
5"/50, MARK 9 MOD. 4



**5-IN. MOUNT, MARK 9 MOD. 8****5-IN. 50-CAL., S. P., SINGLE, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 18           | 5524          |
| 43           | 6349          |
| 44           | 6350          |
| 47           | 6412          |
| 57           | 6648          |
| 193          | 14333         |
| 222          | 55908         |

Note: Assembly number of mount is required for precise information.

**GUN—5"/50****INSTALLATION FOR  
SHIELD**

**TOTAL WEIGHT OF ASSEMBLY**  
**OSCILLATING WEIGHT**  
**RECOILING WEIGHT**  
**BRAKE LOAD**  
**TRUNNION PRESSURE HORIZ. FIRE**  
**TRUNNION PRESSURE 15° ELEV. FIRE**

**MK. 5 MODS. 0, 1**  
**MK. 6 MODS. 0, 1, 2**  
**AK**  
**NONE**

**Weights below are approximate**  
**19,900 TO 20,600 LBS.**  
**15,300 LBS.**  
**11,000 LBS.**  
**93,500 LBS.**  
**94,700 LBS.**  
**98,500 LBS.**

**5"/50, MARK 9 MOD. 8**

# 5-IN. MOUNT, MARK 9 MOD. 8

5-IN. 50-CAL., S. P., SINGLE, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Gun Firing and Illumination—Battery 6 V. 50 A. H.

### PNEUMATIC

Gas Ejector 50 Cu. Ft. Free Air per Min. at 150 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 Appr. 29 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                       |                            |
|---------------------------------------|----------------------------|
| 5-In. 50-Cal.                         | Mk. 5 Mods. 0, 1           |
|                                       | Mk. 6 Mods. 0, 1, 2        |
| Max. Powder Pressure                  | 16.5 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) |                            |
| Mk. 5 Mods. 0, 1                      | 10,300 Lbs.                |
| Mk. 6 Mods. 0, 1, 2                   | 10,550 Lbs.                |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 3,000 Feet per Second     |
| Maximum Range   | 14,400 Yards at 15° Elev. |

### AMMUNITION—Bag

|                            |                     |
|----------------------------|---------------------|
| Typical Projectiles        |                     |
| Common Mk. 15 Mods. 12, 14 | Wt. 50 Lbs.         |
| Powder Charge              | Nominal Wt. 21 Lbs. |
| Primer Mk. 15 Mod. 1       |                     |

## OPERATING SELECTION

Manual Drive

## DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Working Circle Drawing No.      | 252704 |
| General Arrangement Drawing No. | 252703 |

## REMARKS

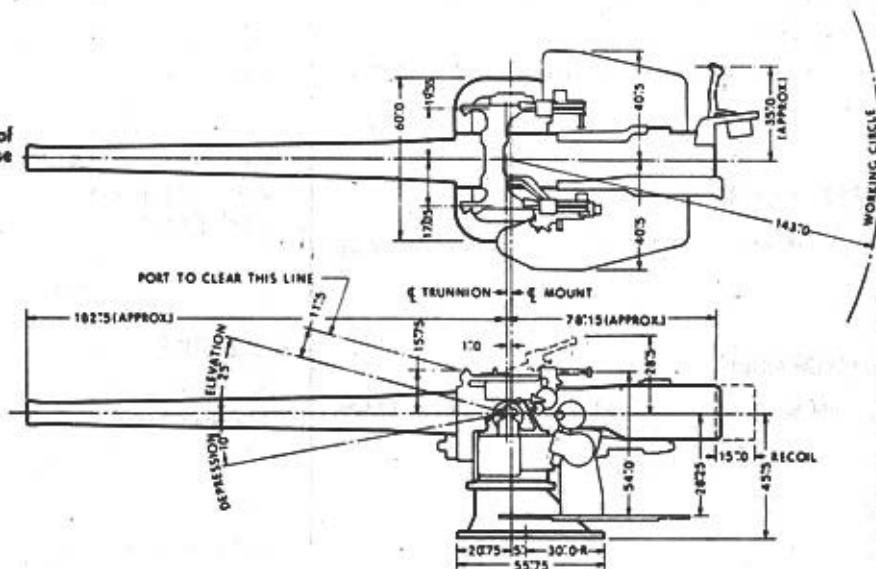
Elevation limits are minus 10° to plus 15°. The training limit is determined by the installation.

Length of recoil is 12.5 inches.

**5-IN. MOUNT, MARK 12 MOD. 5****5-IN. 50-CAL., S. P., SINGLE, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 95           | 12202         |
| 96           | 12203         |
| 97           | 12204         |

Note: Assembly number of mount is required for precise information.



GUN—5"/50  
INSTALLATION FOR  
SHIELD

MK. 5 MOD. 1 OR MK. 6 MOD. 0  
AF  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 25° ELEV. FIRE

Weights below are approximate  
18,700 LBS.  
14,900 LBS.  
11,000 LBS.  
79,400 LBS.  
80,800 LBS.  
86,750 LBS.

**5"/50, MARK 12 MOD. 5**

# 5-IN. MOUNT, MARK 12 MOD. 5

5-IN. 50-CAL., S. P., SINGLE, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Gun Firing and Illumination—Battery 6 V. 50 A. H.

### PNEUMATIC

Gas Ejector 50 Cu. Ft. Free Air per Min. at 150 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 2.34 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                       |                              |
|---------------------------------------|------------------------------|
| 5-In. 50-Cal.                         | Mk. 5 Mod. 1 or Mk. 6 Mod. 0 |
| Max. Powder Pressure                  | 16.5 Long Tons per Sq. In.   |
| Barrel Weight (inc. breech mechanism) |                              |
| Mk. 5 Mod. 1                          | 10,300 Lbs.                  |
| Mk. 6                                 | 10,550 Lbs.                  |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 3,000 Feet per Second     |
| Maximum Range   | 18,800 Yards at 25° Elev. |

### AMMUNITION—Bag

|                            |                     |
|----------------------------|---------------------|
| Typical Projectiles        |                     |
| Common Mk. 15 Mods. 12, 14 | Wt. 50 Lbs.         |
| Powder Charge              | Nominal Wt. 21 Lbs. |
| Primer Mk. 15 Mod. 1       |                     |

## OPERATING SELECTION

Manual Drive

## DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Working Circle Drawing No.      | 30336 |
| General Arrangement Drawing No. | 60770 |

## REMARKS

Elevation limits are minus 10° to plus 25°. The training limit is determined by the installation.

Length of recoil is 15 inches.

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5"/50, MARK 12 MOD. 5





# 5-IN. MOUNT, MARK 13 MOD. 0

5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

#### Applicable Firing and Lighting Circuits:

Mk. 1 Mod. 0, Mk. 8 Mod. 2

#### Gun Firing

Transformer 115 V. to 20 V. 200 Watts

#### Illumination and Stand-by

Firing—Battery 6 V. 50 A. H.

#### Mk. 5 Mod 3

Gun Firing and Illumination—Battery 6 V. 50 A. H.

### PNEUMATIC

Gas Ejector 50 Cu. Ft. Free Air per Min. at 150 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 35.6 Qts.

## RECEIVERS (Assy. No. 497)

| ELEVATION     | SPEEDS    | MFR. |
|---------------|-----------|------|
| Mk. 1 Mod. 20 | 60/7 & 60 | NYNY |

| TRAINING      |        |      |
|---------------|--------|------|
| Mk. 1 Mod. 10 | 1 & 60 | NYNY |

## GUN AND AMMUNITION DATA

### GUN

5-In. 51-Cal. Mk. 7 Mod. 2,

Mk. 8 Mod. 0 or Mk. 15 Mod. 0

Max. Powder Pressure 17 Long Tons per Sq. In.

Barrel Weight (inc. breech mechanism) 11,250 Lbs.

### BALLISTICS

Muzzle Velocity 3,150 Feet per Second  
Maximum Range 15,500 Yards at 15° Elev.

### AMMUNITION—Bag

#### Typical Projectiles

Common Mk. 15 Mods. 12, 14 Wt. 50. Lbs.

Illuminating Mods. of Mk. 25 Wt. 54.5 Lbs.

H. C. Mk. 39 Mod. 1 Wt. 50. Lbs.

A. A. Common Mods. of Mk. 35 Wt. 55.2 Lbs.

(Special charge for proj. Mods. of Mk. 35 assembled with fuze Mk. 32. Muzzle velocity 2600 f.s.)

Powder Charge Nominal Wt. 24.5 Lbs.

Primer Mk. 15 Mod. 1

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 450

Working Circle Drawing Nos. 30725

239147

General Arrangement Drawing No. 30724

## REMARKS

Elevation limits are minus 10° to plus 15°. The training limit is determined by the installation.

Gun elevation per turn of the handwheel is 1° 1' 25."5.  
Gun train per turn of the handwheel is 59' 59."9.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun director Mk. 31.



# 5-IN. MOUNT, MARK 13 MOD. 1

5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuit:

Mk. 1 Mod. 0

Gun Firing

Transformer 115 V. to 20 V. 200 Watts

Illumination and Stand-by

Firing—Battery 6 V. 50 A. H.

### PNEUMATIC

Gas Ejector 50 Cu. Ft. Free Air per Min. at 150 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 35.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

5-In. 51-Cal. Mk. 7 Mod. 2,

Mk. 8 Mods. 0, 10, or Mk. 15 Mod. 0

Max. Powder Pressure 17 Long Tons per Sq. In.

Barrel Weight (inc. breech mechanism) 11,250 Lbs.

### BALLISTICS

Muzzle Velocity 3,150 Feet per Second

Maximum Range 15,500 Yards at 15° Elev.

### AMMUNITION—Bag

Typical Projectiles

Common Mk. 15 Mods. 12, 14 Wt. 50. Lbs.

Illuminating Mods. of Mk. 25 Wt. 54.5 Lbs.

H. C. Mk. 39 Mod. 1 Wt. 50. Lbs.

A. A. Common Mods. of Mk. 35 Wt. 55.2 Lbs.

(Special charge for pro. Mods. of Mk. 35 assembled with fuze Mk. 32. Muzzle velocity 2600 f.s.)

Powder Charge Nominal Wt. 24.5 Lbs.

Primer Mk. 15 Mod. 1

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 450

Working Circle Drawing Nos. 30725

55253

General Arrangement Drawing Nos. 34082

56835

238488

## REMARKS

Elevation limits are minus 10° to plus 15°. The training limit is determined by the installation.

Gun elevation per turn of the handwheel at high speed is 1° 12' 21". Gun train per turn of the handwheel at high speed is 1° 10' 44".

Length of recoil is 15 inches.

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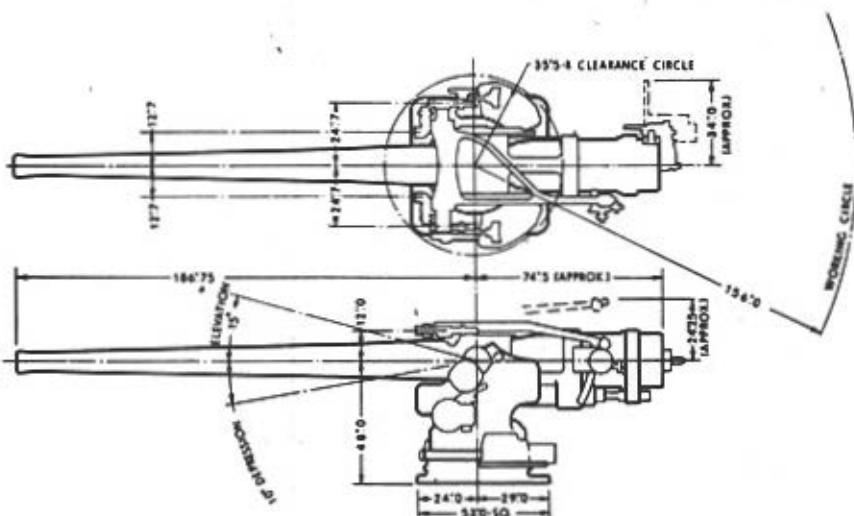
5"/51, MARK 13 MOD. 1



**5-IN. MOUNT, MARK 13 MOD. 2****5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 25           | 3854          |
| 27           | 5875          |
| 42           | 6348          |
| 64           | 6801          |
| 65           | 6802          |
| 169          | 13560         |
| 180          | 14184         |
| 182          | 14186         |
| 195          | 14329         |
| 205          | 14312         |
| 225          | 54926         |
| 904          | 106287        |

Note: Assembly number of mount is required for precise information.



GUN—5"/51

INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY

OSCILLATING WEIGHT

RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 15° ELEV. FIRE

MK. 7 MODS. 2, 3, 4,  
MK. 8 MOD. 0 OR MK. 15 MOD. 0  
AK-AO  
NONE

Weights below are approximate

24,300 LBS.

16,100 LBS.

11,500 LBS.

89,600 LBS.

91,000 LBS.

95,000 LBS.

**5"/51, MARK 13 MOD. 2**

# 5-IN. MOUNT, MARK 13 MOD. 2

5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

Mk. 1 Mod. 0, Mk. 8 Mods. 0, 1

Gun Firing

Transformer 115 V. to 20 V. 200 Watts

Illumination and Stand-by

Firing—Battery 6 V. 50 A. H.

### PNEUMATIC

Gas Ejector 50 Cu. Ft. Free Air per Min. at 150 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 35.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

5-In. 51-Cal. Mk. 7 Mods. 2, 3, 4,

Mk. 8 Mod. 0 or Mk. 15 Mod. 0

Max. Powder Pressure 17 Long Tons per Sq. In.

Barrel Weight (inc. breech mechanism) 11,250 Lbs.

### BALLISTICS

Muzzle Velocity 3,150 Feet per Second

Maximum Range 15,500 Yards at 15° Elev.

### AMMUNITION—Bag

Typical Projectiles

Common Mk. 15 Mods. 12, 14 Wt. 50. Lbs.

Illuminating Mods. of Mk. 25 Wt. 54.5 Lbs.

H. C. Mk. 39 Mod. 1 Wt. 50. Lbs.

A. A. Common Mods. of Mk. 35 Wt. 55.2 Lbs.

(Special charge for proj. Mods. of Mk. 35 assembled with fuze Mk. 32. Muzzle velocity 2600 f.s.)

Powder Charge Nominal Wt. 24.5 Lbs.

Primer Mk. 15 Mod. 1

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 450

Working Circle Drawing Nos. 30725

41555

47528

47529

55253

General Arrangement Drawing Nos. 38646

45824

56835

## REMARKS

Elevation limits are minus 10° to plus 15°. The training limit is determined by the installation.

Gun elevation per turn of the handwheel at high speed is 1° 12' 21". Gun train per turn of the handwheel at high speed is 1° 10' 44".

Length of recoil is 15 inches.

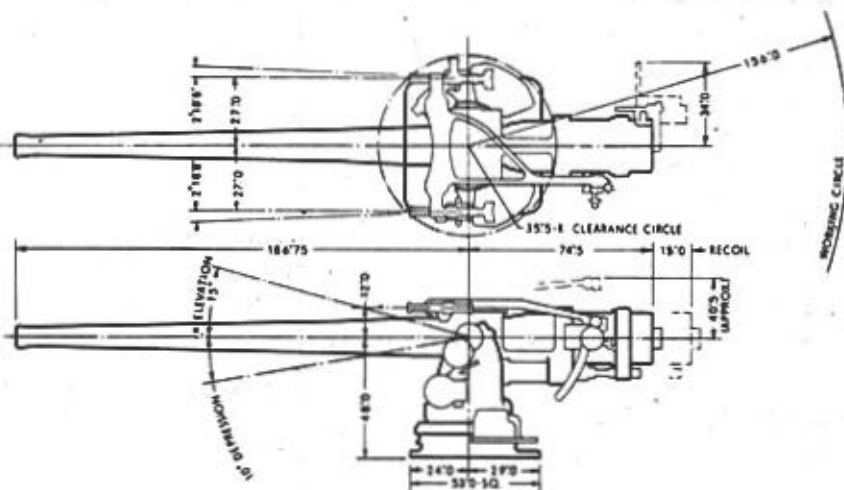
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51"/51, MARK 13 MOD. 2

**5-IN. MOUNT, MARK 13 MOD. 3****5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 28           | 6046          |
| 29           | 6047          |
| 62           | 6749          |
| 70           | 7241          |
| 147          | 12882         |
| 149          | 12957         |
| 171          | 13565         |
| 183          | 14187         |
| 184          | 14188         |
| 187          | 14191         |
| 885          | 103299        |

Note: Assembly number of mount is required for precise information.



GUN—5"/51  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 15° ELEV. FIRE

**5"/51, MARK 13 MOD. 3**

MK. 7 MOD. 2 OR MK. 8 MOD. 0  
AK  
NONE

Weights below are approximate  
22,800 TO 23,240 LBS.  
16,100 LBS.  
11,500 LBS.  
89,600 LBS.  
91,000 LBS.  
95,000 LBS.

# 5-IN. MOUNT, MARK 13 MOD. 3

5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

Mk. 1 Mod. 0, Mk. 8 Mods. 0, 1

Gun Firing

Transformer 115 V. to 20 V. 200 Watts

Illumination and Stand-by

Firing—Battery 6 V. 50 A. H.

### PNEUMATIC

Gas Ejector 50 Cu. Ft. Free Air per Min. at 150 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 35.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

5-In. 51-Cal. Mk. 7 Mod. 2 or Mk. 8 Mod. 0  
Max. Powder Pressure 17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism) 11,250 Lbs.

### BALLISTICS

Muzzle Velocity 3,150 Feet per Second  
Maximum Range 15,500 Yards at 15° Elev.

### AMMUNITION—Bag

Typical Projectiles

|                                                                                                  |                     |               |
|--------------------------------------------------------------------------------------------------|---------------------|---------------|
| Common                                                                                           | Mk. 15 Mods. 12, 14 | Wt. 50. Lbs.  |
| Illuminating                                                                                     | Mods. of Mk. 25     | Wt. 54.5 Lbs. |
| H. C.                                                                                            | Mk. 39 Mod. 1       | Wt. 50. Lbs.  |
| A. A. Common                                                                                     | Mods. of Mk. 35     | Wt. 55.2 Lbs. |
| (Special charge for proj. Mods. of Mk. 35 assembled with fuze Mk. 32. Muzzle velocity 2600 f.s.) |                     |               |

Powder Charge Nominal Wt. 24.5 Lbs.  
Primer Mk. 15 Mod. 1

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |                                  |
|----------------------------------|----------------------------------|
| Ordinance Pamphlet No. 450       |                                  |
| Working Circle Drawing Nos.      | 45143<br>45169<br>55253<br>66644 |
| General Arrangement Drawing Nos. | 45131<br>56835                   |

## REMARKS

Elevation limits are minus 10° to plus 15°. The training limit is determined by the installation.

Gun elevation per turn of the handwheel at high speed is 1° 12' 21". Gun train per turn of the handwheel at high speed is 1° 10' 44".

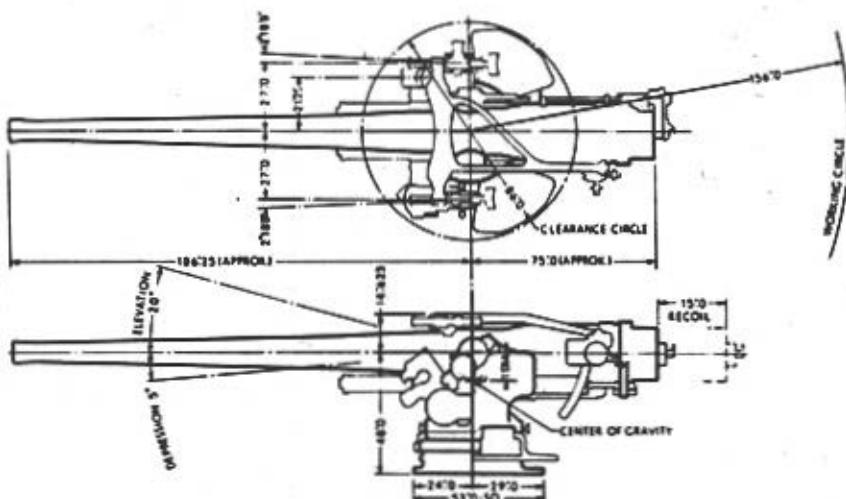
Length of recoil is 15 inches.



**5-IN. MOUNT, MARK 13 MOD. 4****5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 151          | 13200         |
| 157          | 13206         |
| 196          | 14314         |
| 212          | 54263         |
| 213          | 54264         |
| 215          | 54266         |
| 493          | 62733         |
| 952          | 106409        |
| 1283         | 107781        |

Note: Assembly number of mount is required for precise information.

**GUN—5"/51****INSTALLATION FOR  
SHIELD****TOTAL WEIGHT OF ASSEMBLY****OSCILLATING WEIGHT****RECOILING WEIGHT****BRAKE LOAD****TRUNNION PRESSURE HORIZ. FIRE****TRUNNION PRESSURE 20° ELEV. FIRE****MK. 7 MOD. 2 OR****MK. 8 MODS. 0, 1****AF-AG-AKA-APA****NONE**

Weights below are approximate

25,950 LBS.

16,100 LBS.

11,750 LBS.

89,600 LBS.

91,000 LBS.

96,250 LBS.

**5"/51, MARK 13 MOD. 4**

# 5-IN. MOUNT, MARK 13 MOD. 4

5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

Mk. 1 Mod. 0, Mk. 8 Mod. 2

Gun Firing

Transformer 115 V. to 20 V. 200 Watts

Illumination and Stand-by

Firing—Battery 6 V. 50 A. H.

Mk. 5 Mod. 3

Gun Firing and Illumina-

tion—Battery 6 V. 50 A. H.

### PNEUMATIC

Gas Ejector 50 Cu. Ft. Free Air per Min. at 150 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 35.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

5-In. 51-Cal. Mk. 7 Mod. 2 or

Mk. 8 Mods. 0, 1

Max. Powder Pressure 17 Long Tons per Sq. In.

Barrel Weight (inc. breech mechanism) 11,250 Lbs.

### BALLISTICS

Muzzle Velocity 3,150 Feet per Second

Maximum Range 17,100 Yards at 20° Elev.

### AMMUNITION—Bag

Typical Projectiles

Common Mk. 15 Mods. 12, 14 Wt. 50. Lbs.

Illuminating Mods. of Mk. 25 Wt. 54.5 Lbs.

H. C. Mk. 39 Mod. 1 Wt. 50. Lbs.

A. A. Common Mods. of Mk. 35 Wt. 55.2 Lbs.

(Special charge for proj. Mods. of Mk. 35 assembled with fuze Mk. 32. Muzzle velocity 2600 f.s.)

Powder Charge Nominal Wt. 24.5 Lbs.

Primer Mk. 15 Mod. 1

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 450

Working Circle Drawing Nos. 30725

234300

General Arrangement Drawing No. 30724

## REMARKS

Elevation limits are minus 10° to plus 20°. The training limit is determined by the installation.

Gun elevation per turn of the handwheel at high speed is 1° 12' 21". Gun train per turn of the handwheel at high speed is 1° 10' 44".

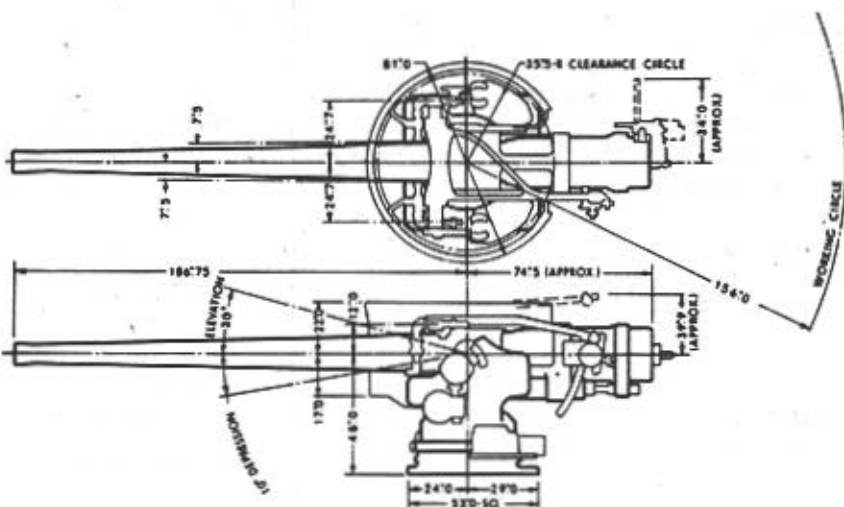
Length of recoil is 15 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/51, MARK 13 MOD. 4

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 152          | 13201         |
| 158          | 13207         |
| 175          | 14013         |
| 179          | 14183         |
| 198          | 14316         |
| 214          | 54265         |
| 453          | 62075         |
| 454          | 62076         |
| 954          | 106421        |
| 1245         | 107821        |
| 1282         | 107880        |

**Note:** Assembly number of mount is required for precise information.



**5"/51, MARK 13 MOD. 5**

Weights below are approximate

|           |             |
|-----------|-------------|
| 25,800 TO | 26,000 LBS. |
| 16,100 TO | 16,450 LBS. |
|           | 11,500 LBS. |
|           | 89,600 LBS. |
|           | 91,000 LBS. |
|           | 96,250 LBS. |

# 5-IN. MOUNT, MARK 13 MOD. 5

5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuit:

Mk. 1 Mod. 0

Gun Firing

Transformer 115 V. to 20 V. 200 Watts

Illumination and Stand-by

Firing—Battery 6 V. 50 A. H.

### PNEUMATIC

Gas Ejector 50 Cu. Ft. Free Air per Min. at 150 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 35.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

5-In. 51-Cal.

Mk. 7 Mod. 2 or

Mk. 8 Mods. 0, 1, 4, 7

Max. Powder Pressure 17 Long Tons per Sq. In.

Barrel Weight (inc. breech mechanism) 11,250 Lbs.

### BALLISTICS

Muzzle Velocity 3,150 Feet per Second

Maximum Range 17,100 Yards at 20° Elev.

### AMMUNITION—Bag

Typical Projectiles

Common Mk. 15 Mods. 12, 14 Wt. 50. Lbs.

Illuminating Mods. of Mk. 25 Wt. 54.5 Lbs.

H. C. Mk. 39 Mod. 1 Wt. 50. Lbs.

A. A. Common Mods. of Mk. 35 Wt. 55.2 Lbs.

(Special charge for proj. Mods. of Mk. 35 assembled with fuse Mk. 32. Muzzle velocity 2600 f.s.)

Powder Charge Nominal Wt. 24.5 Lbs.

Primer Mk. 15 Mod. 1

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 450

Working Circle Drawing Nos. 30725

247114

General Arrangement Drawing No. 247113

## REMARKS

Elevation limits are minus 10° to plus 20°. The training limit is determined by the installation.

Gun elevation per turn of the handwheel at high speed is 1° 12' 21". Gun train per turn of the handwheel at high speed is 1° 10' 44".

Length of recoil is 15 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

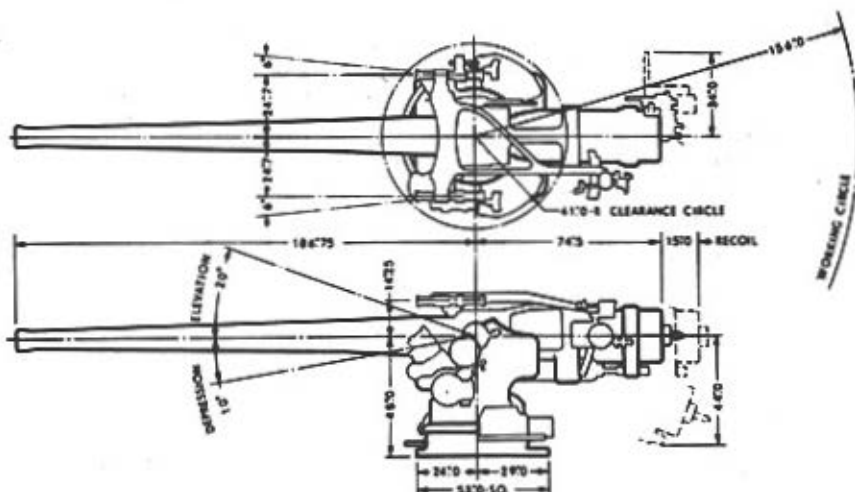
5"/51, MARK 13 MOD. 5



## 5-IN. MOUNT, MARK 13 MOD. 6

5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 153       | 13202      |
| 154       | 13203      |
| 159       | 13208      |
| 161       | 13210      |
| 162       | 13211      |
| 181       | 14185      |
| 199       | 14317      |
| 200       | 14318      |
| 210       | 54441      |
| 216       | 54267      |
| 224       | 54923      |
| 226       | 54927      |
| 227       | 54942      |
| 229       | 55900      |
| 272       | 58543      |
| 451       | 62073      |
| 452       | 62074      |
| 455       | 62077      |
| 456       | 62078      |
| 457       | 62079      |
| 489       | 62498      |
| 491       | 62700      |
| 503       | 62830      |
| 516       | 92445      |
| 761       | 92954      |
| 857       | 103239     |
| 871       | 103278     |
| 894       | 106273     |
| 905       | 106288     |
| 960       | 106757     |
| 967       | 106781     |
| 1133      | 107060     |
| 1302      | 108313     |



Note: Assembly number of mount is required for precise information.

GUN—5"/51

INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 20° ELEV. FIRE

MK. 7 MODS. 2, 3, 4,  
MK. 8 MODS. 0, 1, 4, 5, 6, 10,  
OR MK. 15 MOD. 0  
AF-AG-AK-AO-BB  
NONE

Weights below are approximate  
25,400 TO 26,700 LBS.  
15,600 TO 16,300 LBS.  
11,750 LBS.  
89,600 LBS.  
91,000 LBS.  
96,250 LBS.

5"/51, MARK 13 MOD. 6

# 5-IN. MOUNT, MARK 13 MOD. 6

5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

|                                              |                 |           |
|----------------------------------------------|-----------------|-----------|
| Mk. 1 Mod. 0, Mk. 2 Mod. 0, Mk. 8 Mods. 0, 1 |                 |           |
| Gun Firing                                   |                 |           |
| Transformer                                  | 115 V. to 20 V. | 200 Watts |
| Illumination and Stand-by                    |                 |           |
| Firing—Battery                               | 6 V.            | 50 A. H.  |
| Mk. 2 Mod. 1, Mk. 8 Mod. 3                   |                 |           |
| Gun Firing                                   |                 |           |
| Transformer                                  | 115 V. to 20 V. | 200 Watts |
| Stand-by Gun                                 |                 |           |
| Firing—Battery                               | 6 V.            | 50 A. H.  |
| Illumination—Battery                         | 6 V.            | 50 A. H.  |

### PNEUMATIC

Gas Ejector 50 Cu. Ft. Free Air per Min. at 150 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 35.6 Qts.

## RECEIVERS

| ELEVATION            | SPEEDS    | MFR. |
|----------------------|-----------|------|
| None or              |           |      |
| Mk. 1 Mods. 2, 4, 20 | 60/7 & 60 | NYNY |
| TRAINING             |           |      |
| None or              |           |      |
| Mk. 1 Mods. 0, 1     | 1 & 60    | NYNY |

## GUN AND AMMUNITION DATA

### GUN

|                                       |                               |
|---------------------------------------|-------------------------------|
| 5-In. 51-Cal.                         | Mk. 7 Mods. 2, 3, 4,          |
|                                       | Mk. 8 Mods. 0, 1, 4, 5, 6, 10 |
|                                       | or Mk. 15 Mod. 0              |
| Max. Powder Pressure                  | 17 Long Tons per Sq. In.      |
| Barrel Weight (inc. breech mechanism) | 11,250 Lbs.                   |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 3,150 Feet per Second     |
| Maximum Range   | 17,100 Yards at 20° Elev. |

### AMMUNITION—Bag

| Typical Projectiles                                                                              |                     |                       |
|--------------------------------------------------------------------------------------------------|---------------------|-----------------------|
| Common                                                                                           | Mk. 15 Mods. 12, 14 | Wt. 50. Lbs.          |
| Illuminating                                                                                     | Mods. of Mk. 25     | Wt. 54.5 Lbs.         |
| H. C.                                                                                            | Mk. 39 Mod. 1       | Wt. 50. Lbs.          |
| A. A. Common                                                                                     | Mods. of Mk. 35     | Wt. 55.2 Lbs.         |
| (Special charge for proj. Mods. of Mk. 35 assembled with fuze Mk. 32. Muzzle velocity 2600 f.s.) |                     |                       |
| Powder Charge                                                                                    |                     | Nominal Wt. 24.5 Lbs. |
| Primer                                                                                           | Mk. 15 Mod. 1       |                       |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |        |        |
|----------------------------------|--------|--------|
| Ordnance Pamphlet No. 450        |        |        |
| Working Circle Drawing Nos.      | 41555  | 142863 |
|                                  | 47528  | 247114 |
|                                  | 47529  | 248378 |
|                                  | 141945 | 249234 |
|                                  | 141968 | 249236 |
| General Arrangement Drawing Nos. | 45824  | 248377 |
|                                  | 142862 | 249233 |
|                                  | 238488 | 249235 |
|                                  | 247113 |        |

## REMARKS

Elevation limits are minus 10° to plus 20°. The training limit is determined by the installation.

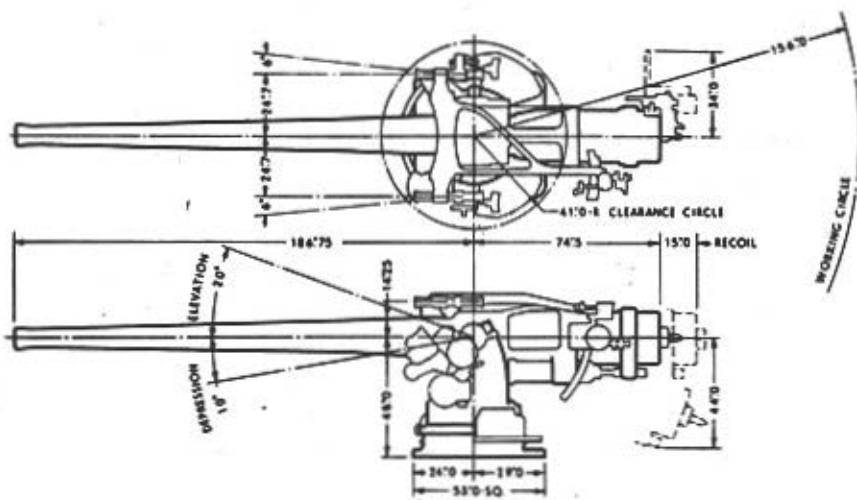
Gun elevation per turn of the handwheel at high speed is 1° 12' 21". Gun train per turn of the handwheel at high speed is 1° 10' 44".

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun director Mk. 31.

**5-IN. MOUNT, MARK 13 MOD. 7****5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 155       | 13204      |
| 156       | 13205      |
| 160       | 13209      |
| 163       | 13212      |
| 164       | 13213      |
| 165       | 13214      |
| 173       | 13904      |
| 174       | 13908      |
| 185       | 14189      |
| 186       | 14190      |
| 188       | 14192      |
| 197       | 14315      |
| 209       | 54440      |
| 230       | 55901      |
| 231       | 55902      |
| 232       | 55910      |
| 273       | 58544      |
| 449       | 62071      |
| 450       | 62072      |
| 458       | 62080      |
| 459       | 62081      |
| 487       | 62496      |
| 490       | 62499      |
| 504       | 62824      |
| 906       | 106289     |
| 947       | 106347     |
| 1211      | 107680     |



Note: Assembly number of mount is required for precise information.

**GUN—5"/51**

**INSTALLATION FOR**  
**SPRAY SHIELD (ASSYS. 173, 174, 273)**  
**SHIELD THICKNESS**

**TOTAL WEIGHT OF ASSEMBLY**  
**WEIGHT OF SHIELD**  
**OSCILLATING WEIGHT**  
**RECOILING WEIGHT**  
**BRAKE LOAD**  
**TRUNNION PRESSURE HORIZ. FIRE**  
**TRUNNION PRESSURE 20° ELEV. FIRE**

**MK. 7 MOD. 2**  
**MK. 8 MODS. 0, 1, 4, 10**  
**OR MK. 15 MOD. 0**  
**AG-AO-AP-APA-BB**  
**MK. 20 MOD. 0**  
**.25 IN.**

**Weights below are approximate**  
**22,500 TO 23,400 LBS.**  
**2,400 LBS.**  
**15,600 TO 16,300 LBS.**  
**11,750 LBS.**  
**89,600 LBS.**  
**91,000 LBS.**  
**96,250 LBS.**

**5"/51, MARK 13 MOD. 7**

# 5-IN. MOUNT, MARK 13 MOD. 7

5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

Mk. 1 Mod. 0, Mk. 2 Mod. 0, Mk. 8 Mod. 0

Gun Firing

Transformer 115 V. to 20 V. 200 Watts

Illumination and Stand-by

Firing—Battery 6 V. 50 A. H.

Mk. 2 Mod. 1

Gun Firing

Transformer 115 V. to 20 V. 200 Watts

Stand-by Gun

Firing—Battery 6 V. 50 A. H.

Illumination—Battery 6 V. 50 A. H.

### PNEUMATIC

Gas Ejector 50 Cu. Ft. Free Air per Min. at 150 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 35.6 Qts.

## RECEIVERS (Assy. No. 947)

| ELEVATION     | SPEEDS    | MFR. |
|---------------|-----------|------|
| Mk. 1 Mod. 18 | 60/7 & 60 | NYNY |

| TRAINING      |        |      |
|---------------|--------|------|
| Mk. 1 Mod. 28 | 1 & 60 | NYNY |

## GUN AND AMMUNITION DATA

### GUN

5-In. 51-Cal.

Mk. 7 Mod. 2,

Mk. 8 Mods. 0, 1, 4, 10,  
or Mk. 15 Mod. 0

Max. Powder Pressure

17 Long Tons per Sq. In.

Barrel Weight (inc. breech mechanism) 11,250 Lbs.

### BALLISTICS

Muzzle Velocity

3,150 Feet per Second

Maximum Range

17,100 Yards at 20° Elev.

### AMMUNITION—Bag

Typical Projectiles

Common Mk. 15 Mods. 12, 14 Wt. 50. Lbs.

Illuminating Mods. of Mk. 25 Wt. 54.5 Lbs.

H. C. Mk. 39 Mod. 1 Wt. 50. Lbs.

A. A. Common Mods. of Mk. 35 Wt. 55.2 Lbs.

(Special charge for proj. Mods. of Mk. 35 assembled with fuze Mk. 32. Muzzle velocity 2600 f.s.)

Powder Charge Nominal Wt. 24.5 Lbs.

Primer Mk. 15 Mod. 1

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 450

Working Circle Drawing Nos.

45143

45169

55253

66644

142865

General Arrangement Drawing Nos.

45131

142864

246616

## REMARKS

Elevation limits are minus 10° to plus 20°. The training limit is determined by the installation.

Gun elevation per turn of the handwheel at high speed is 1° 12' 21". Gun train per turn of the handwheel at high speed is 1° 10' 44".

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun director Mk. 31.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

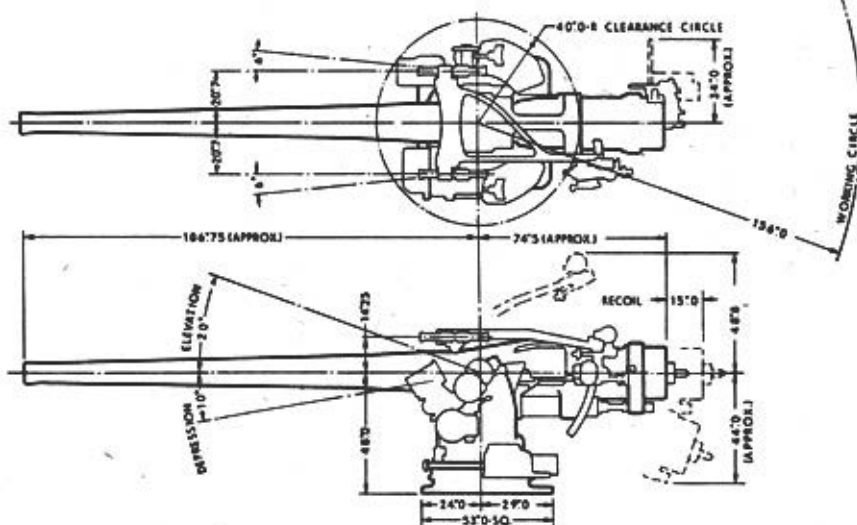
5"/51, MARK 13 MOD. 7



**5-IN. MOUNT, MARK 13 MOD. 9****5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 243          | 56860         |
| 247          | 56871         |
| 1284         | 107882        |

Note: Assembly number of mount is required for precise information.

**GUN—5"/51****INSTALLATION FOR  
SHIELD****TOTAL WEIGHT OF ASSEMBLY****OSCILLATING WEIGHT****RECOILING WEIGHT****BRAKE LOAD****TRUNNION PRESSURE HORIZ. FIRE****TRUNNION PRESSURE 20° ELEV. FIRE****MK. 8 MODS. 0, 4,****OR MK. 15 MOD. 0****AF-BB****NONE****Weights below are approximate****23,000 LBS.****16,200 LBS.****11,500 LBS.****89,600 LBS.****91,000 LBS.****96,250 LBS.****5"/51, MARK 13 MOD. 9**

# 5-IN. MOUNT, MARK 13 MOD. 9

5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Applicable Firing and Lighting Circuits:

Mk. 1 Mod. 0, Mk. 17 Mod. 0

Gun Firing

Transformer 115 V. to 20 V. 200 Watts

Illumination and Stand-by

Firing—Battery 6 V. 50 A. H.

### PNEUMATIC

Gas Ejector 50 Cu. Ft. Free Air per Min. at 150 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 35.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

5-In. 51-Cal. Mk. 8 Mods. 0, 4,  
or Mk. 15 Mod. 0

Max. Powder Pressure 17 Long Tons per Sq. In.

Barrel Weight (inc. breech mechanism) 11,250 Lbs.

### BALLISTICS

Muzzle Velocity 3,150 Feet per Second

Maximum Range 17,100 Yards at 20° Elev.

### AMMUNITION—Bag

Typical Projectiles

Common Mk. 15 Mods. 12, 14 Wt. 50. Lbs.

Illuminating Mods. of Mk. 25 Wt. 54.5 Lbs.

H. C. Mk. 39 Mod. 1 Wt. 50. Lbs.

A. A. Common Mods. of Mk. 35 Wt. 55.2 Lbs.

(Special charge for proj. Mods. of Mk. 35 assembled with fuse  
Mk. 39. Muzzle velocity 2000 f.s.)

Powder Charge Nominal Wt. 24.5 Lbs.

Primer Mk. 15 Mod. 1

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 450

Working Circle Drawing Nos. 153856

252754

General Arrangement Drawing Nos. 162778

252753

## REMARKS

Elevation limits are minus 10° to plus 20°. The training limit is determined by the installation.

Gun elevation per turn of the handwheel at high speed is 1° 12' 21". Gun train per turn of the handwheel at high speed is 1° 10' 44".

Length of recoil is 15 inches.

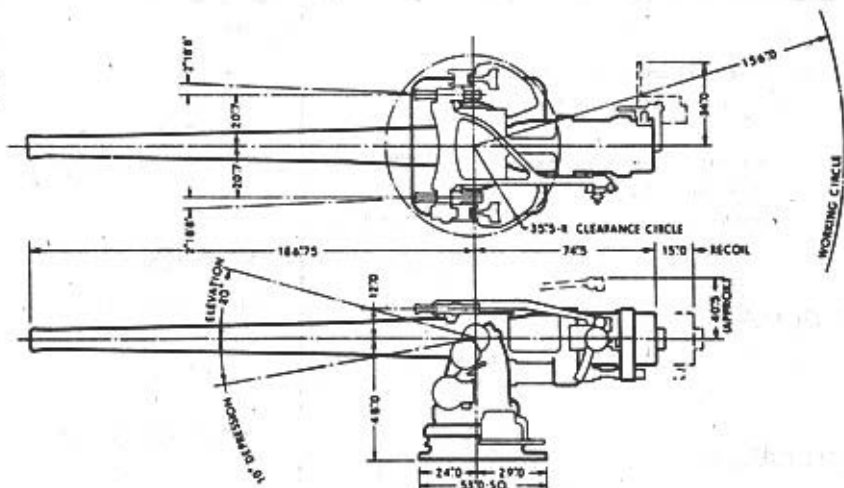
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/51, MARK 13 MOD. 9

**5-IN. MOUNT, MARK 13 MOD. 11****5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 1322         | 108347        |

Note: Assembly number of mount is required for precise information.



**GUN—5"/51  
INSTALLATION FOR  
SHIELD**

**TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 20° ELEV. FIRE**

**MK. 15 MOD. 0  
BB  
NONE**

**Weights below are approximate**  
23,400 LBS.  
16,200 LBS.  
11,500 LBS.  
89,600 LBS.  
91,000 LBS.  
96,250 LBS.

**5"/51, MARK 13 MOD. 11**

# 5-IN. MOUNT, MARK 13 MOD. 11

5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

#### Applicable Firing and Lighting Circuit:

|                           |                 |           |
|---------------------------|-----------------|-----------|
| Mk. 1 Mod. 0              |                 |           |
| Gun Firing                |                 |           |
| Transformer               | 115 V. to 20 V. | 200 Watts |
| Illumination and Stand-by |                 |           |
| Firing—Battery            | 6 V.            | 50 A. H.  |

### PNEUMATIC

Gas Ejector 50 Cu. Ft. Free Air per Min. at 150 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 35.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                       |                          |
|---------------------------------------|--------------------------|
| 5-In. 51-Cal.                         | Mk. 15 Mod. 0            |
| Max. Powder Pressure                  | 17 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) | 11,250 Lbs.              |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 3,150 Feet per Second     |
| Maximum Range   | 17,100 Yards at 20° Elev. |

### AMMUNITION—Bag

#### Typical Projectiles

|                                                                                                  |                       |               |
|--------------------------------------------------------------------------------------------------|-----------------------|---------------|
| Common                                                                                           | Mk. 15 Mods. 12, 14   | Wt. 50. Lbs.  |
| Illuminating                                                                                     | Mods. of Mk. 25       | Wt. 54.5 Lbs. |
| H. C.                                                                                            | Mk. 39 Mod. 1         | Wt. 50. Lbs.  |
| A. A. Common                                                                                     | Mods. of Mk. 35       | Wt. 55.2 Lbs. |
| (Special charge for proj. Mods. of Mk. 35 assembled with fuze Mk. 32. Muzzle velocity 2600 f.s.) |                       |               |
| Powder Charge                                                                                    | Nominal Wt. 24.5 Lbs. |               |
| Primer                                                                                           | Mk. 15 Mod. 1         |               |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 450       |        |
| Working Circle Drawing No.      | 247114 |
| General Arrangement Drawing No. | 247113 |

## REMARKS

Elevation limits are minus 10° to plus 20°. The training limit is determined by the installation.

Gun elevation per turn of the handwheel at high speed is 1° 12' 21". Gun train per turn of the handwheel at high speed is 1° 10' 44".

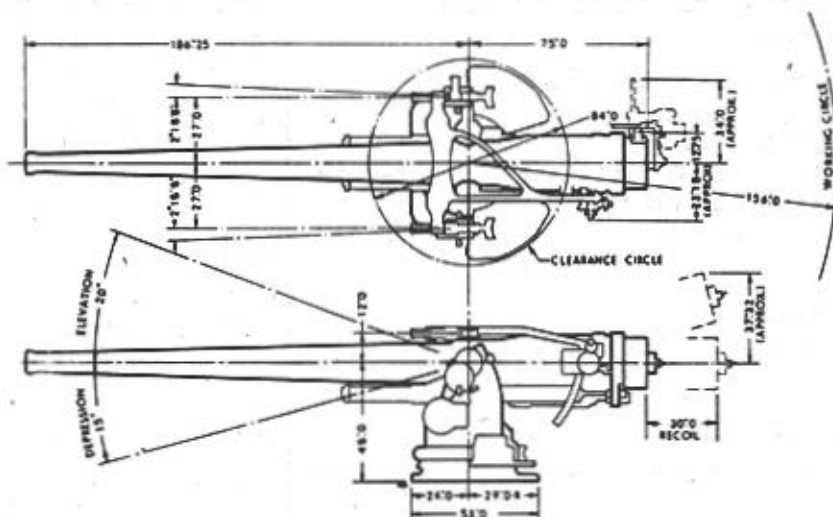
Length of recoil is 15 inches.



**5-IN. MOUNT, MARK 15 MOD. 0****5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 71        | 7396       |
| 145       | 12661      |
| 148       | 12883      |
| 190       | 14194      |
| 299       | 58845      |
| 307       | 59018      |
| 383       | 61572      |
| 642       | 94816      |
| 673       | 102354     |
| 713       | 102481     |
| 766       | 92960      |
| 851       | 103204     |
| 852       | 103205     |
| 1244      | 107820     |

Note: Assembly number of mount is required for precise information.

**GUN—5"/51****INSTALLATION FOR SHIELD****TOTAL WEIGHT OF ASSEMBLY****OSCILLATING WEIGHT****RECOILING WEIGHT****BRAKE LOAD****TRUNNION PRESSURE HORIZ. FIRE****TRUNNION PRESSURE 20° ELEV. FIRE****MK. 7 MOD. 3****MK. 8 MODS. 0, 4, OR MK. 15 MOD. 0****AUXILIARIES****NONE****Weights below are approximate****22,400 TO 23,300 LBS.****15,000 TO 15,700 LBS.****12,000 LBS.****44,800 LBS.****47,500 LBS.****52,300 LBS.****5"/51, MARK 15 MOD. 0**

# 5-IN. MOUNT, MARK 15 MOD. 0

5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Gun Firing and Illumination—Battery 6 V. 50 A. H.

### PNEUMATIC

Gas Ejector 50 Cu. Ft. Free Air per Min. at 150 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 5.6 Qts.

## RECEIVERS (Assy. No. 673)

| ELEVATION     | SPEEDS    | MFR. |
|---------------|-----------|------|
| Mk. 1 Mod. 20 | 60/7 & 60 | NYNY |

| TRAINING      |        |      |
|---------------|--------|------|
| Mk. 1 Mod. 10 | 1 & 60 | NYNY |

## GUN AND AMMUNITION DATA

### GUN

|                                       |                                                     |
|---------------------------------------|-----------------------------------------------------|
| 5-In. 51-Cal.                         | Mk. 7 Mod. 3,<br>Mk. 8 Mods. 0, 4, or Mk. 15 Mod. 0 |
| Max. Powder Pressure                  | 17 Long Tons per Sq. In.                            |
| Barrel Weight (inc. breech mechanism) | 11,250 Lbs.                                         |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 3,150 Feet per Second     |
| Maximum Range   | 17,100 Yards at 20° Elev. |

### AMMUNITION—Bag

|                                                                                                  |                                  |
|--------------------------------------------------------------------------------------------------|----------------------------------|
| Typical Projectiles                                                                              |                                  |
| Common                                                                                           | Mk. 15 Mods. 12, 14 Wt. 50. Lbs. |
| Illuminating                                                                                     | Mods. of Mk. 25 Wt. 54.5 Lbs.    |
| H. C.                                                                                            | Mk. 39 Mod. 1 Wt. 50. Lbs.       |
| A. A. Common                                                                                     | Mods. of Mk. 35 Wt. 55.2 Lbs.    |
| (Special charge for proj. Mods. of Mk. 35 assembled with fuze Mk. 32. Muzzle velocity 2600 f.s.) |                                  |
| Powder Charge                                                                                    | Nominal Wt. 24.5 Lbs.            |
| Primer                                                                                           | Mk. 15 Mod. 1                    |

## OPERATING SELECTION

Manual Drive

## DRAWING NUMBERS

|                                  |                 |
|----------------------------------|-----------------|
| Working Circle Drawing Nos.      | 59162<br>243402 |
| General Arrangement Drawing Nos. | 57796<br>243401 |

## REMARKS

Elevation limits are minus 15° to plus 20°. The training limit is determined by the installation.

Gun elevation per turn of the handwheel at high speed is 1° 17' 14". Gun train per turn of the handwheel at high speed is 1° 10' 44".

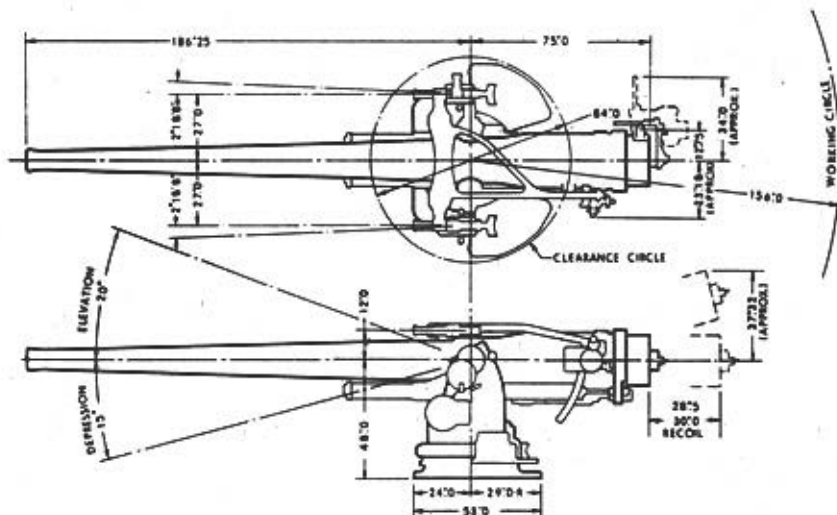
Length of recoil is 30 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/51, MARK 15 MOD. 0

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
|--------------|---------------|

|                     |        |
|---------------------|--------|
| Mount Mk. 15 Mod. 1 |        |
| 176                 | 14180  |
| Mount Mk. 15 Mod. 2 |        |
| 218                 | 54278  |
| 388                 | 61587  |
| 442                 | 62065  |
| 443                 | 62066  |
| 444                 | 62067  |
| 445                 | 62068  |
| 446                 | 62069  |
| 461                 | 62083  |
| 462                 | 62084  |
| 463                 | 62085  |
| 464                 | 62086  |
| 467                 | 62089  |
| 468                 | 62090  |
| 469                 | 62091  |
| 521                 | 92662  |
| 563                 | 93139  |
| 565                 | 93252  |
| 842                 | 103120 |
| 951                 | 103137 |
| 1225                | 107700 |
| 1342                | 108392 |
| Mount Mk. 15 Mod. 3 |        |
| 369                 | 59588  |
| 447                 | 62070  |
| 460                 | 62082  |
| 465                 | 62087  |
| 466                 | 62088  |
| 505                 | 62826  |
| 710                 | 102477 |
| Mount Mk. 15 Mod. 4 |        |
| 376                 | 61555  |
| 413                 | 61989  |
| 1285                | 107875 |



**Note:** Assembly number of mount is required for precise information.

GUN—5\*/51

### INSTALLATION FOR SHIELD (ASSY. 505 ONLY) SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY

WEIGHT OF SHIELD

### OSCILLATING WEIGHT

### RECOILING WEIGHT

### BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 20° ELEV. FIRE

MK. 7 MOD. 2,  
MK. 8 MODS. 0, 1, 4 OR MK. 15 MOD. 0  
AUXILIARIES  
MK. 32 MOD. 0  
.25 IN.

Weights below are approximate

22,500 TO 23,000 LBS.

1,260 LBS.

**15,000 TO 15,750 LBS.**

12,000 LBS.

47,050 LBS.

49,600 LBS.

54,460 LBS.

# 5-IN. MOUNT, MARK 15 MODS. 1-5

5-IN. 51-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

None, or

Gun Firing and Illumination—Battery 6 V. 50 A. H.

### PNEUMATIC

Gas Ejector 50 Cu. Ft. Free Air per Min. at 150 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 5.6 Qts.

## GUN AND AMMUNITION DATA

### GUN

5-In. 51-Cal. Mk. 7 Mod. 2,  
Mk. 8 Mods. 0, 1, 4, or Mk. 15 Mod. 0  
Max. Powder Pressure 17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism) 11,250 Lbs.

### BALLISTICS

Muzzle Velocity 3,150 Feet per Second  
Maximum Range 17,100 Yards at 20° Elev.

### AMMUNITION—Bag

#### Typical Projectiles

|                                                                                                  |                       |               |
|--------------------------------------------------------------------------------------------------|-----------------------|---------------|
| Common                                                                                           | Mk. 15 Mods. 12, 14   | Wt. 50. Lbs.  |
| Illuminating                                                                                     | Mods. of Mk. 25       | Wt. 54.5 Lbs. |
| H. C.                                                                                            | Mk. 39 Mod. 1         | Wt. 50. Lbs.  |
| A. A. Common                                                                                     | Mods. of Mk. 35       | Wt. 55.2 Lbs. |
| (Special charge for proj. Mods. of Mk. 35 assembled with fuse Mk. 32. Muzzle velocity 2600 f.s.) |                       |               |
| Powder Charge                                                                                    | Nominal Wt. 24.5 Lbs. |               |
| Primer                                                                                           | Mk. 15 Mod. 1         |               |

## OPERATING SELECTION

Manual Drive

## DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Working Circle Drawing No.      | 59162 |
| General Arrangement Drawing No. | 57796 |

## REMARKS

Elevation limits are minus 15° to plus 20°. The training limit is determined by the installation.

Gun elevation per turn of the handwheel at high speed is 1° 17' 14". Gun train per turn of the handwheel at high speed is 1° 10' 44".

Length of recoil is 30 inches on Mount Mk. 15 Mod. 1; 28.5 inches on Mounts Mk. 15 Mods. 2-5.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

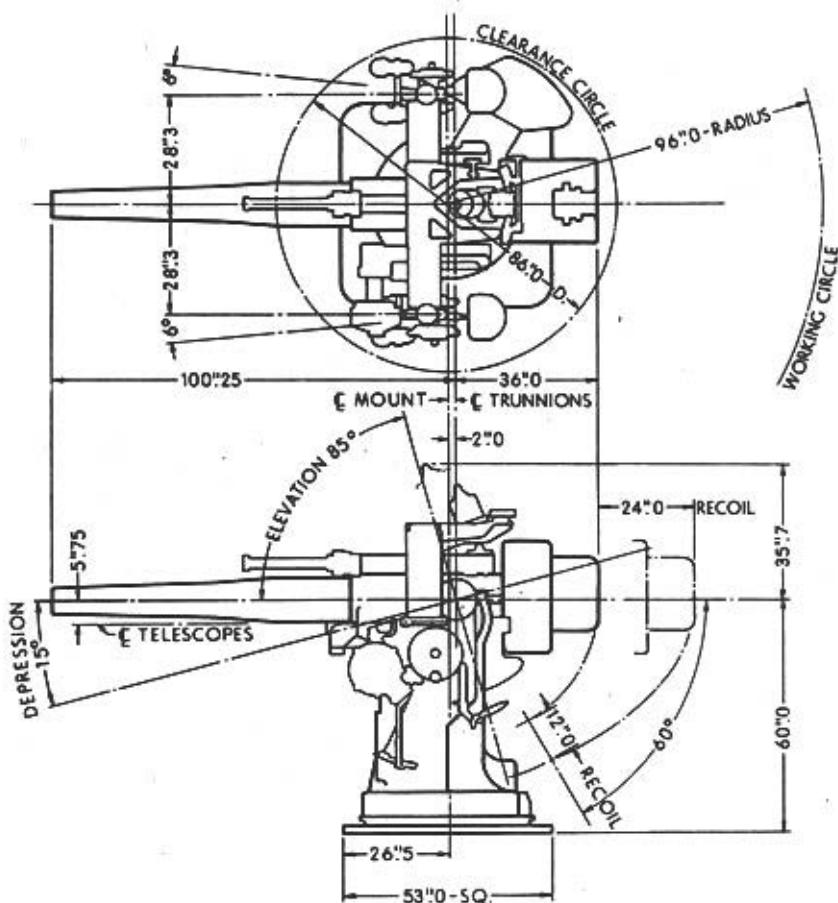
5"/51, MARK 15 MODS. 1-5



**5-IN. MOUNT, MARK 17 MOD. 0****5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 170          | 14048         |

Note: Assembly number of mount is required for precise information.



GUN—5"/25  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD HORIZ. FIRE  
BRAKE LOAD 85° ELEV. FIRE  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 10 MOD. 0  
NAVAL PROVING GROUND  
NONE

Weights below are approximate

|             |
|-------------|
| 12,625 LBS. |
| 7,475 LBS.  |
| 5,390 LBS.  |
| 27,650 LBS. |
| 58,950 LBS. |
| 28,640 LBS. |
| 66,400 LBS. |

**5"/25, MARK 17 MOD. 0**

# 5-IN. MOUNT, MARK 17 MOD. 0

5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### PNEUMATIC

Counterrecoil Cylinder (for Charging)  
0.27 Cu. Ft. Air at 1500 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 9 Ots.  
Counterrecoil Differential Cylinder N. S. 2075 .9 Pt.

## GUN AND AMMUNITION DATA

### GUN

|                         |                            |
|-------------------------|----------------------------|
| 5-In. 25-Cal.           | Mk. 10 Mod. 0              |
| Maximum Powder Pressure | 16.7 Long Tons per Sq. In. |
| Weight of Gun Barrel    | 2,125 Lbs.                 |
| Weight of Breech        | 3,050 Lbs.                 |

### BALLISTICS

|                                   |                           |
|-----------------------------------|---------------------------|
| Muzzle Velocity (53.85 Lb. Proj.) | 2,110 Feet per Second     |
| Maximum Altitude                  | 27,400 Feet at 85° Elev.  |
| Maximum Range                     | 14,500 Yards at 45° Elev. |

### AMMUNITION—Fixed

|                           |                   |                      |
|---------------------------|-------------------|----------------------|
| Typical Projectiles       |                   |                      |
| A. A. Common              | Mods. of Mk. 36   | Wt. 53.8 Lbs.        |
| Illuminating              | Mods. of Mk. 27   |                      |
|                           |                   | Appr. Wt. 54.5 Lbs.  |
| Cartridge                 |                   |                      |
| Case                      | Mk. 4 Mod. 0      | Wt. 14.5 Lbs.        |
|                           | Mk. 4 Mod. 2      | Wt. 11.4 Lbs.        |
| Charge                    |                   | Nominal Wt. 9.6 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                      |
| Total Weight of Cartridge |                   | Appr. 21. Lbs.       |

## OPERATING SELECTION

Manual Drive

## DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Working Circle Drawing No.      | 99815 |
| General Arrangement Drawing No. | 99822 |

## REMARKS

Elevation limits are minus 15° to plus 85°.

Elevating gear rate is 1° 31' 27" per turn of the hand-wheel. Training gear rate is 5° 55' 53" per turn of the hand-wheel at high speed.

Length of recoil is 12 inches to 24 inches, depending on elevation.

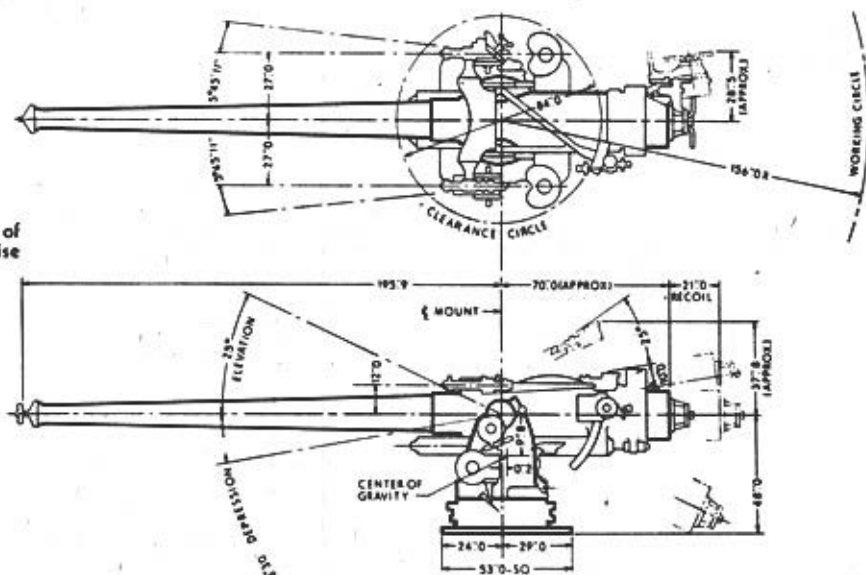
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/25, MARK 17 MOD. 0

**5-IN. MOUNT, MARK 18 MOD. 0****5-IN. 51-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 172          | 14011         |
| 556          | 93085         |
| 557          | 93086         |
| 558          | 93087         |
| 559          | 93088         |
| 560          | 93089         |
| 1311         | 108329        |

Note: Assembly number of mount is required for precise information.



GUN—5"/51  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 25° ELEV. FIRE

MK. 9 MODS. 0, 3, 4, 5, 6, 7, 8  
SS

NONE

Weights below are approximate  
24,000 LBS.  
16,900 TO 17,200 LBS.  
12,900 LBS.  
62,000 LBS.  
64,400 LBS.  
71,000 LBS.

**5"/51, MARK 18 MOD. 0**

# 5-IN. MOUNT, MARK 18 MOD. 0

5-IN. 51-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

Recoil Fluid      O. D. 1914      51.9 Qts.

## GUN AND AMMUNITION DATA

### GUN

5-In. 51-Cal.      Mk. 9 Mods. 0, 3, 4, 5, 6, 7, 8  
Max. Powder Pressure      17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism)  
11,114 to 11,527 Lbs.

### BALLISTICS

Muzzle Velocity      3,150 Feet per Second  
Maximum Range      18,800 Yards at 25° Elev.

## AMMUNITION—Separate Case

### Typical Projectiles

|              |                    |               |
|--------------|--------------------|---------------|
| Common       | Mk. 5 Mods. 12, 14 | Wt. 50. Lbs.  |
| Illuminating | Mods. of Mk. 25    | Wt. 54.5 Lbs. |
| H. C.        | Mk. 39 Mod. 1      | Wt. 50. Lbs.  |

### Cartridge

|                     |                   |               |
|---------------------|-------------------|---------------|
| Case                | Mk. 3 Mod. 0      | Wt. 27.4 Lbs. |
| Charge              | Nominal           | Wt. 24.5 Lbs. |
| Primer              | Mk. 13 Mods. 0, 1 |               |
| Total Wt. Cartridge |                   | 52. Lbs.      |

## OPERATING SELECTION

Manual Drive

## DRAWING NUMBERS

|                                 |       |
|---------------------------------|-------|
| Working Circle Drawing No.      | 96743 |
| General Arrangement Drawing No. | 96754 |

## REMARKS

Elevation limits are minus 10° or minus 8° 30' to plus 25°.  
The training limit is determined by the installation.

Length of recoil is 21 inches.

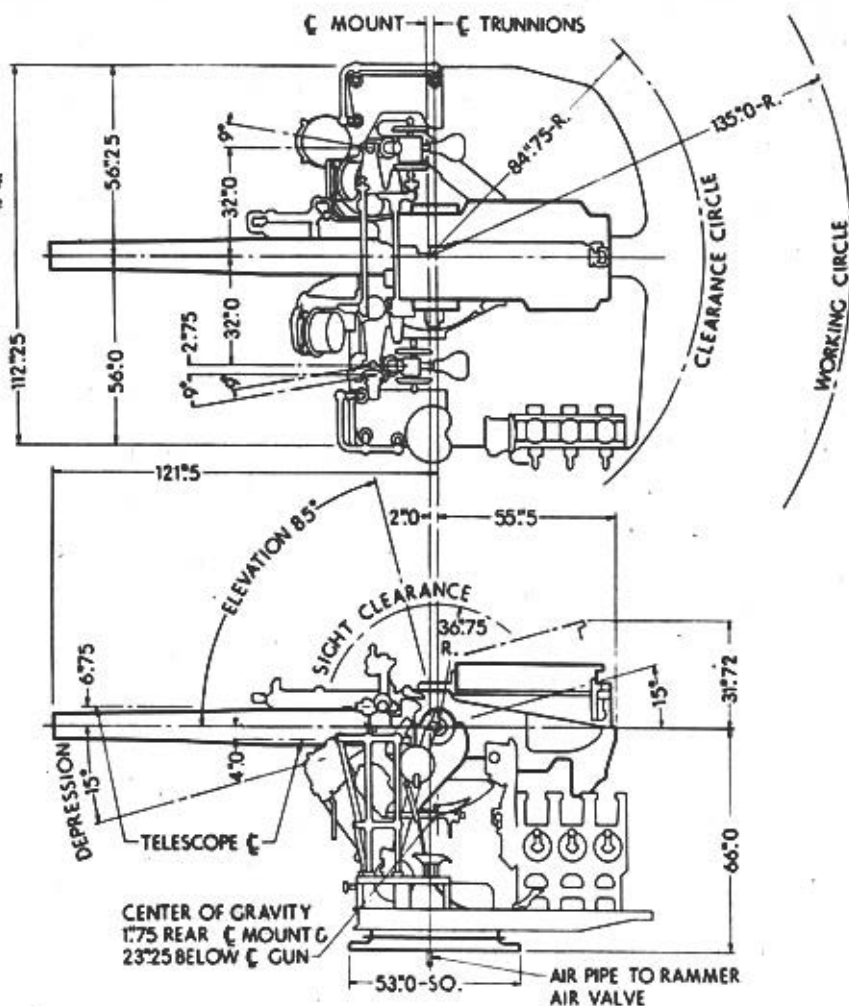


# 5-IN. MOUNT, MARK 19 MOD. 1

5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 219          | 54424         |
| 220          | 54915         |
| 240          | 56855         |
| 242          | 56857         |
| 298          | 58843         |

Note: Assembly number of mount is required for precise information.



GUN—5"/25

INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

5"/25, MARK 19 MOD. 1

MK. 10 MODS. 2, 3  
MK. 11 MODS. 0, 1, 3  
CA

NONE

Weights below are approximate

|             |
|-------------|
| 20,240 LBS. |
| 9,670 LBS.  |
| 4,800 LBS.  |
| 71,560 LBS. |
| 72,150 LBS. |
| 80,270 LBS. |

# 5-IN. MOUNT, MARK 19 MOD. 1

5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                              |                 |           |
|----------------------------------------------|-----------------|-----------|
| Gun Firing Transformer                       | 120 V. to 20 V. | 100 Watts |
| Illumination and Stand-by Gun Firing—Battery | 6 V.            | 50 A. H.  |

### PNEUMATIC

|                                       |                                          |
|---------------------------------------|------------------------------------------|
| Rammer                                | 30 Cu. Ft. Free Air per Min. at 125 psi. |
| Counterrecoil Cylinder (for Charging) | 0.216 Cu. Ft. Air at 1700–1800 psi.      |

### HYDRAULIC

|                                     |            |               |
|-------------------------------------|------------|---------------|
| Recoil Cylinder                     | O. D. 1914 | Appr. 5. Qts. |
| Rammer Buffer Cylinder              | O. D. 1914 | 1.1 Qts.      |
| Counterrecoil Differential Cylinder | N. S. 2075 | .6 Pt.        |

## GUN AND AMMUNITION DATA

### GUN

|                              |                                           |
|------------------------------|-------------------------------------------|
| 5-In. 25-Cal.                | Mk. 10 Mods. 2, 3<br>Mk. 11 Mods. 0, 1, 3 |
| Max. Powder Pressure         | 16.7 Long Tons per Sq. In.                |
| Barrel Weight                | 2,100 Lbs.                                |
| Vertical Sliding Breechblock |                                           |

### BALLISTICS

|                                   |                           |
|-----------------------------------|---------------------------|
| Muzzle Velocity (53.85 Lb. Proj.) | 2,110 Feet per Second     |
| Maximum Altitude                  | 27,400 Feet at 85° Elev.  |
| Maximum Range                     | 14,500 Yards at 45° Elev. |

### AMMUNITION—Fixed

|                           |                              |                                |
|---------------------------|------------------------------|--------------------------------|
| Typical Projectiles       |                              |                                |
| A. A. Common              | Mods. of Mk. 36              | Wt. 53.8 Lbs.                  |
| Illuminating              | Mods. of Mk. 27              | Appr. Wt. 54.5 Lbs.            |
| Cartridge Case            | Mk. 4 Mod. 0<br>Mk. 4 Mod. 2 | Wt. 14.5 Lbs.<br>Wt. 11.4 Lbs. |
| Charge                    |                              | Nominal Wt. 9.6 Lbs.           |
| Primer                    | Mk. 13 Mods. 0, 1            |                                |
| Total Weight of Cartridge |                              | Appr. 21. Lbs.                 |

### FUZE SETTER

Mark 7 Mod. 0

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 100       |        |
| Working Circle Drawing No.      | 141913 |
| General Arrangement Drawing No. | 141916 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is determined by the installation.

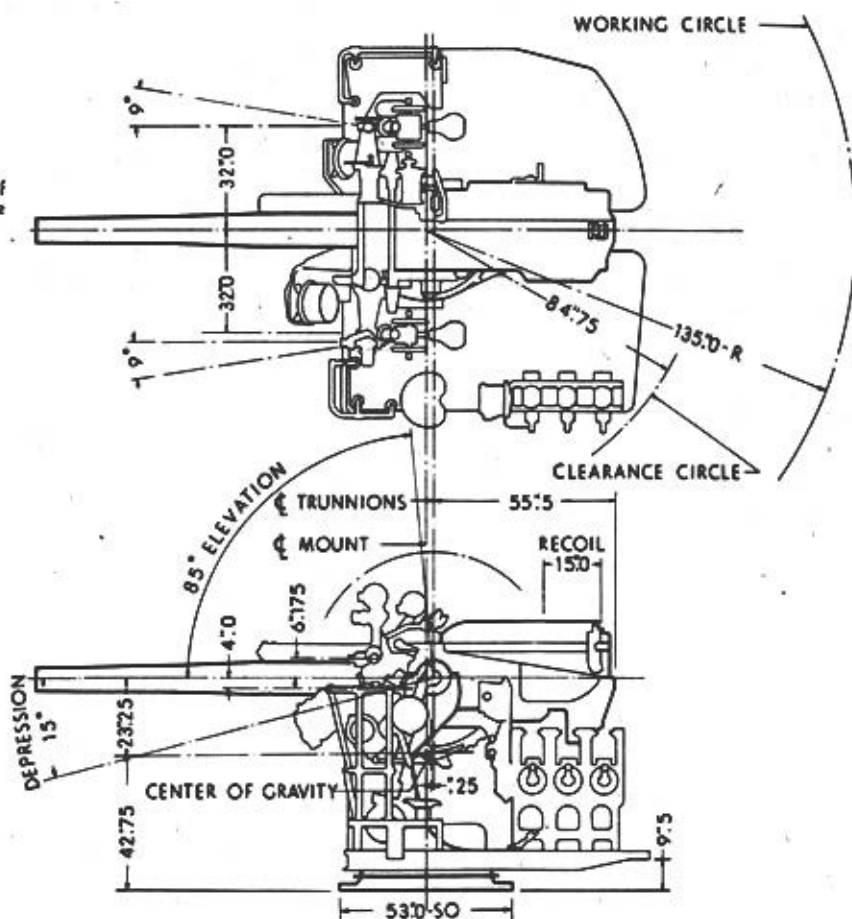
Elevating gear rate is 1° 52' 30" per turn of the handwheel. Training gear rate is 4° 9' 55" per turn of the handwheel at low speed, 6° 0' 17" at high speed.

Length of recoil is 15 inches.

**5-IN. MOUNT, MARK 19 MOD. 2****5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 228          | 54944         |
| 233          | 55927         |
| 235          | 55944         |
| 241          | 56856         |
| 440          | 62046         |

Note: Assembly number of mount is required for precise information.

**GUN—5"/25****INSTALLATION FOR  
SHIELD****TOTAL WEIGHT OF ASSEMBLY****OSCILLATING WEIGHT****RECOILING WEIGHT****BRAKE LOAD****TRUNNION PRESSURE HORIZ. FIRE****TRUNNION PRESSURE 85° ELEV. FIRE****MK. 10 MOD. 2****MK. 11 MODS. 0, 2, 7****BB-CA-CV****NONE**

Weights below are approximate

20,200 LBS.

9,670 LBS.

4,800 LBS.

71,560 LBS.

72,150 LBS.

80,270 LBS.

**5"/25, MARK 19 MOD. 2**

# 5-IN. MOUNT, MARK 19 MOD. 2

5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                              |                 |           |
|----------------------------------------------|-----------------|-----------|
| Gun Firing Transformer                       | 120 V. to 20 V. | 100 Watts |
| Illumination and Stand-by Gun Firing—Battery | 6 V.            | 50 A. H.  |

### PNEUMATIC

|                                       |                                          |
|---------------------------------------|------------------------------------------|
| Rammer                                | 30 Cu. Ft. Free Air per Min. at 125 psi. |
| Counterrecoil Cylinder (for Charging) | 0.216 Cu. Ft. Air at 1700-1800 psi.      |

### HYDRAULIC

|                                     |            |               |
|-------------------------------------|------------|---------------|
| Recoil Cylinder                     | O. D. 1914 | Appr. 5. Qts. |
| Rammer Buffer Cylinder              | O. D. 1914 | 1.1 Qts.      |
| Counterrecoil Differential Cylinder | N. S. 2075 | .6 Pt.        |

## GUN AND AMMUNITION DATA

### GUN

|                              |                            |
|------------------------------|----------------------------|
| 5-In. 25-Cal.                | Mk. 10 Mod. 2              |
| Max. Powder Pressure         | Mk. 11 Mods. 0, 2, 7       |
| Barrel Weight                | 16.7 Long Tons per Sq. In. |
| Vertical Sliding Breechblock | 2,100 Lbs.                 |

### BALLISTICS

|                                   |                           |
|-----------------------------------|---------------------------|
| Muzzle Velocity (53.85 Lb. Proj.) | 2,110 Feet per Second     |
| Maximum Altitude                  | 27,400 Feet at 85° Elev.  |
| Maximum Range                     | 14,500 Yards at 45° Elev. |

### AMMUNITION—Fixed

|                           |                   |                      |
|---------------------------|-------------------|----------------------|
| Typical Projectiles       |                   |                      |
| A. A. Common              | Mods. of Mk. 36   | Wt. 53.8 Lbs.        |
| Illuminating              | Mods. of Mk. 27   |                      |
|                           |                   | Appr. Wt. 54.5 Lbs.  |
| Cartridge                 |                   |                      |
| Case                      | Mk. 4 Mod. 0      | Wt. 14.5 Lbs.        |
|                           | Mk. 4 Mod. 2      | Wt. 11.4 Lbs.        |
| Charge                    |                   | Nominal Wt. 9.6 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                      |
| Total Weight of Cartridge |                   | Appr. 21. Lbs.       |

### FUZE SETTER

Mark 7 Mod. 0

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 100       |        |
| Working Circle Drawing No.      | 152254 |
| General Arrangement Drawing No. | 141916 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is determined by the installation.

Elevating gear rate is 1° 52' 30" per turn of the handwheel. Training gear rate is 4° 9' 55" per turn of the handwheel at low speed, 6° 0' 17" at high speed.

Length of recoil is 15 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/25, MARK 19 MOD. 2

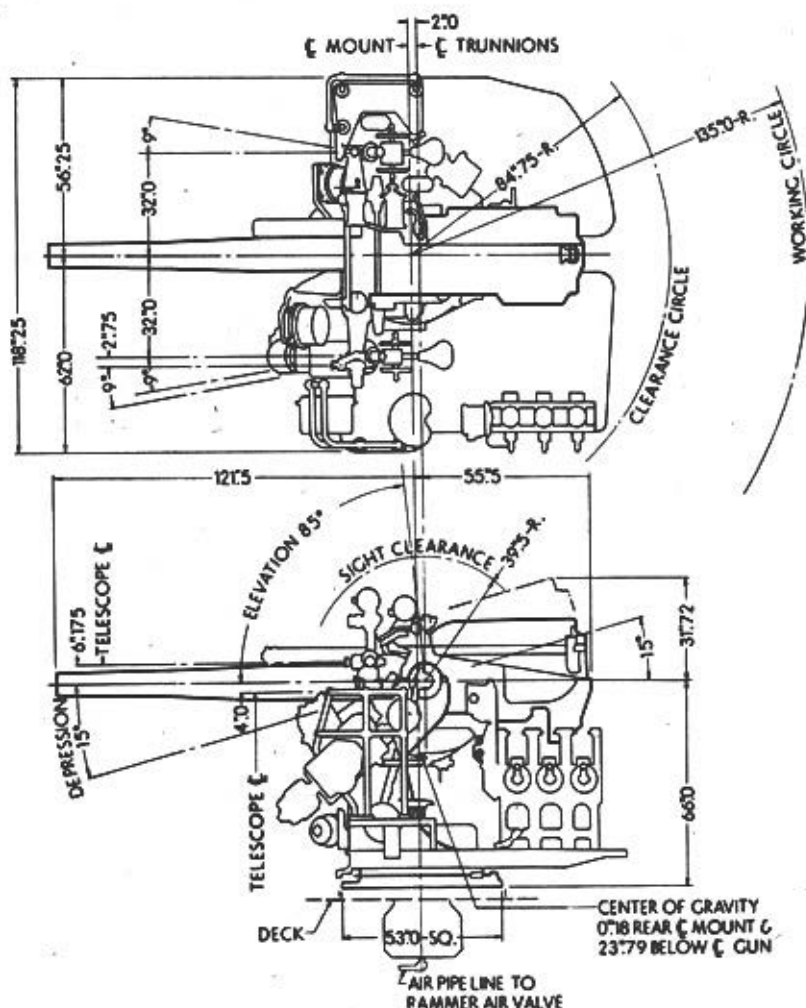


## 5-IN. MOUNT, MARK 19 MOD. 4

5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 238          | 56549         |

Note: Assembly number of mount is required for precise information.



GUN—5"/25  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 11 MOD. 0  
CA  
NONE

Weights below are approximate  
21,800 LBS.  
9,600 LBS.  
4,800 LBS.  
71,560 LBS.  
72,150 LBS.  
80,270 LBS.

5"/25, MARK 19 MOD. 4

# 5-IN. MOUNT, MARK 19 MOD. 4

5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                              |                                     |           |
|----------------------------------------------|-------------------------------------|-----------|
| Elevating Gear                               | 1. HP. } 230 V.                     | D.C.      |
| Training Gear                                | 1. HP. } Thyatron Controlled Source |           |
| Gun Firing Transformer                       | 120 V. to 20 V.                     | 100 Watts |
| Illumination and Stand-by Gun Firing—Battery | 6 V.                                | 50 A. H.  |

### PNEUMATIC

|                                       |                                          |
|---------------------------------------|------------------------------------------|
| Rammer                                | 30 Cu. Ft. Free Air per Min. at 125 psi. |
| Counterrecoil Cylinder (for Charging) | 0.216 Cu. Ft. Air at 1700-1800 psi.      |

### HYDRAULIC

|                                     |            |               |
|-------------------------------------|------------|---------------|
| Recoil Cylinder                     | O. D. 1914 | Appr. 5. Qts. |
| Rammer Buffer Cylinder              | O. D. 1914 | 1.1 Qts.      |
| Counterrecoil Differential Cylinder | N. S. 2075 | .6 Pt.        |

## POWER DRIVES

|                |                          |            |
|----------------|--------------------------|------------|
| Elevating Gear | { Carriage Mk. 16 Mod. 3 | Gen. Elec. |
| Training Gear  |                          |            |

## INDICATORS

| ELEVATION         | SPEEDS              | MFR. |
|-------------------|---------------------|------|
| Mk. 14 Mods. 0, 1 | $\frac{18}{7}$ & 36 | Ford |
| TRAIN             |                     |      |
| Mk. 15 Mod. 1     | 1 & 36              | Ford |
| FUZE SETTING      |                     |      |
| Mk. 3 Mod. 1      | $\frac{360}{7}$     | Ford |

## RECEIVER REGULATORS

| ELEVATION    | SPEEDS               | MFR.       |
|--------------|----------------------|------------|
| Mk. 1 Mod. 0 | $1\frac{1}{2}$ & 144 | Gen. Elec. |
| TRAIN        |                      |            |
| Mk. 1 Mod. 0 | $\frac{1}{2}$ & 72   | Gen. Elec. |

## GUN AND AMMUNITION DATA

### GUN

|                              |                            |
|------------------------------|----------------------------|
| 5-In. 25-Cal.                | Mk. 11 Mod. 0              |
| Maximum Powder Pressure      | 16.7 Long Tons per Sq. In. |
| Barrel Weight                | 2,100 Lbs.                 |
| Vertical Sliding Breechblock |                            |

### BALLISTICS

|                                   |                           |
|-----------------------------------|---------------------------|
| Muzzle Velocity (53.85 Lb. Proj.) | 2,110 Feet per Second     |
| Maximum Altitude                  | 27,400 Feet at 85° Elev.  |
| Maximum Range                     | 14,500 Yards at 45° Elev. |

### AMMUNITION—Fixed

| Typical Projectiles |                 |                     |
|---------------------|-----------------|---------------------|
| A. A. Common        | Mods. of Mk. 36 | Wt. 53.8 Lbs.       |
| Illuminating        | Mods. of Mk. 27 |                     |
|                     |                 | Appr. Wt. 54.5 Lbs. |

|                           |                   |                      |
|---------------------------|-------------------|----------------------|
| Cartridge Case            | Mk. 4 Mod. 0      | Wt. 14.5 Lbs.        |
|                           | Mk. 4 Mod. 2      | Wt. 11.4 Lbs.        |
| Charge                    |                   | Nominal Wt. 9.6 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                      |
| Total Weight of Cartridge |                   | Appr. 21. Lbs.       |

## FUZE SETTER

Mark 7 Mod. 0

## OPERATING SELECTION

Manual Drive—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordinance Pamphlet No. 100      |        |
| Working Circle Drawing No.      | 162744 |
| General Arrangement Drawing No. | 162749 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is determined by the installation.

Elevating gear rate is 1° 52' 30" per turn of the hand-wheel. Training gear rate is 4° 9' 55" per turn of the hand-wheel at low speed, 6°, 0' 17" at high speed.

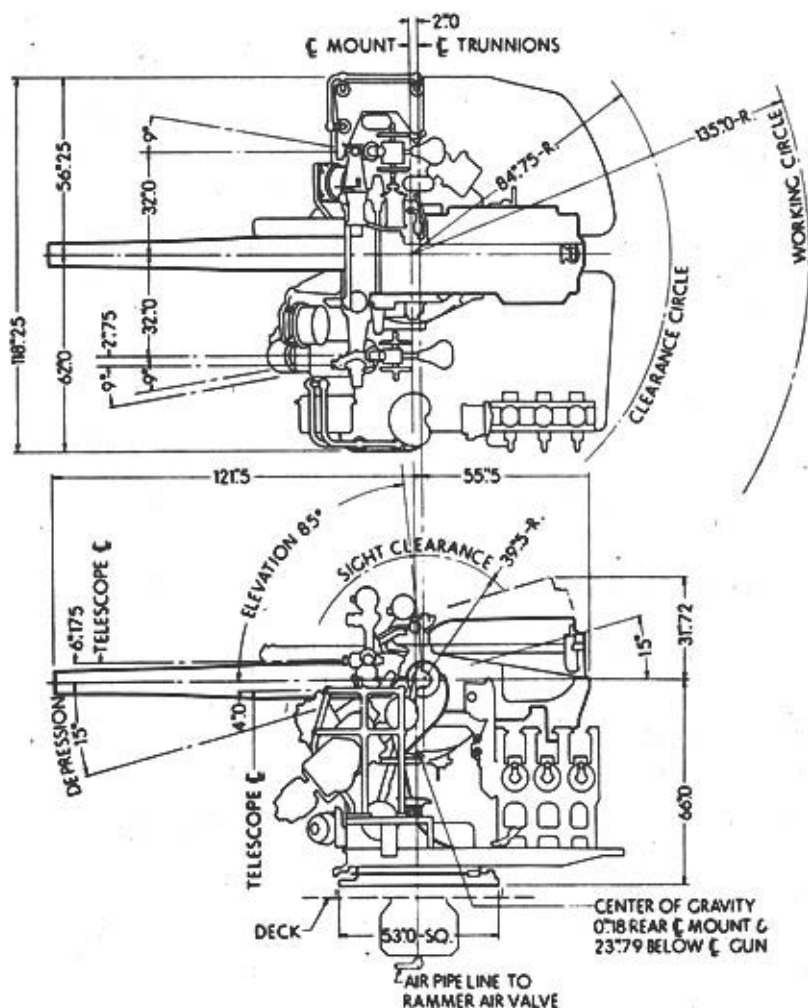
Length of recoil is 15 inches.

This mount may be used with specific modifications of gun director Mk. 33.

**5-IN. MOUNT, MARK 19 MOD. 6****5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

|                     |                        |
|---------------------|------------------------|
| ASSY.<br>NO.<br>245 | SKETCH<br>NO.<br>56876 |
|---------------------|------------------------|

Note: Assembly number of mount is required for precise information.



GUN—5"/25  
INSTALLATION FOR  
SHIELD

MK. 11 MOD. 0  
CA  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate  
21,830 LBS.  
9,600 LBS.  
4,800 LBS.  
71,560 LBS.  
72,150 LBS.  
80,270 LBS.

**5"/25, MARK 19 MOD. 6**



# 5-IN. MOUNT, MARK 19 MOD. 6

5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                              |                                     |           |
|----------------------------------------------|-------------------------------------|-----------|
| Elevating Gear                               | 1. HP. } 230 V.                     | D.C.      |
| Training Gear                                | 1. HP. } Thyatron Controlled Source |           |
| Gun Firing Transformer                       | 120 V. to 20 V.                     | 100 Watts |
| Illumination and Stand-by Gun Firing—Battery | 6 V.                                | 50 A. H.  |

### PNEUMATIC

|                                        |                                          |
|----------------------------------------|------------------------------------------|
| Rammer                                 | 30 Cu. Ft. Free Air per Min. at 125 psi. |
| Counter recoil Cylinder (for Charging) | 0.216 Cu. Ft. Air at 1700–1800 psi.      |

### HYDRAULIC

|                                      |            |               |
|--------------------------------------|------------|---------------|
| Recoil Cylinder                      | O. D. 1914 | Appr. 5. Qts. |
| Rammer Buffer Cylinder               | O. D. 1914 | 1.1 Qts.      |
| Counter recoil Differential Cylinder | N. S. 2075 | .6 Pt.        |

## POWER DRIVES

|                |                          |            |
|----------------|--------------------------|------------|
| Elevating Gear | } Carriage Mk. 16 Mod. 5 | Gen. Elec. |
| Training Gear  |                          |            |

## INDICATORS

|               |                 |            |
|---------------|-----------------|------------|
| ELEVATION     | SPEEDS          | MFR.       |
| Mk. 19 Mod. 0 | 2 & 36          | Gen. Elec. |
| TRAIN         |                 |            |
| Mk. 21 Mod. 0 | 1 & 36          | Gen. Elec. |
| FUZE SETTING  |                 |            |
| Mk. 4 Mod. 0  | $\frac{360}{7}$ | Gen. Elec. |

## RECEIVER REGULATORS

|              |          |            |
|--------------|----------|------------|
| ELEVATION    | SPEEDS   | MFR.       |
| Mk. 1 Mod. 0 | 1½ & 144 | Gen. Elec. |
| TRAIN        |          |            |
| Mk. 1 Mod. 0 | ½ & 72   | Gen. Elec. |

## GUN AND AMMUNITION DATA

### GUN

|                              |                            |
|------------------------------|----------------------------|
| 5-In. 25-Cal.                | Mk. 11 Mod. 0              |
| Maximum Powder Pressure      | 16.7 Long Tons per Sq. In. |
| Barrel Weight                | 2,100 Lbs.                 |
| Vertical Sliding Breechblock |                            |

### BALLISTICS

|                                   |                           |
|-----------------------------------|---------------------------|
| Muzzle Velocity (53.85 Lb. Proj.) | 2,110 Feet per Second     |
| Maximum Altitude                  | 27,400 Feet at 85° Elev.  |
| Maximum Range                     | 14,500 Yards at 45° Elev. |

### AMMUNITION—Fixed

|                           |                   |                      |
|---------------------------|-------------------|----------------------|
| Typical Projectiles       |                   |                      |
| A. A. Common              | Mods. of Mk. 36   | Wt. 53.8 Lbs.        |
| Illuminating              | Mods. of Mk. 27   |                      |
|                           |                   | Appr. Wt. 54.5 Lbs.  |
| Cartridge                 |                   |                      |
| Case                      | Mk. 4 Mod. 0      | Wt. 14.5 Lbs.        |
|                           | Mk. 4 Mod. 2      | Wt. 11.4 Lbs.        |
| Charge                    |                   | Nominal Wt. 9.6 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                      |
| Total Weight of Cartridge |                   | Appr. 21. Lbs.       |

## FUZE SETTER

Mark 7 Mod. 0

## OPERATING SELECTION

Manual Drive—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 100       |        |
| Working Circle Drawing No.      | 164537 |
| General Arrangement Drawing No. | 162788 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is determined by the installation.

Elevating gear rate is 1° 52' 30" per turn of the hand-wheel. Training gear rate is 4° 9' 55" per turn of the hand-wheel at low speed, 6° 0' 17" at high speed.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun director Mk. 33.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/25, MARK 19 MOD. 6

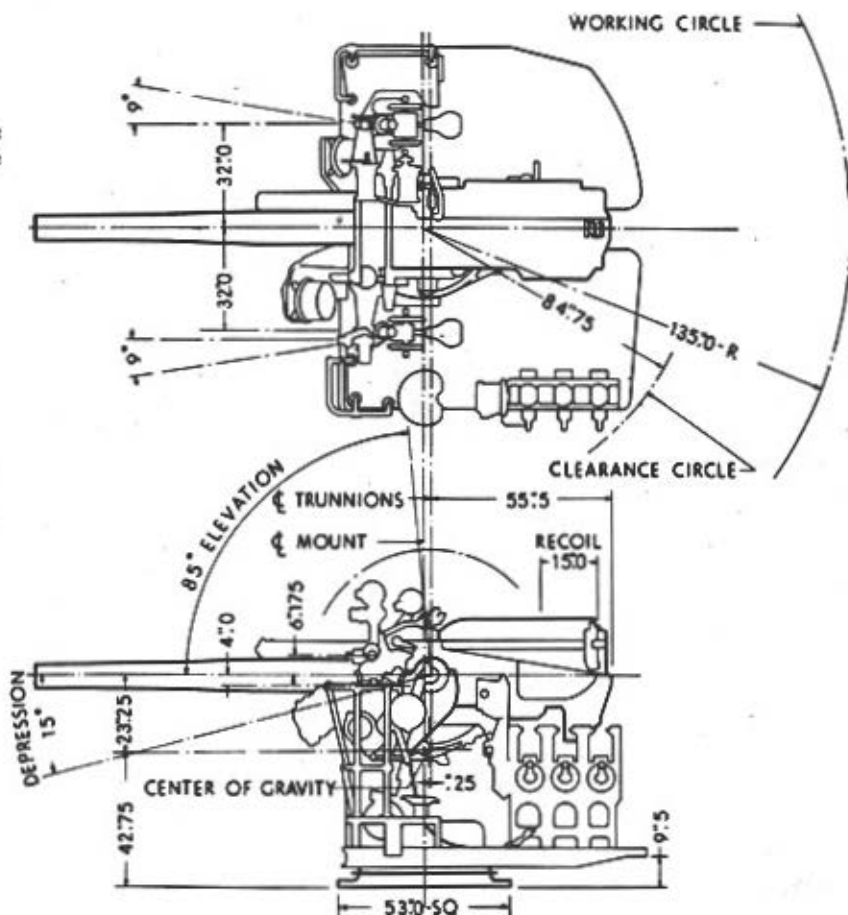


**5-IN. MOUNT, MARK 19 MOD. 7**

5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 237          | 56527         |
| 246          | 56872         |
| 256          | 58514         |

Note: Assembly number of mount is required for precise information.



GUN—5"/25

INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY

OSCILLATING WEIGHT

RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 85° ELEV. FIRE

MK. 10 MOD. 2

MK. 11 MODS. 0, 2

BB

NONE

Weights below are approximate

20,200 LBS.

9,670 LBS.

4,800 LBS.

71,560 LBS.

72,150 LBS.

80,270 LBS.

**5"/25, MARK 19 MOD. 7**

# 5-IN. MOUNT, MARK 19 MOD. 7

5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                  |                 |           |
|----------------------------------|-----------------|-----------|
| Gun Firing                       |                 |           |
| Transformer                      | 120 V. to 20 V. | 100 Watts |
| Illumination and                 |                 |           |
| Stand-by Gun Firing—Battery 6 V. |                 | 50 A. H.  |

### PNEUMATIC

|                                        |                                          |
|----------------------------------------|------------------------------------------|
| Rammer                                 | 30 Cu. Ft. Free Air per Min. at 125 psi. |
| Counter recoil Cylinder (for Charging) |                                          |
|                                        | 0.216 Cu. Ft. Air at 1700-1800 psi.      |

### HYDRAULIC

|                                      |            |               |
|--------------------------------------|------------|---------------|
| Recoil Cylinder                      | O. D. 1914 | Appr. 5. Qts. |
| Rammer Buffer Cylinder               | O. D. 1914 | 1.1 Qts.      |
| Counter recoil Differential Cylinder | N. S. 2075 | .6 Pt.        |

## GUN AND AMMUNITION DATA

### GUN

|                              |                            |
|------------------------------|----------------------------|
| 5-In. 25-Cal.                | Mk. 10 Mod. 2              |
|                              | Mk. 11 Mods. 0, 2          |
| Max. Powder Pressure         | 16.7 Long Tons per Sq. In. |
| Barrel Weight                | 2,100 Lbs.                 |
| Vertical Sliding Breechblock |                            |

### BALLISTICS

|                                   |                           |
|-----------------------------------|---------------------------|
| Muzzle Velocity (53.85 Lb. Proj.) | 2,110 Feet per Second     |
|                                   | 27,400 Feet at 85° Elev.  |
| Maximum Altitude                  | 14,500 Yards at 45° Elev. |
| Maximum Range                     |                           |

### AMMUNITION—Fixed

|                           |                   |                      |
|---------------------------|-------------------|----------------------|
| Typical Projectiles       |                   |                      |
| A. A. Common              | Mods. of Mk. 36   | Wt. 53.8 Lbs.        |
| Illuminating              | Mods. of Mk. 27   |                      |
|                           |                   | Appr. Wt. 54.5 Lbs.  |
| Cartridge                 |                   |                      |
| Case                      | Mk. 4 Mod. 0      | Wt. 14.5 Lbs.        |
|                           | Mk. 4 Mod. 2      | Wt. 11.4 Lbs.        |
| Charge                    |                   | Nominal Wt. 9.6 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                      |
| Total Weight of Cartridge |                   | Appr. 21 Lbs.        |

### FUZE SETTER

Mark 7 Mod. 0

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 100       |        |
| Working Circle Drawing No.      | 152254 |
| General Arrangement Drawing No. | 162784 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is determined by the installation.

Elevating gear rate is 1° 52' 30" per turn of the handwheel. Training gear rate is 4° 9' 55" per turn of the handwheel at low speed, 6° 0' 17" at high speed.

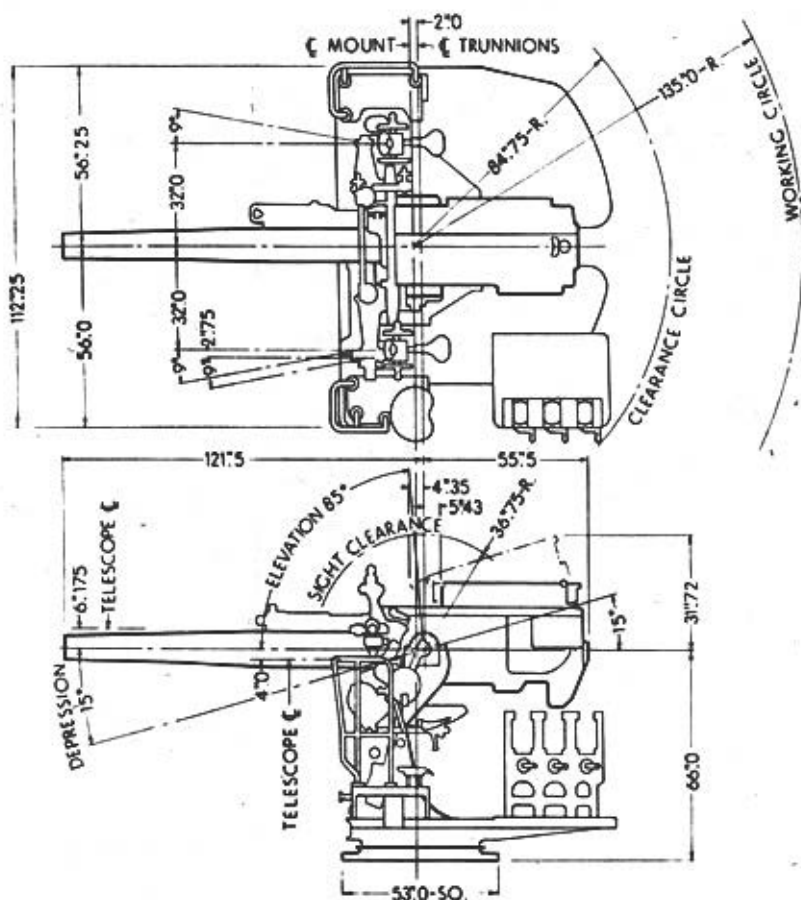
Length of recoil is 15 inches.

# 5-IN. MOUNT, MARK 19 MOD. 8

## 5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

|                     |                        |
|---------------------|------------------------|
| ASSY.<br>NO.<br>271 | SKETCH<br>NO.<br>58542 |
|---------------------|------------------------|

Note: Assembly number of mount is required for precise information.



GUN—5"/25  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MARK 11, MOD. 2  
BB  
NONE

Weights below are approximate  
20,300 LBS.  
9,850 LBS.  
5,250 LBS.  
65,800 LBS.  
66,500 LBS.  
75,600 LBS.

5"/25, MARK 19 MOD. 8

# 5-IN. MOUNT, MARK 19 MOD. 8

5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                              |                 |           |
|----------------------------------------------|-----------------|-----------|
| Gun Firing Transformer                       | 120 V. to 20 V. | 100 Watts |
| Illumination and Stand-by Gun Firing—Battery | 6 V.            | 50 A. H.  |

### PNEUMATIC

|                                       |                                          |
|---------------------------------------|------------------------------------------|
| Rammer                                | 30 Cu. Ft. Free Air per Min. at 125 psi. |
| Counterrecoil Cylinder (for Charging) | 0.216 Cu. Ft. Air at 1700 1800 psi.      |

### HYDRAULIC

|                                     |            |               |
|-------------------------------------|------------|---------------|
| Recoil Cylinder                     | O. D. 1914 | Appr. 5. Qts. |
| Rammer Buffer Cylinder              | O. D. 1914 | 1.1 Qts.      |
| Counterrecoil Differential Cylinder | N. S. 2075 | .6 Pt.        |

## GUN AND AMMUNITION DATA

### GUN

|                              |                            |
|------------------------------|----------------------------|
| 5-In. 25-Cal.                | Mk. 11 Mod. 2              |
| Max. Powder Pressure         | 16.7 Long Tons per Sq. In. |
| Barrel Weight                | 2,100 Lbs.                 |
| Vertical Sliding Breechblock |                            |

### BALLISTICS

|                                   |                           |
|-----------------------------------|---------------------------|
| Muzzle Velocity (53.85 Lb. Proj.) | 2,110 Feet per Second     |
| Maximum Altitude                  | 27,400 Feet at 85° Elev.  |
| Maximum Range                     | 14,500 Yards at 45° Elev. |

### AMMUNITION—Fixed

|                           |                   |                      |
|---------------------------|-------------------|----------------------|
| Typical Projectiles       |                   |                      |
| A. A. Common              | Mods. of Mk. 36   | Wt. 53.8 Lbs.        |
| Illuminating              | Mods. of Mk. 27   |                      |
|                           |                   | Appr. Wt. 54.5 Lbs.  |
| Cartridge                 |                   |                      |
| Case                      | Mk. 4 Mod. 0      | Wt. 14.5 Lbs.        |
|                           | Mk. 4 Mod. 2      | Wt. 11.4 Lbs.        |
| Charge                    |                   | Nominal Wt. 9.6 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                      |
| Total Weight of Cartridge |                   | Appr. 21. Lbs.       |

### FUZE SETTER

Mark 7 Mod. 0

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 100       |        |
| Working Circle Drawing No.      | 116030 |
| General Arrangement Drawing No. | 165966 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is determined by the installation.

Elevating gear rate is 1° 52' 30" per turn of the handwheel. Training gear rate is 4° 9' 55" per turn of the handwheel at low speed, 6° 0' 17" at high speed.

Length of recoil is 15 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/25, MARK 19 MOD. 8

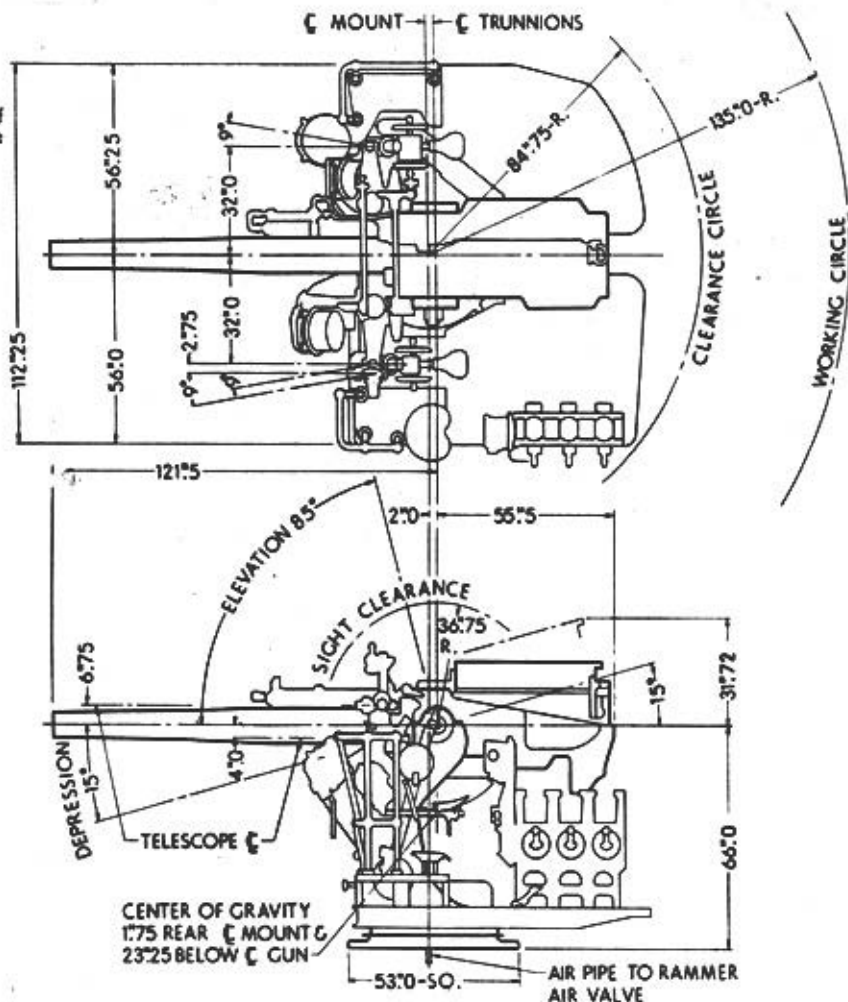


## 5-IN. MOUNT, MARK 19 MOD. 9

5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 278          | 58806         |
| 318          | 59041         |

Note: Assembly number of mount is required for precise information.



GUN—5"/25  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 11 MODS. 0, 2  
BB  
NONE

Weights below are approximate  
20,200 LBS.  
9,670 LBS.  
4,800 LBS.  
71,560 LBS.  
72,150 LBS.  
80,270 LBS.

5"/25, MARK 19 MOD. 9

# 5-IN. MOUNT, MARK 19 MOD. 9

5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                              |                 |           |
|----------------------------------------------|-----------------|-----------|
| Gun Firing Transformer                       | 120 V. to 20 V. | 100 Watts |
| Illumination and Stand-by Gun Firing—Battery | 6 V.            | 50 A. H.  |

### PNEUMATIC

|                                       |                                          |
|---------------------------------------|------------------------------------------|
| Rammer                                | 30 Cu. Ft. Free Air per Min. at 125 psi. |
| Counterrecoil Cylinder (for Charging) | 0.216 Cu. Ft. Air at 1700-1800 psi.      |

### HYDRAULIC

|                                     |            |               |
|-------------------------------------|------------|---------------|
| Recoil Cylinder                     | O. D. 1914 | Appr. 5. Qts. |
| Rammer Buffer Cylinder              | O. D. 1914 | 1.1 Qts.      |
| Counterrecoil Differential Cylinder | N. S. 2075 | .6 Pt.        |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 25-Cal.                | Mk. 11 Mods. 0, 2        |
| Max. Powder Pressure         | 17 Long Tons per Sq. In. |
| Barrel Weight                | 2,100 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                                   |                           |
|-----------------------------------|---------------------------|
| Muzzle Velocity (53.85 Lb. Proj.) | 2,110 Feet per Second     |
| Maximum Altitude                  | 27,400 Feet at 85° Elev.  |
| Maximum Range                     | 14,500 Yards at 45° Elev. |

### AMMUNITION—Fixed

|                           |                   |                      |
|---------------------------|-------------------|----------------------|
| Typical Projectiles       |                   |                      |
| A. A. Common              | Mods. of Mk. 36   | Wt. 53.8 Lbs.        |
| Illuminating              | Mods. of Mk. 27   |                      |
|                           |                   | Appr. Wt. 54.5 Lbs.  |
| Cartridge                 |                   |                      |
| Case                      | Mk. 4 Mod. 0      | Wt. 14.5 Lbs.        |
|                           | Mk. 4 Mod. 2      | Wt. 11.4 Lbs.        |
| Charge                    |                   | Nominal Wt. 9.6 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                      |
| Total Weight of Cartridge |                   | Appr. 21. Lbs.       |

### FUZE SETTER

Mark 7 Mod. 0

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 100       |        |
| Working Circle Drawing No.      | 141913 |
| General Arrangement Drawing No. | 141916 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is determined by the installation.

Elevating gear rate is 1° 52' 30" per turn of the handwheel. Training gear rate is 4° 9' 55" per turn of the handwheel at low speed, 6° 0' 17" at high speed.

Length of recoil is 15 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

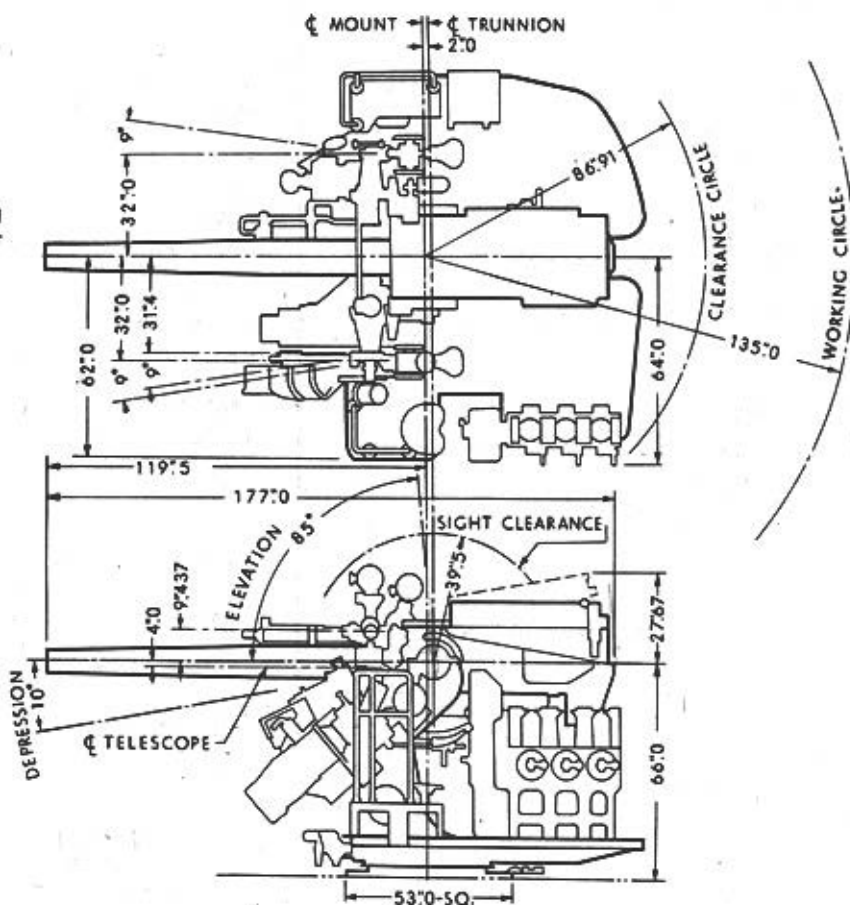
5"/25, MARK 19 MOD. 9

## 5-IN. MOUNT, MARK 19 MODS. 24-26

5-IN. .25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY.<br>NO.                 | SKETCH<br>NO. |
|------------------------------|---------------|
| Mount Mk. 19 Mod. 24<br>1230 | 101426        |
| Mount Mk. 19 Mod. 25<br>1231 | 101427        |
| Mount Mk. 19 Mod. 26<br>1232 | 101428        |

Note: Assembly number of mount is required for precise information.



GUN—5"/25  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 13 MOD. 0  
CA  
NONE

Weights below are approximate

|             |
|-------------|
| 23,900 LBS. |
| 9,600 LBS.  |
| 4,800 LBS.  |
| 71,560 LBS. |
| 72,150 LBS. |
| 80,270 LBS. |

5"/25, MARK 19 MOD. 24-26

# 5-IN. MOUNT, MARK 19 MODS. 24-26

5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Elevating Gear 1. HP. } 230 V. D.C.  
Training Gear 1.5 HP. } Thyatron Controlled Source

Gun Firing Transformer 120 V. to 20 V. 200 Watts  
Illumination Transformer 120 V. to 6 V. 150 Watts  
Stand-by Firing and Illumination—Battery 6 V. 100 A. H.

### PNEUMATIC

Rammer 30 Cu. Ft. Free Air per Min. at 125 psi.  
Counterrecoil Cylinder (for Charging)  
0.216 Cu. Ft. Air at 1700-1800 psi.

### HYDRAULIC

Recoil Cylinder O. D. 1914 Appr. 5. Qts.  
Rammer Buffer Cylinder O. D. 1914 1.1 Qts.  
Counterrecoil Differential Cylinder  
N. S. 2075 .6 Pt.

## POWER DRIVES

Elevating Gear }  
Training Gear } Carriage Mk. 16 Mods. 8, 9 Gen. Elec.

## INDICATOR REGULATORS

|               | SPEEDS  | MFR.       |
|---------------|---------|------------|
| ELEVATION     |         |            |
| Mk. 39 Mod. 0 | 2 & 36  | Gen. Elec. |
| TRAIN         |         |            |
| Mk. 43 Mod. 0 | 1 & 36  | Gen. Elec. |
| FUZE SETTING  |         |            |
| Mk. 8 Mod. 9  | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 25-Cal.                | Mk. 13 Mod. 0            |
| Maximum Powder Pressure      | 17 Long Tons per Sq. In. |
| Barrel Weight                | 2,075 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                                   |                           |
|-----------------------------------|---------------------------|
| Muzzle Velocity (53.85 Lb. Proj.) | 2,110 Feet per Second     |
| Maximum Altitude                  | 27,400 Feet at 85° Elev.  |
| Maximum Range                     | 14,500 Yards at 45° Elev. |

### AMMUNITION—Fixed

|                           |                   |                      |
|---------------------------|-------------------|----------------------|
| Typical Projectiles       |                   |                      |
| A. A. Common              | Mods. of Mk. 36   | Wt. 53.8 Lbs.        |
| Illuminating              | Mods. of Mk. 27   |                      |
|                           |                   | Appr. Wt. 54.5 Lbs.  |
| Cartridge                 |                   |                      |
| Case                      | Mk. 4 Mod. 0      | Wt. 14.5 Lbs.        |
|                           | Mk. 4 Mod. 2      | Wt. 11.4 Lbs.        |
| Charge                    |                   | Nominal Wt. 9.6 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                      |
| Total Weight of Cartridge |                   | Appr. 21. Lbs.       |

## FUZE SETTER

Mk. 7 Mod. 1

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 100       |        |
| Working Circle Drawing No.      | 131550 |
| General Arrangement Drawing No. | 131559 |

## REMARKS

Elevation limits are minus 10° to plus 85°. The training limit is determined by the installation.

Length of recoil is 15 inches.

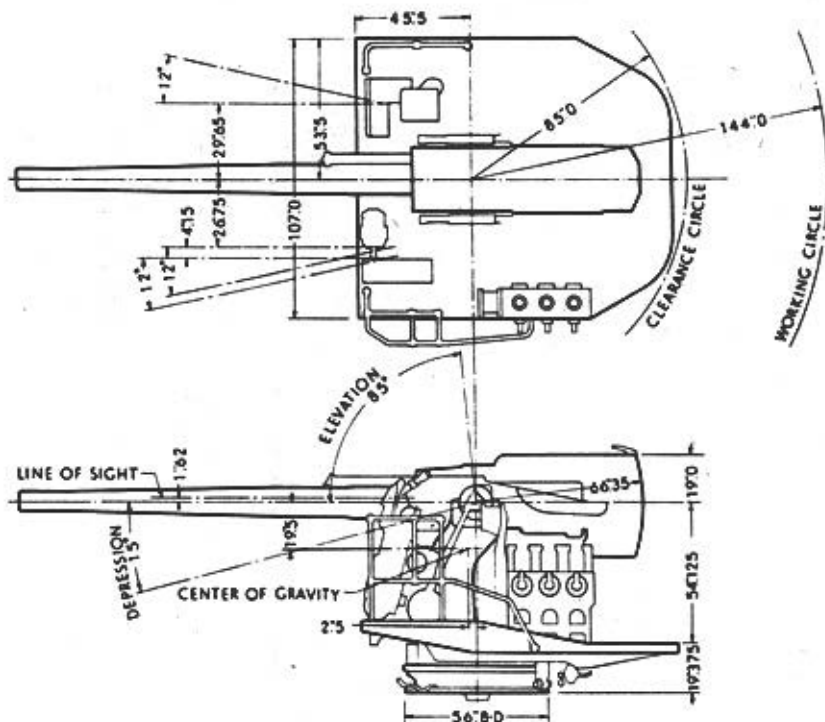
These mounts may be used with specific modifications of gun director Mk. 33.



**5-IN. MOUNT, MARK 21 MOD. 0****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 236          | 39964         |
| 259          | 56978         |
| 260          | 58532         |
| 790          | 102810        |
| 791          | 102811        |
| 792          | 102812        |
| 793          | 102813        |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

MK. 12 MOD. 0  
DD  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate  
29,260 LBS.  
15,530 LBS.  
7,760 LBS.  
80,370 LBS.  
81,400 LBS.  
95,000 LBS.

**5"/38, MARK 21 MOD. 0**

# 5-IN. MOUNT, MARK 21 MOD. 0

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                           |                 |                                  |
|---------------------------|-----------------|----------------------------------|
| Elevating Gear            | 1.5 HP.         | } D. C. from 230 V. 3 $\phi$ 60~ |
| Training Gear             | 2. HP.          |                                  |
| Gun Firing                |                 | Thyatron Controlled Source       |
| Transformer               | 110 V. to 20 V. | 200 Watts                        |
| Illumination and Stand-by |                 |                                  |
| Firing—Battery            | 6 V.            | 50 A. H.                         |

### PNEUMATIC

|                                        |                                          |
|----------------------------------------|------------------------------------------|
| Rammer                                 | 30 Cu. Ft. Free Air per Min. at 125 psi. |
| Counter recoil Cylinder (for Charging) |                                          |
|                                        | 0.34 Cu. Ft. Air at 1450-1550 psi.       |

### HYDRAULIC

|                                      |            |          |
|--------------------------------------|------------|----------|
| Recoil Cylinder                      | O. D. 1914 | 6. Qts.  |
| Rammer Buffer Cylinder               | O. D. 1914 | 1.4 Qts. |
| Counter recoil Differential Cylinder | N. S. 2075 | .75 Pt.  |

### POWER DRIVES

|                     |                        |            |
|---------------------|------------------------|------------|
| Elev. & Train. Gear | Carriage Mk. 18 Mod. 0 | Gen. Elec. |
|---------------------|------------------------|------------|

## INDICATOR REGULATORS

| ELEVATION              | SPEEDS                                | MFR.       |
|------------------------|---------------------------------------|------------|
| Mk. 18 Mod. 0          | 1 & 36                                | N.G.F.     |
| Mk. 27 Mod. 0          | 2 & 36                                | Gen. Elec. |
| TRAIN                  |                                       |            |
| Mk. 20 Mods. 2, 3, 4   | 1 & 36                                | N.G.F.     |
| Mk. 29 & Mods.         | { 1 & 36—Hand /<br>{ 1/2 & 36—Auto. } | Gen. Elec. |
| FUZE SETTING INDICATOR |                                       |            |
| Mk. 5 Mod. 0           | 51.43                                 | Ford       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 0            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,985 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

|                  |
|------------------|
| Mk. 7 Mods. 0, 1 |
|------------------|

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 553        |           |
| Working Circle Drawing No.       | 159266    |
| General Arrangement Drawing Nos. | 159250-53 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Elevating gear rate in local control is 4° 54' 7" per turn of the handwheel. Training gear rate in local control is 9° 52' 36" per turn of the handwheel.

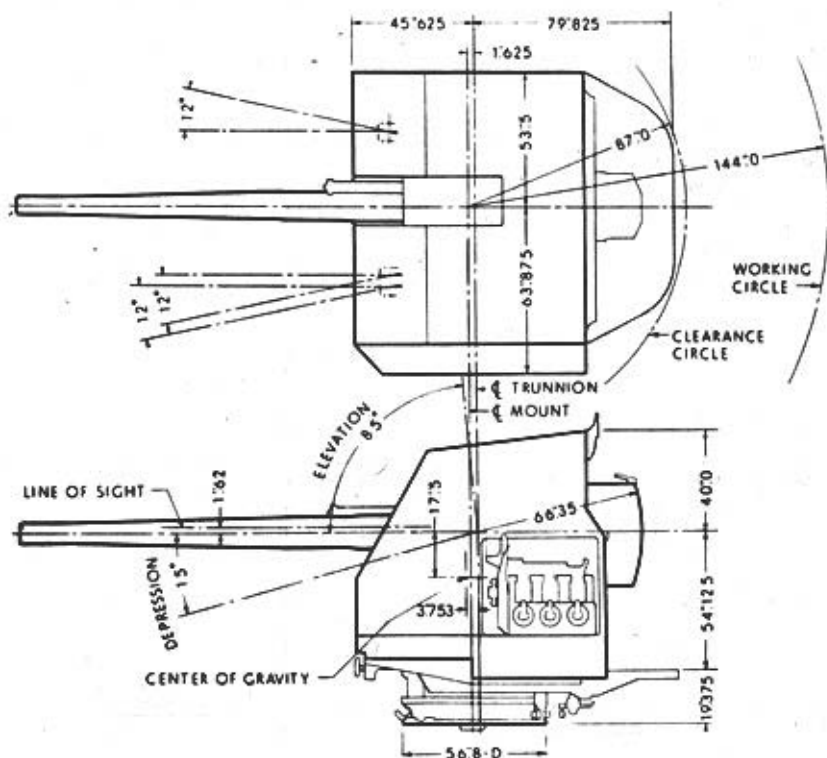
Length of recoil is 15 inches.

This mount may be used with specific modifications of gun director Mk. 37.

**5-IN. MOUNT, MARK 21 MOD. 1****5-IN. 38-CAL., D. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE**

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 239          | 39965         |
| 261          | 58533         |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SPRAY SHIELD  
SHIELD THICKNESS

MK. 12 MOD. 0  
DD  
MK. 22 MOD. 0  
.125 IN.

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD  
Roof Plate Weight  
Rear Plate

Weights below are approximate  
31,520 LBS.  
2,300 LBS.  
370 LBS.  
OPEN

OSCILLATING WEIGHT  
RECOILING WEIGHT

15,580 LBS.  
7,760 LBS.

BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

80,370 LBS.  
81,400 LBS.  
95,000 LBS.

**5"/38, MARK 21 MOD. 1**

# 5-IN. MOUNT, MARK 21 MOD. 1

5-IN. 38-CAL., D. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                         |                                          |           |
|-------------------------|------------------------------------------|-----------|
| Elevating Gear          | 1.5 HP. } D. C. from 230 V. 3 $\phi$ 60~ |           |
| Training Gear           | 2. HP. } Thyatron Controlled Source      |           |
| Gun Firing              |                                          |           |
| Transformer             | 110 V. to 20 V.                          | 200 Watts |
| Illumination and        |                                          |           |
| Stand-by Firing—Battery | 6 V.                                     | 50 A. H.  |

### PNEUMATIC

|                                       |                                         |
|---------------------------------------|-----------------------------------------|
| Rammer                                | 30 Cu. Ft. Free Air per Min. at 125 psi |
| Counterrecoil Cylinder (for Charging) |                                         |
|                                       | 0.34 Cu. Ft. Air at 1450 1550 psi.      |

### HYDRAULIC

|                                     |            |          |
|-------------------------------------|------------|----------|
| Recoil Cylinder                     | O. D. 1914 | 6 Qts.   |
| Rammer Buffer Cylinder              | O. D. 1914 | 1.4 Qts. |
| Counterrecoil Differential Cylinder |            |          |
|                                     | N. S. 2075 | .75 Pt.  |

### POWER DRIVES

|                     |                        |            |
|---------------------|------------------------|------------|
| Elev. & Train. Gear | Carriage Mk. 18 Mod. 1 | Gen. Elec. |
|---------------------|------------------------|------------|

## INDICATOR REGULATORS

| ELEVATION     | SPEEDS | MFR.   |
|---------------|--------|--------|
| Mk. 18 Mod. 0 | 1 & 36 | N.G.F. |

### TRAIN

|                   |        |        |
|-------------------|--------|--------|
| Mk. 20 Mods. 0, 1 | 1 & 36 | N.G.F. |
|-------------------|--------|--------|

### FUSE SETTING INDICATOR

|              |       |      |
|--------------|-------|------|
| Mk. 5 Mod. 0 | 51.43 | Ford |
|--------------|-------|------|

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 0            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,985 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

### Typical Projectiles

|              |                  |               |
|--------------|------------------|---------------|
| Common       | Mods. of Mk. 32  | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38  | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35, | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30  | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

|                  |
|------------------|
| Mk. 7 Mods. 0, 1 |
|------------------|

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 553        |           |
| Working Circle Drawing No.       | 159265    |
| General Arrangement Drawing Nos. | 164532    |
|                                  | 164532    |
|                                  | 164566-67 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Elevating gear rate in local control is 4° 54' 7" per turn of the handwheel. Training gear rate in local control is 9° 52' 36" per turn of the handwheel.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun director Mk. 37.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

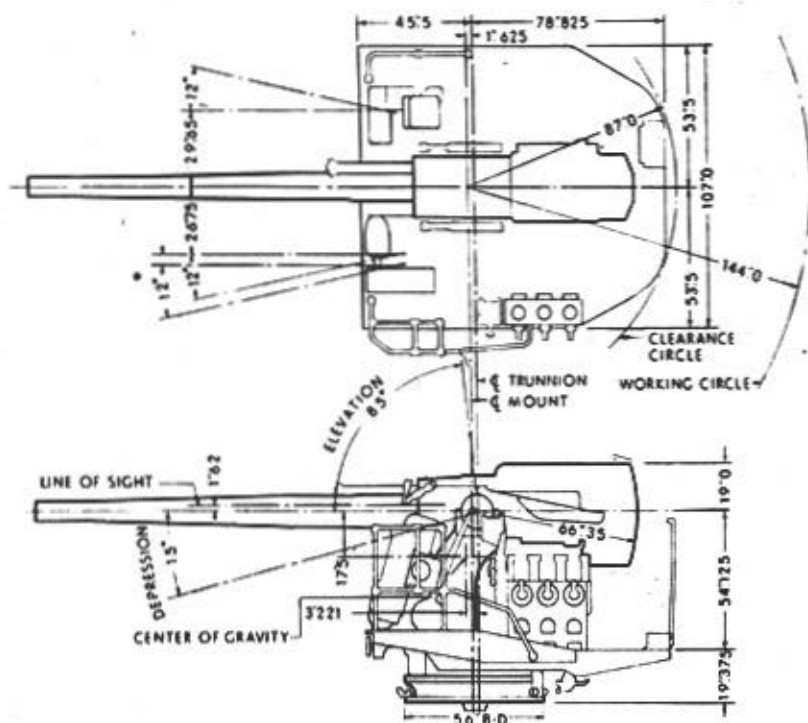
5"/38, MARK 21 MOD. 1



**5-IN. MOUNT, MARK 21 MOD. 2****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 248          | 56883         |
| 262          | 58534         |
| 263          | 58535         |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK 12 MOD 0  
DD  
NONE

Weights below are approximate  
29,260 LBS.  
15,530 LBS.  
7,760 LBS.  
80,370 LBS.  
81,400 LBS.  
95,000 LBS.

**5"/38, MARK 21 MOD. 2**

# 5-IN. MOUNT, MARK 21 MOD. 2

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                                          |           |
|------------------------------------------|------------------------------------------|-----------|
| Elevating Gear                           | 1.5 HP. } D. C. from 230 V. 3 $\phi$ 60~ |           |
| Training Gear                            | 2. HP. } Thyatron Controlled Source      |           |
| Gun Firing Transformer                   | 110 V. to 20 V.                          | 200 Watts |
| Illumination and Stand-by Firing—Battery | 6 V.                                     | 50 A. H.  |

### PNEUMATIC

|                                       |                                          |
|---------------------------------------|------------------------------------------|
| Rammer                                | 30 Cu. Ft. Free Air per Min. at 125 psi. |
| Counterrecoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi.       |

### HYDRAULIC

|                                     |            |          |
|-------------------------------------|------------|----------|
| Recoil Cylinder                     | O. D. 1914 | 6 Qts.   |
| Rammer Buffer Cylinder              | O. D. 1914 | 1.4 Qts. |
| Counterrecoil Differential Cylinder | N. S. 2075 | .75 Pt.  |

## POWER DRIVES

Elev. & Train. Gear Carriage Mk. 18 Mod. 2 Gen. Elec.

## INDICATOR REGULATORS

|                        |        |        |
|------------------------|--------|--------|
| ELEVATION              | SPEEDS | MFR.   |
| Mk. 18 Mod. 0          | 1 & 36 | N.G.F. |
| TRAIN                  |        |        |
| Mk. 20 Mods. 2, 3, 4   | 1 & 36 | N.G.F. |
| FUSE SETTING INDICATOR |        |        |
| Mk. 5 Mod. 0           | 51.43  | Ford   |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 0            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,985 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mods. 0, 1

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 553        |           |
| Working Circle Drawing No.       | 164221    |
| General Arrangement Drawing Nos. | 159252-53 |
|                                  | 164516    |
|                                  | 164541    |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Elevating gear rate in local control is 4° 54' 7" per turn of the handwheel. Training gear rate in local control is 9° 52' 36" per turn of the handwheel.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun director Mk. 37.

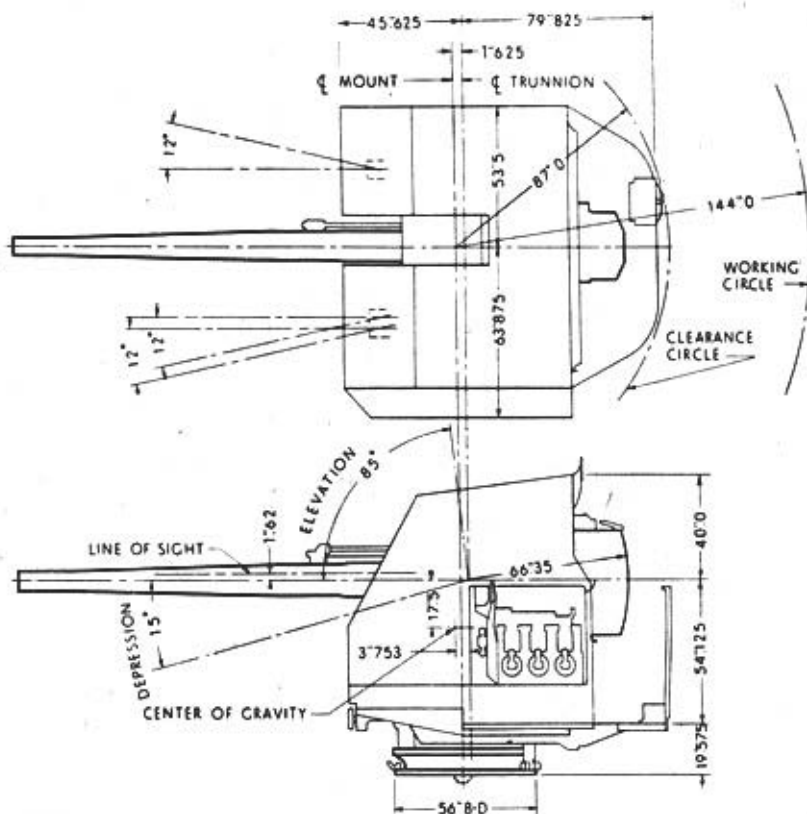
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38, MARK 21 MOD. 2

**5-IN. MOUNT, MARK 21 MOD. 3****5-IN. 38-CAL., D. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 251          | 56897         |
| 264          | 58531         |
| 284          | 58823         |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SPRAY SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate

OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MODS. 0 OR 1  
DD

MK. 22 MOD 0  
.125 IN.

Weights below are approximate  
31,650 LBS.  
2,300 LBS.  
370 LBS.  
OPEN  
15,580 LBS.  
7,760 LBS.  
80,370 LBS.  
81,400 LBS.  
95,000 LBS.

**5"/38, MARK 21 MOD. 3**

# 5-IN. MOUNT, MARK 21 MOD. 3

5-IN. 38-CAL., D. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |                                |
|------------------------------------------|-----------------|--------------------------------|
| Elevating Gear                           | 1.5 HP.         | D. C. from 440 V. 3 $\phi$ 60~ |
| Training Gear                            | 2. HP.          |                                |
| Rammer                                   | 5. HP.          | 440 V. 3 $\phi$ 60~            |
| Gun Firing Transformer                   | 110 V. to 20 V. | 200 Watts                      |
| Illumination and Stand-by Firing—Battery | 6 V.            | 50 A. H.                       |

### PNEUMATIC

|                                        |                                    |
|----------------------------------------|------------------------------------|
| Counter recoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi. |
|----------------------------------------|------------------------------------|

### HYDRAULIC

|                                      |            |          |
|--------------------------------------|------------|----------|
| Recoil Cylinder                      | O. D. 1914 | 6 Qts.   |
| Counter recoil Differential Cylinder | N. S. 2075 | .75 Pt.  |
| Rammer                               | O. S. 2943 | 10 Gals. |

## POWER DRIVES

|                     |                        |            |
|---------------------|------------------------|------------|
| Elev. & Train. Gear | Carriage Mk. 18 Mod. 5 | Gen. Elec. |
| Rammer              | Slide Mk. 21 Mod. 3    | Vickers    |

## INDICATOR REGULATORS

| ELEVATION              | SPEEDS                              | MFR.       |
|------------------------|-------------------------------------|------------|
| Mk. 27 Mod. 0          | 2 & 36                              | Gen. Elec. |
| TRAIN                  |                                     |            |
| Mk. 29 Mod. 0          | { 1 & 36—Hand<br>{ 1/2 & 36—Auto. } | Gen. Elec. |
| FUZE SETTING INDICATOR |                                     |            |
| Mk. 6 Mod. 0           | 51.43                               | Gen. Elec. |

## GUN AND AMMUNITION DATA

### GUN

|                              |                                                      |
|------------------------------|------------------------------------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mods. 0 or 1                                  |
| Max. Powder Pressure         | 18 Long Tons per Sq. In.                             |
| Barrel Weight                | Mk. 12 Mod. 0—3,985 Lbs.<br>Mk. 12 Mod. 1—3,990 Lbs. |
| Vertical Sliding Breechblock |                                                      |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mods. 0, 1

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |                               |
|----------------------------------|-------------------------------|
| Ordnance Pamphlet No. 553        |                               |
| Working Circle Drawing No.       | 1645196                       |
| General Arrangement Drawing Nos. | 164532<br>164552<br>164566-67 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Elevating gear rate in local control is 4° 54' 7" per turn of the handwheel. Training gear rate in local control is 9° 52' 36" per turn of the handwheel.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun director Mk. 37.

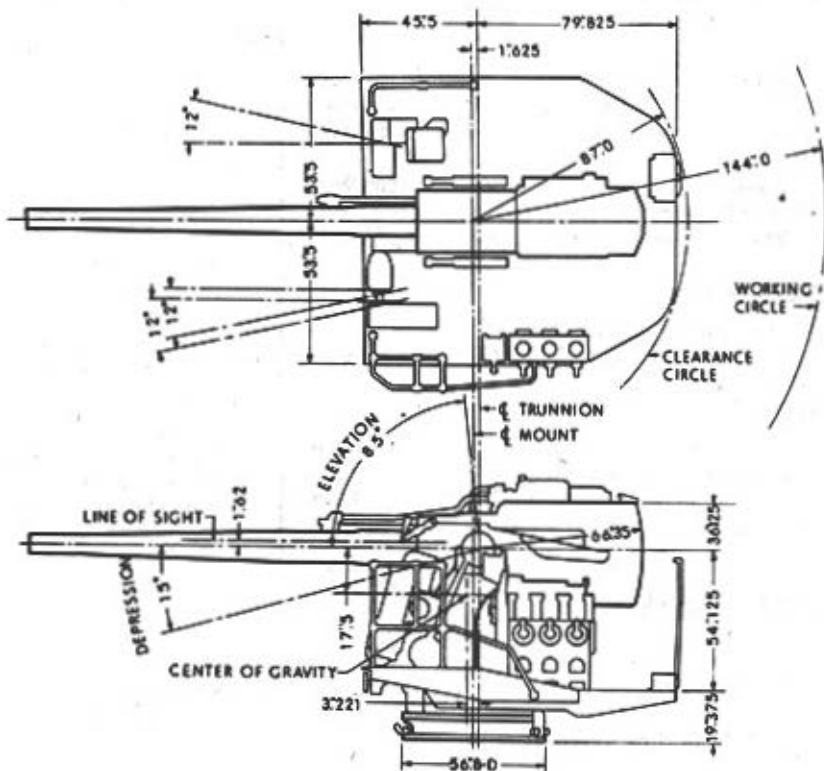


## 5-IN. MOUNT, MARK 21 MOD. 4

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 252          | 56898         |
| 265          | 58536         |
| 266          | 58537         |
| 285          | 58824         |
| 286          | 58825         |
| 287          | 58826         |

Note: Assembly number of mount is required for precise information.



GUN—5"/98  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MODS. 0 OR 1  
DD  
NONE

Weights below are approximate  
29,340 LBS.  
15,530 LBS.  
7,760 LBS.  
80,370 LBS.  
81,400 LBS.  
95,000 LBS.

5"/38, MARK 21 MOD. 4

# 5-IN. MOUNT, MARK 21 MOD. 4

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                                          |                     |
|------------------------------------------|------------------------------------------|---------------------|
| Elevating Gear                           | 1.5 HP. } D. C. from 440 V. 3 $\phi$ 60~ |                     |
| Training Gear                            | 2. HP. } Thyatron Controlled Source      |                     |
| Rammer                                   | 5. HP.                                   | 440 V. 3 $\phi$ 60~ |
| Gun Firing Transformer                   | 110 V. to 20 V.                          | 200 Watts           |
| Illumination and Stand-by Firing—Battery | 6 V.                                     | 50 A. H.            |

### PNEUMATIC

|                                     |                                    |
|-------------------------------------|------------------------------------|
| Countercoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450–1550 psi. |
|-------------------------------------|------------------------------------|

### HYDRAULIC

|                                   |            |          |
|-----------------------------------|------------|----------|
| Recoil Cylinder                   | O. D. 1914 | 6 Qts.   |
| Countercoil Differential Cylinder | N. S. 2075 | .75 Pt.  |
| Rammer                            | O. S. 2943 | 10 Gals. |

### POWER DRIVES

|                     |                        |            |
|---------------------|------------------------|------------|
| Elev. & Train. Gear | Carriage Mk. 18 Mod. 4 | Gen. Elec. |
| Rammer              | Slide Mk. 21 Mod. 2    | Vickers    |

## INDICATOR REGULATORS

| ELEVATION              | SPEEDS                              | MFR.       |
|------------------------|-------------------------------------|------------|
| Mk. 27 Mod. 0          | 2 & 36                              | Gen. Elec. |
| TRAIN                  |                                     |            |
| Mk. 29 Mod. 0          | { 1 & 36—Hand }<br>{ 3 & 36—Auto. } | Gen. Elec. |
| FUSE SETTING INDICATOR |                                     |            |
| Mk. 6 Mod. 0           | 51.43                               | Gen. Elec. |

## GUN AND AMMUNITION DATA

### GUN

|                              |                                                      |
|------------------------------|------------------------------------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mods. 0 or 1                                  |
| Max. Powder Pressure         | 18 Long Tons per Sq. In.                             |
| Barrel Weight                | Mk. 12 Mod. 0—3,985 Lbs.<br>Mk. 12 Mod. 1—3,990 Lbs. |
| Vertical Sliding Breechblock |                                                      |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles       |                   |                       |
|---------------------------|-------------------|-----------------------|
| Common                    | Mods. of Mk. 32   | Wt. 54.0 Lbs.         |
| Common                    | Mods. of Mk. 38   | Wt. 55.2 Lbs.         |
| A. A. Common              | Mods. of Mk. 35   | Wt. 55.2 Lbs.         |
| Illuminating              | Mods. of Mk. 30   | Wt. 54.5 Lbs.         |
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### FUZE SETTER

Mk. 7 Mods. 0, 1

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |                               |
|----------------------------------|-------------------------------|
| Ordnance Pamphlet No. 553        |                               |
| Working Circle Drawing No.       | 215197                        |
| General Arrangement Drawing Nos. | 159252–53<br>164516<br>164541 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Elevating gear rate in local control is 4° 54' 7" per turn of the handwheel. Training gear rate in local control is 9° 52' 36" per turn of the handwheel.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun director Mk. 37.

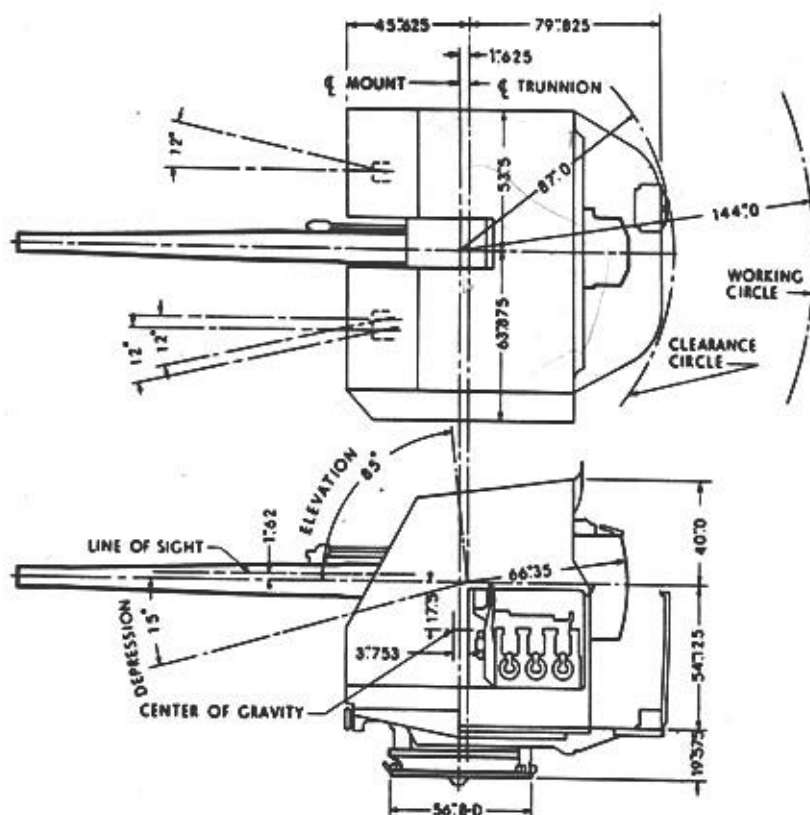
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38, MARK 21 MOD. 4

**5-IN. MOUNT, MARK 21 MOD. 5****5-IN. 38-CAL., D. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE**

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 257          | 58511         |
| 267          | 58538         |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SPRAY SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate

OSCILLATING WEIGHT

RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
DD

MK. 22 MOD. 0  
.125 IN.

Weights below are approximate

31,750 LBS.

2,300 LBS.

370 LBS.

OPEN

15,580 LBS.

7,760 LBS.

80,370 LBS.

81,400 LBS.

95,000 LBS.

**5"/38, MARK 21 MOD. 5**

# 5-IN. MOUNT, MARK 21 MOD. 5

5-IN. 38-CAL., D. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |                                |
|------------------------------------------|-----------------|--------------------------------|
| Elevating Gear                           | 1.5 HP.         | D. C. from 440 V. 3 $\phi$ 60~ |
| Training Gear                            | 2. HP.          |                                |
| Rammer                                   | 5. HP.          | 440 V. 3 $\phi$ 60~            |
| Gun Firing                               |                 |                                |
| Transformer                              | 110 V. to 20 V. | 200 Watts                      |
| Illumination and Stand-by Firing—Battery | 6 V.            | 50 A. H.                       |

### PNEUMATIC

|                                       |  |
|---------------------------------------|--|
| Counterrecoil Cylinder (for Charging) |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.    |  |

### HYDRAULIC

|                                     |            |          |
|-------------------------------------|------------|----------|
| Recoil Cylinder                     | O. D. 1914 | 6 Qts.   |
| Counterrecoil Differential Cylinder | N. S. 2075 | .75 Pt.  |
| Rammer                              | O. S. 2943 | 10 Gals. |

### POWER DRIVES

|                     |                        |            |
|---------------------|------------------------|------------|
| Elev. & Train. Gear | Carriage Mk. 18 Mod. 3 | Gen. Elec. |
| Rammer              | Slide Mk. 21 Mod. 3    | Vickers    |

## INDICATOR REGULATORS

| ELEVATION              | SPEEDS                                | MFR.       |
|------------------------|---------------------------------------|------------|
| Mk. 27 Mod. 0          | 2 & 36                                | Gen. Elec. |
| TRAIN                  |                                       |            |
| Mk. 29 Mod. 0          | { 1 & 36—Hand }<br>{ 1/2 & 36—Auto. } | Gen. Elec. |
| FUZE SETTING INDICATOR |                                       |            |
| Mk. 6 Mod. 0           | 51.43                                 | Gen. Elec. |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### FUZE SETTER

Mk. 7 Mods. 0, 1

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 553       |           |
| Working Circle Drawing No.       | 215196    |
| General Arrangement Drawing Nos. | 164532    |
|                                  | 164552    |
|                                  | 164566–67 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Elevating gear rate in local control is 4° 54' 7" per turn of the handwheel. Training gear rate in local control is 9° 52' 36" per turn of the handwheel.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun director Mk. 37.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

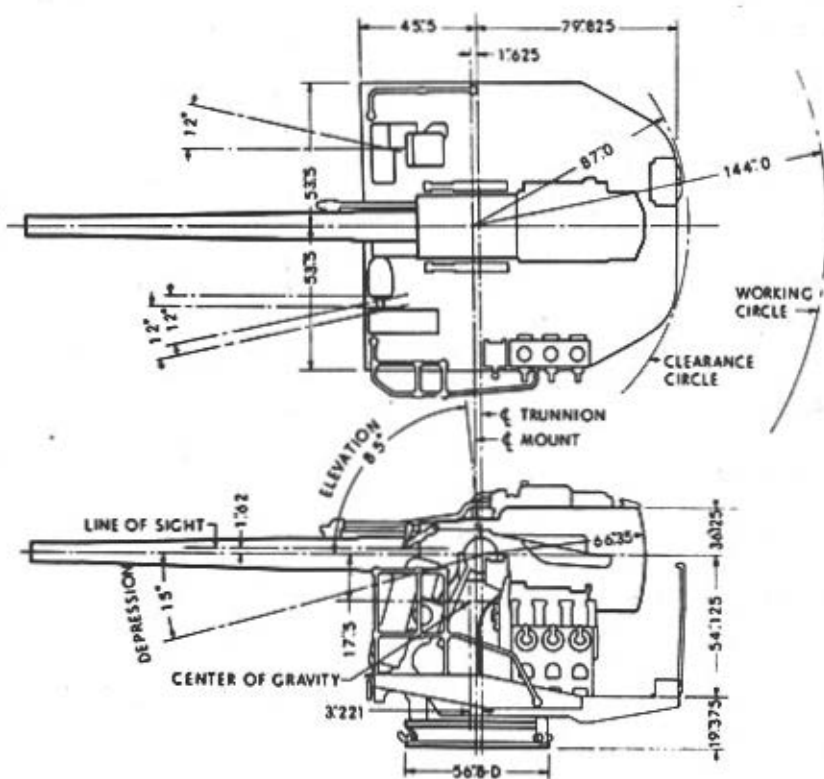
5"/38, MARK 21 MOD. 5



**5-IN. MOUNT, MARK 21 MOD. 11****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 290          | 58831         |
| 291          | 58832         |
| 292          | 58833         |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
DD  
NONE

Weights below are approximate  
29,340 LBS.  
15,530 LBS.  
7,760 LBS.  
80,370 LBS.  
81,400 LBS.  
95,000 LBS.

**5"/38, MARK 21 MOD. 11**

# 5-IN. MOUNT, MARK 21 MOD. 11

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |                                                                 |
|------------------------------------------|-----------------|-----------------------------------------------------------------|
| Elevating Gear                           | 1.5 HP.         | { D. C. from 440 V. 3 $\phi$ 60~<br>Thyratron Controlled Source |
| Training Gear                            | 2. HP.          |                                                                 |
| Rammer                                   | 5. HP.          | 440 V. 3 $\phi$ 60~                                             |
| Gun Firing Transformer                   | 110 V. to 20 V. | 200 Watts                                                       |
| Illumination and Stand-by Firing—Battery | 6 V.            | 50 A. H.                                                        |

### PNEUMATIC

|                                       |                                    |
|---------------------------------------|------------------------------------|
| Counterrecoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi. |
|---------------------------------------|------------------------------------|

### HYDRAULIC

|                                     |            |          |
|-------------------------------------|------------|----------|
| Recoil Cylinder                     | O. D. 1914 | 6 Qts.   |
| Counterrecoil Differential Cylinder | N. S. 2075 | .75 Pt.  |
| Rammer                              | O. S. 2943 | 10 Gals. |

## POWER DRIVES

|                     |                         |            |
|---------------------|-------------------------|------------|
| Elev. & Train. Gear | Carriage Mk. 18 Mod. 10 | Gen. Elec. |
| Rammer              | Slide Mk. 21 Mod. 2     | Vickers    |

## INDICATOR REGULATORS

|               |        |            |
|---------------|--------|------------|
| ELEVATION     | SPEEDS | MFR.       |
| Mk. 27 Mod. 0 | 2 & 36 | Gen. Elec. |

### TRAIN

|               |                                   |            |
|---------------|-----------------------------------|------------|
| Mk. 29 Mod. 0 | { 1 & 36—Hand<br>1/2 & 36—Auto. } | Gen. Elec. |
|---------------|-----------------------------------|------------|

### FUSE SETTING INDICATOR

|              |       |            |
|--------------|-------|------------|
| Mk. 6 Mod. 0 | 51.43 | Gen. Elec. |
|--------------|-------|------------|

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

### Typical Projectiles

|              |        |               |
|--------------|--------|---------------|
| Common       | Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mods. 0, 1

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 553        |           |
| Working Circle Drawing No.       | 215197    |
| General Arrangement Drawing Nos. | 159252-53 |
|                                  | 164516    |
|                                  | 164541    |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Elevating gear rate in local control is 4° 54' 7" per turn of the handwheel. Training gear rate in local control is 9° 52' 36" per turn of the handwheel.

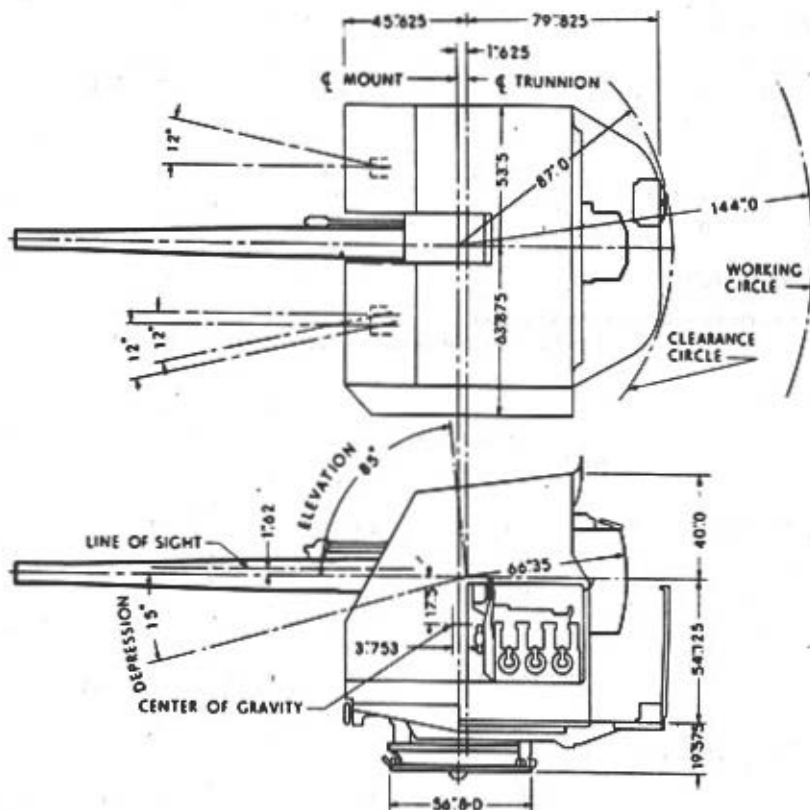
Length of recoil is 15 inches.

This mount may be used with specific modifications of gun director Mk. 37.

**5-IN. MOUNT, MARK 21 MOD. 12****5-IN. 38-CAL., D. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 276          | 58814         |
| 289          | 58830         |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SPRAY SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate

OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
DD

MK. 22 MOD. 0  
.125 IN.

Weights below are approximate

31,750 LBS.

2,300 LBS.

370 LBS.

OPEN

15,530 LBS.

7,760 LBS.

80,370 LBS.

81,400 LBS.

95,000 LBS.

**5"/38, MARK 21 MOD. 12**

# 5-IN. MOUNT, MARK 21 MOD. 12

5-IN. 38-CAL., D. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |                                |
|------------------------------------------|-----------------|--------------------------------|
| Elevating Gear                           | 1.5 HP.         | D. C. from 440 V. 3 $\phi$ 60~ |
| Training Gear                            | 2. HP.          | Thyatron Controlled Source     |
| Rammer                                   | 5. HP.          | 440 V. 3 $\phi$ 60~            |
| Gun Firing Transformer                   | 110 V. to 20 V. | 200 Watts                      |
| Illumination and Stand-by Firing—Battery | 6 V.            | 50 A. H.                       |

### PNEUMATIC

|                                     |                                    |
|-------------------------------------|------------------------------------|
| Countercoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi. |
|-------------------------------------|------------------------------------|

### HYDRAULIC

|                                   |            |          |
|-----------------------------------|------------|----------|
| Recoil Cylinder                   | O. D. 1914 | 6 Qts.   |
| Countercoil Differential Cylinder | N. S. 2075 | .75 Pt.  |
| Rammer                            | O. S. 2943 | 10 Gals. |

## POWER DRIVES

|                     |                         |            |
|---------------------|-------------------------|------------|
| Elev. & Train. Gear | Carriage Mk. 18 Mod. 11 | Gen. Elec. |
| Rammer              | Slide Mk. 21 Mod. 3     | Vickers    |

## INDICATOR REGULATORS

| ELEVATION     | SPEEDS | MFR.       |
|---------------|--------|------------|
| Mk. 27 Mod. 0 | 2 & 36 | Gen. Elec. |

| TRAIN         |                                       |            |
|---------------|---------------------------------------|------------|
| Mk. 29 Mod. 0 | { 1 & 36—Hand }<br>{ 1/2 & 36—Auto. } | Gen. Elec. |

| FUSE SETTING INDICATOR |       |            |
|------------------------|-------|------------|
| Mk. 6 Mod. 0           | 51.43 | Gen. Elec. |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

| Cartridge                 |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mods. 0, 1

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 553        |           |
| Working Circle Drawing No.       | 215196    |
| General Arrangement Drawing Nos. | 164532    |
|                                  | 164552    |
|                                  | 164566-67 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Elevating gear rate in local control is 4° 54' 7" per turn of the handwheel. Training gear rate in local control is 9° 52' 36" per turn of the handwheel.

Length of recoil is 15 inches.

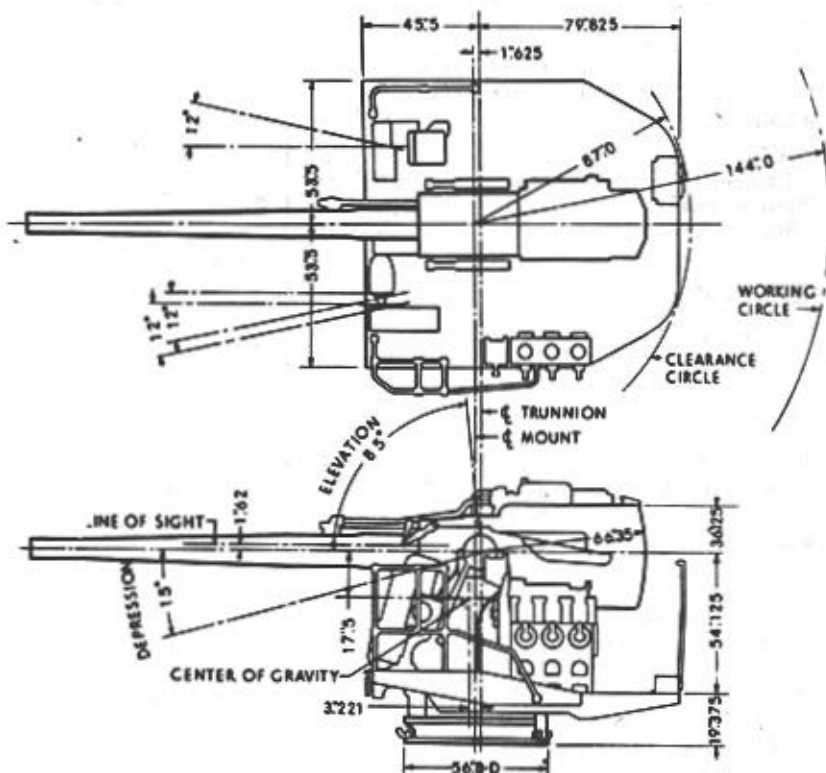
This mount may be used with specific modifications of gun director Mk. 37.



**5-IN. MOUNT, MARK 21 MOD. 13****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 300          | 58849         |
| 301          | 59000         |
| 302          | 59001         |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MARK 12 MOD. 1  
DD  
NONE

Weights below are approximate  
29,500 TO 29,860 LBS.  
15,530 TO 16,150 LBS.  
7,760 TO 8,150 LBS.  
76,850 TO 80,370 LBS.  
81,400 LBS.  
95,000 LBS.

**5"/38, MARK 21 MOD. 13**

# 5-IN. MOUNT, MARK 21 MOD. 13

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |                                                                 |           |
|------------------------------------------|-----------------|-----------------------------------------------------------------|-----------|
| Elevating Gear                           | 1.5 HP.         | } D. C. from 440 V. 3 $\phi$ 60~<br>Thyratron Controlled Source |           |
| Training Gear                            | 2. HP.          |                                                                 |           |
| Rammer                                   | 5. HP.          | 440 V. 3 $\phi$ 60~                                             |           |
| Gun Firing Transformer                   | 110 V. to 20 V. |                                                                 | 200 Watts |
| Illumination and Stand-by Firing—Battery | 6 V.            |                                                                 | 50 A. H.  |

### PNEUMATIC

Counter recoil Cylinder (for Charging).  
0.34 Cu. Ft. Air at 1450–1550 psi.

### HYDRAULIC

|                                      |            |          |
|--------------------------------------|------------|----------|
| Recoil Cylinder                      | O. D. 1914 | 6 Qts.   |
| Counter recoil Differential Cylinder | N. S. 2075 | .75 Pt.  |
| Rammer                               | O. S. 2943 | 10 Gals. |

## POWER DRIVES

|                     |                         |            |
|---------------------|-------------------------|------------|
| Elev. & Train. Gear | Carriage Mk. 18 Mod. 10 | Gen. Elec. |
| Rammer              | Slide Mk. 21 Mod. 2     | Vickers    |

## INDICATOR REGULATORS

| ELEVATION     | SPEEDS | MFR.       |
|---------------|--------|------------|
| Mk. 27 Mod. 0 | 2 & 36 | Gen. Elec. |

### TRAIN

|               |                                       |            |
|---------------|---------------------------------------|------------|
| Mk. 29 Mod. 0 | { 1 & 36—Hand }<br>{ 1/2 & 36—Auto. } | Gen. Elec. |
|---------------|---------------------------------------|------------|

### FUZE SETTING INDICATOR

|              |       |            |
|--------------|-------|------------|
| Mk. 6 Mod. 0 | 51.43 | Gen. Elec. |
|--------------|-------|------------|

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mods. 0, 1

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 553        |           |
| Working Circle Drawing No.       | 215197    |
| General Arrangement Drawing Nos. | 159252–53 |
|                                  | 164516    |
|                                  | 164541    |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Elevating gear rate in local control is 4° 54' 7" per turn of the handwheel. Training gear rate in local control is 9° 52' 36" per turn of the handwheel.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun director Mk. 37.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

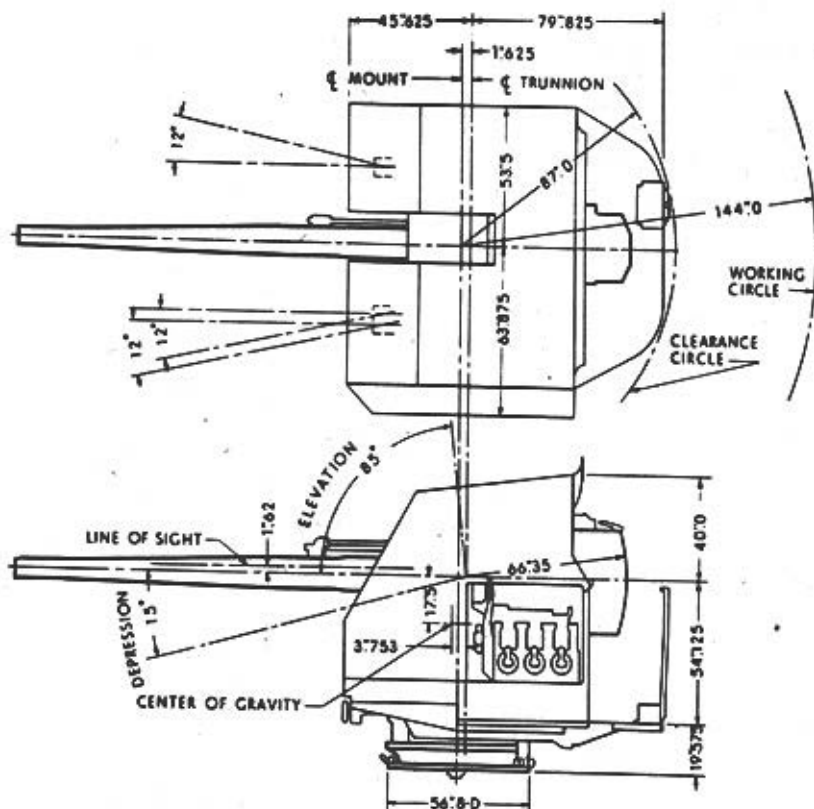
5"/38, MARK 21 MOD. 13

# 5-IN. MOUNT, MARK 21 MOD. 15

5-IN. 38-CAL., D. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 308       | 59021      |
| 309       | 59022      |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SPRAY SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY

TOTAL WEIGHT OF SHIELD

Roof Plate Weight

Rear Plate

OSCILLATING WEIGHT

RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1

DD

MK. 22 MOD. 0

.125 IN.

Weights below are approximate

31,750 LBS.

2,300 LBS.

370 LBS.

OPEN

15,530 LBS.

7,760 LBS.

80,370 LBS.

81,400 LBS.

95,000 LBS.

**5"/38, MARK 21 MOD. 15**

# 5-IN. MOUNT, MARK 21 MOD. 15

5-IN. 38-CAL., D. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                                          |           |
|------------------------------------------|------------------------------------------|-----------|
| Elevating Gear                           | 1.5 HP. { D. C. from 440 V. 3 $\phi$ 60~ |           |
| Training Gear                            | 2. HP. { Thyatron Controlled Source      |           |
| Rammer                                   | 5. HP. 440 V. 3 $\phi$ 60~               |           |
| Gun Firing Transformer                   | 110 V. to 20 V.                          | 200 Watts |
| Illumination and Stand-by Firing—Battery | 6 V.                                     | 50 A. H.  |

### PNEUMATIC

Counterrecoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450–1550 psi.

### HYDRAULIC

|                                     |            |          |
|-------------------------------------|------------|----------|
| Recoil Cylinder                     | O. D. 1914 | 6 Qts.   |
| Counterrecoil Differential Cylinder | N. S. 2075 | .75 Pt.  |
| Rammer                              | O. S. 2943 | 10 Gals. |

### POWER DRIVES

|                     |                         |            |
|---------------------|-------------------------|------------|
| Elev. & Train. Gear | Carriage Mk. 18 Mod. 13 | Gen. Elec. |
| Rammer              | Slide Mk. 21 Mod. 3     | Vickers    |

## INDICATOR REGULATORS

| ELEVATION              | SPEEDS                              | MFR.         |
|------------------------|-------------------------------------|--------------|
| Mk. 27 Mod. 0          | 2 & 36                              | Gen. Elec.   |
| TRAIN                  |                                     |              |
| Mk. 29 Mod. 0          | { 1 & 36—Hand<br>{ 3/4 & 36—Auto. } | { Gen. Elec. |
| FUSE SETTING INDICATOR |                                     |              |
| Mk. 6 Mod. 0           | 51.43                               | Gen. Elec.   |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### FUZE SETTER

Mk. 7 Mods. 0, 1

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 553        |           |
| Working Circle Drawing No.       | 215196    |
| General Arrangement Drawing Nos. | 164532    |
|                                  | 164552    |
|                                  | 164566–67 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Elevating gear rate in local control is 4° 54' 7" per turn of the handwheel. Training gear rate in local control is 9° 52' 36" per turn of the handwheel.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun director Mk. 37.





# 5-IN. MOUNT, MARK 21 MOD. 18

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |                                |
|------------------------------------------|-----------------|--------------------------------|
| Elevating Gear                           | 1.5 HP.         | D. C. from 440 V. 3 $\phi$ 60~ |
| Training Gear                            | 2. HP.          | Thyratron Controlled Source    |
| Rammer                                   | 5. HP.          | 440 V. 3 $\phi$ 60~            |
| Gun Firing Transformer                   | 110 V. to 20 V. | 200 Watts                      |
| Illumination and Stand-by Firing—Battery | 6 V.            | 50 A. H.                       |

### PNEUMATIC

|                                        |                                    |
|----------------------------------------|------------------------------------|
| Counter recoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450–1550 psi. |
|----------------------------------------|------------------------------------|

### HYDRAULIC

|                                      |            |          |
|--------------------------------------|------------|----------|
| Recoil Cylinder                      | O. D. 1914 | 6 Qts.   |
| Counter recoil Differential Cylinder | N. S. 2075 | .75 Pt.  |
| Rammer                               | O. S. 2943 | 10 Gals. |

## POWER DRIVES

|                     |                       |            |
|---------------------|-----------------------|------------|
| Elev. & Train. Gear | Carrage Mk. 18 Mod. 6 | Gen. Elec. |
| Rammer              | Slide Mk. 21 Mod. 6   | Vickers    |

## INDICATOR REGULATORS

| ELEVATION     | SPEEDS | MFR.       |
|---------------|--------|------------|
| Mk. 18 Mod. 1 | 1 & 36 | N.G.F.     |
| Mk. 27 Mod. 0 | 2 & 36 | Gen. Elec. |

### TRAIN

|                |                                         |            |
|----------------|-----------------------------------------|------------|
| Mk. 20 Mod. 0  | 1 & 36                                  | N.G.F.     |
| Mk. 29 & Mods. | { 1 & 36—Hand }<br>{ 3 1/2 & 36—Auto. } | Gen. Elec. |

### FUSE SETTING INDICATOR

|                                  |       |            |
|----------------------------------|-------|------------|
| Mk. 5 Mod. 0                     | 51.43 | Ford       |
| Mk. 6 Mods. 0, 1                 | 51.43 | Gen. Elec. |
| Mk. 8 Mod. 9 (Ind. Reg.) 2 & 100 |       | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles       |                   |                       |
|---------------------------|-------------------|-----------------------|
| Common                    | Mods. of Mk. 32   | Wt. 54.0 Lbs.         |
| Common                    | Mods. of Mk. 38   | Wt. 55.2 Lbs.         |
| A. A. Common              | Mods. of Mk. 35   | Wt. 55.2 Lbs.         |
| Illuminating              | Mods. of Mk. 30   | Wt. 54.5 Lbs.         |
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mods. 0, 1

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |                                            |
|----------------------------------|--------------------------------------------|
| Ordnance Pamphlet No. 553        |                                            |
| Working Circle Drawing Nos.      | 215197<br>215034                           |
| General Arrangement Drawing Nos. | 159252–53<br>164516<br>164541<br>253580–83 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

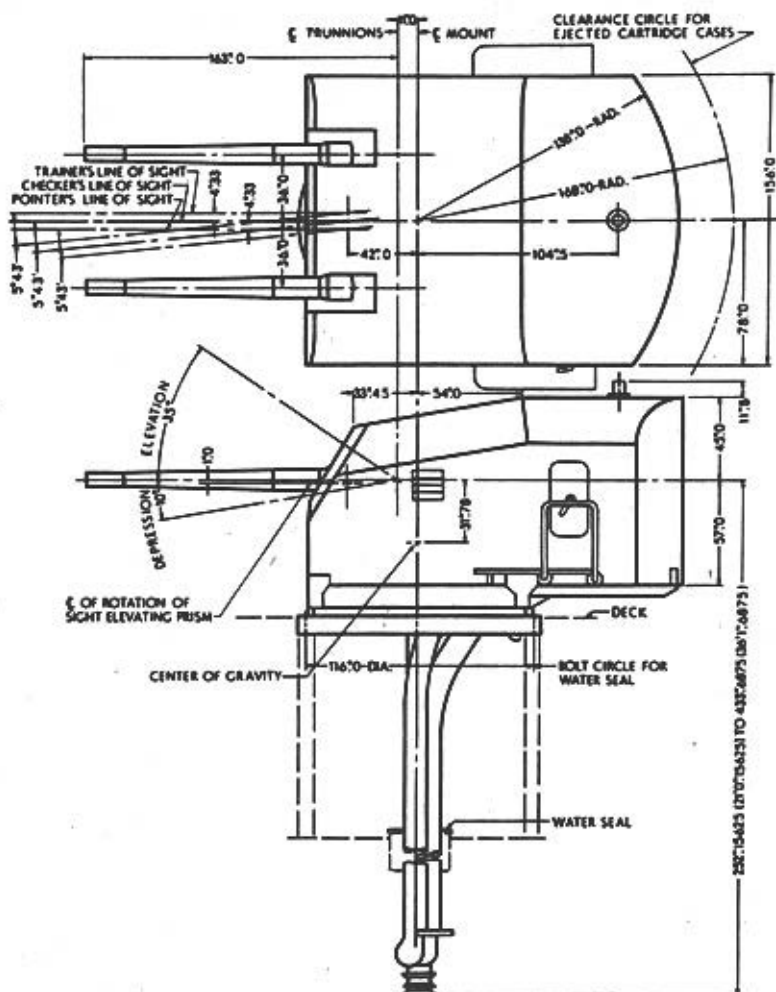
Elevating gear rate in local control is 4° 54' 7" per turn of the handwheel. Training gear rate in local control is 9° 52' 36" per turn of the handwheel.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun director Mk. 37.

5-IN. 38-CAL., S. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

**Note:** Assembly number of mount is required for precise information.



**5"/38 TWIN, MARK 22 MOD. 0**

Weights below are approximate and per gun

|             |
|-------------|
| 12,500 LBS. |
| 6,700 LBS.  |
| 74,700 LBS. |
| 75,400 LBS. |
| 78,000 LBS. |



# 5-IN. MOUNT, MARK 22 MOD. 0

5-IN. 38-CAL., S. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                 |         |                     |
|-----------------|---------|---------------------|
| Elevating Gear  | 5. HP.  | 440 V. 3 $\phi$ 60~ |
| Training Gear   | 15. HP. |                     |
| Hoist, per gun  | 7.5 HP. |                     |
| Rammer, per gun | 5. HP.  |                     |
| Ventilation     | 2. HP.  |                     |

Applicable Firing and Lighting Circuit:

|                              |           |
|------------------------------|-----------|
| Mk. 19 Mod. 0                |           |
| Gun Firing                   |           |
| Transformer 110 V. to 20 V.  | 200 Watts |
| Illumination and             |           |
| Stand-by Firing—Battery 6 V. | 50 A. H.  |

### PNEUMATIC

|                                                           |  |
|-----------------------------------------------------------|--|
| Gas Ejector, Mk. 3 Mods. 0 & 1                            |  |
| Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150–200 psi. |  |
| Counter recoil Cylinder (for Charging)                    |  |
| 0.3 Cu. Ft. at 1,750 psi. per Gun.                        |  |

### HYDRAULIC

|                |            |                      |
|----------------|------------|----------------------|
| Recoil Fluid   | O. D. 1914 | Appr. 8 Qts. per Gun |
| Counter recoil |            |                      |
| Differential   |            |                      |
| Cylinder       | N. S. 2075 | .75 Pt. per Gun      |
| Speed Gear Oil | O. S. 2943 | 112 Gals.            |

### POWER DRIVES

|                   |                          |         |
|-------------------|--------------------------|---------|
| Elevating Gear    | Mk. 1 Mod. 0             | Vickers |
| Training Gear     | Mk. 1 Mod. 0             | Vickers |
| Projectile Hoists | Mk. 1 Mods. 0–7          | Vickers |
| Powder Hoists     | Mk. 1 Mods. 0–7          | Vickers |
| Rammers           | Slides Mk. 22 Mods. 0. 1 | Vickers |

### INDICATORS

|                         |        |            |
|-------------------------|--------|------------|
| ELEVATION               | SPEEDS | MFR.       |
| Mk. 24 Mod. 0           | 2 & 36 | Gen. Elec. |
| TRAIN                   |        |            |
| Mk. 26 Mods. 1, 2, 3, 4 | 1 & 36 | Gen. Elec. |

### RECEIVER REGULATORS

|              |        |      |
|--------------|--------|------|
| ELEVATION    | SPEEDS | MFR. |
| Mk. 2 Mod. 0 | 2 & 36 | Ford |
| TRAIN        |        |      |
| Mk. 2 Mod. 0 | 1 & 36 | Ford |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                  |                           |
|------------------|---------------------------|
| Muzzle Velocity  | 2,600 Feet per Second     |
| Maximum Altitude | 12,000 Feet at 35° Elev.  |
| Maximum Range    | 17,500 Yards at 35° Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 578        |           |
| Working Circle Drawing No.       | 170029    |
|                                  | 256379    |
| General Arrangement Drawing Nos. | 200201    |
|                                  | 200565    |
|                                  | 201575    |
|                                  | 202712    |
|                                  | 256374–78 |

### REMARKS

Elevation limits are minus 10° to plus 35°. The training limit is 300°.

Elevating gear rate in automatic control is 11.597° per second. Training gear rate in automatic control is 14.706° per second.

Length of recoil is 19 inches.

This mount may be used with specific modifications of gun director Mk. 35.

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5"/38 TWIN, MARK 22 MOD. 0



| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 312          | 59034         |
| 313          | 59035         |
| 314          | 59036         |
| 315          | 59037         |

[illegible]

**5"/38 TWIN, MARK 22 MOD. 1**

12,500 LBS.  
6,620 LBS.  
74,700 LBS.  
75,400 LBS.  
78,000 LBS.

# 5-IN. MOUNT, MARK 22 MOD. 1

5-IN. 38-CAL., S. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                 |         |        |          |     |
|-----------------|---------|--------|----------|-----|
| Elevating Gear  | 5. HP.  | 440 V. | 3 $\phi$ | 60~ |
| Training Gear   | 15. HP. |        |          |     |
| Hoist, per gun  | 7.5 HP. |        |          |     |
| Rammer, per gun | 5. HP.  |        |          |     |
| Ventilation     | 2. HP.  |        |          |     |

#### Applicable Firing and Lighting Circuits:

Mk. 19 Mod. 0

|                         |                 |           |
|-------------------------|-----------------|-----------|
| Gun Firing              |                 |           |
| Transformer             | 110 V. to 20 V. | 200 Watts |
| Illumination and        |                 |           |
| Stand-by Firing—Battery | 6 V.            | 50 A. H.  |

Mk. 19 Mod. 1

|                      |                 |           |
|----------------------|-----------------|-----------|
| Gun Firing           |                 |           |
| Transformer          | 110 V. to 20 V. | 200 Watts |
| Illumination         |                 |           |
| Transformer          | 110 V. to 6 V.  | 150 Watts |
| Stand-by Firing and  |                 |           |
| Illumination—Battery | 6 V.            | 100 A. H. |

### PNEUMATIC

Gas Ejector, Mk. 3 Mods. 0 & 1

Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150–200 psi.

Counterrecoil Cylinder (for Charging)

0.3 Cu. Ft. at 1,750 psi. per Gun.

### HYDRAULIC

|                |            |                      |
|----------------|------------|----------------------|
| Recoil Fluid   | O. D. 1914 | Appr. 8 Qts. per Gun |
| Counterrecoil  |            |                      |
| Differential   |            |                      |
| Cylinder       | N. S. 2075 | .75 Pt. per Gun      |
| Speed Gear Oil | O. S. 2943 | 112 Gals.            |

## POWER DRIVES

|                   |                          |         |
|-------------------|--------------------------|---------|
| Elevating Gear    | Mk. 1 Mod. 2             | Vickers |
| Training Gear     | Mk. 1 Mod. 1             | Vickers |
| Projectile Hoists | Mk. 1 Mods. 0–7          | Vickers |
| Powder Hoists     | Mk. 1 Mods. 0–7          | Vickers |
| Rammers           | Slides Mk. 22 Mods. 2, 3 | Vickers |

## INDICATORS

| ELEVATION               | SPEEDS | MFR.       |
|-------------------------|--------|------------|
| Mk. 24 Mod. 0           | 2 & 36 | Gen. Elec. |
| TRAIN                   |        |            |
| Mk. 26 Mods. 1, 2, 3, 4 | 1 & 36 | Gen. Elec. |

## RECEIVER REGULATORS

| ELEVATION    | SPEEDS | MFR. |
|--------------|--------|------|
| Mk. 2 Mod. 0 | 2 & 36 | Ford |
| TRAIN        |        |      |
| Mk. 2 Mod. 0 | 1 & 36 | Ford |

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## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                  |                           |
|------------------|---------------------------|
| Muzzle Velocity  | 2,600 Feet per Second     |
| Maximum Altitude | 12,600 Feet at 35° Elev.  |
| Maximum Range    | 17,500 Yards at 35° Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |        |
|----------------------------------|--------|
| Ordnance Pamphlet No. 578        |        |
| Working Circle Drawing No.       | 170029 |
| General Arrangement Drawing Nos. | 200201 |
|                                  | 200565 |
|                                  | 201575 |
|                                  | 202712 |

## REMARKS

Elevation limits are minus 10° to plus 35° The training limit is 300°.

Elevating gear rate in automatic control is 11.597° per second. Training gear rate in automatic control is 14.706° per second.

Length of recoil is 19 inches.

This mount may be used with specific modifications of gun director Mk. 35.

5"/38 TWIN, MARK 22 MOD. 1





# 5-IN. MOUNT, MARK 22 MOD. 5

5-IN. 38-CAL., S. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                 |         |                     |
|-----------------|---------|---------------------|
| Elevating Gear  | 5. HP.  | 440 V. 3 $\phi$ 60~ |
| Training Gear   | 15. HP. |                     |
| Hoist, per gun  | 7.5 HP. |                     |
| Rammer, per gun | 5. HP.  |                     |
| Ventilation     | 2. HP.  |                     |

Applicable Firing and Lighting Circuit:

|                      |                 |           |
|----------------------|-----------------|-----------|
| Mk. 19 Mod. 1        |                 |           |
| Gun Firing           |                 |           |
| Transformer          | 110 V. to 20 V. | 200 Watts |
| Illumination         |                 |           |
| Transformer          | 110 V. to 6 V.  | 150 Watts |
| Stand-by Firing and  |                 |           |
| Illumination—Battery | 6 V.            | 100 A. H. |

### PNEUMATIC

|                                                  |          |
|--------------------------------------------------|----------|
| Gas Ejector, Mk. 3 Mods. 0 & 1                   |          |
| Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150 | 200 psi. |
| Counter recoil Cylinder (for Charging)           |          |
| 0.3 Cu. Ft. at 1,750 psi. per Gun.               |          |

### HYDRAULIC

|                |            |                      |
|----------------|------------|----------------------|
| Recoil Fluid   | O. D. 1914 | Appr. 8 Qts. per Gun |
| Counter recoil |            |                      |
| Differential   |            |                      |
| Cylinder       | N. S. 2075 | .75 Pt. per Gun      |
| Speed Gear Oil | O. S. 2943 | 112 Gals.            |

### POWER DRIVES

|                   |                          |         |
|-------------------|--------------------------|---------|
| Elevating Gear    | Mk. 1 Mod. 1             | Vickers |
| Training Gear     | Mk. 1 Mod. 2             | Vickers |
| Projectile Hoists | Mk. 1 Mods. 2, 3, 6, 7   | Vickers |
| Powder Hoists     | Mk. 1 Mods. 2, 3, 6, 7   | Vickers |
| Rammers           | Slides Mk. 22 Mods. 4, 5 | Vickers |

### INDICATORS

|               |        |            |
|---------------|--------|------------|
| ELEVATION     | SPEEDS | MFR.       |
| Mk. 24 Mod. 1 | 2 & 36 | Gen. Elec. |
| TRAIN         |        |            |
| Mk. 34 Mod. 0 | 1 & 36 | Gen. Elec. |

### RECEIVER REGULATORS

|              |        |      |
|--------------|--------|------|
| ELEVATION    | SPEEDS | MFR. |
| Mk. 2 Mod. 0 | 2 & 36 | Ford |
| TRAIN        |        |      |
| Mk. 2 Mod. 0 | 1 & 36 | Ford |

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## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                  |                           |
|------------------|---------------------------|
| Muzzle Velocity  | 2,600 Feet per Second     |
| Maximum Altitude | 12,600 Feet at 35° Elev.  |
| Maximum Range    | 17,500 Yards at 35° Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |        |
|----------------------------------|--------|
| Ordnance Pamphlet No. 578        |        |
| Working Circle Drawing No.       | 170029 |
| General Arrangement Drawing Nos. | 200201 |
|                                  | 200565 |
|                                  | 201575 |
|                                  | 202712 |

### REMARKS

Elevation limits are minus 10° to plus 35°. The training limit is 300°.

Elevating gear rate in automatic control is 11.597° per second. Training gear rate in automatic control is 14.706° per second.

Length of recoil is 19 inches.

This mount may be used with specific modifications of gun director Mk. 35.

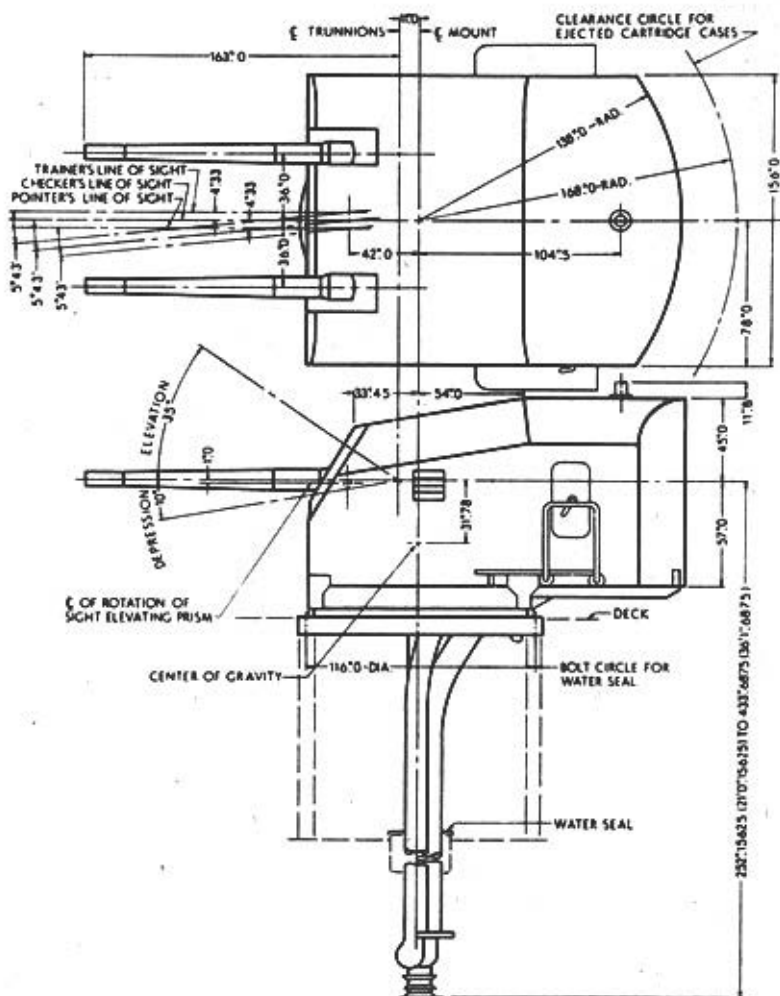
5"/38 TWIN, MARK 22 MOD. 5



**5-IN. MOUNT, MARK 22 MOD. 6****5-IN. 38-CAL., S. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE**

|                     |                        |
|---------------------|------------------------|
| ASSY.<br>NO.<br>332 | SKETCH<br>NO.<br>59289 |
|---------------------|------------------------|

Note: Assembly number of mount is required for precise information.



GUNS—TWO 5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD  
Rear Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 35° ELEV. FIRE

MK. 12 MOD. 1  
DD

MK. 23 MOD. 2  
.125 IN.

Weights below are approximate  
75,700 LBS.  
9,480 LBS.  
3,470 LBS.  
815 LBS.

Weights below are approximate and per gun  
11,570 LBS.  
6,620 LBS.  
74,700 LBS.  
75,400 LBS.  
78,000 LBS.

**5"/38 TWIN, MARK 22 MOD. 6**

# 5-IN. MOUNT, MARK 22 MOD. 6

5-IN. 38-CAL., S. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                 |         |        |              |
|-----------------|---------|--------|--------------|
| Elevating Gear  | 5. HP.  | 440 V. | 3 $\phi$ 60~ |
| Training Gear   | 15. HP. |        |              |
| Hoist, per gun  | 7.5 HP. |        |              |
| Rammer, per gun | 5. HP.  |        |              |
| Ventilation     | 2. HP.  |        |              |

Applicable Firing and Lighting Circuit:  
Mk. 19 Mod. 1

|                      |                 |           |
|----------------------|-----------------|-----------|
| Gun Firing           |                 |           |
| Transformer          | 110 V. to 20 V. | 200 Watts |
| Illumination         |                 |           |
| Transformer          | 110 V. to 6 V.  | 150 Watts |
| Stand-by Firing and  |                 |           |
| Illumination—Battery | 6 V.            | 100 A. H. |

### PNEUMATIC

Gas Ejector, Mk. 3 Mods. 0 & 1  
Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150 200 psi.  
Counter recoil Cylinder (for Charging)  
0.3 Cu. Ft. at 1,750 psi. per Gun.

### HYDRAULIC

|                |            |                      |
|----------------|------------|----------------------|
| Recoil Fluid   | O. D. 1914 | Appr. 8 Qts. per Gun |
| Counter recoil |            |                      |
| Differential   |            |                      |
| Cylinder       | N. S. 2075 | .75 Pt. per Gun      |
| Speed Gear Oil | O. S. 2943 | 112 Gals.            |

### POWER DRIVES

|                   |                          |         |
|-------------------|--------------------------|---------|
| Elevating Gear    | Mk. 1 Mod. 3             | Vickers |
| Training Gear     | Mk. 1 Mod. 2             | Vickers |
| Projectile Hoists | Mk. 1 Mods. 0, 1         | Vickers |
| Powder Hoists     | Mk. 1 Mods. 0, 1         | Vickers |
| Rammers           | Slides Mk. 22 Mods. 4, 5 | Vickers |

### INDICATORS

|               |  |        |            |
|---------------|--|--------|------------|
| ELEVATION     |  | SPEEDS | MFR.       |
| Mk. 24 Mod. 1 |  | 2 & 36 | Gen. Elec. |
| TRAIN         |  |        |            |
| Mk. 34 Mod. 0 |  | 1 & 36 | Gen. Elec. |

### RECEIVER REGULATORS

|              |  |        |      |
|--------------|--|--------|------|
| ELEVATION    |  | SPEEDS | MFR. |
| Mk. 2 Mod. 0 |  | 2 & 36 | Ford |
| TRAIN        |  |        |      |
| Mk. 2 Mod. 0 |  | 1 & 36 | Ford |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                  |                           |
|------------------|---------------------------|
| Muzzle Velocity  | 2,600 Feet per Second     |
| Maximum Altitude | 12,600 Feet at 35° Elev.  |
| Maximum Range    | 17,500 Yards at 35° Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |        |
|----------------------------------|--------|
| Ordnance Pamphlet No. 578        |        |
| Working Circle Drawing No.       | 170029 |
| General Arrangement Drawing Nos. | 200201 |
|                                  | 200565 |
|                                  | 201575 |
|                                  | 202712 |

## REMARKS

Elevation limits are minus 10° to plus 35°. The training limit is 300°.

Elevating gear rate in automatic control is 11.597° per second. Training gear rate in automatic control is 14.706° per second.

Length of recoil is 19 inches.

This mount may be used with specific modifications of gun director Mk. 35.

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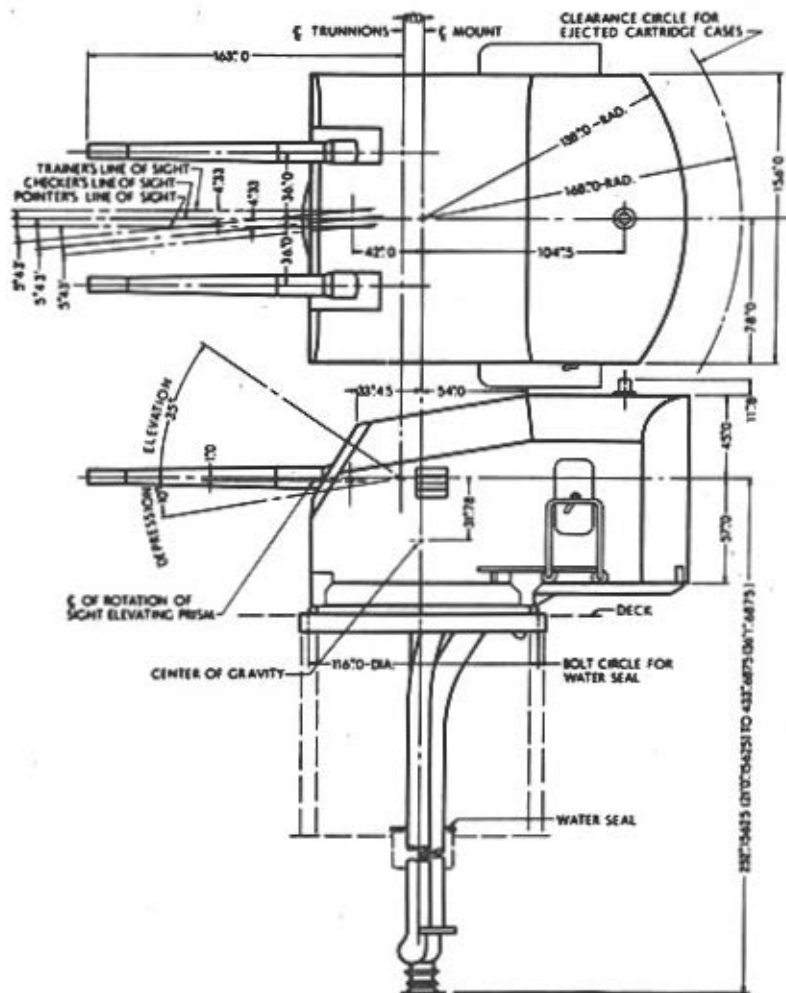
5"/38 TWIN, MARK 22 MOD. 6

# 5-IN. MOUNT, MARK 22 MOD. 8

## 5-IN. 38-CAL., S. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 372       | 61568      |
| 373       | 61569      |
| 386       | 61583      |
| 387       | 61584      |

Note: Assembly number of mount is required for precise information.



GUNS—TWO 5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD  
Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 35° ELEV. FIRE

5"/38 TWIN, MARK 22 MOD. 8

MK. 12 MOD. 1  
DD

MK. 23 MOD. 1  
.125 IN.

MK. 23 MOD. 2  
.125 IN.

Weights below are approximate  
71,680 TO 72,980 LBS.

|            |            |
|------------|------------|
| 7,800 LBS. | 9,480 LBS. |
| 1,740 LBS. | 3,470 LBS. |
| 815 LBS.   | 815 LBS.   |

Weights below are approximate and per gun  
11,570 LBS.  
6,620 LBS.  
74,700 LBS.  
75,400 LBS.  
78,000 LBS.



# 5-IN. MOUNT, MARK 22 MOD. 8

5-IN. 38-CAL., S. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                 |         |                     |
|-----------------|---------|---------------------|
| Elevating Gear  | 5. HP.  | 440 V. 3 $\phi$ 60~ |
| Training Gear   | 15. HP. |                     |
| Hoist, per gun  | 7.5 HP. |                     |
| Rammer, per gun | 5. HP.  |                     |
| Ventilation     | 2. HP.  |                     |

Applicable Firing and Lighting Circuit:

|                      |                 |           |
|----------------------|-----------------|-----------|
| Mk. 19 Mod. 1        |                 |           |
| Gun Firing           |                 |           |
| Transformer          | 110 V. to 20 V. | 200 Watts |
| Illumination         |                 |           |
| Transformer          | 110 V. to 6 V.  | 150 Watts |
| Stand-by Firing and  |                 |           |
| Illumination—Battery | 6 V.            | 100 A. H. |

### PNEUMATIC

|                                                          |  |
|----------------------------------------------------------|--|
| Gas Ejector, Mk. 3 Mods. 0 & 1                           |  |
| Apr. 2 Cu. Ft. Free Air per Sec. per Gun at 150–200 psi. |  |
| Counterrecoil Cylinder (for Charging)                    |  |
| 0.3 Cu. Ft. at 1,750 psi. per Gun.                       |  |

### HYDRAULIC

|                |            |                     |
|----------------|------------|---------------------|
| Recoil Fluid   | O. D. 1914 | Apr. 8 Qts. per Gun |
| Counterrecoil  |            |                     |
| Differential   |            |                     |
| Cylinder       | N. S. 2075 | .75 Pt. per Gun     |
| Speed Gear Oil | O. S. 2943 | 112 Gals.           |

### POWER DRIVES

|                   |                          |         |
|-------------------|--------------------------|---------|
| Elevating Gear    | Mk. 1 Mod. 0             | Vickers |
| Training Gear     | Mk. 1 Mod. 2             | Vickers |
| Projectile Hoists | Mk. 1 Mods. 0–7          | Vickers |
| Powder Hoists     | Mk. 1 Mods. 0–7          | Vickers |
| Rammers           | Slides Mk. 22 Mods. 4, 5 | Vickers |

### INDICATORS

|               |        |            |
|---------------|--------|------------|
| ELEVATION     | SPEEDS | MFR.       |
| Mk. 24 Mod. 1 | 2 & 36 | Gen. Elec. |
| TRAIN         |        |            |
| Mk. 34 Mod. 0 | 1 & 36 | Gen. Elec. |

### RECEIVER REGULATORS

|              |        |      |
|--------------|--------|------|
| ELEVATION    | SPEEDS | MFR. |
| Mk. 2 Mod. 0 | 2 & 36 | Ford |
| TRAIN        |        |      |
| Mk. 2 Mod. 0 | 1 & 36 | Ford |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                  |                           |
|------------------|---------------------------|
| Muzzle Velocity  | 2,600 Feet per Second     |
| Maximum Altitude | 12,600 Feet at 35° Elev.  |
| Maximum Range    | 17,500 Yards at 35° Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Apr. 27.5 Lbs.        |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |        |
|----------------------------------|--------|
| Ordnance Pamphlet No. 578        |        |
| Working Circle Drawing No.       | 170029 |
| General Arrangement Drawing Nos. | 200201 |
|                                  | 200565 |
|                                  | 201575 |
|                                  | 202712 |

## REMARKS

Elevation limits are minus 10° to plus 35°. The training limit is 300°.

Elevating gear rate in automatic control is 11.597° per second. Training gear rate in automatic control is 14.706° per second.

Length of recoil is 19 inches.

This mount may be used with specific modifications of gun director Mk. 35.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38 TWIN, MARK 22 MOD. 8



| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 334          | 59291         |
| 374          | 61570         |
| 375          | 61571         |

Technical drawing of the M1917 3.7-inch anti-aircraft gun, showing elevation and depression views with various dimensions and labels.

**Elevation View (Top):**

- Labels:  $\xi$  TRUNNIONS,  $\xi$  MOUNT, CLEARANCE CIRCLE FOR EJECTED CARTRIDGE CASES.
- Dimensions: 163"0, 42"0, 104"5, 108"0-RAD., 168"0-RAD., 15"5"0, 7"8"0.
- Lines of sight: TRAINER'S LINE OF SIGHT, CHECKER'S LINE OF SIGHT, POINTER'S LINE OF SIGHT.
- Other dimensions: 5"4"3, 4"2"3, 14"4"33, 36"0.

**Depression View (Bottom):**

- Labels:  $\xi$  OF ROTATION OF SIGHT ELEVATING PRISM, DECK, BOLT CIRCLE FOR WATER SEAL, WATER SEAL, CENTER OF GRAVITY.
- Dimensions: 33"7"5, 5"4"0, 3"7"8, 4"5"0, 5"7"0, 11"7"8, 116"0-DIA.
- Angles: ELEVATION 25°, DEPRESSION 10°, 17°.

230°15'42"5 (310°0'54"25) TO 433°48'5"0 (1°48'7"5)

MK. 12 MOD. 1  
DD

MK. 23 MOD. 1  
.125 IN.

MK. 23 MOD. 2  
.125 IN.

Weights below are approximate  
71.840 TO 78.390 LBS.

|            |            |
|------------|------------|
| 7,800 LBS. | 9,480 LBS. |
| 1,740 LBS. | 3,470 LBS. |
| 815 LBS.   | 815 LBS.   |

Weights below are approximate and per gun

11,570 LBS.  
6,620 LBS.

74,700 LBS.  
75,400 LBS.  
78,000 LBS.

**GUNS—TWO 5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS**

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD  
Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 35° ELEV. FIRE

**5"/38 TWIN, MARK 22 MOD. 9**

# 5-IN. MOUNT, MARK 22 MOD. 9

5-IN. 38-CAL., S. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                 |         |                |
|-----------------|---------|----------------|
| Elevating Gear  | 5. HP.  | 440 V. 3 φ 60~ |
| Training Gear   | 15. HP. |                |
| Hoist, per gun  | 7.5 HP. |                |
| Rammer, per gun | 5. HP.  |                |
| Ventilation     | 2. HP.  |                |

Applicable Firing and Lighting Circuit:

Mk. 19 Mod. 1

|                      |                 |           |
|----------------------|-----------------|-----------|
| Gun Firing           |                 |           |
| Transformer          | 110 V. to 20 V. | 200 Watts |
| Illumination         |                 |           |
| Transformer          | 110 V. to 6 V.  | 150 Watts |
| Stand-by Firing and  |                 |           |
| Illumination—Battery | 6 V.            | 100 A. H. |

### PNEUMATIC

Gas Ejector, Mk. 3 Mods. 0 & 1

Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150 200 psi.

Counter recoil Cylinder (for Charging)

0.3 Cu. Ft. at 1,750 psi. per Gun.

### HYDRAULIC

|                |            |                      |
|----------------|------------|----------------------|
| Recoil Fluid   | O. D. 1914 | Appr. 8 Qts. per Gun |
| Counter recoil |            |                      |
| Differential   |            |                      |
| Cylinder       | N. S. 2075 | .75 Pt. per Gun      |
| Speed Gear Oil | O. S. 2943 | 112 Gals.            |

### POWER DRIVES

|                   |                          |         |
|-------------------|--------------------------|---------|
| Elevating Gear    | Mk. 1 Mod. 1             | Vickers |
| Training Gear     | Mk. 1 Mod. 2             | Vickers |
| Projectile Hoists | Mk. 1 Mods. 4, 5, 6, 7   | Vickers |
| Powder Hoists     | Mk. 1 Mods. 4, 5, 6, 7   | Vickers |
| Rammers           | Slides Mk. 22 Mods. 4, 5 | Vickers |

### INDICATORS

|               |        |            |
|---------------|--------|------------|
| ELEVATION     | SPEEDS | MFR.       |
| Mk. 24 Mod. 1 | 2 & 36 | Gen. Elec. |
| TRAIN         |        |            |
| Mk. 34 Mod. 0 | 1 & 36 | Gen. Elec. |

### RECEIVER REGULATORS

|              |        |      |
|--------------|--------|------|
| ELEVATION    | SPEEDS | MFR. |
| Mk. 2 Mod. 0 | 2 & 36 | Ford |
| TRAIN        |        |      |
| Mk. 2 Mod. 0 | 1 & 36 | Ford |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                  |                           |
|------------------|---------------------------|
| Muzzle Velocity  | 2,600 Feet per Second     |
| Maximum Altitude | 12,600 Feet at 35° Elev.  |
| Maximum Range    | 17,500 Yards at 35° Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |        |
|----------------------------------|--------|
| Ordnance Pamphlet No. 578        |        |
| Working Circle Drawing No.       | 170029 |
| General Arrangement Drawing Nos. | 200201 |
|                                  | 200565 |
|                                  | 201575 |
|                                  | 202712 |

## REMARKS

Elevation limits are minus 10° to plus 35°. The training limit is 300°.

Elevating gear rate in automatic control is 11.597° per second. Training gear rate in automatic control is 14.706° per second.

Length of recoil is 19 inches.

This mount may be used with specific modifications of gun director Mk. 35.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38 TWIN. MARK 22 MOD. 9

## 5-IN. 38-CAL., S. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 384          | 61581         |
| 385          | 61582         |

[illegible]

**78,000 LBS.**

**5"/38 TWIN, MARK 22 MOD. 10**



# 5-IN. MOUNT, MARK 22 MOD. 10

5-IN. 38-CAL., S. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                 |         |                     |
|-----------------|---------|---------------------|
| Elevating Gear  | 5. HP.  | 440 V. 3 $\phi$ 60~ |
| Training Gear   | 15. HP. |                     |
| Hoist, per gun  | 7.5 HP. |                     |
| Rammer, per gun | 5. HP.  |                     |
| Ventilation     | 2. HP.  |                     |

Applicable Firing and Lighting Circuit:

Mk. 19 Mod. 1

|                                          |                 |           |
|------------------------------------------|-----------------|-----------|
| Gun Firing Transformer                   | 110 V. to 20 V. | 200 Watts |
| Illumination Transformer                 | 110 V. to 6 V.  | 150 Watts |
| Stand-by Firing and Illumination—Battery | 6 V.            | 100 A. H. |

### PNEUMATIC

Gas Ejector, Mk. 3 Mods. 0 & 1

Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150–200 psi.

Counter recoil Cylinder (for Charging)

0.3 Cu. Ft. at 1,750 psi. per Gun.

### HYDRAULIC

|                                      |            |                      |
|--------------------------------------|------------|----------------------|
| Recoil Fluid                         | O. D. 1914 | Appr. 8 Qts. per Gun |
| Counter recoil Differential Cylinder | N. S. 2075 | .75 Pt. per Gun      |
| Speed Gear Oil                       | O. S. 2943 | 112 Gals.            |

### POWER DRIVES

|                   |                          |         |
|-------------------|--------------------------|---------|
| Elevating Gear    | Mk. 1 Mod. 3             | Vickers |
| Training Gear     | Mk. 1 Mod. 2             | Vickers |
| Projectile Hoists | Mk. 1 Mods. 0, 1, 2, 3   | Vickers |
| Powder Hoists     | Mk. 1 Mods. 0, 1, 2, 3   | Vickers |
| Rammers           | Slides Mk. 22 Mods. 4, 5 | Vickers |

### INDICATORS

| ELEVATION     | SPEEDS | MFR.       |
|---------------|--------|------------|
| Mk. 24 Mod. 1 | 2 & 36 | Gen. Elec. |
| TRAIN         |        |            |
| Mk. 34 Mod. 0 | 1 & 36 | Gen. Elec. |

### RECEIVER REGULATORS

| ELEVATION    | SPEEDS | MFR. |
|--------------|--------|------|
| Mk. 2 Mod. 0 | 2 & 36 | Ford |
| TRAIN        |        |      |
| Mk. 2 Mod. 0 | 1 & 36 | Ford |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                  |                           |
|------------------|---------------------------|
| Muzzle Velocity  | 2,600 Feet per Second     |
| Maximum Altitude | 12,600 Feet at 35° Elev.  |
| Maximum Range    | 17,500 Yards at 35° Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |        |
|----------------------------------|--------|
| Ordnance Pamphlet No. 578        |        |
| Working Circle Drawing No.       | 170029 |
| General Arrangement Drawing Nos. | 200201 |
|                                  | 200565 |
|                                  | 201575 |
|                                  | 202712 |

## REMARKS

Elevation limits are minus 10° to plus 35°. The training limit is 300°.

Elevating gear rate in automatic control is 11.597° per second. Training gear rate in automatic control is 14.706° per second.

Length of recoil is 19 inches.

This mount may be used with specific modifications of gun director Mk. 35.

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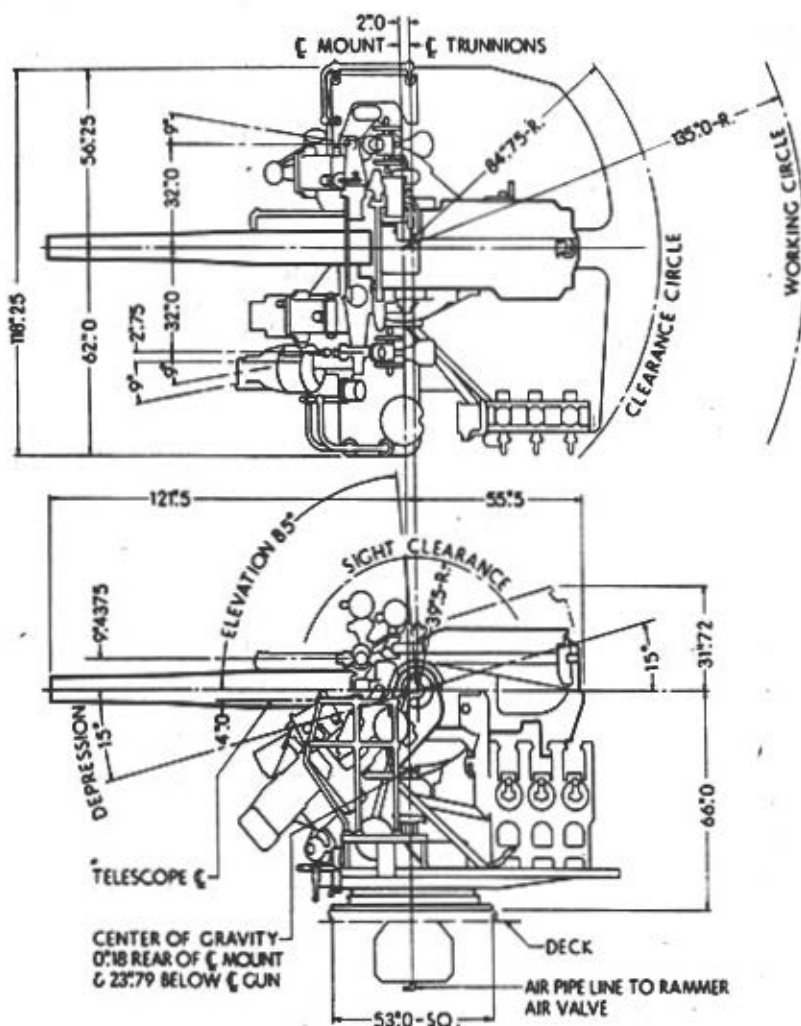
5"/38 TWIN, MARK 22 MOD. 10



**5-IN. MOUNT, MARK 23 MOD. 1****5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 336          | 59360         |

Note: Assembly number of mount is required for precise information.



GUN—5"/25  
INSTALLATION FOR  
SHIELD

MK. 13 MOD. 0  
CA-CL  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate  
21,670 LBS.  
9,600 LBS.  
4,800 LBS.  
71,560 LBS.  
72,150 LBS.  
80,270 LBS.

**5"/25, MARK 23 MOD. 1**

# 5-IN. MOUNT, MARK 23 MOD. 1

5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Elevating Gear 1. HP. } D. C. from 440 V. 3  $\phi$  60~  
Training Gear 1. HP. } Thyatron Controlled Source

Applicable Firing and Lighting Circuits:

Mk. 14 Mods. 5 & 6

Gun Firing

Transformer 120 V. to 20 V. 100 Watts

Illumination and

Stand-by Firing—Battery 6 V. 50 A. H.

Mk. 14 Mod. 7

Gun Firing

Transformer 120 V. to 20 V. 100 Watts

Illumination

Transformer 120 V. to 6 V. 150 Watts

Stand-by Firing and

Illumination—Battery 6 V. 50 A. H.

### PNEUMATIC

Rammer 30 Cu. Ft. Free Air per Min. at 125 psi.

Counter recoil Cylinder (for Charging)

0.216 Cu. Ft. Air at 1700–1800 psi.

### HYDRAULIC

Recoil Cylinder O. D. 1914 7 Qts.

Rammer Buffer Cylinder O. D. 1914 1.76 Pt.

Counter recoil Differential Cylinder  
N. S. 2075 1.25 Pt.

## POWER DRIVES

Elev. & Train. Gear Carriage Mk. 19 Mod. 0 Gen. Elec.

## INDICATORS

| ELEVATION     | SPEEDS            | MFR.                 |
|---------------|-------------------|----------------------|
| Mk. 21 Mod. 0 | 18 7 & 36         | Ford or Cont. Instr. |
| Mk. 22 Mod. 0 | 2 & 36—Hand       | { Frankford Arsenal  |
| (Ind. Reg.)   | 1 1/2 & 144—Auto. |                      |

### TRAIN

|               |                |                      |
|---------------|----------------|----------------------|
| Mk. 23 Mod. 0 | 1 & 36         | Ford or Cont. Instr. |
| Mk. 24 Mod. 0 | 1 & 36—Hand    | { Frankford Arsenal  |
| (Ind. Reg.)   | 1/2 & 72—Auto. |                      |

### FUSE SETTING

Mk. 6 Mod. 0 51.43 Gen. Elec.

## GUN AND AMMUNITION DATA

### GUN

|                              |                            |
|------------------------------|----------------------------|
| 5-In. 25-Cal.                | Mk. 13 Mod. 0              |
| Max. Powder Pressure         | 16.7 Long Tons per Sq. In. |
| Barrel Weight                | 2,105 Lbs.                 |
| Vertical Sliding Breechblock |                            |

### BALLISTICS

|                                   |                           |
|-----------------------------------|---------------------------|
| Muzzle Velocity (53.85 Lb. Proj.) | 2,110 Feet per Second     |
| Maximum Altitude                  | 27,400 Feet at 85° Elev.  |
| Maximum Range                     | 14,500 Yards at 45° Elev. |

### AMMUNITION—Fixed

|                     |                               |
|---------------------|-------------------------------|
| Typical Projectiles |                               |
| A. A. Common        | Mods. of Mk. 36 Wt. 53.8 Lbs. |
| Illuminating        | Mods. of Mk. 27               |
|                     | Appr. Wt. 54.5 Lbs.           |

### Cartridge

|                           |                            |
|---------------------------|----------------------------|
| Case                      | Mk. 4 Mod. 0 Wt. 14.5 Lbs. |
|                           | Mk. 4 Mod. 2 Wt. 11.4 Lbs. |
| Charge                    | Nominal Wt. 9.6 Lbs.       |
| Primer                    | Mk. 13 Mods. 0, 1          |
| Total Weight of Cartridge | Appr. 21. Lbs.             |

## FUZE SETTER

Mark 7 Mod. 0

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Pamphlet No. 589       |        |
| Working Circle Drawing No.      | 196550 |
| General Arrangement Drawing No. | 179594 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit varies up to 360°.

One revolution of the handwheels trains the mount 6° 0' 47" at high speed; elevates or depresses the gun 1° 52' 30".

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun director Mk. 33.

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5"/25, MARK 23 MOD. 1

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 288          | 58847         |
| 304          | 59006         |
| 305          | 59007         |
| 359          | 59553         |
| 360          | 59556         |
| 362          | 59567         |
| 363          | 59568         |

Technical drawing of a gun mount showing elevation and depression views. The drawing includes various dimensions and labels:

- Elevation View (Top):**
  - Dimensions: 463, 1825, 79825, 12°, 29738, 535, 870-R, 1440-R, 12°, 405, 2655, 535.
  - Labels: CLEARANCE CIRCLE FOR EJECTED CARTRIDGE CASES, CLEARANCE CIRCLE.
  - Mounting: MOUNT, TRUNNION.
- Depression View (Bottom):**
  - Dimensions: 1815, 3337, 1475, 15, 36325, 735, 5625-R, 522, 568.
  - Labels: DEPRESSION, CENTER OF GRAVITY.

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
 DD  
 NONE

Weights below are approximate

|             |
|-------------|
| 31,200 LBS. |
| 16,100 LBS. |
| 8,150 LBS.  |
| 76,800 LBS. |
| 81,400 LBS. |
| 95,000 LBS. |

# 5-IN. MOUNT, MARK 24 MOD. 0

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |                  |    |
|--------------------------------------|-----------------|------------------|----|
| Elevating and Training Gear Rammer   | 5 HP. } 440 V.  | 3 $\phi$         | 6~ |
| Gun Firing Transformer               | 110 V. to 20 V. | 100 or 200 Watts |    |
| Illumination Transformer             | 110 V. to 6 V.  | 100 Watts        |    |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H.        |    |

### PNEUMATIC

|                                       |                                    |
|---------------------------------------|------------------------------------|
| Counterrecoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi. |
|---------------------------------------|------------------------------------|

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 32 Gals. |

### POWER DRIVES

|                     |                        |                |
|---------------------|------------------------|----------------|
| Elev. & Train. Gear | Carriage Mk. 20 Mod. 0 | Ford-Waterbury |
| Rammer              | Slide Mk. 21 Mod. 2    | Vickers        |

### INDICATOR REGULATORS

|                                                      |                       |      |
|------------------------------------------------------|-----------------------|------|
| ELEVATION                                            | SPEEDS                | MFR. |
| Mk. 28 Mod. 0 (or none)                              | 2 & 36                | Ford |
| TRAIN                                                |                       |      |
| Mk. 30 Mods. 3, 4, 5 (or none)                       | 1 & 36                | Ford |
| FUZE SETTING                                         |                       |      |
| Mk. 6 Mod. 1 (Ind. only) or Mk. 8 Mod. 0 (Ind. Reg.) | 51, 43 }<br>2 & 100 } | Arma |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appl. 27.5 Lbs.       |

### FUZE SETTER

Mk. 7 Mods. 0 or 1

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 700        |           |
| Working Circle Drawing No.       | 200200    |
| General Arrangement Drawing Nos. | 232921-24 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The training limit varies with the installation; maximum 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.



| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 311          | 59038         |
| 341          | 59378         |
| 342          | 59379         |
| 343          | 59380         |
| 344          | 59381         |
| 353          | 59372         |
| 354          | 59373         |
| 355          | 59374         |
| 381          | 61562         |
| 382          | 61563         |
| 775          | 92992         |
| 963          | 106770        |

Technical drawing of the M1919 Browning machine gun, showing front and side views with dimensions and labels.

**Labels:**

- CLEARANCE CIRCLE FOR EJECTED CARTRIDGE CASES
- CLEARANCE CIRCLE
- 46°5
- 1025
- 79825
- 12°
- 28738
- 303
- 2675
- 45
- 17
- 1815
- 4° MOUNT
- 4° TRUNNION
- ELEVATION 85
- 3337
- 6635-R
- 36725
- 15°
- 735
- 322
- 5628
- CENTER OF GRAVITY
- DEPRESSION 15

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate

|             |
|-------------|
| 31,100 LBS. |
| 15,600 LBS. |
| 8,150 LBS.  |
| 76,600 LBS. |
| 81,400 LBS. |
| 95,000 LBS. |

**5"/38, MARK 24 MOD. 1**

# 5-IN. MOUNT, MARK 24 MOD. 1

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |                  |          |      |
|--------------------------------------|-----------------|------------------|----------|------|
| Elevating and Training Gear          | 5. HP.          | 440 V.           | 3 $\phi$ | 60 ~ |
| Rammer                               | 5. HP.          |                  |          |      |
| Gun Firing Transformer               | 110 V. to 20 V. | 100 or 200 Watts |          |      |
| Illumination Transformer             | 110 V. to 6 V.  | 100 Watts        |          |      |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H.        |          |      |

### PNEUMATIC

|                                        |                                    |
|----------------------------------------|------------------------------------|
| Counter recoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi. |
|----------------------------------------|------------------------------------|

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 32 Gals. |

### POWER DRIVES

|                     |                        |                |
|---------------------|------------------------|----------------|
| Elev. & Train. Gear | Carriage Mk. 20 Mod. 0 | Ford-Waterbury |
| Rammer              | Slide Mk. 21 Mod. 6    | Vickers        |

### INDICATOR REGULATORS

|                                                      |                      |      |
|------------------------------------------------------|----------------------|------|
| ELEVATION                                            | SPEEDS               | MFR. |
| Mk. 28 Mod. 0 or Mk. 31 Mod. 1                       | 2 & 36               | Ford |
| TRAIN                                                |                      |      |
| Mk. 30                                               | 1 & 36               | Ford |
| FUZE SETTING                                         |                      |      |
| Mk. 6 Mod. 1 (Ind. only) or Mk. 8 Mod. 0 (Ind. Reg.) | 51.43 }<br>2 & 100 } | Arma |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |        |               |
|---------------------|--------|---------------|
| Typical Projectiles |        |               |
| Common              | Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### FUZE SETTER

Mk. 7 Mods. 0 or 1

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |                        |
|----------------------------------|------------------------|
| Ordnance Pamphlet No. 700        | 200200                 |
| Working Circle Drawing Nos.      | 236799                 |
| General Arrangement Drawing Nos. | 232921-24<br>237325-28 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The training limit varies with the installation, maximum 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

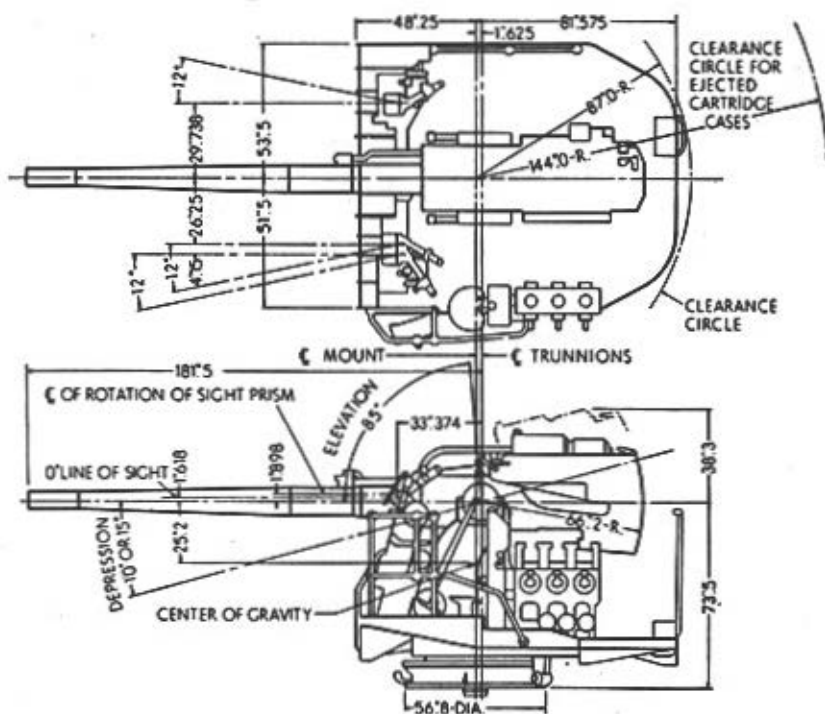
5"/39 MARK 94 MOD 1

# 5-IN. MOUNT, MARK 24 MOD. 6

**5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 441       | 62047      |
| 660       | 94938      |
| 661       | 94939      |
| 662       | 94940      |
| 663       | 94941      |
| 664       | 94942      |
| 665       | 94943      |
| 666       | 94944      |
| 668       | 102351     |
| 926       | 106242     |
| 927       | 106243     |
| 969       | 106798     |
| 1137      | 107064     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
DD  
NONE

Weights below are approximate  
31,900 LBS.  
15,500 LBS.  
8,150 LBS.  
77,600 LBS.  
78,700 LBS.  
93,200 LBS.

**5"/38, MARK 24 MOD. 6**

# 5-IN. MOUNT, MARK 24 MOD. 6

5-IN. 38-CAL. D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.]        | 440 V.    | 3 $\phi$ 60~ |
| Rammer                               | 7.5 HP.]        |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 100 or    |              |
|                                      |                 | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                     |  |
|-------------------------------------|--|
| Countercoil Cylinder (for Charging) |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.  |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | P. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 37 Gals. |

## POWER DRIVES

|                |                     |                |
|----------------|---------------------|----------------|
| Elevating Gear | Mk. 12 Mods. 0 or 1 | G. E.—Northern |
| Training Gear  | Mk. 12 Mods. 0 or 1 | G. E.—Northern |
| Rammer         | Slide Mk. 21 Mod. 8 | Northern       |

## INDICATOR REGULATORS

| ELEVATION             | SPEEDS  | MFR.       |
|-----------------------|---------|------------|
| Mk. 35 Mod. 0, Mk. 36 |         |            |
| Mods. 1, 2, 3, 4      | 2 & 36  | Gen. Elec. |
| TRAIN                 |         |            |
| Mods. of Mk. 39       | 1 & 36  | Gen. Elec. |
| FUZE SETTING          |         |            |
| Mk. 8 Mods. 3 or 9    | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 38,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mod. 1

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 700       |           |
| Working Circle Drawing No.       | 236799    |
| General Arrangement Drawing Nos. | 237325-28 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit varies with the installation; maximum 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

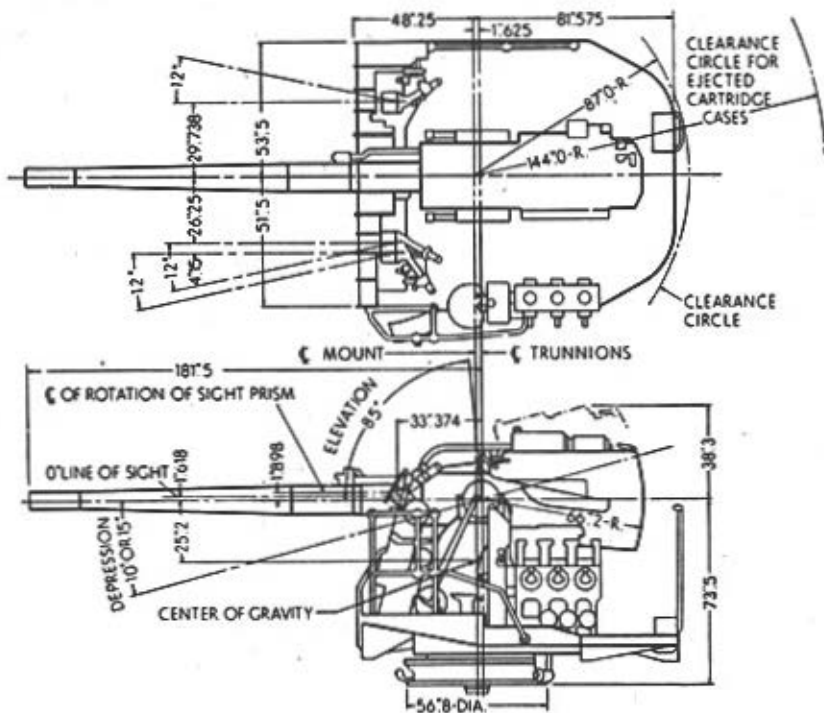
Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.



**5-IN. MOUNT, MARK 24 MOD. 11****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 562       | 93053      |
| 605       | 94642      |
| 606       | 94643      |
| 607       | 94644      |
| 608       | 94645      |
| 609       | 94646      |
| 610       | 94647      |
| 611       | 94648      |
| 667       | 102350     |
| 918       | 106926     |
| 1108      | 106908     |
| 1117      | 106926     |
| 1136      | 107063     |
| 1210      | 107674     |
| 1213      | 107682     |
| 1214      | 107683     |
| 1336      | 108379     |
| 1337      | 108380     |
| 1338      | 108381     |
| 1339      | 108382     |
| 1474      | 138316     |
| 1475      | 138317     |
| 1476      | 138318     |
| 1477      | 138319     |



Note: Assembly number of mount is required for precise information.

GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
CV  
NONE

Weights below are approximate  
33,100 LBS.  
15,400 LBS.  
8,150 LBS.  
77,600 LBS.  
78,700 LBS.  
93,200 LBS.

**5"/38, MARK 24 MOD. 11**

# 5-IN. MOUNT, MARK 24 MOD. 11

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |                  |              |
|--------------------------------------|-----------------|------------------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.           | 3 $\phi$ 60~ |
| Rammer                               | 7.5 HP.         |                  |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 100 or 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts        |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H.        |              |

### PNEUMATIC

|                                       |  |
|---------------------------------------|--|
| Counterrecoil Cylinder (for Charging) |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.    |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 37 Gals. |

### POWER DRIVES

|                |                     |                |
|----------------|---------------------|----------------|
| Elevating Gear | Mk. 12 Mods. 0 or 1 | G. E.—Northern |
| Training Gear  | Mk. 12 Mods. 0 or 1 | G. E.—Northern |

## INDICATOR REGULATORS

| ELEVATION                                           | SPEEDS  | MFR.       |
|-----------------------------------------------------|---------|------------|
| Mk. 35 Mod. 0<br>Mods. of Mk. 36<br>Mods. of Mk. 44 | 2 & 36  | Gen. Elec. |
| TRAIN<br>Mods. of Mk. 39<br>Mods. of Mk. 50         | 1 & 36  | Gen. Elec. |
| FUZE SETTING<br>Mk. 8 Mod. 9                        | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### FUZE SETTER

Mk. 7 Mod. 1

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 700       |           |
| Working Circle Drawing No.       | 236799    |
| General Arrangement Drawing Nos. | 237325–28 |

## REMARKS

Elevation limits are minus 10° to plus 85°. The training limit varies with the installation; maximum 300°.

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 28.75° per second.

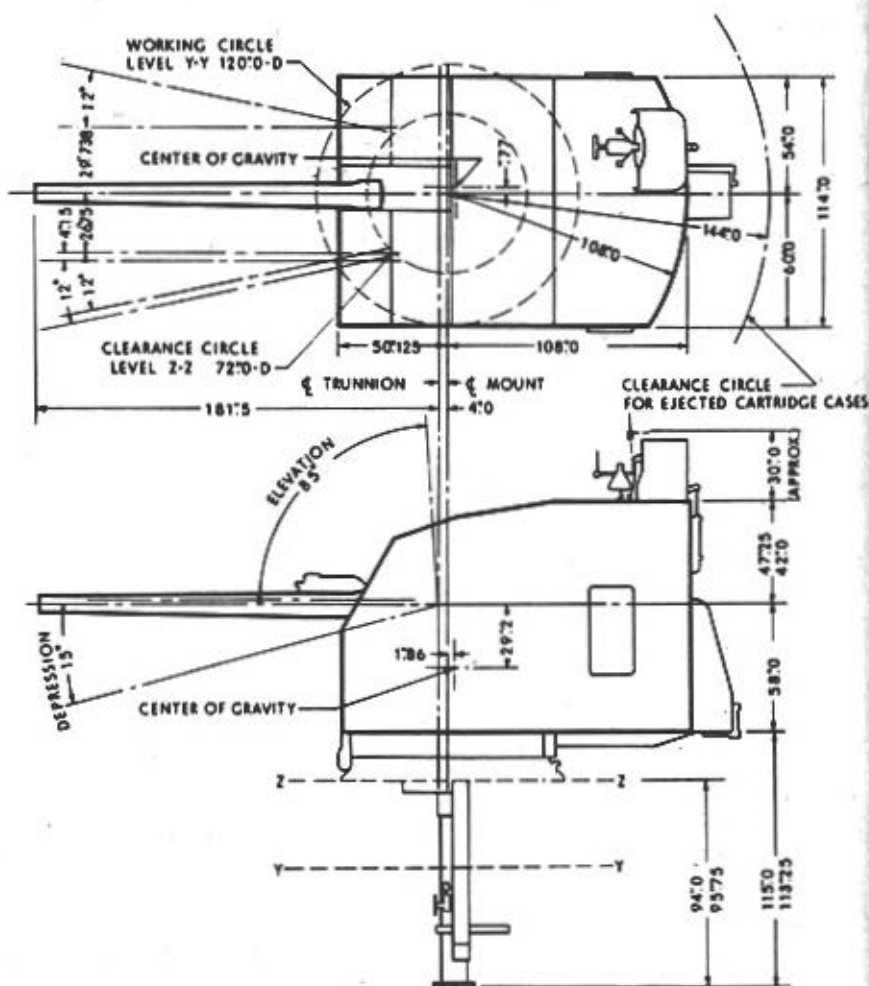
Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

| ASSY.<br>NO.        | SKETCH<br>NO. |
|---------------------|---------------|
| Mount Mk. 25 Mod. 0 |               |
| 297                 | 58846         |
| 306                 | 59008         |
| 330                 | 59283         |
| 331                 | 59284         |
| Mount Mk. 25 Mod. 1 |               |
| 324                 | 59048         |
| 352                 | 59371         |
| 500                 | 62803         |
| 501                 | 62804         |
| Mount Mk. 25 Mod. 2 |               |
| 337                 | 59557         |
| 357                 | 59554         |
| 358                 | 59555         |
| 370                 | 59591         |

**Note:** Assembly number of mount is required for precise information.



**GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS**

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

**BRAKE LOAD**  
**TRUNNION PRESSURE HORIZ. FIRE**  
**TRUNNION PRESSURE 85° ELEV. FIRE**

MK. 12 MOD. 1  
DD

MK. 24 MOD. 0  
.125 IN.

MK. 24 MOD. 1  
.125 IN.

Weights below are approximate  
42,000 TO 44,900 LBS.

6,500 LBS.  
1,860 LBS.  
610 LBS.

5,550 LBS.  
1,065 LBS.  
600 LBS.

15,200 LBS.  
8,150 LBS.  
77,600 LBS.  
79,200 LBS.  
93,000 LBS.



# 5-IN. MOUNT, MARK 25 MODS. 0-2

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                |         |                     |
|----------------|---------|---------------------|
| Elevating Gear | 10. HP. | 440 V. 3 $\phi$ 60~ |
| Training Gear  | 10. HP. |                     |
| Hoist          | 7.5 HP. |                     |
| Rammer         | 5. HP.  |                     |

|                                          |                 |           |
|------------------------------------------|-----------------|-----------|
| Gun Firing Transformer                   | 115 V. to 20 V. | 200 Watts |
| Illumination Transformer                 | 115 V. to 6 V.  | 100 Watts |
| Stand-by Firing and Illumination—Battery | 6 V.            | 100 A. H. |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 4 Mod. 0                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |
| Countercoil Cylinder (for Charging)               |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |

### HYDRAULIC

|                                   |            |          |
|-----------------------------------|------------|----------|
| Recoil Fluid                      | O. D. 1914 | 6 Qts.   |
| Countercoil Differential Cylinder | N. S. 2075 | .75 Pt.  |
| Speed Gear Oil                    | O. S. 2943 | 52 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 2 Mod. 0        | Ford-Waterbury |
| Training Gear    | Mk. 2 Mod. 0        | Ford-Waterbury |
| Projectile Hoist | Mk. 2 Mods. 0 or 1  | Vickers        |
| Rammer           | Slide Mk. 21 Mod. 4 | Vickers        |

## INDICATOR REGULATORS

|                                |        |      |
|--------------------------------|--------|------|
| (None on Mounts Mk. 25 Mod. 1) |        |      |
| ELEVATION SPEEDS               |        | MFR. |
| Mk. 28 Mod. 0                  | 2 & 36 | Ford |

### TRAIN

|                     |        |      |
|---------------------|--------|------|
| Mk. 30 Mods. 1 or 2 | 1 & 36 | Ford |
|---------------------|--------|------|

### FUZE SETTING INDICATOR

|              |       |            |
|--------------|-------|------------|
| Mk. 6 Mod. 1 | 51.43 | Gen. Elec. |
|--------------|-------|------------|

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic on Mounts Mk. 25 Mods. 0 and 2.

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 748        |           |
| Working Circle Drawing No.       | 200220    |
| General Arrangement Drawing Nos. | 216669-71 |
|                                  | 232981    |

## REMARKS

Elevation limits are minus 15° to plus 85°. Maximum training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.717° per second.

Length of recoil is 15 inches.

Mounts Mk. 25 Mods. 0 and 2 may be used with specific modifications of gun director Mk. 33.

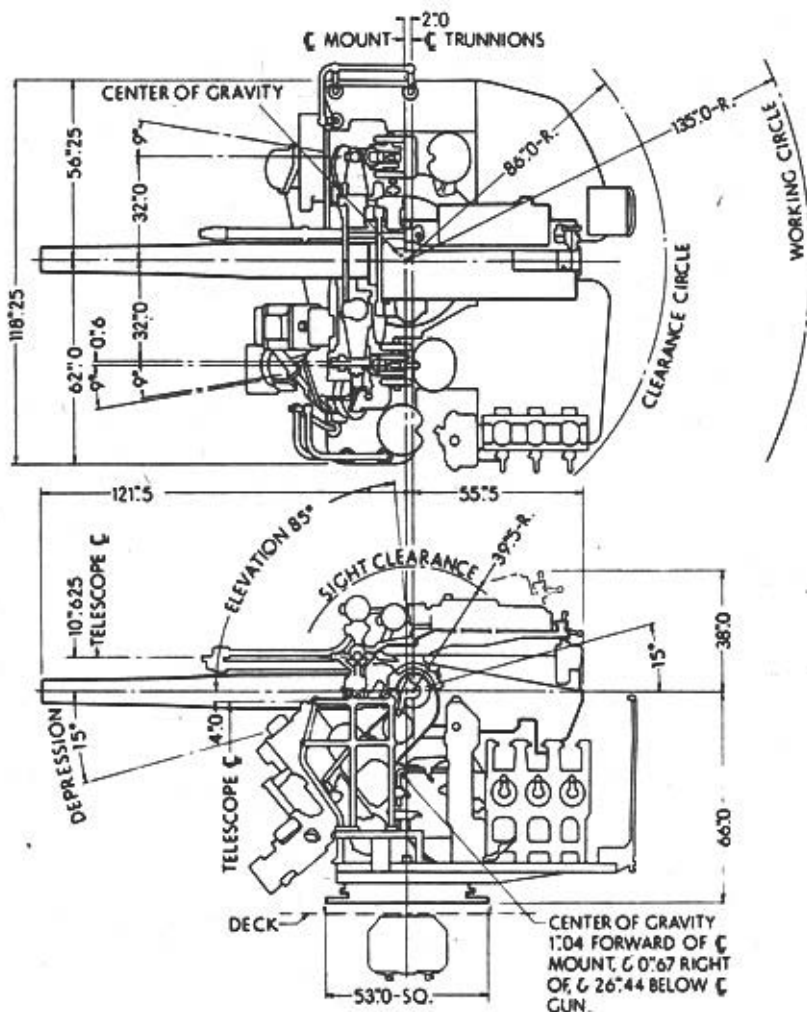


## 5-IN. MOUNT, MARK 27 MODS. 2-5

5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY.<br>NO.        | SKETCH<br>NO. |
|---------------------|---------------|
| Mount Mk. 27 Mod. 2 |               |
| 361                 | 59560         |
| Mount Mk. 27 Mod. 3 |               |
| 391                 | 61593         |
| Mount Mk. 27 Mod. 4 |               |
| 345                 | 59361         |
| 392                 | 61594         |
| Mount Mk. 27 Mod. 5 |               |
| 393                 | 61595         |

Note: Assembly number of mount is required for precise information.



GUN—5"/25  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 13 MOD. 0  
CL  
NONE

Weights below are approximate

|             |
|-------------|
| 23,270 LBS. |
| 9,600 LBS.  |
| 4,800 LBS.  |
| 71,560 LBS. |
| 72,150 LBS. |
| 80,270 LBS. |

5"/25, MARK 27 MODS. 2-5

# 5-IN. MOUNT, MARK 27 MODS. 2-5

5-IN. 25-CAL., D. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |                     |
|------------------------------------------|-----------------|---------------------|
| Elevating Gear                           | 3. HP.          | 440 V. 3 $\phi$ 60~ |
| Training Gear                            | 3. HP.          |                     |
| Rammer                                   | 5. HP.          |                     |
| Gun Firing Transformer                   | 120 V. to 20 V. | 100 Watts           |
| Illumination Transformer                 | 120 V. to 6 V.  | 150 Watts           |
| Stand-by Firing and Illumination—Battery | 6 V.            | 50 A. H.            |

### PNEUMATIC

Counter recoil Cylinder (for Charging)  
0.216 Cu. Ft. Air at 1700-1800 psi.

### HYDRAULIC

|                                      |            |                |
|--------------------------------------|------------|----------------|
| Rammer                               | O. S. 2943 | 10 Gals.       |
| Recoil Cylinder                      | O. D. 1914 | Appr. 5.5 Qts. |
| Rammer Buffer Cylinder               | O. D. 1914 | Appr. .4 Pt.   |
| Counter recoil Differential Cylinder | N. S. 2075 | .75 Pt.        |

## POWER DRIVES

|                     |                              |         |
|---------------------|------------------------------|---------|
| Elev. & Train. Gear | Carriage Mk. 23 Mods. 1 or 3 | Arma    |
| Rammer              | Slide Mk. 25 Mod. 0          | Vickers |

## INDICATOR REGULATORS

| ELEVATION     | SPEEDS  | MFR. |
|---------------|---------|------|
| Mk. 32 Mod. 0 | 2 & 36  | Arma |
| TRAIN         |         |      |
| Mk. 35 Mod. 0 | 1 & 36  | Arma |
| FUSE SETTING  |         |      |
| Mk. 8 Mod. 0  | 2 & 100 | Arma |

## GUN AND AMMUNITION DATA

### GUN

|                              |                            |
|------------------------------|----------------------------|
| 5-In. 25-Cal.                | Mk. 13 Mod. 0              |
| Max. Powder Pressure         | 16.7 Long Tons per Sq. In. |
| Barrel Weight                | 2,105 Lbs.                 |
| Vertical Sliding Breechblock |                            |

### BALLISTICS

|                                   |                           |
|-----------------------------------|---------------------------|
| Muzzle Velocity (53.85 Lb. Proj.) | 2,110 Feet per Second     |
| Maximum Altitude                  | 27,400 Feet at 85° Elev.  |
| Maximum Range                     | 14,500 Yards at 45° Elev. |

### AMMUNITION—Fixed

|                           |                   |                      |
|---------------------------|-------------------|----------------------|
| Typical Projectiles       |                   |                      |
| A. A. Common              | Mods. of Mk. 36   | Wt. 53.8 Lbs.        |
| Illuminating              | Mods. of Mk. 27   |                      |
|                           |                   | Appr. Wt. 54.5 Lbs.  |
| Cartridge Case            | Mk. 4 Mod. 0      | Wt. 14.5 Lbs.        |
|                           | Mk. 4 Mod. 2      | Wt. 11.4 Lbs.        |
| Charge                    |                   | Nominal Wt. 9.6 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                      |
| Total Weight of Cartridge |                   | Appr. 21. Lbs.       |

## FUZE SETTER

Mk. 7 Mod. 1

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Working Circle Drawing No.      | 215339 |
| General Arrangement Drawing No. | 214861 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 235° on Mounts Mk. 27 Mods. 2, 3; 355° on Mounts Mk. 27 Mods. 3, 4.

Elevating gear rate is 20° per second in automatic control, 21.95° per second in local control. Training gear rate is 30° per second in automatic control, 32.61° in local control.

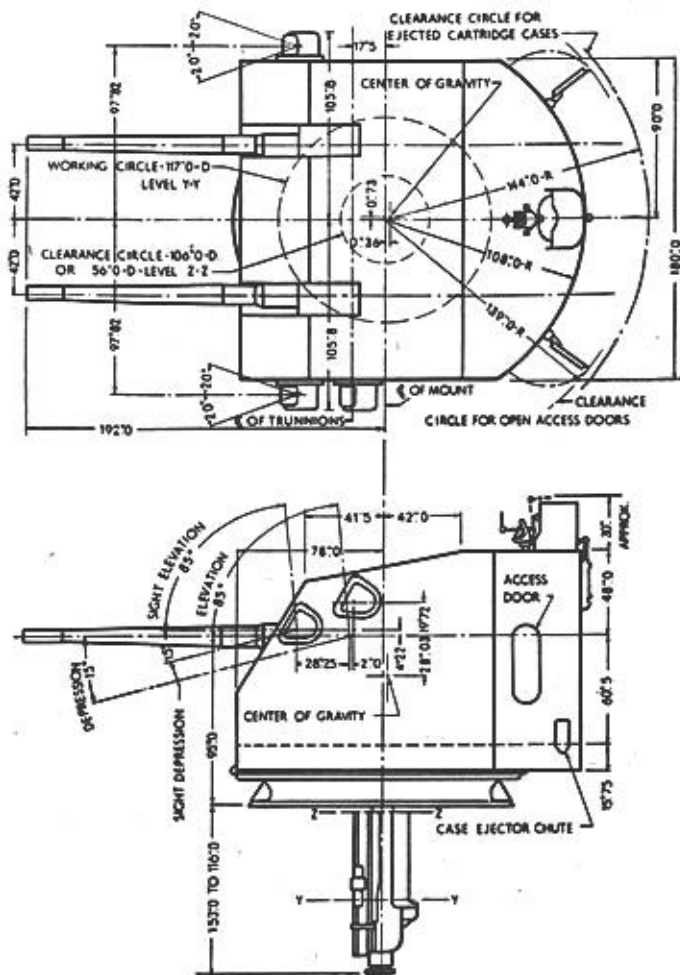
Length of recoil is 15 inches.

These mounts may be used with specific modifications of gun director Mk. 33.

**5-IN. MOUNT, MARK 28 MOD. 0****5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 394       | 61670      |
| 404       | 61952      |
| 448       | 62378      |
| 488       | 62497      |
| 633       | 94788      |
| 634       | 94789      |
| 635       | 94790      |
| 636       | 94791      |
| 637       | 94792      |
| 638       | 94793      |
| 639       | 94794      |
| 640       | 94795      |
| 677       | 102382     |
| 678       | 102383     |
| 679       | 102384     |
| 700       | 102464     |
| 701       | 102465     |
| 715       | 102486     |
| 716       | 102487     |
| 717       | 102488     |
| 718       | 102489     |
| 719       | 102490     |

Note: Assembly number of mount is required for precise information.



**GUNS—TWO 5"/38**  
**INSTALLATION FOR**  
**SHIELD**  
**SHIELD THICKNESS**

**TOTAL WEIGHT OF ASSEMBLY**  
**TOTAL WEIGHT OF SHIELD**  
 Roof Plate Weight  
 Rear Plate Weight

**OSCILLATING WEIGHT**  
**RECOILING WEIGHT**  
**BRAKE LOAD**  
**TRUNNION PRESSURE HORIZ. FIRE**  
**TRUNNION PRESSURE 85° ELEV. FIRE**

**5"/38 TWIN, MARK 28 MOD. 0**

**MK. 28 MOD. 0**  
**2.00 IN.**

**153,000 LBS.**  
**64,700 LBS.**  
**8,610 & 4,750 LBS.**  
**11,800 LBS.**

**MK. 12 MOD. 1**  
**BB**

**MK. 30 MOD. 0**  
**2.50 IN.**

Weights below are approximate  
**169,000 LBS.**  
**79,800 LBS.**  
**10,500 & 6,100 LBS.**  
**15,650 LBS.**

Weights below are approximate and per gun  
**14,700 LBS.**  
**8,150 LBS.**  
**77,600 LBS.**  
**79,000 LBS.**  
**92,300 LBS.**



# 5-IN. MOUNT, MARK 28 MOD. 0

5-IN. 38-CAL., D. P. TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating Gear                       | 7.5 or 10 HP.   |           |              |
| Training Gear                        | 40. HP.         |           |              |
| Hoist, per gun                       | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Rammer, per gun                      | 7.5 HP.         |           |              |
| Ventilation                          | 2. HP.          |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 150 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                                           |  |
|-----------------------------------------------------------|--|
| Gas Ejector, Mk. 5 Mods. 0 & 1                            |  |
| Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150–200 psi. |  |
| Counterrecoil Cylinder (for Charging)                     |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                        |  |

### HYDRAULIC

|                |            |                |
|----------------|------------|----------------|
| Recoil Fluid   | O. D. 1914 | 6 Qts. per Gun |
| Speed Gear Oil | O. S. 2943 | 190 Gals.      |

## POWER DRIVES

|                |                          |                |
|----------------|--------------------------|----------------|
| Elevating Gear | Mk. 5 Mod. 0             | Ford-Waterbury |
|                | Mk. 9 Mod. 0             | Ford-Waterbury |
| Training Gear  | Mk. 5 Mod. 0             | Ford-Waterbury |
|                | Mk. 9 Mod. 0             | Ford-Waterbury |
| Hoists         | Mk. 4 Mods. 0–3, 6, 7    | Vickers        |
|                | Mk. 4 Mods. 8, 9         | Northern       |
| Rammers        | Slides Mk. 27 Mods. 0, 1 | Northern       |

## INDICATOR REGULATORS

| ELEVATION                          | SPEEDS  | MFR. |
|------------------------------------|---------|------|
| Mk. 34 Mod. 0 or Mk. 42 Mod. 0     | 2 & 36  | Ford |
| TRAIN                              |         |      |
| Mods. of Mk. 38 or Mods. of Mk. 46 | 1 & 36  | Ford |
| FUZE SETTING                       |         |      |
| Mk. 8 Mods. 4 or 7 or Mk. 9 Mod. 0 | 2 & 100 | Arma |
| SIGHT SETTER'S INDICATOR           |         |      |
| Mk. 4 Mod. 0                       |         | Arma |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Hand Control—Local Control—Automatic.

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 805        | 230895    |
| Working Circle Drawing Nos.      | 232910    |
| General Arrangement Drawing Nos. | 235131–35 |
|                                  | 237480–82 |
|                                  | 237484    |
|                                  | 238147    |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit varies up to 306°, according to the installation.

Maximum elevation gear rate is 15° per second. Maximum training gear rate is 25° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38 TWIN, MARK 28 MOD. 0



| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 435          | 62024         |
| 439          | 62035         |
| 681          | 102390        |
| 682          | 102391        |
| 683          | 102392        |
| 684          | 102393        |
| 685          | 102394        |
| 686          | 102395        |
| 914          | 106208        |
| 915          | 106209        |
| 1504         | 138860        |

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**5"/38 TWIN, MARK 28 MOD. 1**

# 5-IN. MOUNT, MARK 28 MOD. 1

5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |          |     |
|--------------------------------------|-----------------|-----------|----------|-----|
| Elevating Gear                       | 7.5 HP.         | 440 V.    | 3 $\phi$ | 60~ |
| Training Gear                        | 40. HP.         |           |          |     |
| Hoist, per gun                       | 10. HP.         |           |          |     |
| Rammer, per gun                      | 7.5 HP.         |           |          |     |
| Ventilation                          | 2. HP.          |           |          |     |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |          |     |
| Illumination Transformer             | 115 V. to 6 V.  | 150 Watts |          |     |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |          |     |

### PNEUMATIC

|                                       |                                                           |  |  |
|---------------------------------------|-----------------------------------------------------------|--|--|
| Gas Ejector, Mk. 5 Mods. 0 & 1        | Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150-200 psi. |  |  |
| Counterrecoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi.                        |  |  |

### HYDRAULIC

|                |            |                |
|----------------|------------|----------------|
| Recoil Fluid   | O. D. 1914 | 6 Qts. per Gun |
| Speed Gear Oil | O. S. 2943 | 190 Gals.      |

### POWER DRIVES

|                |                          |                |
|----------------|--------------------------|----------------|
| Elevating Gear | Mk. 5 Mod. 0             | Ford-Waterbury |
|                | Mk. 9 Mod. 0             | Ford-Waterbury |
| Training Gear  | Mk. 5 Mod. 0             | Ford-Waterbury |
|                | Mk. 9 Mod. 0             | Ford-Waterbury |
| Hoists         | Mk. 4 Mods. 4, 5, 8, 9   | Northern       |
|                | Mk. 4 Mods. 6, 7, 14, 15 | Vickers        |
| Rammers        | Slides Mk. 27 Mods. 2, 3 | Northern       |

### INDICATOR REGULATORS

| ELEVATION                        | SPEEDS  | MFR. |
|----------------------------------|---------|------|
| Mk. 34 Mod. 0 or Mk. 42 Mod. 0   | 2 & 36  | Ford |
| TRAIN                            |         |      |
| Mk. 38 & Mods. or Mk. 46 & Mods. | 1 & 36  | Ford |
| FUZE SETTING                     |         |      |
| Mk. 8 Mods. 4 or 7               | 2 & 100 | Arma |
| SIGHT SETTER'S INDICATOR         |         |      |
| Mk. 4 Mod. 0                     |         | Arma |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                       |               |
|---------------------------|-----------------------|---------------|
| Case                      | Mk. 5 Mod. 0          | Wt. 12.3 Lbs. |
| Charge                    | Nominal Wt. 15.2 Lbs. |               |
| Primer                    | Mk. 13 Mods. 0, 1     |               |
| Total Weight of Cartridge | Appr. 27.5 Lbs.       |               |

### OPERATING SELECTION

Manual Drive—Hand Control—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 805        |           |
| Working Circle Drawing No.       | 230896    |
| General Arrangement Drawing Nos. | 237062-63 |
|                                  | 237305    |
|                                  | 237313-14 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The training limit varies up to 300°.

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 25° per second.

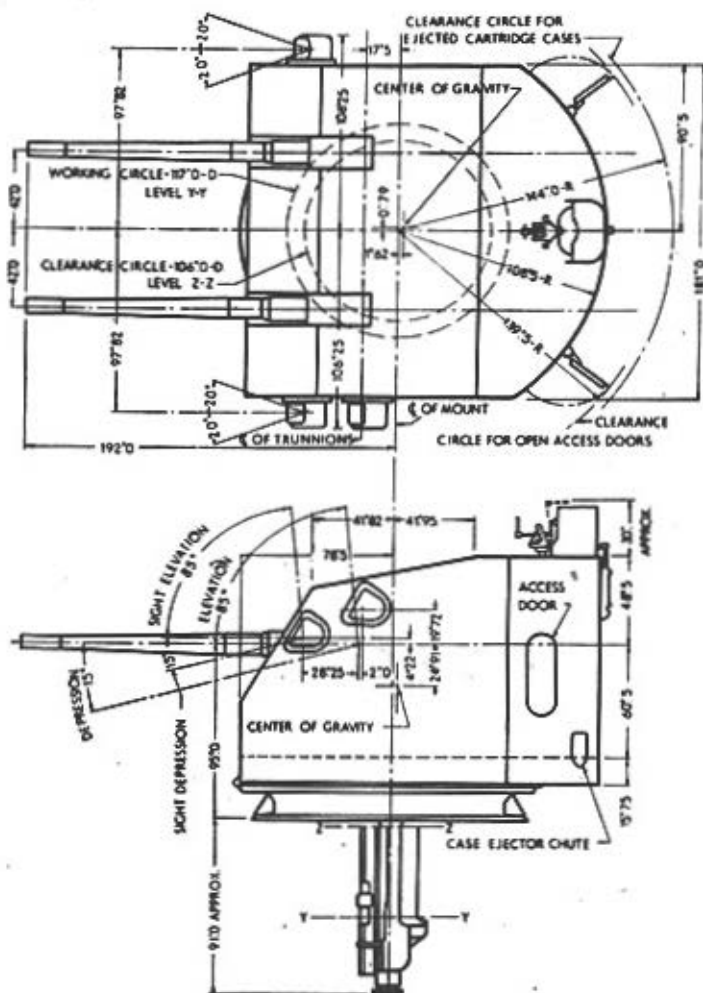
Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

**5-IN. MOUNT, MARK 28 MOD. 2****5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 514       | 92428      |
| 535       | 92854      |
| 726       | 92900      |
| 727       | 92901      |
| 728       | 92902      |
| 729       | 92903      |
| 730       | 92904      |
| 731       | 92905      |
| 732       | 92906      |
| 733       | 92907      |
| 734       | 92908      |
| 735       | 92909      |
| 751       | 92937      |
| 801       | 102823     |
| 845       | 103130     |
| 916       | 106210     |
| 917       | 106211     |
| 979       | 106827     |
| 980       | 106828     |
| 1410      | 108499     |

Note: Assembly number of mount is required for precise information.



**MK. 12 MOD. 1  
AG-BB**

**GUNS—TWO 5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS**

**MK 28 MODS 0 OR 1  
2.00 IN.**

**MK 30 MOD 0  
2.50 IN.**

**TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD**

**155,000 LBS.  
64,700 LBS.  
8,610 & 4,750 LBS.  
11,800 LBS.**

Weights below are approximate

**169,000 LBS.  
79,800 LBS.  
10,500 & 6,100 LBS.  
15,650 LBS.**

**Roof Plate Weights  
Rear Plate Weights**

Weights below are approximate and per gun

**OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE**

**14,700 LBS.  
8,150 LBS.  
77,600 LBS.  
79,000 LBS.  
92,400 LBS.**

**5"/38 TWIN, MARK 28 MOD. 2**



# 5-IN. MOUNT, MARK 28 MOD. 2

5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |          |     |
|--------------------------------------|-----------------|-----------|----------|-----|
| Elevating Gear                       | 10. HP.         |           |          |     |
| Training Gear                        | 40. HP.         |           |          |     |
| Hoist, per gun                       | 10. HP.         | 440 V.    | 3 $\phi$ | 60~ |
| Rammer, per gun                      | 7.5 HP.         |           |          |     |
| Ventilation                          | 2. HP.          |           |          |     |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |          |     |
| Illumination Transformer             | 115 V. to 6 V.  | 150 Watts |          |     |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |          |     |

### PNEUMATIC

|                                                           |  |
|-----------------------------------------------------------|--|
| Gas Ejector, Mk. 5 Mods. 0 & 1                            |  |
| Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150 200 psi. |  |
| Counter recoil Cylinder (for Charging)                    |  |
| 0.34 Cu. Ft. Air at 1450 1550 psi. per Gun.               |  |

### HYDRAULIC

|                |            |                |
|----------------|------------|----------------|
| Recoil Fluid   | O. D. 1914 | 6 Qts. per Gun |
| Speed Gear Oil | O. S. 2943 | 190 Gals.      |

### POWER DRIVES

|                |                               |                |
|----------------|-------------------------------|----------------|
| Elevating Gear | Mk. 5 Mod. 1                  | Ford-Waterbury |
|                | Mk. 9 Mod. 0                  | Ford-Waterbury |
| Training Gear  | Mk. 5 Mod. 1                  | Ford-Waterbury |
|                | Mk. 9 Mod. 0                  | Ford-Waterbury |
| Hoists         | Mk. 4 Mods. 0 3, 6, 7, 12, 13 | Vickers        |
| Rammers        | Slides Mk. 27 Mods. 6, 7      | Northern       |

## INDICATOR REGULATORS

| ELEVATION                | SPEEDS  | MFR. |
|--------------------------|---------|------|
| Mk. 42 Mod. 0            | 2 & 36  | Ford |
| TRAIN                    |         |      |
| Mods. of Mk. 46          | 1 & 36  | Ford |
| FUZE SETTING             |         |      |
| Mk. 9 Mod. 0             | 2 & 100 | Arma |
| SIGHT SETTER'S INDICATOR |         |      |
| Mk. 4 Mod. 0             |         | Arma |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Hand Control—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 805        |           |
| Working Circle Drawing Nos.      | 243798    |
|                                  | 250957    |
| General Arrangement Drawing Nos. | 239128-32 |
|                                  | 250952-56 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit varies up to 306°, according to the installation.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 25° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

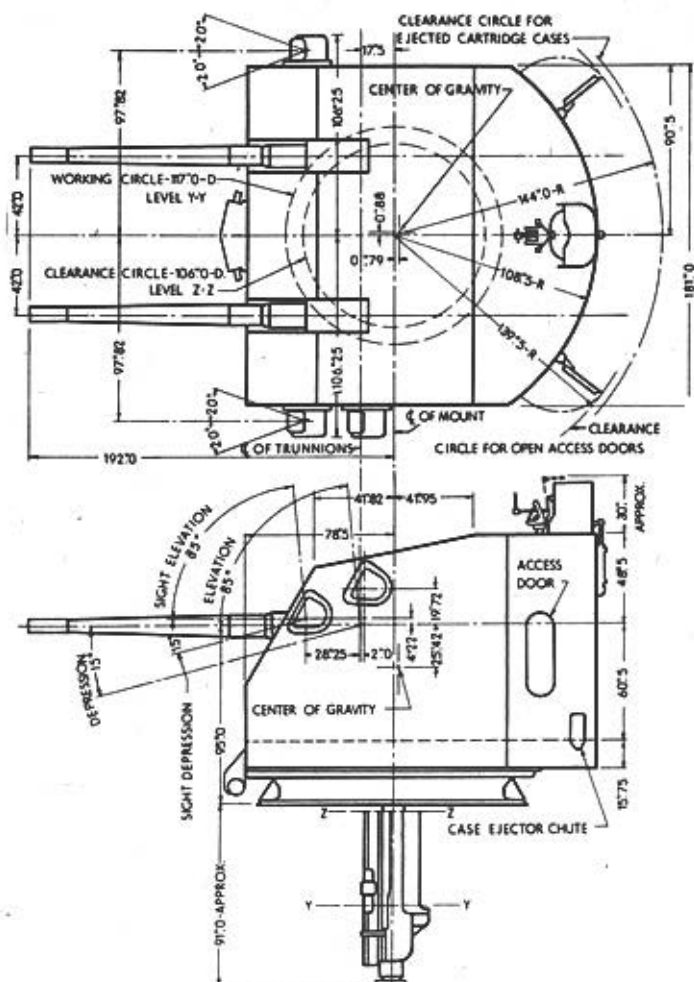


## 5-IN. MOUNT, MARK 28 MOD. 3

5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 1537         | 138918        |
| 1538         | 138919        |
| 1539         | 138920        |
| 1540         | 138921        |
| 1541         | 138922        |

Note: Assembly number of mount is required for precise information.



GUNS—TWO 5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD  
Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
BB

MK. 30 MOD. 0  
2.50 IN.

Weights below are approximate  
169,600 LBS.  
79,800 LBS.  
10,500 & 6,100 LBS.  
15,650 LBS.

Weights below are approximate and per gun  
14,900 LBS.  
8,150 LBS.  
77,600 LBS.  
79,000 LBS.  
92,400 LBS.

5"/38 TWIN, MARK 28 MOD. 3

# 5-IN. MOUNT, MARK 28 MOD. 3

5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |             |
|--------------------------------------|-----------------|-----------|-------------|
| Elevating Gear                       | 10. HP.         |           |             |
| Training Gear                        | 40. HP.         |           |             |
| Hoist, per gun                       | 10. HP.         | 440 V.    | 3 $\phi$ 60 |
| Rammer, per gun                      | 7.5 HP.         |           |             |
| Ventilation                          | 2. HP.          |           |             |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |             |
| Illumination Transformer             | 115 V. to 6 V.  | 150 Watts |             |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |             |

### PNEUMATIC

|                                                          |  |
|----------------------------------------------------------|--|
| Gas Ejector, Mk. 5 Mods. 0 & 1                           |  |
| Apr. 2 Cu. Ft. Free Air per Sec. per Gun at 150–200 psi. |  |
| Counter recoil Cylinder (for Charging)                   |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi. per Gun               |  |

### HYDRAULIC

|                |            |                |
|----------------|------------|----------------|
| Recoil Fluid   | O. D. 1914 | 6 Qts. per Gun |
| Speed Gear Oil | O. S. 2943 | 190 Gals.      |

## POWER DRIVES

|                |                          |                |
|----------------|--------------------------|----------------|
| Elevating Gear | Mk. 9 Mod. 0             | Ford-Waterbury |
| Training Gear  | Mk. 9 Mod. 0             | Ford-Waterbury |
| Hoists         | Mk. 4 Mods. 6, 7         | Vickers        |
| Rammers        | Slides Mk. 27 Mods. 6, 7 | Northern       |

## INDICATOR REGULATORS

|                          |         |      |
|--------------------------|---------|------|
| ELEVATION                | SPEEDS  | MFR. |
| Mk. 42 Mod. 0            | 2 & 36  | Ford |
| TRAIN                    |         |      |
| Mods. of Mk. 46          | 1 & 36  | Ford |
| FUZE SETTING             |         |      |
| Mk. 9 Mod. 0             | 2 & 100 | Arma |
| SIGHT SETTER'S INDICATOR |         |      |
| Mk. 4 Mod. 0             |         | Arma |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Maximum Powder Pressure      | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Apr. 27.5 Lbs.        |

## OPERATING SELECTION

Manual Drive—Hand Control—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 805        |           |
| Working Circle Drawing No.       | 506538    |
| General Arrangement Drawing Nos. | 506539–43 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is determined by the installation.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 25° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51 & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38 TWIN, MARK 28 MOD. 3

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 320          | 59043         |
| 714          | 102482        |

Technical drawing of the M109 105mm howitzer, showing top and side views with dimensions and labels.

**Top View Labels and Dimensions:**

- 184.5
- 107.0
- 12°
- 66.75
- 42.0
- 62.75
- 42.0
- 4.15
- 12°
- 12°
- WORKING CIRCLE LEVEL Y-Y 117.0-DIA.
- CLEARANCE CIRCLE LEVEL Z-Z 108.0-DIA.
- CENTER OF GRAVITY
- 17.56
- 114.0-R
- 130.0-R
- 90.0
- 180.0
- CLARENCE CIRCLE FOR EJECTED CARTRIDGE CASES
- € MOUNT
- € TRUNNIONS

**Side View Labels and Dimensions:**

- 76.0
- 23.45
- 50.0
- 307.0 APPROX.
- 45.0
- 38.0
- 87.5
- 8.0
- 99.375
- 33.89
- 29.75
- 0.11
- 0.102
- 0° LINE OF SIGHT
- ELEVATION 8.5°
- NON REVISION 138.30
- CENTER OF GRAVITY
- Y
- Z

Weights below are approximate and per gun

|             |
|-------------|
| 14,800 LBS. |
| 8,150 LBS.  |
| 77,600 LBS. |
| 79,000 LBS. |
| 92,500 LBS. |

**5"/38 TWIN, MARK 29 MOD. 0**



# 5-IN. MOUNT, MARK 29 MOD. 0

5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |        |          |           |
|--------------------------------------|-----------------|--------|----------|-----------|
| Elevating Gear                       | 7.5 HP.         | 440 V. | 3 $\phi$ | 60~       |
| Training Gear                        | 40. HP.         |        |          |           |
| Hoist, per gun                       | 7.5 HP.         |        |          |           |
| Rammer, per gun                      | 5. HP.          |        |          |           |
| Ventilation                          | 2. HP.          |        |          |           |
| Gun Firing Transformer               | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  |        |          | 150 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                           |  |
|-----------------------------------------------------------|--|
| Gas Ejector, Mk. 1 Mods. 0, 1                             |  |
| Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150-200 psi. |  |
| Counterrecoil Cylinder (for Charging)                     |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi. per Gun.               |  |

### HYDRAULIC

|                |            |                |
|----------------|------------|----------------|
| Recoil Fluid   | O. D. 1914 | 6 Qts. per Gun |
| Speed Gear Oil | O. S. 2943 | 190 Gals.      |

### POWER DRIVES

|                |                          |                |
|----------------|--------------------------|----------------|
| Elevating Gear | Mk. 3 Mod. 1             | Ford-Waterbury |
| Training Gear  | Mk. 3 Mod. 1             | Ford-Waterbury |
| Hoists         | Mk. 3 Mods. 0, 1         | Vickers        |
| Rammers        | Slides Mk. 26 Mods. 0, 1 | Vickers        |

### INDICATORS

|                   |        |            |
|-------------------|--------|------------|
| ELEVATION         | SPEEDS | MFR.       |
| Mk. 24 Mod. 1     | 2 & 36 | Gen. Elec. |
| TRAIN             |        |            |
| Mk. 34 Mods. 5, 6 | 1 & 36 | Gen. Elec. |

### RECEIVER REGULATORS

|               |        |      |
|---------------|--------|------|
| ELEVATION     | SPEEDS | MFR. |
| Mk. 7 Mod. 0  | 2 & 36 | Ford |
| TRAIN         |        |      |
| Mk. 12 Mod. 0 | 1 & 36 | Ford |

### INDICATOR REGULATOR

|              |         |      |
|--------------|---------|------|
| FUZE SETTING | SPEEDS  | MFR. |
| Mk. 8 Mod. 4 | 2 & 100 | Arma |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Hand Control—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 745        | 215306    |
| Working Circle Drawing No.       | 232906-08 |
| General Arrangement Drawing Nos. | 232932-33 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 180°.

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 25° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

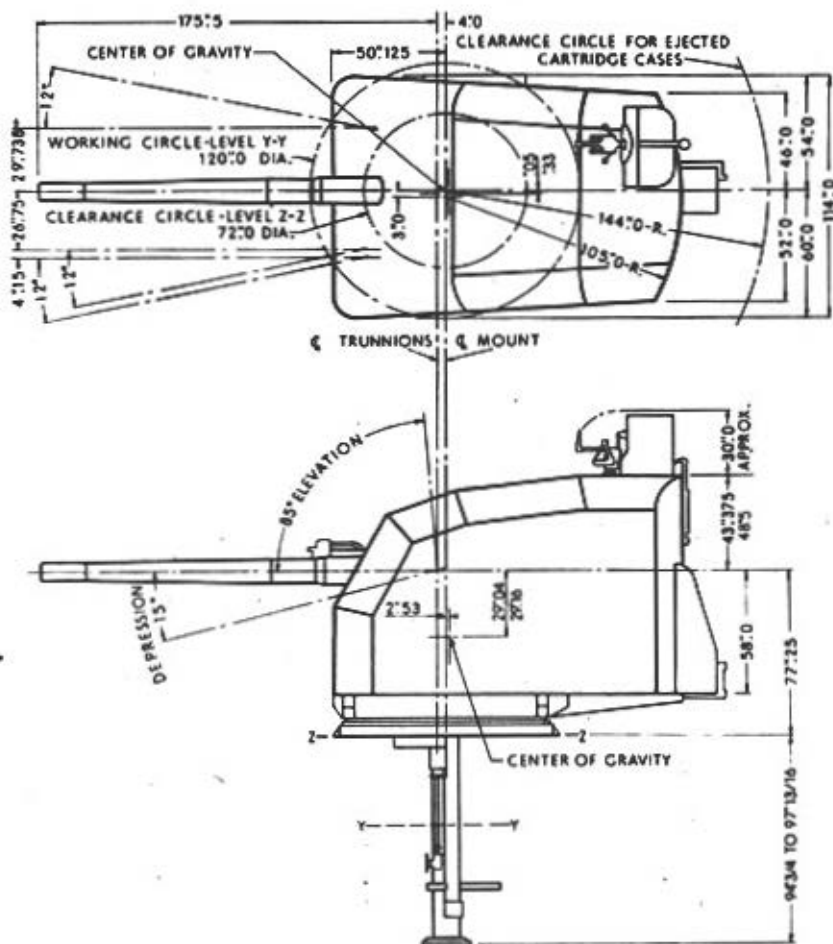
5"/38 TWIN, MARK 29 MOD. 0



**5 IN. MOUNT, MARK 30 MOD. 0****5 IN. 38 CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 319       | 59042      |
| 326       | 59268      |
| 340       | 59377      |
| 346       | 59362      |
| 350       | 59366      |
| 379       | 61560      |
| 655       | 94905      |
| 656       | 94906      |

Note: Assembly number of mount is required for precise information



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD  
Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
CA-DD

MK. 25 MOD. 0  
.125 IN.

MK. 26 MOD. 0  
.125 IN.

Weights below are approximate

40,900 LBS.  
5,630 LBS.  
1,630 LBS.  
530 LBS.

41,400 LBS.  
6,440 LBS.  
1,575 LBS.  
600 LBS.

13,900 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,500 LBS.

**5"/38, MARK 30 MOD. 0**

# 5-IN. MOUNT, MARK 30 MOD. 0

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         |           |              |
| Hoist                                | 7.5 HP.         | 440 V.    | 3 $\phi$ 60~ |
| Rammer                               | 5. HP.          |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 2 Mods. 0 or 2                   |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 2 Mods. 3, 4    | Ford-Waterbury |
| Training Gear    | Mk. 2 Mods. 3, 4    | Ford-Waterbury |
| Projectile Hoist | Mk. 2 Mods. 0, 1    | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 0 | Vickers        |

## INDICATOR REGULATORS

| ELEVATION                | SPEEDS  | MFR.       |
|--------------------------|---------|------------|
| Mk. 28 Mod. 0            | 2 & 36  | Ford       |
| TRAIN                    |         |            |
| Mk. 30 Mods. 1, 10, 14   |         |            |
| Mk. 36 Mods. 1, 5, 10    | 1 & 36  | Ford       |
| FUZE SETTING             |         |            |
| Mk. 6 Mod. 1             |         |            |
| (Indicator only)         | 51.43   | Gen. Elec. |
| Mk. 8 Mod. 1 (Ind. Reg.) | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Col.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

| Cartridge                 |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 202129    |
|                                  | 202183    |
| General Arrangement Drawing Nos. | 234321    |
|                                  | 234375-77 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 18° per second. Maximum training gear rate is 34° per second.

Length of recoil is 15 inches.

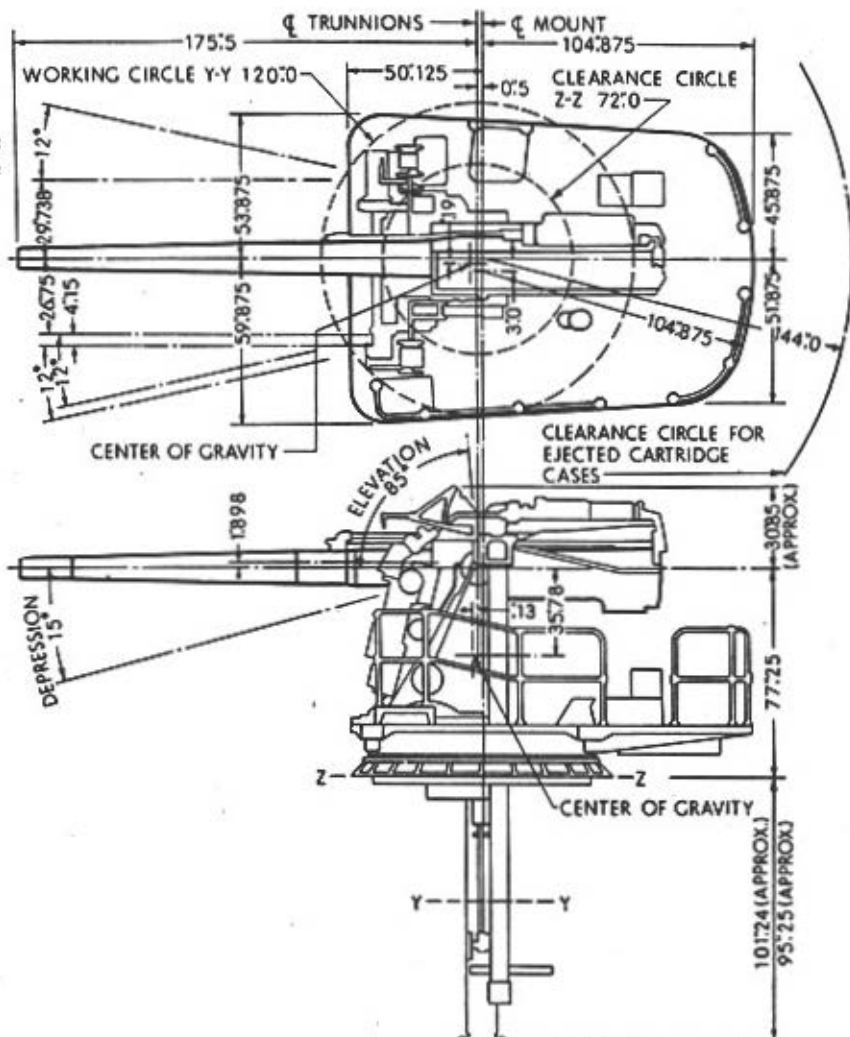
This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

## 5-IN. MOUNT, MARK 30 MOD. 1

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 328       | 59270      |
| 329       | 59271      |
| 349       | 59365      |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
DD  
NONE

Weights below are approximate  
33,500 LBS.  
13,800 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,500 LBS.

5"/38, MARK 30 MOD. 1



# 5-IN. MOUNT, MARK 30 MOD. 1

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |        |
|--------------------------------------|-----------------|-----------|--------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3φ 60~ |
| Hoist                                | 7.5 HP.         |           |        |
| Rammer                               | 5. HP.          |           |        |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |        |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |        |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |        |

### PNEUMATIC

Counter recoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450 1550 psi

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 2 Mods. 2, 6    | Ford-Waterbury |
| Training Gear    | Mk. 2 Mods. 2, 6    | Ford-Waterbury |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 1 | Vickers        |

## INDICATOR REGULATORS

| ELEVATION              | SPEEDS  | MFR. |
|------------------------|---------|------|
| Mk. 28 Mod. 0          | 2 & 36  | Ford |
| TRAIN                  |         |      |
| Mk. 30 Mods. 4 or 5 or |         |      |
| Mk. 36 Mod. 4          | 1 & 36  | Ford |
| FUZE SETTING           |         |      |
| Mk. 8 Mod. 1           | 2 & 100 | Arma |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5 In. 38 Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 735       |           |
| Working Circle Drawing No.       | 202130    |
| General Arrangement Drawing Nos. | 233390-93 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 18° per second. Maximum training gear rate is 34° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.





# 5-IN. MOUNT, MARK 30 MOD. 2

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.]        |           |              |
| Hoist                                | 7.5 HP.]        | 440 V.    | 3 $\phi$ 60~ |
| Rammer                               | 5. HP.]         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 2 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150 200 psi. |  |
| Counterrecoil Cylinder (for Charging)             |  |
| 0.34 Cu. Ft. Air at 1450 1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 2 Mods. 1, 5    | Ford-Waterbury |
| Training Gear    | Mk. 2 Mods. 1, 5    | Ford-Waterbury |
| Projectile Hoist | Mk. 2 Mods. 0, 1    | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 0 | Vickers        |

### INDICATOR REGULATORS

| ELEVATION                               | SPEEDS  | MFR.       |
|-----------------------------------------|---------|------------|
| Mk. 28 Mod. 0                           | 2 & 36  | Ford       |
| TRAIN                                   |         |            |
| Mk. 30 Mods. 0 or 2<br>or Mk. 36 Mod. 2 | 1 & 36  | Ford       |
| FUZE SETTING                            |         |            |
| Mk. 6 Mod. 1 (Indicator<br>only) or     | 51.43   | Gen. Elec. |
| Mk. 8 Mod. 1 (Ind. Reg.)                | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-in. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet Per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 202131    |
| General Arrangement Drawing Nos. | 233557-60 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 18° per second. Maximum training gear rate is 34° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors Mk. 33, 37, 50, 51, & 52.

|                     |                        |
|---------------------|------------------------|
| ASSY.<br>NO.<br>338 | SKETCH<br>NO.<br>59375 |
|---------------------|------------------------|

Technical drawing of a gun turret, showing top and side views with dimensions and labels.

**Top View Dimensions:**

- Overall width: 175.5
- Overall height: 54.0
- Clearance circle diameter: 50.725
- Working circle diameter: 120.0
- Clearance circle diameter (inner): 22.725
- Center of gravity location: 3.0
- Trunnion diameter: 4.0
- Mount diameter: 10.50
- Mount diameter (inner): 4.40
- Center of gravity location (inner): 46.0
- Center of gravity location (inner): 52.0
- Center of gravity location (inner): 60.0

**Side View Dimensions:**

- Overall height: 77.25
- Overall width: 97.825
- Trunnion diameter: 4.0
- Mount diameter: 10.50
- Mount diameter (inner): 4.40
- Center of gravity location: 3.0
- Center of gravity location (inner): 46.0
- Center of gravity location (inner): 52.0
- Center of gravity location (inner): 60.0

**Labels:**

- WORKING CIRCLE Y-Y 120.0
- CLEARANCE CIRCLE 22.725
- CLEARANCE CIRCLE
- CENTER OF GRAVITY
- TRUNNION
- MOUNT
- ELEVATION 85°
- DEPRESSION 15°
- 30.0 (APPROX.)
- 43.375
- 58.0
- 77.25
- 97.825

Weights below are approximate

|             |
|-------------|
| 41,400 LBS. |
| 6,440 LBS.  |
| 1,575 LBS.  |
| 600 LBS.    |
| 13,800 LBS. |
| 8,150 LBS.  |
| 77,600 LBS. |
| 78,900 LBS. |
| 91,300 LBS. |

**5"/38, MARK 30 MOD. 4**

# 5-IN. MOUNT, MARK 3.0 MOD. 4

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         |           |              |
| Hoist                                | 7.5 HP.         | 440 V.    | 3 $\phi$ 60~ |
| Rammer                               | 5. HP.          |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 2 Mod. 2                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150 200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450 1550 psi                 |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 2 Mod. 3        | Ford-Waterbury |
| Training Gear    | Mk. 2 Mod. 3        | Ford-Waterbury |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 0 | Vickers        |

### INDICATOR REGULATORS

| ELEVATION      | SPEEDS  | MFR. |
|----------------|---------|------|
| Mk. 28 Mod. 0  | 2 & 36  | Ford |
| TRAIN          |         |      |
| Mk. 30 Mod. 11 | 1 & 36  | Ford |
| FUZE SETTING   |         |      |
| Mk. 8 Mod. 1   | 2 & 100 | Arma |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles       |                   |                       |
|---------------------------|-------------------|-----------------------|
| Common                    | Mk. 32            | Wt. 54.0 Lbs.         |
| Common                    | Mk. 38            | Wt. 55.2 Lbs.         |
| A. A. Common              | Mk. 35            | Wt. 55.2 Lbs.         |
| Illuminating              | Mk. 30            | Wt. 54.5 Lbs.         |
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 239700    |
| General Arrangement Drawing Nos. | 237245-48 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 210°.

Maximum elevating gear rate is 18° per second. Maximum training gear rate is 34° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

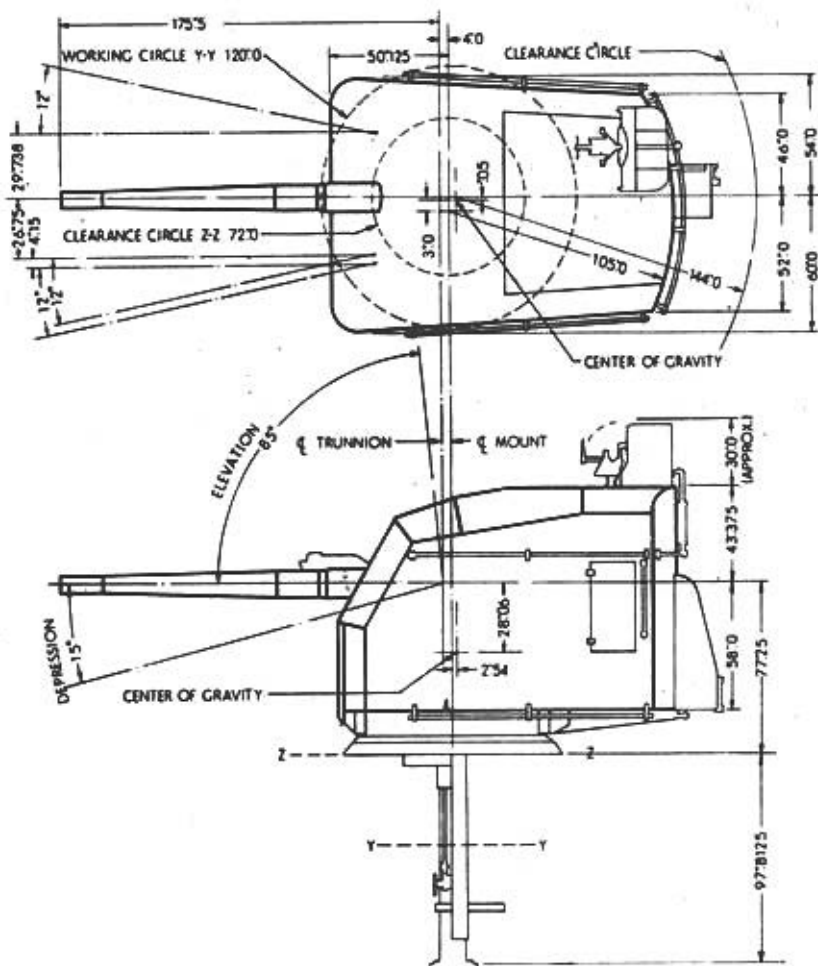


5-IN. MOUNT, MARK 30 MOD. 5

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

|                     |                        |
|---------------------|------------------------|
| ASSY.<br>NO.<br>339 | SKETCH<br>NO.<br>59376 |
|---------------------|------------------------|

**Note:** Assembly number of mount is required for precise information



**GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS**

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

### BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
 CA

MK 26 MOD. 0

**.125 IN.**

**Weights below are approximate**

**41,400 LBS.**

**6,440 LBS.**

**1,575 LBS.**

**600 LBS.**

**13,800 LBS.**

8.150 LBS.

33,400 LBS

77,600 LBS  
78,600 LBS

78,900 LBS  
24,300 LBS

**91,300 LBS**

**5"/38, MARK 30 MOD. 5**

# 5-IN. MOUNT, MARK 30 MOD. 5

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 5. HP.          |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A.H.  |              |

### PNEUMATIC

|                                                  |  |  |  |
|--------------------------------------------------|--|--|--|
| Gas Ejector, Mk. 2 Mod. 2                        |  |  |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150 200 psi |  |  |  |
| Counter recoil Cylinder (for Charging)           |  |  |  |
| 0.34 Cu. Ft. Air at 1450 1550 psi                |  |  |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 2 Mod. 3        | Ford-Waterbury |
| Training Gear    | Mk. 2 Mod. 3        | Ford-Waterbury |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 0 | Vickers        |

### INDICATOR REGULATORS

|                |         |      |
|----------------|---------|------|
| ELEVATION      | SPEEDS  | MFR  |
| Mk. 28 Mod. 0  | 2 & 36  | Ford |
| TRAIN          |         |      |
| Mk. 30 Mod. 11 | 1 & 36  | Ford |
| FUZE SETTING   |         |      |
| Mk. 8 Mod. 1   | 2 & 100 | Arma |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                       |                 |
|---------------------------|-----------------------|-----------------|
| Case                      | Mk. 5 Mod. 0          | Wt. 12.3 Lbs.   |
| Charge                    | Nominal Wt. 15.2 Lbs. |                 |
| Primer                    | Mk. 13 Mods. 0, 1     |                 |
| Total Weight of Cartridge |                       | Appr. 27.5 Lbs. |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 735       |           |
| Working Circle Drawing No.       | 239702    |
| General Arrangement Drawing Nos. | 237245-48 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 210°.

Maximum elevating gear rate is 18° per second. Maximum training gear rate is 34° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

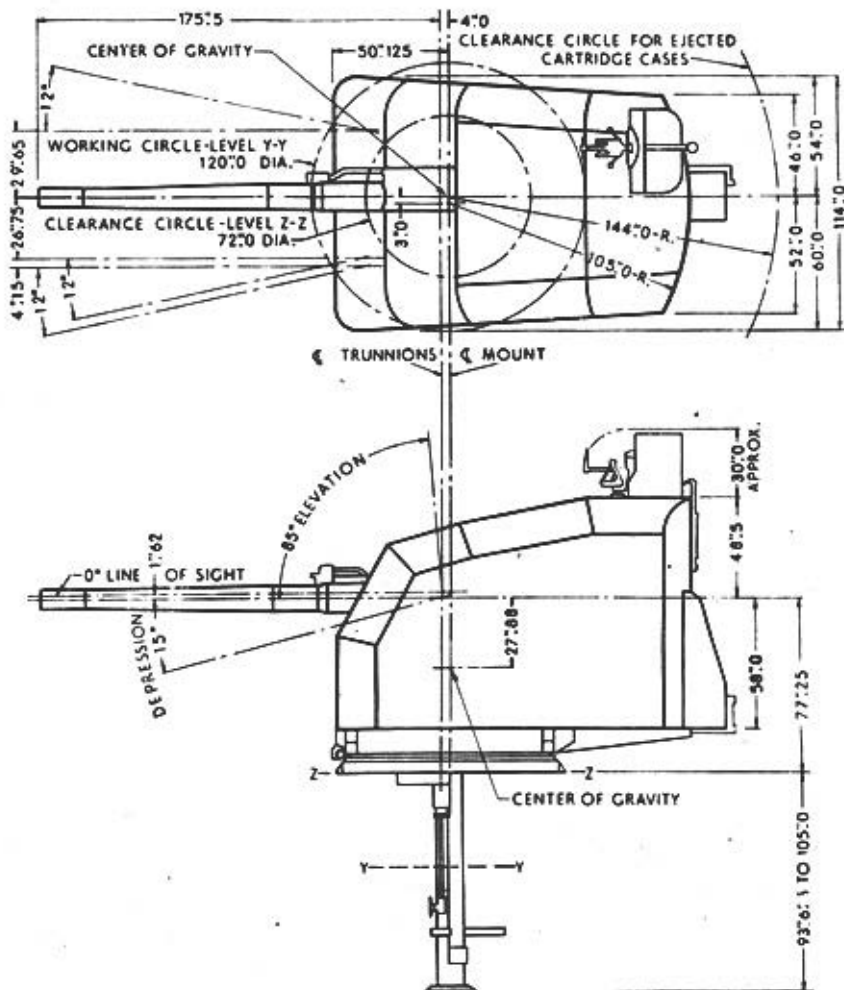
5"/38, MARK 30 MOD. 5

# 5-IN. MOUNT, MARK 30 MOD. 6

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 399       | 61689      |
| 403       | 61693      |
| 406       | 61968      |
| 410       | 61972      |
| 416       | 61997      |
| 418       | 61999      |
| 420       | 62001      |
| 423       | 62004      |
| 424       | 62012      |
| 429       | 62017      |
| 432       | 62020      |
| 470       | 62340      |
| 474       | 62344      |
| 475       | 62453      |
| 476       | 62454      |
| 477       | 62455      |
| 478       | 62456      |
| 479       | 62457      |
| 480       | 62458      |
| 482       | 62460      |
| 483       | 62463      |
| 517       | 92448      |
| 595       | 94393      |
| 629       | 94778      |
| 749       | 92933      |
| 754       | 92940      |
| 1004      | 94516      |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
AD-AG-AO-AR-AS-AV-AVP-CM-DD  
MK. 25 MOD. 0

Weights below are approximate

41,700 LBS.

5,630 LBS.

1,630 LBS.

530 LBS.

13,900 LBS.

8,150 LBS.

77,600 LBS.

78,900 LBS.

91,500 LBS.

5"/38, MARK 30 MOD. 6



# 5-IN. MOUNT, MARK 30 MOD. 6

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 0                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |
| Counterrecoil Cylinder (for Charging)             |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |

### HYDRAULIC

|                |            |         |
|----------------|------------|---------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.  |
| Speed Gear Oil | O. S. 2943 | 60 Gals |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 0, 3, 6 | G. E.—Northern |
|                  | Mk. 7 Mod. 0        | Ford—Waterbury |
|                  | Mk. 8 Mod. 0        | Ford—Waterbury |
| Training Gear    | Mk. 6 Mods. 0, 3, 6 | G. E.—Northern |
|                  | Mk. 7 Mod. 0        | Ford—Waterbury |
|                  | Mk. 8 Mod. 0        | Ford—Waterbury |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 2 | Northern       |

### INDICATOR REGULATORS

| ELEVATION                          | SPEEDS  | MFR.       |
|------------------------------------|---------|------------|
| Mk. 35 Mod. 0                      | 2 & 36  | Gen. Elec. |
| Mk. 37 Mod. 0 or                   |         |            |
| Mk. 38 Mod. 0                      | 2 & 36  | Ford       |
| TRAIN                              |         |            |
| Mk. 39 Mod. 0, 1, 5, 6, 11, 12, 15 | 1 & 36  | Gen. Elec. |
| Mk. 41 Mods. 0, 1, 5, 6, 9, 12     | 1 & 36  | Ford       |
| Mk. 42 Mod. 1                      |         |            |
| FUZE SETTING                       |         |            |
| Mk. 8 Mods. 1 or 5                 | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

| Cartridge                 |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 233627    |
|                                  | 234368    |
| General Arrangement Drawing Nos. | 232980    |
|                                  | 233529-30 |
|                                  | 233556    |
|                                  | 234805-08 |
|                                  | 236760-63 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate with General Electric controls is 15° per second; training gear rate 28.75° per second. Maximum elevating gear rate with Ford controls is 18° per second; training gear rate 34° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors Mk. 33, 37, 50, 51, & 52.



| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 400          | 61690         |
| 407          | 61969         |
| 417          | 61998         |
| 425          | 62013         |
| 471          | 62341         |
| 481          | 62459         |
| 483          | 62461         |
| 484          | 62462         |
| 486          | 62464         |
| 518          | 92449         |
| 750          | 92934         |
| 1003         | 94515         |
| 1005         | 94517         |

Technical drawing of a gun mount showing elevation and depression views with dimensions and labels.

**Elevation View (Top):**

- Overall width: 175'3"
- Distance from center to front edge: 50'125"
- Distance from center to rear edge: 105'0"
- Center of Gravity (CG) location: 12" from top edge, 26'738" from front edge, 4'15" from bottom edge.
- Working Circle Y-Y: 120'0"
- Clearance Circle Z-Z: 72'0"
- Internal dimensions: 38", 30", 105'125", 144'0"
- Vertical dimensions on the right: 4'6'125", 5'4'125", 6'0'125", 11'4'125"

**Depression View (Bottom):**

- Overall width: 93'625" TO 10'125"
- Distance from center to front edge: 50'125"
- Distance from center to rear edge: 105'0"
- Center of Gravity (CG) location: 15" from bottom edge, 30'04" from front edge, 3'7" from rear edge.
- Depression angle: 15°
- Trunnion and Mount labels.
- Clearance Circle label.
- Vertical dimensions on the right: 2'2" (APPROX), 3'0" (APPROX), 4'8'25", 5'8'0", 7'7'25"

**91,500 LBS.**

**5"/38, MARK 30 MOD. 7**

# 5-IN. MOUNT, MARK 30 MOD. 7

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         |           |              |
| Hoist                                | 7.5 HP.         | 440 V.    | 3 $\phi$ 60~ |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A.H   |              |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 1, 4    | G. E.—Northern |
|                  | Mk. 7 Mod. 1        | Ford—Waterbury |
|                  | Mk. 8 Mod. 1        | Ford—Waterbury |
| Training Gear    | Mk. 6 Mods. 1, 4    | G. E.—Northern |
|                  | Mk. 7 Mod. 1        | Ford—Waterbury |
|                  | Mk. 8 Mod. 1        | Ford—Waterbury |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 2 | Northern       |

### INDICATOR REGULATORS

| ELEVATION                 | SPEEDS  | MFR.       |
|---------------------------|---------|------------|
| Mk. 35 Mod. 0             | 2 & 36  | Gen. Elec. |
| Mk. 37 Mod. 0 or          |         |            |
| Mk. 38 Mod. 0             | 2 & 36  | Ford       |
| TRAIN                     |         |            |
| Mk. 39 Mods. 0, 2, 13, 23 | 1 & 36  | Gen. Elec. |
| Mk. 41 Mods. 0, 2, 7, 8   | 1 & 36  | Ford       |
| Mk. 42 Mod. 2             |         |            |
| FUZE SETTING              |         |            |
| Mk. 8 Mods. 1 or 5        | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 735       |           |
| Working Circle Drawing Nos.      | 233628    |
|                                  | 234370    |
| General Arrangement Drawing Nos. | 233629-32 |
|                                  | 236755-58 |
|                                  | 237078-81 |

## REMARKS

Elevation limits are minus 15° to plus 85° The training limit is 300°.

Maximum elevating gear rate with General Electric controls is 15° per second; training gear rate 28.75° per second. Maximum elevating gear rate with Ford controls is 18° per second; training gear rate 34° per second.

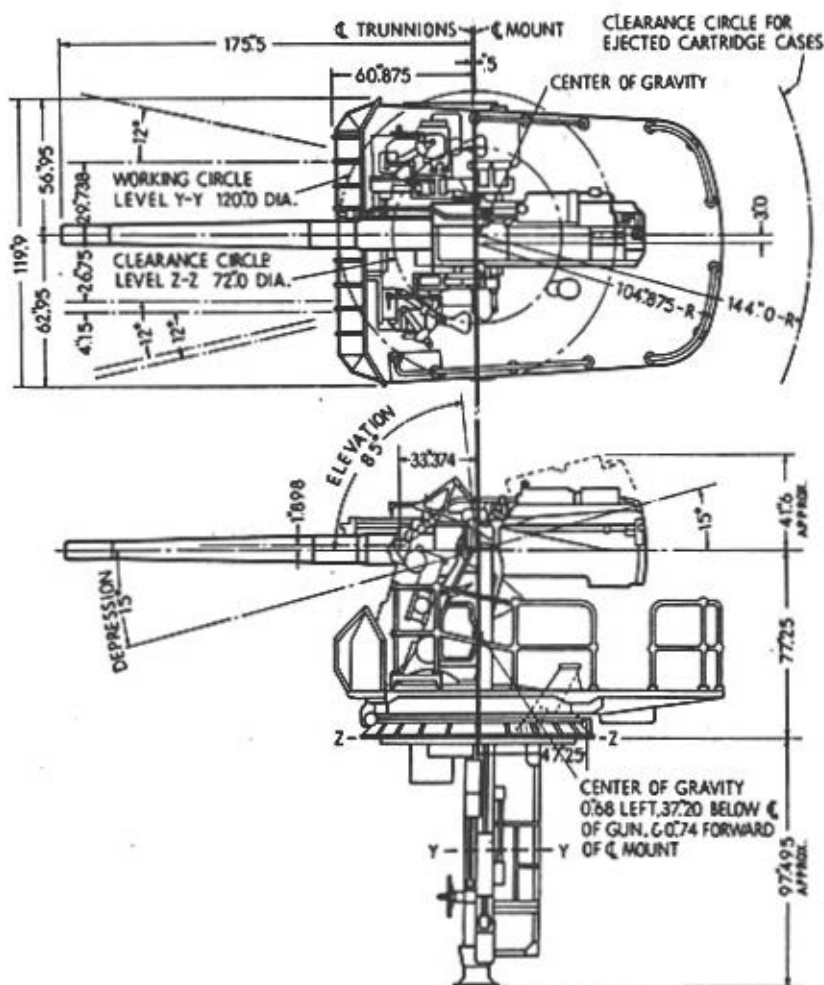
Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

**5-IN. MOUNT, MARK 30 MOD. 8****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 389       | 61655      |
| 402       | 61692      |
| 409       | 61971      |
| 411       | 61973      |
| 412       | 61974      |
| 419       | 62000      |
| 421       | 62002      |
| 422       | 62003      |
| 426       | 62014      |
| 427       | 62015      |
| 428       | 62016      |
| 430       | 62018      |
| 431       | 62019      |
| 433       | 62021      |
| 473       | 62343      |
| 619       | 94649      |
| 620       | 94766      |
| 621       | 94767      |
| 622       | 94768      |
| 1006      | 94518      |
| 1007      | 94519      |

Note: Assembly number of mount is required for precise information



GUN—5"/38  
INSTALLATION FOR  
SHIELD

MK. 12 MOD. 1  
AD-AG-AO-AS-AV-QM-DD  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate  
39,500 LBS.  
13,900 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,500 LBS.

**5"/38, MARK 30 MOD. 8**



# 5-IN. MOUNT, MARK 30 MOD. 8

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H  |              |

### PNEUMATIC

|                                     |  |
|-------------------------------------|--|
| Countercoil Cylinder (for Charging) |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.  |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 2, 5    | G. E.—Northern |
|                  | Mk. 8 Mod. 2        | Ford-Waterbury |
| Training Gear    | Mk. 6 Mods. 2, 5    | G. E.—Northern |
|                  | Mk. 8 Mod. 2        | Ford-Waterbury |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 3 | Northern       |

## INDICATOR REGULATORS

| ELEVATION     | SPEEDS | MFR.       |
|---------------|--------|------------|
| Mk. 35 Mod. 0 | 2 & 36 | Gen. Elec. |
| Mk. 37 Mod. 0 | 2 & 36 | Ford       |

### TRAIN

|                           |        |            |
|---------------------------|--------|------------|
| Mk. 39 Mods. 0, 4, 7,     |        |            |
| 10, 13, 14, 15            | 1 & 36 | Gen. Elec. |
| Mk. 41 Mods. 0, 5, 10, 11 | 1 & 36 | Ford       |

### FUZE SETTING

|              |         |      |
|--------------|---------|------|
| Mk. 8 Mod. 1 | 2 & 100 | Arma |
|--------------|---------|------|

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 233344    |
|                                  | 234354    |
| General Arrangement Drawing Nos. | 234356-59 |
|                                  | 237082-85 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate with General Electric controls is 15° per second; training gear rate 28.75° per second. Maximum elevating gear rate with Ford controls is 18° per second; training gear rate 34° per second.

Length of recoil is 15 inches.

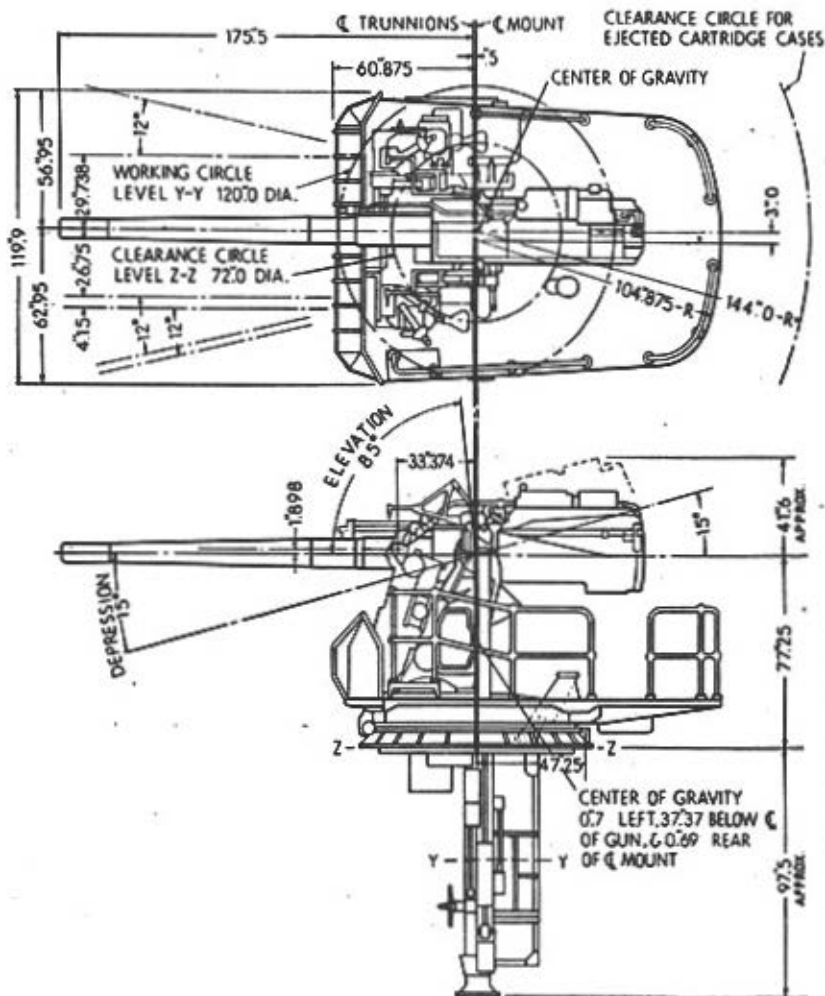
This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.



## 5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 401          | 61691         |
| 408          | 61970         |
| 472          | 62340         |

**Note:** Assembly number of mount is required for precise information



### GUN—5"/38 INSTALLATION FOR SHIELD

MK. 12 MOD. 1  
 DD  
 NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate

|             |
|-------------|
| 39,000 LBS. |
| 13,900 LBS. |
| 8,150 LBS.  |
| 77,600 LBS. |
| 78,800 LBS. |
| 91,300 LBS. |

**5"/38, MARK 30 MOD. 9**

# 5-IN. MOUNT, MARK 30 MOD. 9

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                     |                                    |
|-------------------------------------|------------------------------------|
| Countercoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450–1550 psi. |
|-------------------------------------|------------------------------------|

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 2        | G. E.—Northern |
|                  | Mk. 8 Mod. 2        | Ford—Waterbury |
| Training Gear    | Mk. 6 Mod. 2        | G. E.—Northern |
|                  | Mk. 8 Mod. 2        | Ford—Waterbury |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 3 | Northern       |

## INDICATOR REGULATORS

|               |         |            |
|---------------|---------|------------|
| ELEVATION     | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0 | 2 & 36  | Gen. Elec. |
| Mk. 37 Mod. 0 | 2 & 36  | Ford       |
| TRAIN         |         |            |
| Mk. 39 Mod. 3 | 1 & 36  | Gen. Elec. |
| Mk. 41 Mod. 4 | 1 & 36  | Ford       |
| FUZE SETTING  |         |            |
| Mk. 8 Mod. 1  | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                       |               |
|---------------------------|-----------------------|---------------|
| Case                      | Mk. 5 Mod. 0          | Wt. 12.3 Lbs. |
| Charge                    | Nominal Wt. 15.2 Lbs. |               |
| Primer                    | Mk. 13 Mods. 0, 1     |               |
| Total Weight of Cartridge | Appr. 27.5 Lbs.       |               |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 234361    |
| General Arrangement Drawing Nos. | 234356–59 |
|                                  | 237082–85 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 284°.

Maximum elevating gear rate with General Electric controls is 15° per second; training gear rate 28.75° per second. Maximum elevating gear rate with Ford controls is 18° per second; training gear rate 34° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

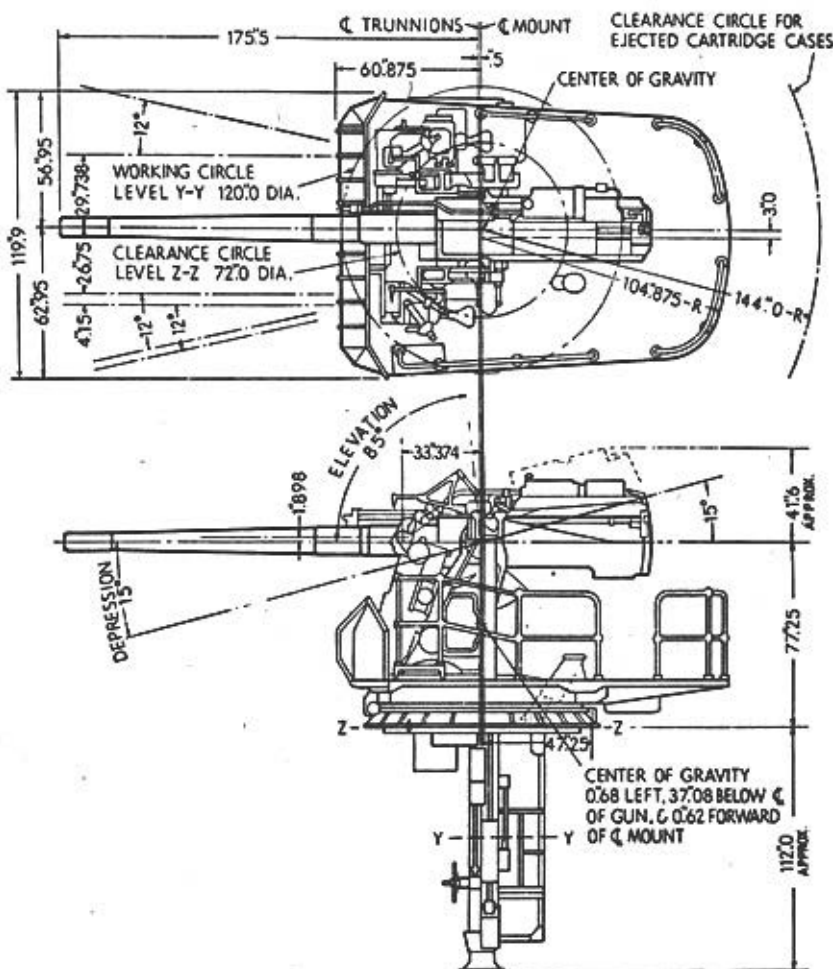
5"/38, MARK 30 MOD. 9

## 5-IN. MOUNT, MARK 30 MOD. 10

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 434       | 62022      |
| 437       | 62039      |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

MK. 12 MOD. 1  
AV  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate  
39,500 LBS.  
13,900 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,500 LBS.

5"/38, MARK 30 MOD. 10



# 5-IN. MOUNT, MARK 30 MOD. 10

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                             |         |        |          |     |
|-----------------------------|---------|--------|----------|-----|
| Elevating and Training Gear | 10. HP. | 440 V. | 3 $\phi$ | 60~ |
| Hoist                       | 7.5 HP. |        |          |     |
| Rammer                      | 7.5 HP. |        |          |     |

|                                      |                 |           |
|--------------------------------------|-----------------|-----------|
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |

### PNEUMATIC

|                                       |                                    |
|---------------------------------------|------------------------------------|
| Counterrecoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi. |
|---------------------------------------|------------------------------------|

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 2, 5    | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 2, 5    | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 3 | Northern       |

## INDICATOR REGULATORS

|               |         |            |
|---------------|---------|------------|
| ELEVATION     | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0 | 2 & 36  | Gen. Elec. |
| TRAIN         |         |            |
| Mk. 39 Mod. 8 | 1 & 36  | Gen. Elec. |
| FUZE SETTING  |         |            |
| Mk. 8 Mod. 1  | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 233633    |
|                                  | 234362    |
| General Arrangement Drawing Nos. | 233561-64 |
|                                  | 234356-59 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 255°.

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

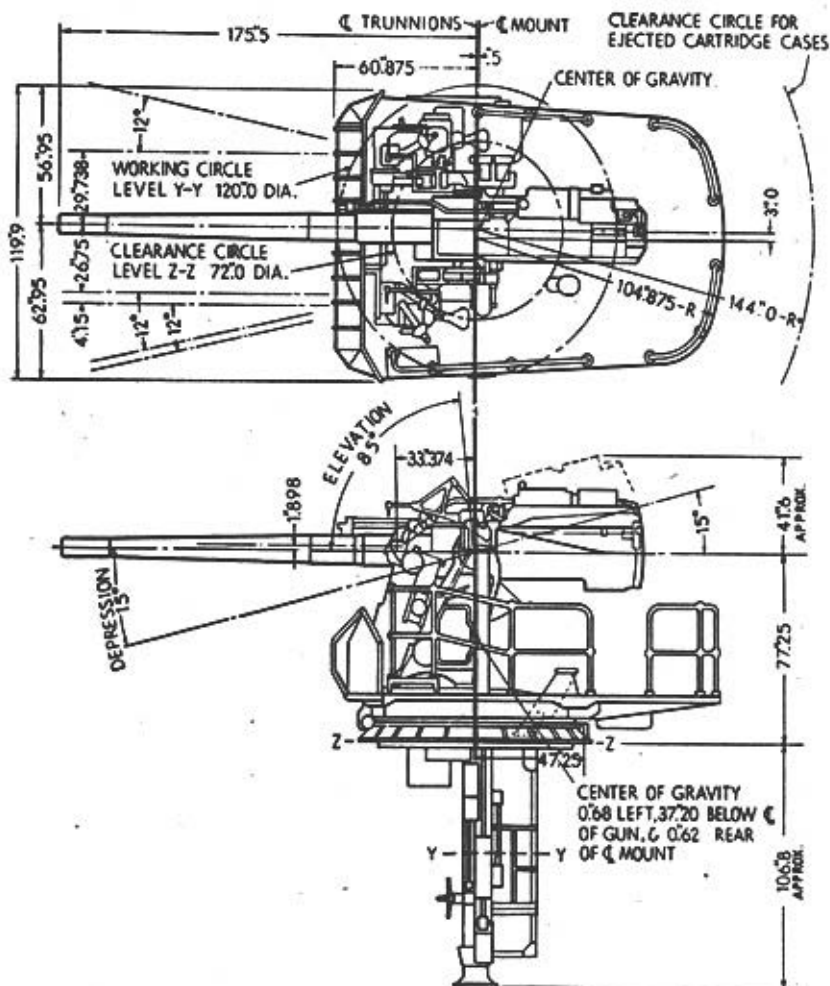


# 5-IN. MOUNT, MARK 30 MOD. 11

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 436       | 62037      |
| 438       | 62040      |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

MK. 12 MOD. 1  
AV  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate  
39,500 LBS.  
13,900 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,500 LBS.

5"/38, MARK 30 MOD. 11

# 5-IN. MOUNT, MARK 30 MOD. 11

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |          |     |
|--------------------------------------|-----------------|-----------|----------|-----|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ | 60~ |
| Hoist                                | 7.5 HP.         |           |          |     |
| Rammer                               | 7.5 HP.         |           |          |     |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |          |     |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |          |     |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |          |     |

### PNEUMATIC

Counterrecoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450-1550 psi.

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 2, 5    | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 2, 5    | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 3 | Northern       |

### INDICATOR REGULATORS

|               |         |            |
|---------------|---------|------------|
| ELEVATION     | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0 | 2 & 36  | Gen. Elec. |
| TRAIN         |         |            |
| Mk. 39 Mod. 9 | 1 & 36  | Gen. Elec. |
| FUZE SETTING  |         |            |
| Mk. 8 Mod. 1  | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 233634    |
|                                  | 234363    |
| General Arrangement Drawing Nos. | 233561-64 |
|                                  | 234356-59 |

## REMARKS

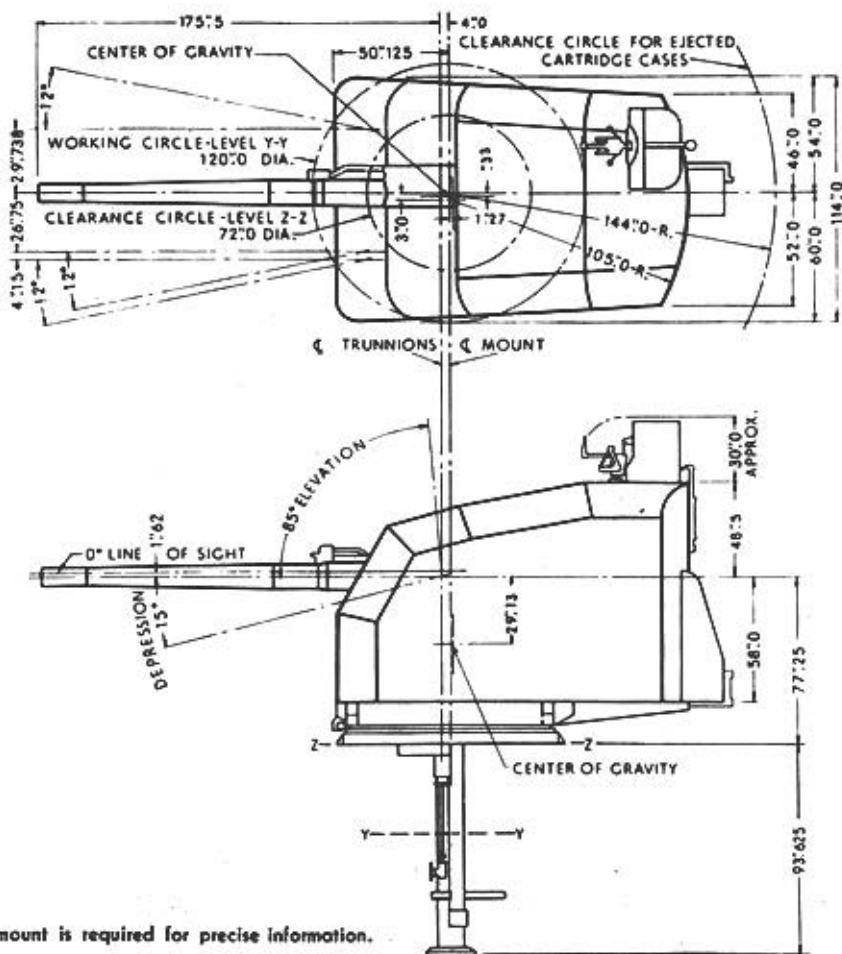
Elevation limits are minus 15° to plus 85°. The training limit is 230°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 506          | 62844         |
| 510          | 62848         |
| 568          | 93306         |
| 588          | 107678        |
| 658          | 94936         |
| 669          | 102356        |
| 672          | 102359        |
| 819          | 103014        |
| 822          | 103017        |
| 823          | 103018        |
| 827          | 103022        |
| 828          | 103023        |
| 832          | 103027        |
| 835          | 103047        |
| 846          | 103140        |
| 853          | 103231        |
| 856          | 103234        |
| 890          | 106254        |
| 893          | 106257        |
| 930          | 106307        |
| 995          | 106843        |
| 999          | 106847        |
| 1102         | 106902        |
| 1106         | 106906        |
| 1114         | 106923        |
| 1120         | 106931        |
| 1124         | 106944        |
| 1128         | 106949        |
| 1129         | 107056        |
| 1132         | 107059        |
| 1148         | 107075        |
| 1152         | 107079        |
| 1153         | 107080        |
| 1157         | 107084        |
| 1179         | 107627        |
| 1183         | 107631        |
| 1184         | 107632        |
| 1188         | 107636        |
| 1204         | 107660        |
| 1206         | 107670        |
| 1209         | 107673        |
| 1340         | 108386        |
| 1384         | 108448        |
| 1454         | 138170        |
| 1472         | 138303        |



**GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS**

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD  
Roof Plate Weight  
Rear Plate Weight

**OSCILLATING WEIGHT**  
**RECOILING WEIGHT**

**BRAKE LOAD**  
**TRUNNION PRESSURE HORIZ. FIRE**  
**TRUNNION PRESSURE 85° ELEV. FIRE**

|                               |               |
|-------------------------------|---------------|
| MK. 12 MOD. 1                 |               |
| AD-AG-AN-AO-AR-AS-AV-AVP-DD   |               |
| MK. 25 MOD. 0                 | MK. 38 MOD. 0 |
| .125 IN.                      | .25 IN.       |
| Weights below are approximate |               |
| 45,800 LBS.                   | 49,800 LBS.   |
| 5,630 LBS.                    | 9,615 LBS.    |
| 1,630 LBS.                    | 2,025 LBS.    |
| 530 LBS.                      | 765 LBS.      |

13,900 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,500 LBS.

**5"/38, MARK 30 MOD. 12**



# 5-IN. MOUNT, MARK 30 MOD. 12

5-IN. 38-CAL., D. P., SINGLE MOUNT. ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |          |     |
|--------------------------------------|-----------------|-----------|----------|-----|
| Elevating and Training Gear          | 10. HP.         |           |          |     |
| Hoist                                | 7.5 HP.         | 440 V.    | 3 $\phi$ | 60~ |
| Rammer                               | 7.5 HP.         |           |          |     |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |          |     |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |          |     |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |          |     |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 0                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |
| Counterrecoil Cylinder (for Charging)             |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                       |                |
|------------------|-----------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 6, 17, 20 | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 6, 17, 22 | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1          | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 4   | Northern       |

## INDICATOR REGULATORS

| ELEVATION             | SPEEDS  | MFR.       |
|-----------------------|---------|------------|
| Mk. 35 Mods. 0 or 1   | 2 & 36  | Gen. Elec. |
| TRAIN                 |         |            |
| Mk. 39 & Mods.        | 1 & 36  | Gen. Elec. |
| FUZE SETTING          |         |            |
| Mk. 8 Mods. 1, 5 or 8 | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| 'A. A. Common       | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 234368    |
|                                  | 246621    |
| General Arrangement Drawing Nos. | 234805-08 |
|                                  | 238119-21 |
|                                  | 238181    |
|                                  | 246617-20 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate with General Electric controls is 15° per second; training gear rate 28.75° per second. Maximum elevating gear rate with Ford controls is 18° per second; training gear rate 34° per second.

Length of recoil is 15 inches.

This mount may be used with specific modification of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

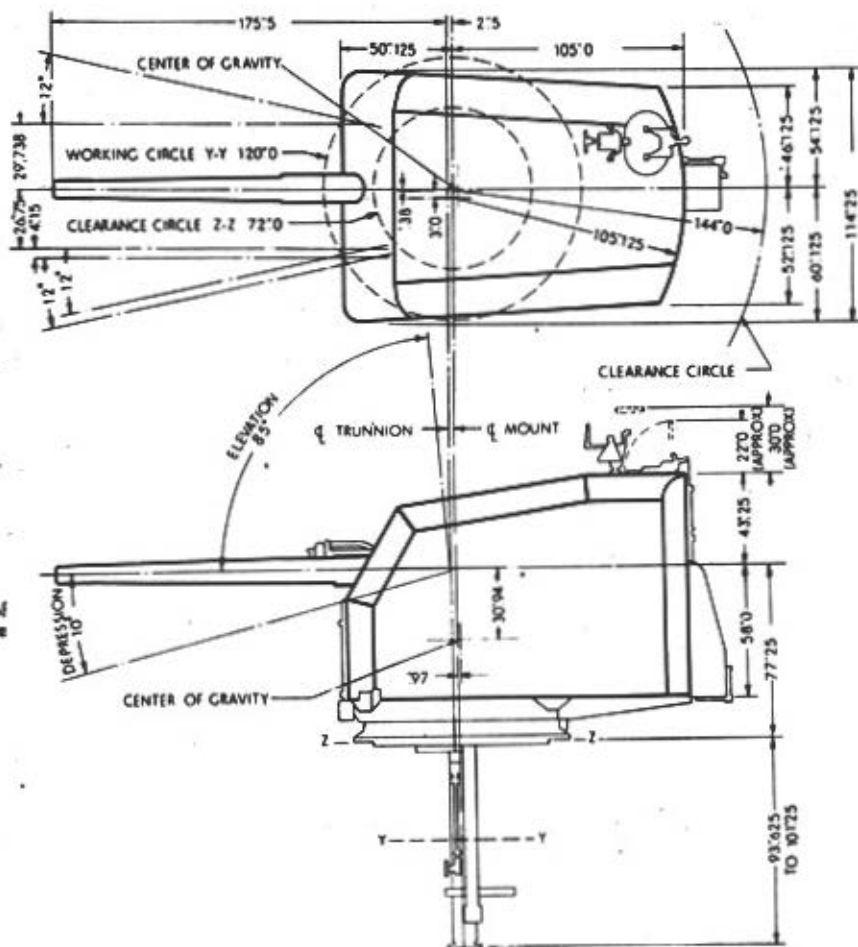


## 5-IN. MOUNT, MARK 30 MOD. 13

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 507       | 62845      |
| 519       | 92658      |
| 524       | 92673      |
| 531       | 92696      |
| 542       | 92861      |
| 552       | 93081      |
| 554       | 93083      |
| 569       | 93307      |
| 659       | 94937      |
| 670       | 102357     |
| 824       | 103019     |
| 829       | 103024     |
| 996       | 106844     |
| 1103      | 106903     |
| 1115      | 106924     |
| 1125      | 106945     |
| 1126      | 106946     |
| 1149      | 107076     |
| 1154      | 107081     |
| 1180      | 107628     |
| 1185      | 107633     |
| 1385      | 108449     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
DD-AS

MK. 25 MOD. 1  
.125 IN.

MK. 38 MOD. 1  
.25 IN.

Weights below are approximate

41,000 LBS.

44,900 LBS.

4,865 LBS.

8,740 LBS.

945 LBS.

1,385 LBS.

514 LBS.

740 LBS.

13,900 LBS.

14,000 LBS.

8,150 LBS.

77,600 LBS.

78,900 LBS.

91,500 LBS.

5"/38, MARK 30 MOD. 13

# 5-IN. MOUNT, MARK 30 MOD. 13

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |        |          |           |
|--------------------------------------|-----------------|--------|----------|-----------|
| Elevating and Training Gear          | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Hoist                                | 7.5 HP.         |        |          |           |
| Rammer                               | 7.5 HP.         |        |          |           |
| Gun Firing Transformer               | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  |        |          | 100 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 7, 18   | G. E.—Northern |
|                  | Mk. 7 Mod. 1        | Ford—Waterbury |
|                  | Mk. 8 Mod. 1        | Ford—Waterbury |
| Training Gear    | Mk. 6 Mods. 7, 18   | G. E.—Northern |
|                  | Mk. 7 Mod. 1        | Ford—Waterbury |
|                  | Mk. 8 Mod. 1        | Ford—Waterbury |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 4 | Northern       |

### INDICATOR REGULATORS

| ELEVATION          | SPEEDS  | MFR.       |
|--------------------|---------|------------|
| Mk. 35 Mod. 0      | 2 & 36  | Gen. Elec. |
| Mk. 37 Mod. 0      | 2 & 36  | Ford       |
| TRAIN              |         |            |
| Mk. 39 & Mods.     | 1 & 36  | Gen. Elec. |
| Mk. 41 & Mods.     | 1 & 36  | Ford       |
| FUZE SETTING       |         |            |
| Mk. 8 Mods. 5 or 8 | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 234370    |
|                                  | 246626    |
| General Arrangement Drawing Nos. | 236755-58 |
|                                  | 238182-85 |
|                                  | 246622-25 |
|                                  | 250050-53 |

## REMARKS

Elevation limits are minus 8°45' or minus 10° to plus 85°. The training limit is 300°.

Maximum elevating gear rate with General Electric controls is 15° per second; training gear rate 28.75° per second. Maximum elevating gear rate with Ford controls is 18° per second; training gear rate 34° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 601          | 94638         |
| 687          | 102396        |
| 690          | 102399        |
| 740          | 92922         |
| 743          | 92925         |
| 744          | 92926         |
| 748          | 92930         |
| 758          | 92951         |
| 762          | 92955         |
| 765          | 92958         |
| 776          | 92994         |
| 780          | 92998         |
| 796          | 102816        |
| 800          | 102820        |
| 1134         | 107061        |

Technical drawing of a 105mm mortar, showing top and side views with dimensions and labels.

**Top View Labels and Dimensions:**

- CENTER OF GRAVITY
- WORKING CIRCLE-LEVEL Y-Y 120"0 DIA.
- CLEARANCE CIRCLE-LEVEL Z-Z 72"0 DIA.
- 50"125
- 470
- CLEARANCE CIRCLE FOR EJECTED CARTRIDGE CASES
- 0"34
- 144"0-R
- 105"0-R
- 175"5
- 12"
- 4"15
- 26"75
- 29"738
- 52"0
- 60"0
- 54"0
- 114"0

**Side View Labels and Dimensions:**

- TRUNNIONS
- MOUNT
- 85° ELEVATION
- 0° LINE OF SIGHT
- 1"62
- DEPRESSION 15°
- 1"27
- 29"11
- 48"5
- 30"0 APPROX.
- 58"0
- 77"25
- CENTER OF GRAVITY
- 93"625

BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

13,900 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,500 LBS.

**5"/38, MARK 30 MOD. 16**



# 5-IN. MOUNT, MARK 30 MOD. 16

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |        |          |           |
|--------------------------------------|-----------------|--------|----------|-----------|
| Elevating and Training Gear          | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Hoist                                | 7.5 HP.         |        |          |           |
| Rammer                               | 7.5 HP.         |        |          |           |
| Gun Firing Transformer               | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  |        |          | 100 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 0                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Countercoiled Cylinder (for Charging)             |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 6        | G. E.—Northern |
| Training Gear    | Mk. 6 Mod. 6        | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 4 | Northern       |

### INDICATOR REGULATORS

|                            |         |            |
|----------------------------|---------|------------|
| ELEVATION                  | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0              | 2 & 36  | Gen. Elec. |
| TRAIN                      |         |            |
| Mk. 39 Mods. 1, 25, 30, 32 | 1 & 36  | Gen. Elec. |
| FUZE SETTING               |         |            |
| Mk. 8 Mods. 5 or 8         | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 735       |           |
| Working Circle Drawing No.       | 241991    |
|                                  | 246621    |
| General Arrangement Drawing Nos. | 243414–17 |
|                                  | 246617–20 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

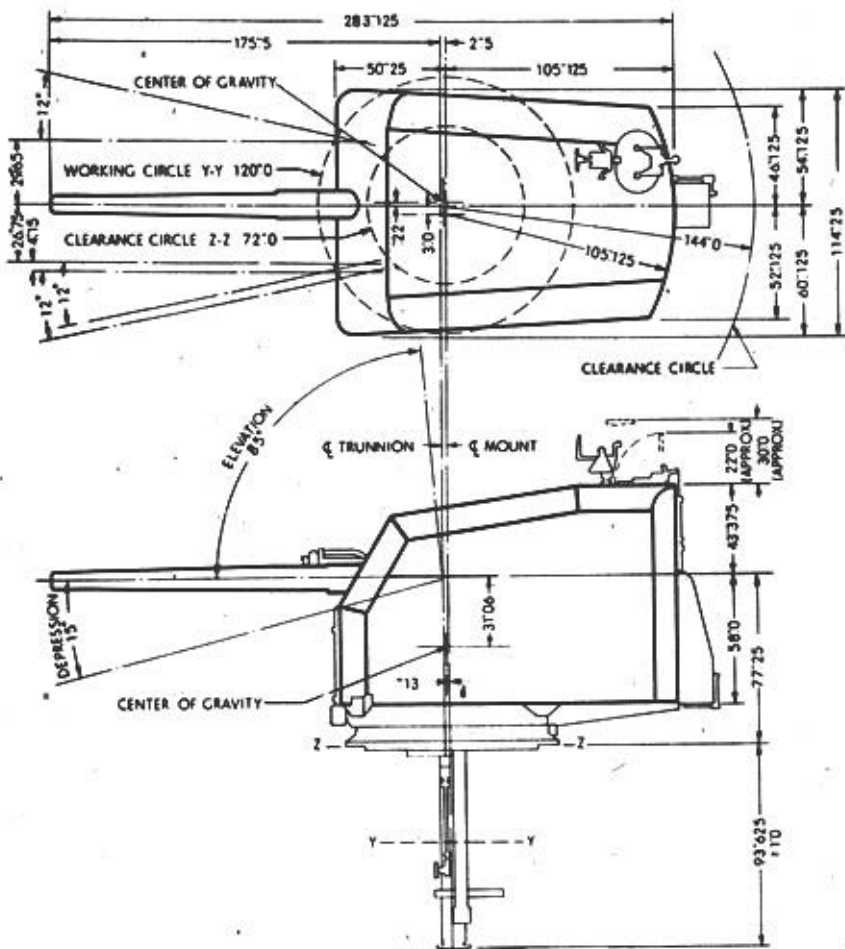
This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.



**5-IN. MOUNT, MARK 30 MOD. 17****5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 602       | 94639      |
| 688       | 102397     |
| 741       | 92923      |
| 777       | 92995      |
| 797       | 102817     |
| 1107      | 106907     |
| 1163      | 107098     |

Note: Assembly number of mount is required for precise information.



**GUN—5"/38**  
**INSTALLATION FOR**  
**SHIELD**  
**SHIELD THICKNESS**

**MK. 12 MOD. 1**  
**DD**

**MK. 25 MOD. 3**  
**.125 IN.**

**MK. 38 MOD. 1**  
**.25 IN.**

**TOTAL WEIGHT OF ASSEMBLY**  
**TOTAL WEIGHT OF SHIELD**

Roof Plate Weight  
 Rear Plate Weight

**OSCILLATING WEIGHT**  
**RECOILING WEIGHT**

**BRAKE LOAD**  
**TRUNNION PRESSURE HORIZ. FIRE**  
**TRUNNION PRESSURE 85° ELEV. FIRE**

Weights below are approximate

|             |             |
|-------------|-------------|
| 41,200 LBS. | 44,900 LBS. |
| 4,865 LBS.  | 8,740 LBS.  |
| 945 LBS.    | 1,385 LBS.  |
| 514 LBS.    | 740 LBS.    |
| 13,900 LBS. | 14,000 LBS. |
|             | 8,150 LBS.  |
|             | 77,600 LBS. |
|             | 78,900 LBS. |
|             | 91,500 LBS. |

**5"/38, MARK 30 MOD. 17**

# 5-IN. MOUNT, MARK 30 MOD. 17

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |        |           |     |
|--------------------------------------|-----------------|--------|-----------|-----|
| Elevating and Training Gear          | 10. HP.]        |        |           |     |
| Hoist                                | 7.5 HP.]        | 440 V. | 3 $\phi$  | 60~ |
| Rammer                               | 7.5 HP.]        |        |           |     |
| Gun Firing Transformer               | 115 V. to 20 V. |        | 200 Watts |     |
| Illumination Transformer             | 115 V. to 6 V.  |        | 100 Watts |     |
| Stand-by Firing and Lighting—Battery | 6 V.            |        | 100 A. H. |     |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150 200 psi. |  |
| Counterrecoil Cylinder (for Charging)             |  |
| 0.34 Cu. Ft. Air at 1450 1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 4 | Northern       |

### INDICATOR REGULATORS

| ELEVATION          | SPEEDS  | MFR.       |
|--------------------|---------|------------|
| Mk. 35 Mod. 0      | 2 & 36  | Gen. Elec. |
| TRAIN              |         |            |
| Mk. 39 Mod. 2      | 1 & 36  | Gen. Elec. |
| FUZE SETTING       |         |            |
| Mk. 8 Mods. 5 or 8 | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

| Cartridge                 |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 241992    |
|                                  | 250291    |
| General Arrangement Drawing Nos. | 243418-21 |
|                                  | 250287-90 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

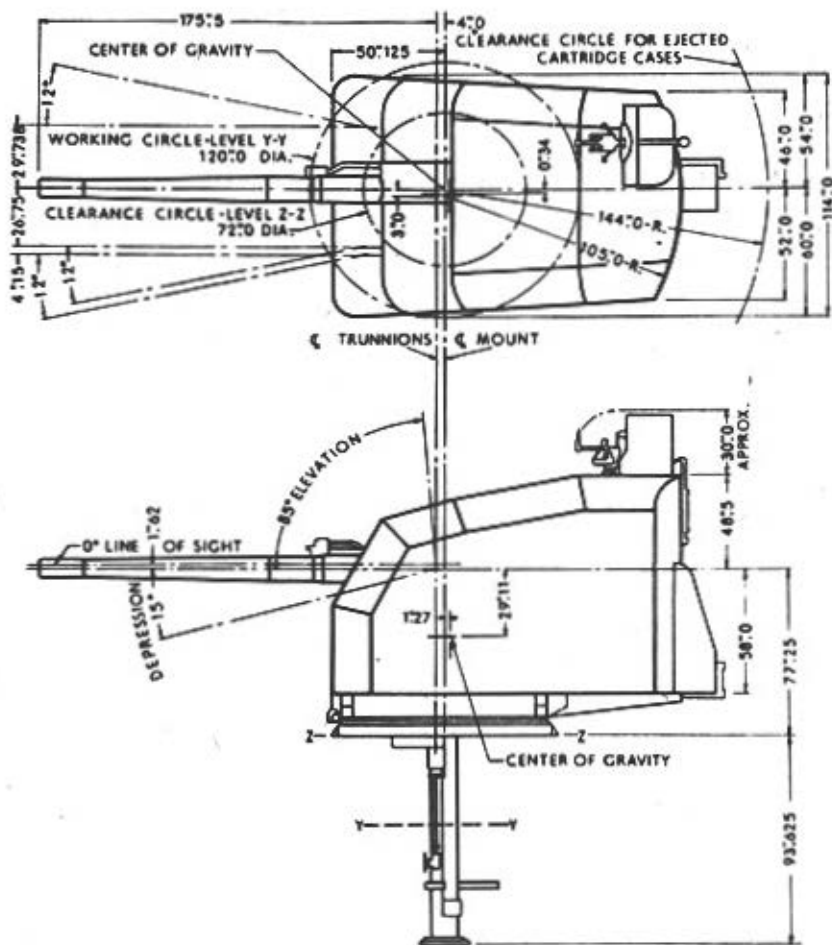
This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52

5-IN. MOUNT, MARK 30 MOD. 18

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 603          | 94640         |
| 781          | 102801        |
| 785          | 102805        |
| 802          | 102826        |
| 806          | 102830        |
| 848          | 103143        |
| 862          | 103258        |
| 865          | 103261        |
| 886          | 106250        |
| 889          | 106253        |
| 985          | 106833        |
| 989          | 106837        |
| 990          | 106838        |
| 994          | 106842        |
| 1138         | 107065        |
| 1142         | 107069        |
| 1143         | 107070        |
| 1147         | 107074        |
| 1158         | 107093        |
| 1162         | 107097        |
| 1174         | 107622        |
| 1178         | 107626        |
| 1199         | 107647        |
| 1203         | 107651        |

**Note:** Assembly number of mount is required for precise information.



**GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS**

TOTAL WEIGHT OF ASSEMBLY

TOTAL WEIGHT OF SHIELD

Roof Plate Weight

Rear Plate Weight

### OSCILLATING WEIGHT

RECOILING WEIGHT

### BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
AO-AVP-DD

MK. 25 MOD. 4  
125 IN.

MK. 38 MOD. 0  
.95 IN.

Weights below are approximate

41,700 LBS.

45,800 LBS.

5,630 LBS.

9,615 LBS.

1,630 LBS.

2.025 LBS.

530 LBS.

765 LBS.

13,900 LBS.

14,000 LBS.

0.150 LBS.

77,600 LBS

78,900 LBS.

**91,500 LBS.**



# 5-IN. MOUNT, MARK 30 MOD. 18

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |                     |  |
|--------------------------------------|-----------------|---------------------|--|
| Elevating and Training Gear          | 10. HP.         | 440 V. 3 $\phi$ 60~ |  |
| Hoist                                | 7.5 HP.         |                     |  |
| Rammer                               | 7.5 HP.         |                     |  |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts           |  |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts           |  |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H.           |  |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 0                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counterrecoil Cylinder (for Charging)             |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 6, 17   | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 10, 20  | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 4 | Northern       |

## INDICATOR REGULATORS

|                                    |         |            |
|------------------------------------|---------|------------|
| ELEVATION                          | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0                      | 2 & 36  | Gen. Elec. |
| TRAIN                              |         |            |
| Mk. 39 Mods. 1, 12, 15, 25, 30, 32 | 1 & 36  | Gen. Elec. |
| FUZE SETTING                       |         |            |
| Mk. 8 Mods. 1, 5 or 8              | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 241995    |
|                                  | 246631    |
| General Arrangement Drawing Nos. | 243422–25 |
|                                  | 246627–30 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

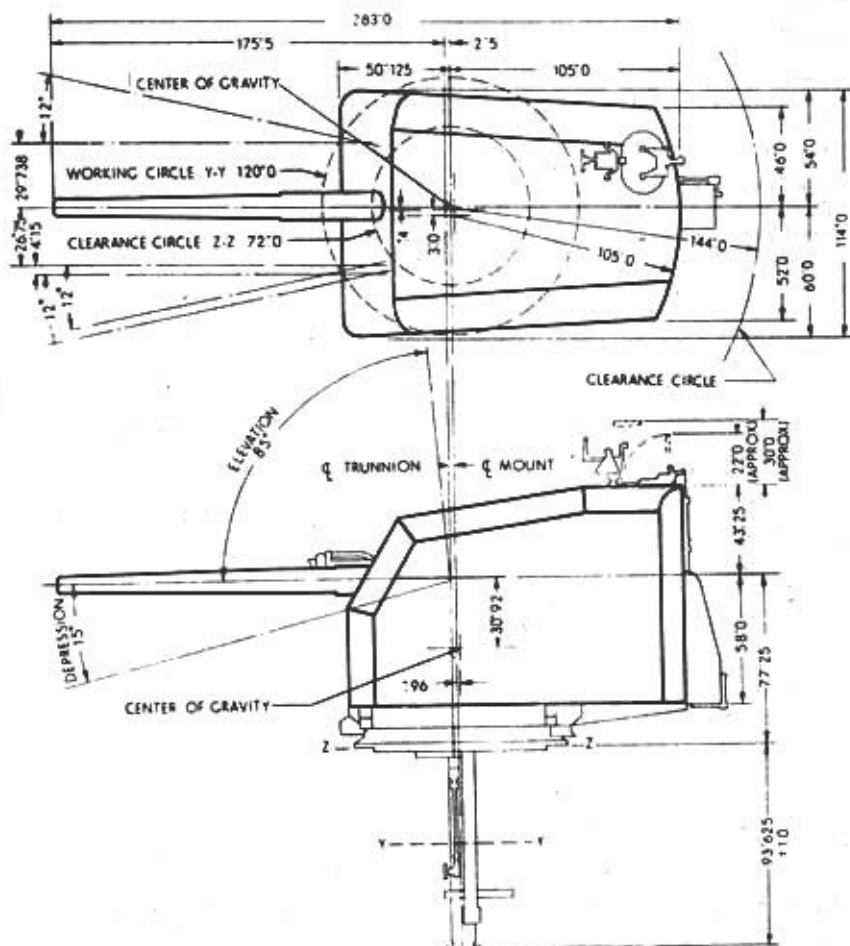
This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.



**5-IN. MOUNT, MARK 30 MOD. 19****5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING-TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 604       | 94641      |
| 745       | 92927      |
| 763       | 92956      |
| 782       | 102802     |
| 803       | 102827     |
| 863       | 103259     |
| 986       | 106834     |
| 991       | 106839     |
| 1139      | 107066     |
| 1144      | 107071     |
| 1159      | 107094     |
| 1175      | 107623     |
| 1200      | 107648     |

Note: Assembly number of mount is required for precise information.



**GUN—5"/38**  
**INSTALLATION FOR**  
**SHIELD**  
**SHIELD THICKNESS**

**TOTAL WEIGHT OF ASSEMBLY**  
**TOTAL WEIGHT OF SHIELD**  
 Roof Plate Weight  
 Rear Plate Weight

**OSCILLATING WEIGHT**  
**RECOILING WEIGHT**

**BRAKE LOAD**  
**TRUNNION PRESSURE HORIZ. FIRE**  
**TRUNNION PRESSURE 85° ELEV. FIRE**

**MK. 12 MOD. 1**  
**DD**

**MK. 25 MOD. 5**  
**.125 IN.**

**MK. 38 MOD. 1**  
**.25 IN.**

Weights below are approximate

40,900 LBS.  
 4,865 LBS.  
 945 LBS.  
 514 LBS.

44,800 LBS.  
 8,740 LBS.  
 1,385 LBS.  
 740 LBS.

13,900 LBS.  
 8,150 LBS.  
 77,600 LBS.  
 78,900 LBS.  
 91,500 LBS.

**5"/38, MARK 30 MOD. 19**

# 5-IN. MOUNT, MARK 30 MOD. 19

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appt. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 9, 10   | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 4 | Northern       |

### INDICATOR REGULATORS

|                    |         |            |
|--------------------|---------|------------|
| ELEVATION          | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0      | 2 & 36  | Gen. Elec. |
| TRAIN              |         |            |
| Mk. 39 Mod. 2      | 1 & 36  | Gen. Elec. |
| FUZE SETTING       |         |            |
| Mk. 8 Mods. 5 or 8 | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appt. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 242448    |
|                                  | 246636    |
| General Arrangement Drawing Nos. | 243426-29 |
|                                  | 246632-35 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

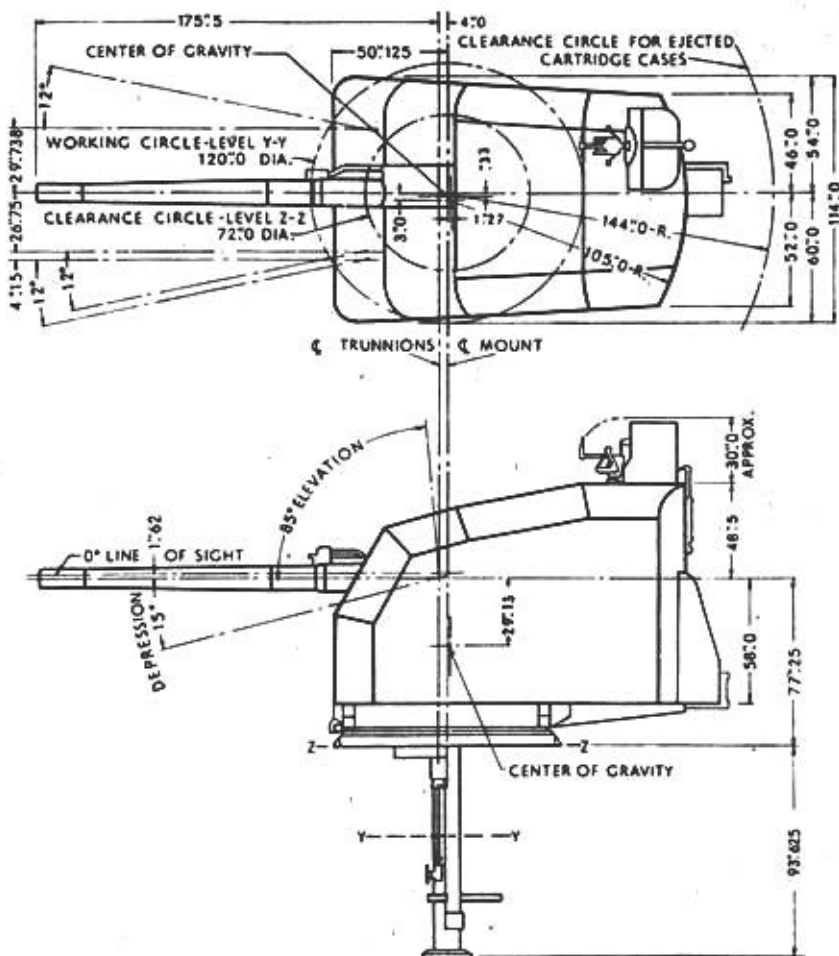
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38, MARK 30 MOD. 19

## 5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 597          | 94507         |
| 599          | 94509         |
| 625          | 94773         |
| 628          | 94776         |
| 632          | 94781         |
| 641          | 94815         |
| 643          | 94817         |
| 646          | 94846         |
| 649          | 94849         |
| 651          | 94901         |
| 654          | 94904         |
| 657          | 94907         |

**Note:** Assembly number of mount is required for precise information.



**GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS**

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

### BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
AVP-DD

MK. 25 MOD. 0  
.125 IN.

Weights below are approximate

|             |
|-------------|
| 42,000 LBS. |
| 5,630 LBS.  |
| 1,630 LBS.  |
| 530 LBS.    |
| 13,900 LBS. |
| 8,150 LBS.  |
| 77,600 LBS. |
| 78,900 LBS. |
| 91,500 LBS. |



# 5-IN. MOUNT, MARK 30 MOD. 21

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 0                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |

### HYDRAULIC

|                |            |         |
|----------------|------------|---------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.  |
| Speed Gear Oil | O. S. 2943 | 60 Gals |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 2 Mod. 4        | Ford-Waterbury |
|                  | Mk. 6 Mod. 0        | G. E.-Northern |
|                  | Mk. 8 Mod. 0        | Ford-Waterbury |
| Training Gear    | Mk. 2 Mod. 4        | Ford-Waterbury |
|                  | Mk. 6 Mod. 0        | G. E.-Northern |
|                  | Mk. 8 Mod. 0        | Ford-Waterbury |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 6 | Northern       |

## INDICATOR REGULATORS

| ELEVATION               | SPEEDS | MFR.       |
|-------------------------|--------|------------|
| Mk. 28 Mods. 0 or 1, or |        |            |
| Mk. 37 Mod. 0           | 2 & 36 | Ford       |
| Mk. 35 Mod. 0           | 2 & 36 | Gen. Elec. |

### TRAIN

|                          |        |            |
|--------------------------|--------|------------|
| Mk. 36 Mods. 1, 3, 5, 6  | 1 & 36 | Ford       |
| Mk. 41 Mods. 1, 3, 5     |        |            |
| Mk. 39 & Mods. 1, 30, 32 | 1 & 36 | Gen. Elec. |

### FUZE SETTING

|                    |         |      |
|--------------------|---------|------|
| Mk. 8 Mods. 1 or 5 | 2 & 100 | Arma |
|--------------------|---------|------|

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 202129    |
|                                  | 234368    |
| General Arrangement Drawing Nos. | 234321    |
|                                  | 234375-77 |
|                                  | 234805-08 |
|                                  | 236760-63 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate with General Electric controls is 15° per second; training gear rate 28.75° per second. Maximum elevating gear rate with Ford controls is 18° per second; training gear rate 34° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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5"/38, MARK 30 MOD. 21

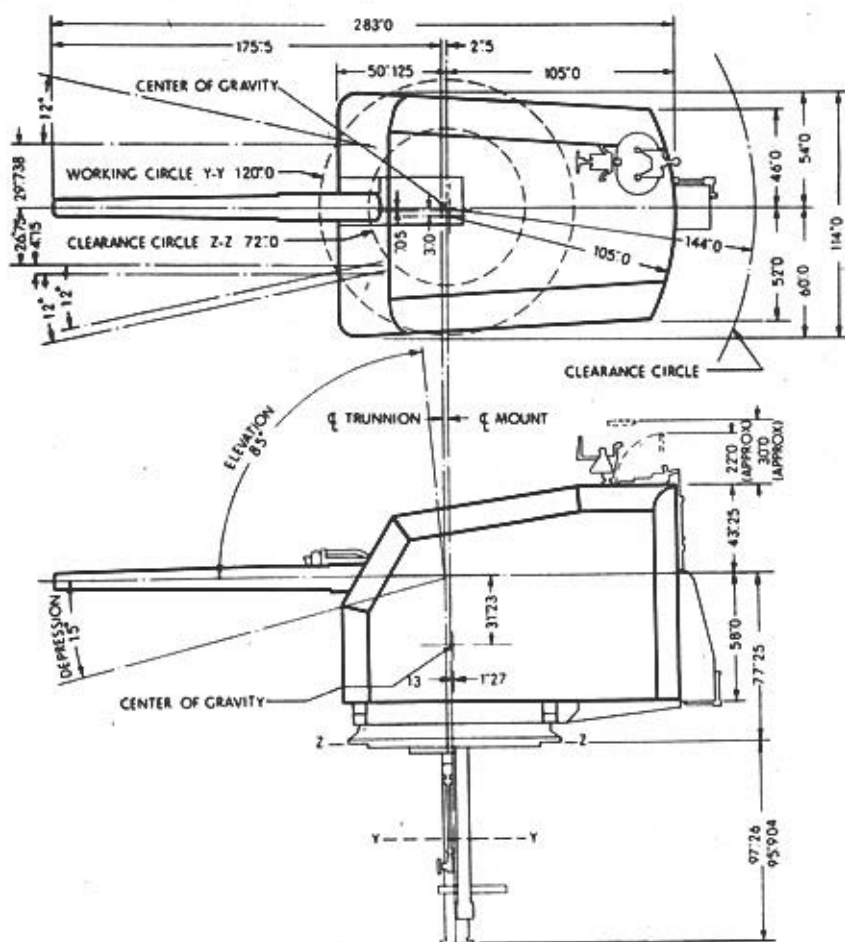


# 5-IN. MOUNT, MARK 30 MOD. 22

**5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 631       | 94780      |
| 644       | 94818      |
| 648       | 94848      |
| 650       | 94900      |
| 653       | 94903      |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
AVP—DD

MK. 25 MOD. 1  
.125-IN.

Weights below are approximate

41,400 LBS.

4,865 LBS.

945 LBS.

514 LBS.

13,900 LBS.

8,150 LBS.

77,600 LBS.

78,900 LBS.

91,500 LBS.

**5"/38, MARK 30 MOD. 22**

# 5-IN. MOUNT, MARK 30 MOD. 22

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |          |     |
|--------------------------------------|-----------------|-----------|----------|-----|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ | 60~ |
| Hoist                                | 7.5 HP.         |           |          |     |
| Rammer                               | 7.5 HP.         |           |          |     |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |          |     |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |          |     |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |          |     |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counterrecoil Cylinder (for Charging)             |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 2 Mod. 5        | Ford-Waterbury |
|                  | Mk. 6 Mod. 1        | G. E.—Northern |
|                  | Mk. 8 Mod. 1        | Ford-Waterbury |
| Training Gear    | Mk. 2 Mod. 5        | Ford-Waterbury |
|                  | Mk. 6 Mod. 1        | G. E.—Northern |
|                  | Mk. 8 Mod. 1        | Ford-Waterbury |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 6 | Northern       |

### INDICATOR REGULATORS

| ELEVATION               | SPEEDS  | MFR.       |
|-------------------------|---------|------------|
| Mk. 28 Mods. 0 or 1, or |         |            |
| Mk. 37 Mod. 0           | 2 & 36  | Ford       |
| Mk. 35 Mod. 0           | 2 & 36  | Gen. Elec. |
| TRAIN                   |         |            |
| Mk. 36 Mod. 6, Mk. 41   |         |            |
| Mods. 3, 4              | 1 & 36  | Ford       |
| Mk. 39 Mod. 33          | 1 & 36  | Gen. Elec. |
| FUZE SETTING            |         |            |
| Mk. 8 Mods. 1 or 5      | 2 & 100 | Ama        |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        | 202131    |
| Working Circle Drawing No.       | 234370    |
| General Arrangement Drawing Nos. | 233557–60 |
|                                  | 236755–58 |
|                                  | 237078–81 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate with General Electric controls is 15° per second; maximum training gear rate 28.75° per second. Maximum elevating gear rate with Ford controls is 18° per second; maximum training gear rate 34° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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5"/38, MARK 30 MOD. 22

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 598          | 94508         |
| 626          | 94774         |
| 630          | 94779         |
| 647          | 94847         |
| 652          | 94902         |

Technical drawing of a gun mount, showing top and side views with dimensions and labels.

**Top View Dimensions:**

- Overall width: 283'0"
- Distance from left edge to center of gravity: 175'5"
- Distance from center of gravity to right edge: 2'5"
- Distance from center of gravity to the front of the mount: 50'125"
- Distance from the front of the mount to the rear: 105'0"
- Distance from the front of the mount to the center of gravity: 120'0"
- Distance from the front of the mount to the center of gravity: 72'0"
- Distance from the front of the mount to the center of gravity: 105'0"
- Distance from the front of the mount to the center of gravity: 144'0"
- Distance from the front of the mount to the center of gravity: 53'0"
- Distance from the front of the mount to the center of gravity: 60'0"
- Distance from the front of the mount to the center of gravity: 114'0"

**Side View Dimensions:**

- Overall height: 97'26"
- Distance from base to the top of the mount: 95'904"
- Distance from base to the top of the mount: 77'25"
- Distance from base to the top of the mount: 58'0"
- Distance from base to the top of the mount: 43'25"
- Distance from base to the top of the mount: 37'23"
- Distance from base to the top of the mount: 1'27"
- Distance from base to the top of the mount: 13"
- Distance from base to the top of the mount: 27'0" (APPROX)
- Distance from base to the top of the mount: 30'0" (APPROX)

**Labels and Notes:**

- CENTER OF GRAVITY
- WORKING CIRCLE Y-Y 120'0"
- CLEARANCE CIRCLE Z-Z 72'0"
- CLEARANCE CIRCLE
- ELEVATION 85°
- DEPRESSION 15°
- TRUNNION
- MOUNT

**91,500 LBS.**

**5"/38, MARK 30 MOD. 23**



# 5-IN. MOUNT, MARK 30 MOD. 23

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A.H.  |              |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |
| Counterrecoil Cylinder (for Charging)             |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 2 Mod. 5        | Ford-Waterbury |
|                  | Mk. 6 Mod. 1        | G. E.-Northern |
|                  | Mk. 8 Mod. 1        | Ford-Waterbury |
| Training Gear    | Mk. 2 Mod. 5        | Ford-Waterbury |
|                  | Mk. 6 Mod. 1        | G. E.-Northern |
|                  | Mk. 8 Mod. 1        | Ford-Waterbury |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 6 | Northern       |

## INDICATOR REGULATORS

| ELEVATION          | SPEEDS  | MFR.       |
|--------------------|---------|------------|
| Mk. 28 Mod. 0 or   |         |            |
| Mk. 37 Mod. 0      | 2 & 36  | Ford       |
| Mk. 35 Mod. 0      | 2 & 36  | Gen. Elec. |
| TRAIN              |         |            |
| Mk. 36 Mod. 3 or   |         |            |
| Mk. 41 Mod. 2, 3   | 1 & 36  | Ford       |
| Mk. 39 Mod. 2      | 1 & 36  | Gen. Elec. |
| FUZE SETTING       |         |            |
| Mk. 8 Mods. 1 or 5 | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 202131    |
|                                  | 234370    |
| General Arrangement Drawing Nos. | 233557-60 |
|                                  | 236755-58 |
|                                  | 237078-81 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate with General Electric controls is 15° per second; maximum training gear rate 28.75° per second. Maximum elevating gear rate with Ford controls is 18° per second; maximum training gear rate 34° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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5"/38, MARK 30 MOD. 23

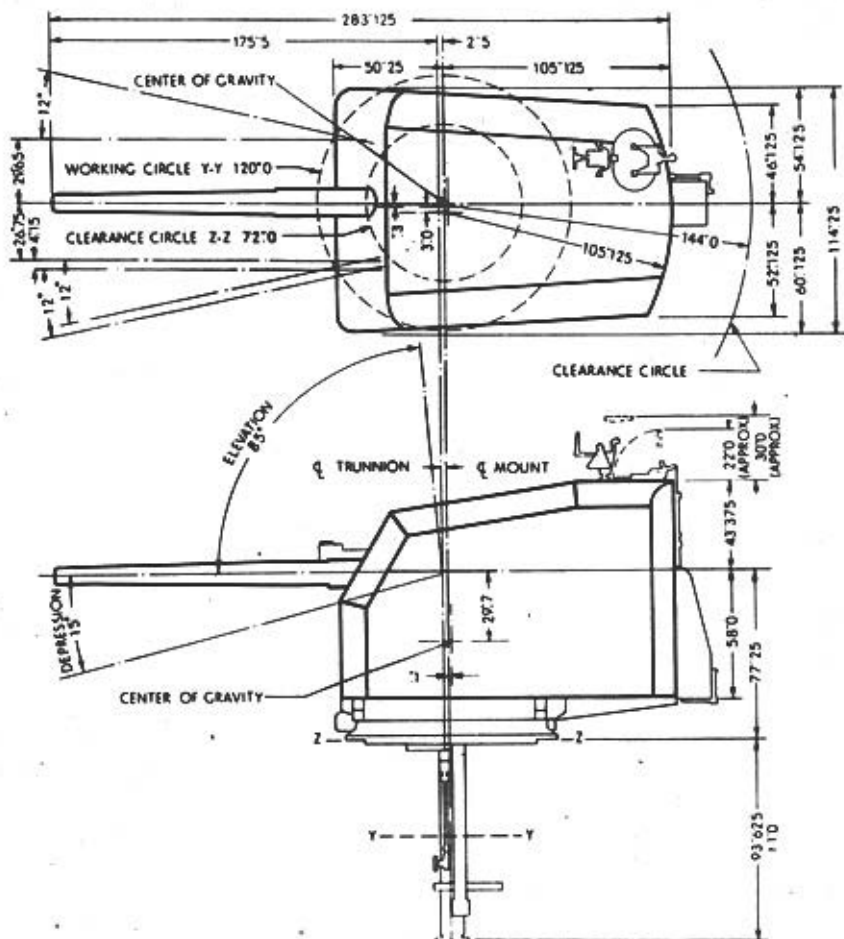


# 5-IN. MOUNT, MARK 30 MOD. 24

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 671       | 102358     |
| 820       | 103015     |
| 821       | 103016     |
| 825       | 103020     |
| 831       | 103026     |
| 836       | 103048     |
| 847       | 103141     |
| 854       | 103232     |
| 855       | 103233     |
| 891       | 106255     |
| 892       | 106256     |
| 931       | 106308     |
| 997       | 106845     |
| 1105      | 106905     |
| 1121      | 106932     |
| 1130      | 107057     |
| 1131      | 107058     |
| 1151      | 107078     |
| 1155      | 107082     |
| 1181      | 107629     |
| 1187      | 107635     |
| 1205      | 107661     |
| 1207      | 107671     |
| 1208      | 107672     |
| 1341      | 108387     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 85° ELEV. FIRE

5"/38, MARK 30 MOD. 24

MK. 12 MOD. 1  
AD-AG-AN-AO-AR-AS-AV-AVP-DD  
MK. 25 MOD. 1  
.125 IN.  
MK. 38 MOD. 1  
.25 IN.

Weights below are approximate

|             |             |
|-------------|-------------|
| 41,000 LBS. | 44,900 LBS. |
| 4,865 LBS.  | 8,740 LBS.  |
| 945 LBS.    | 1,385 LBS.  |
| 514 LBS.    | 740 LBS.    |
| 13,900 LBS. | 14,000 LBS. |
|             | 8,150 LBS.  |
|             | 77,600 LBS. |
|             | 78,900 LBS. |
|             | 91,500 LBS. |

# 5-IN. MOUNT, MARK 30 MOD. 24

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |               |
|--------------------------------------|-----------------|-----------|---------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60 ~ |
| Hoist                                | 7.5 HP.         |           |               |
| Rammer                               | 7.5 HP.         |           |               |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |               |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |               |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A.H.  |               |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 4 | Northern       |

### INDICATOR REGULATORS

|                                                  |         |            |
|--------------------------------------------------|---------|------------|
| ELEVATION                                        | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0                                    | 2 & 36  | Gen. Elec. |
| TRAIN                                            |         |            |
| Mk. 39 Mods. 2, 7, 8, 10, 13, 14, 21, 22, 29, 33 | 1 & 36  | Gen. Elec. |
| FUZE SETTING                                     |         |            |
| Mk. 8 Mods. 1, 5 or 8                            | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 735       | 234370    |
| Working Circle Drawing No.       | 246626    |
| General Arrangement Drawing Nos. | 236755–58 |
|                                  | 246622–25 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38, MARK 30 MOD. 24

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 691          | 102451        |
| 742          | 92924         |
| 764          | 92957         |
| 779          | 92997         |

[illegible]

**91,500 LBS.**



# 5-IN. MOUNT, MARK 30 MOD. 25

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |               |
|--------------------------------------|-----------------|-----------|---------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60 ~ |
| Hoist                                | 7.5 HP.         |           |               |
| Rammer                               | 7.5 HP.         |           |               |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |               |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |               |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |               |

### PNEUMATIC

Gas Ejector, Mk. 6 Mod. 1  
Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi.  
Counter recoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450–1550 psi.

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 7        | G. E.—Northern |
| Training Gear    | Mk. 6 Mod. 7        | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 4 | Northern       |

## INDICATOR REGULATORS

| ELEVATION      | SPEEDS  | MFR.       |
|----------------|---------|------------|
| Mk. 35 Mod. 0  | 2 & 36  | Gen. Elec. |
| TRAIN          |         |            |
| Mk. 39 Mod. 29 | 1 & 36  | Gen. Elec. |
| FUZE SETTING   |         |            |
| Mk. 8 Mod. 5   | 2 & 100 | Ama        |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

### Typical Projectiles

|              |        |               |
|--------------|--------|---------------|
| Common       | Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                       |                 |
|---------------------------|-----------------------|-----------------|
| Case                      | Mk. 5 Mod. 0          | Wt. 12.3 Lbs.   |
| Charge                    | Nominal Wt. 15.2 Lbs. |                 |
| Primer                    | Mk. 13 Mods. 0, 1     |                 |
| Total Weight of Cartridge |                       | Appr. 27.5 Lbs. |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 735       |           |
| Working Circle Drawing No.       | 243450    |
| General Arrangement Drawing Nos. | 243426–29 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

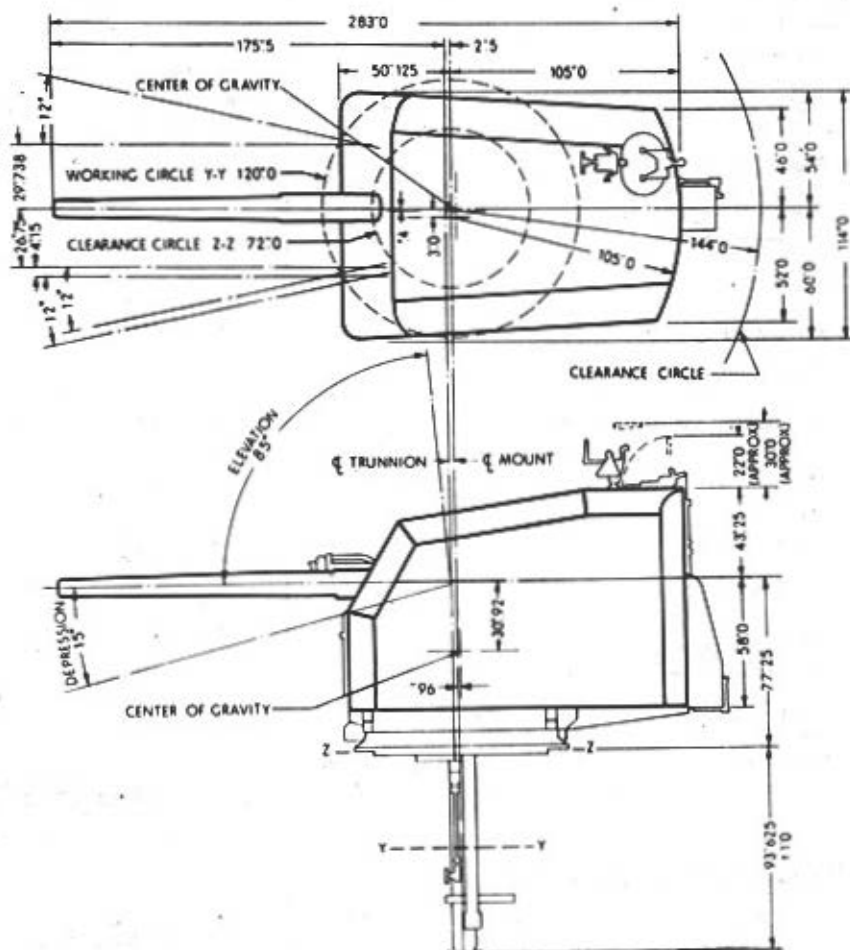


## 5-IN. MOUNT, MARK 30 MOD. 26

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 689       | 102398     |
| 778       | 92996      |
| 799       | 102819     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 85° ELEV. FIRE

5"/38, MARK 30 MOD. 26

MK. 12 MOD. 1  
DD

MK. 25 MOD. 3  
.125 IN.

Weights below are approximate

41,200 LBS.

4,865 LBS.

945 LBS.

514 LBS.

13,900 LBS.

8,150 LBS.

77,600 LBS.

78,900 LBS.

91,500 LBS.

# 5-IN. MOUNT, MARK 30 MOD. 26

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

#### Elevating and Training

|        |         |        |        |
|--------|---------|--------|--------|
| Gear   | 10. HP. |        |        |
| Hoist  | 7.5 HP. | 440 V. | 3ø 60~ |
| Rammer | 7.5 HP. |        |        |

|                                      |                 |           |
|--------------------------------------|-----------------|-----------|
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |

### PNEUMATIC

#### Gas Ejector, Mk. 6 Mod 1

Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi.

#### Counterrecoil Cylinder (for Charging)

0.34 Cu. Ft. Air at 1450-1550 psi.

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 7        | G. E.-Northern |
| Training Gear    | Mk. 6 Mod. 7        | G. E.-Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 4 | Northern       |

## INDICATOR REGULATORS

| ELEVATION             | SPEEDS  | MFR.       |
|-----------------------|---------|------------|
| Mk. 35 Mod. 0         | 2 & 36  | Gen. Elec. |
| TRAIN                 |         |            |
| Mk. 39 Mods. 21 or 29 | 1 & 36  | Gen. Elec. |
| FUZE SETTING          |         |            |
| Mk. 8 Mods. 5 or 8    | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 243449    |
| General Arrangement Drawing Nos. | 243418-21 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

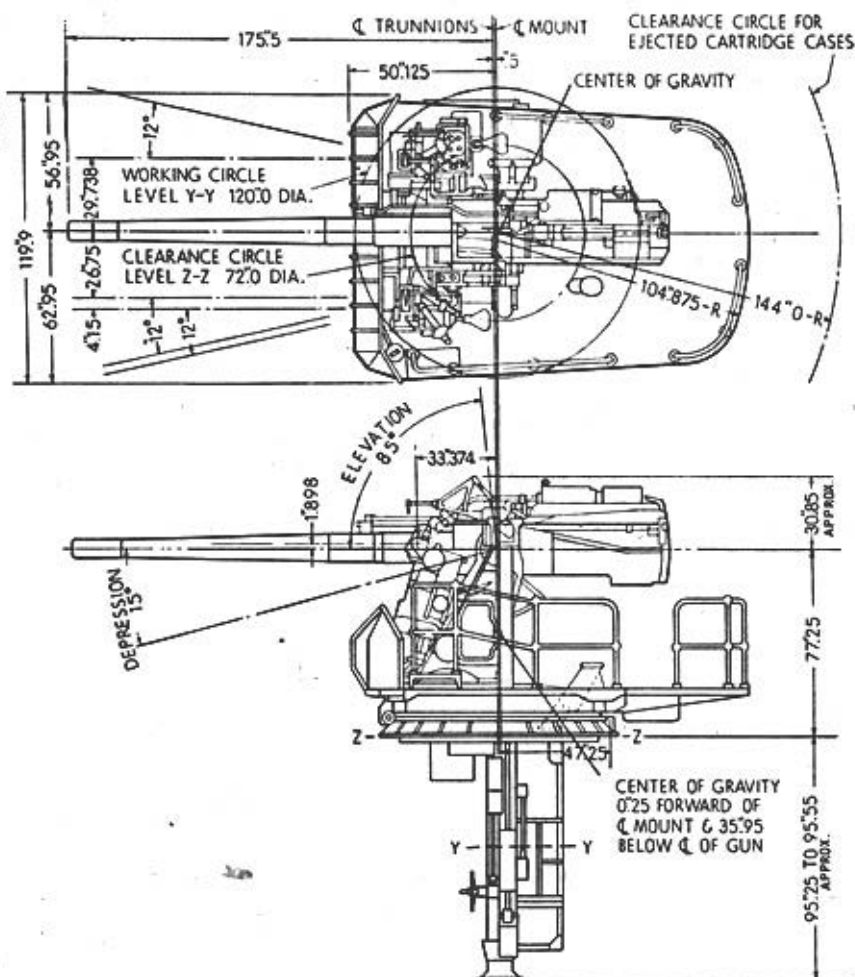
This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

## 5-IN. MOUNT, MARK 30 MOD. 27

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 711       | 102478     |
| 712       | 102479     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

MK. 12 MOD. 1  
DD  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate

|             |
|-------------|
| 36,000 LBS. |
| 13,900 LBS. |
| 8,150 LBS.  |
| 77,600 LBS. |
| 78,900 LBS. |
| 91,500 LBS. |

5"/38, MARK 30 MOD. 27



# 5-IN. MOUNT, MARK 30 MOD. 27

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |               |
|--------------------------------------|-----------------|---------------|
| Elevating and Training Gear          | 10. HP.         | 440 V. 3φ 60~ |
| Hoist                                | 7.5 HP.         |               |
| Rammer                               | 5. HP.          |               |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts     |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts     |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A.H.      |

### PNEUMATIC

|                                       |                                    |
|---------------------------------------|------------------------------------|
| Counterrecoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi. |
|---------------------------------------|------------------------------------|

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 2 Mods. 2, 6    | Ford-Waterbury |
| Training Gear    | Mk. 2 Mods. 2, 6    | Ford-Waterbury |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 1 | Vickers        |

### INDICATOR REGULATORS

|                                |         |      |
|--------------------------------|---------|------|
| ELEVATION                      | SPEEDS  | MFR. |
| Mk. 28 Mod. 0                  | 2 & 36  | Ford |
| TRAIN                          |         |      |
| Mk. 30 Mod. 4 or Mk. 36 Mod. 4 | 1 & 36  | Ford |
| FUZE SETTING                   |         |      |
| Mk. 8 Mod. 1                   | 2 & 100 | Arma |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 243727    |
| General Arrangement Drawing Nos. | 233390-93 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 18° per second. Maximum training gear rate is 34° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38, MARK 30 MOD. 27

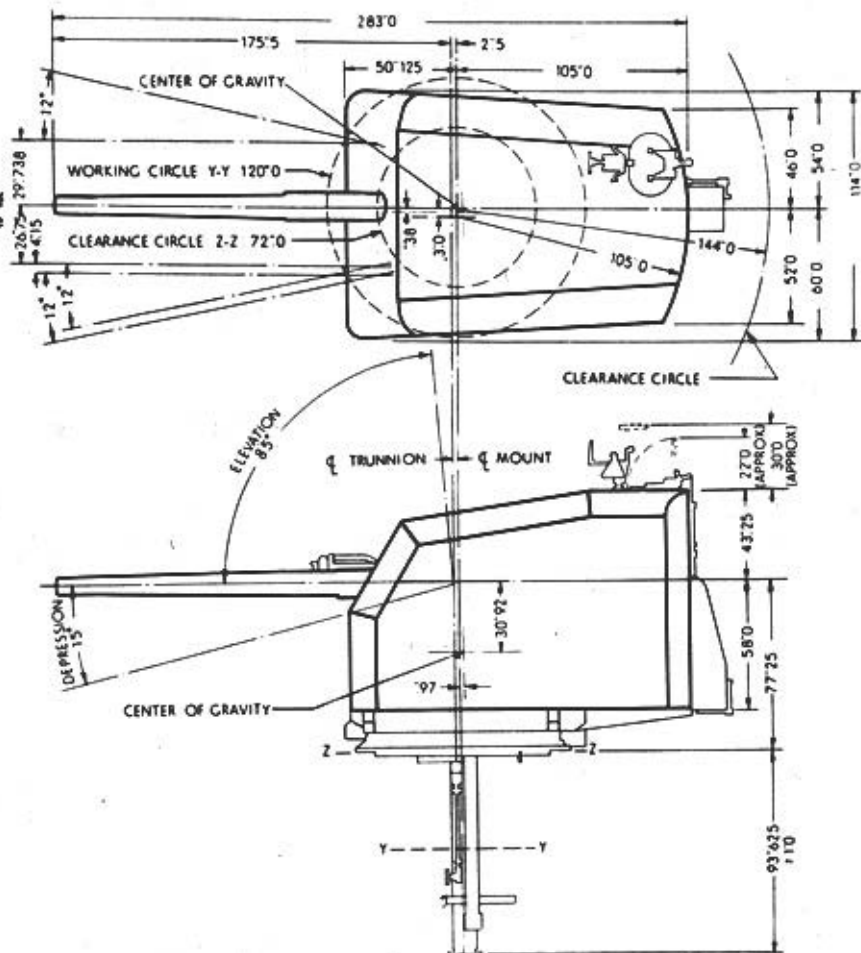


# 5-IN. MOUNT, MARK 30 MOD. 28

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 753       | 92939      |
| 784       | 102804     |
| 988       | 106836     |
| 1146      | 107073     |
| 1177      | 107625     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD  
Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
DD

MK. 25 MOD. 5  
.125 IN.

MK. 38 MOD. 1  
.25 IN.

Weights below are approximate

|             |             |
|-------------|-------------|
| 41,200 LBS. | 44,900 LBS. |
| 4,865 LBS.  | 8,740 LBS.  |
| 945 LBS.    | 1,385 LBS.  |
| 514 LBS.    | 740 LBS.    |

13,900 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,500 LBS.

5"/38, MARK 30 MOD. 28

# 5-IN. MOUNT, MARK 30 MOD. 28

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                        |                                                   |  |  |
|----------------------------------------|---------------------------------------------------|--|--|
| Gas Ejector, Mk. 6 Mod. 1              | Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |  |
| Counter recoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 9, 19   | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 4 | Northern       |

## INDICATOR REGULATORS

| ELEVATION      | SPEEDS  | MFR.       |
|----------------|---------|------------|
| Mk. 35 Mod. 0  | 2 & 36  | Gen. Elec. |
| TRAIN          |         |            |
| Mk. 39 Mod. 29 | 1 & 36  | Gen. Elec. |
| FUZE SETTING   |         |            |
| Mk. 8 Mod. 5   | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-in. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 244063    |
|                                  | 251109    |
| General Arrangement Drawing Nos. | 243426-29 |
|                                  | 246632-35 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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5"/38, MARK 30 MOD. 28

|                     |                         |
|---------------------|-------------------------|
| ASSY.<br>NO.<br>798 | SKETCH<br>NO.<br>102818 |
|---------------------|-------------------------|

[illegible]

**91,500 LBS.**

**5"/38, MARK 30 MOD. 29**



# 5-IN. MOUNT, MARK 30 MOD. 29

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |        |          |           |
|--------------------------------------|-----------------|--------|----------|-----------|
| Elevating and Training Gear          | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Hoist                                | 7.5 HP.         |        |          |           |
| Rammer                               | 7.5 HP.         |        |          |           |
| Gun Firing Transformer               | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  |        |          | 100 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |
| Counterrecoil Cylinder (for Charging)             |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 7        | G. E.-Northern |
| Training Gear    | Mk. 6 Mod. 7        | G. E.-Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 4 | Northern       |

### INDICATOR REGULATORS

|                |         |            |
|----------------|---------|------------|
| ELEVATION      | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0  | 2 & 36  | Gen. Elec. |
| TRAIN          |         |            |
| Mk. 39 Mod. 20 | 1 & 36  | Gen. Elec. |
| FUZE SETTING   |         |            |
| Mk. 8 Mod. 8   | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |        |               |
|---------------------|--------|---------------|
| Typical Projectiles |        |               |
| Common              | Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 244699    |
| General Arrangement Drawing Nos. | 243418-21 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 284°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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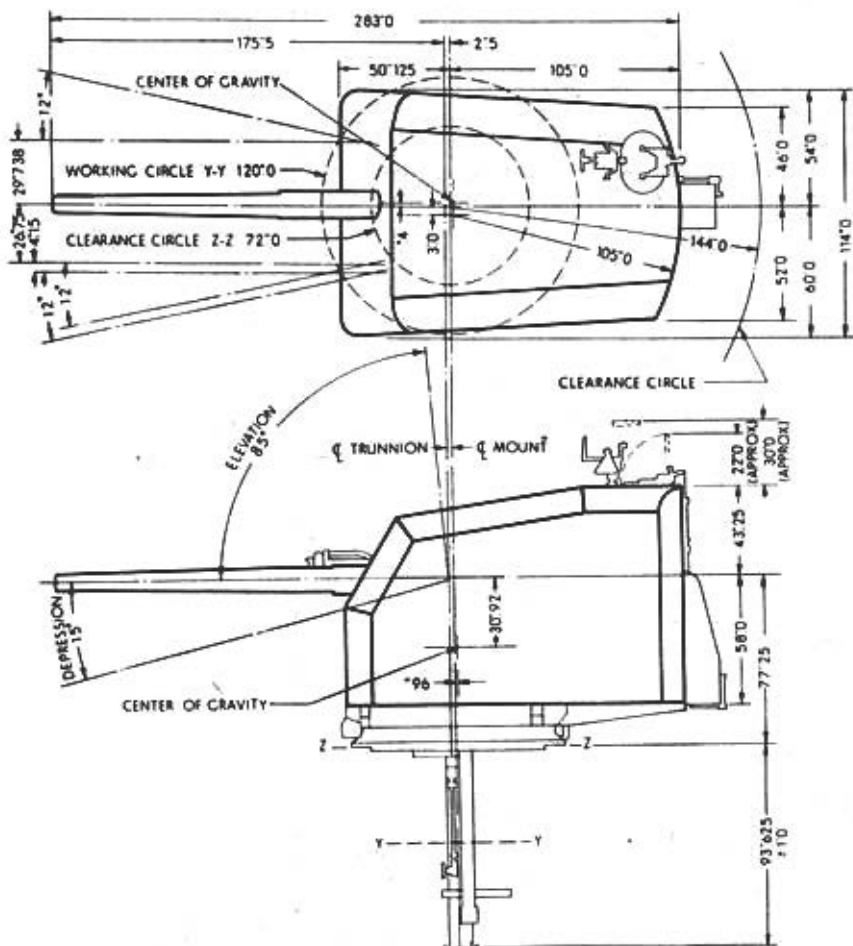
5"/38. MARK 30 MOD. 29



**5-IN. MOUNT, MARK 30 MOD. 30****5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 746          | 92928         |
| 804          | 102828        |
| 992          | 106840        |
| 1140         | 107067        |
| 1160         | 107095        |
| 1201         | 107649        |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD  
Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
DD

MK. 25 MOD. 5  
.125 IN.

MK. 38 MOD. 1  
.25 IN.

Weights below are approximate

|             |             |
|-------------|-------------|
| 41,200 LBS. | 44,800 LBS. |
| 4,865 LBS.  | 8,740 LBS.  |
| 945 LBS.    | 1,385 LBS.  |
| 514 LBS.    | 740 LBS.    |
|             | 13,900 LBS. |
|             | 8,150 LBS.  |
|             | 77,600 LBS. |
|             | 78,900 LBS. |
|             | 91,500 LBS. |

**5"/38, MARK 30 MOD. 30**

# 5-IN. MOUNT, MARK 30 MOD. 30

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |        |    |           |
|--------------------------------------|-----------------|--------|----|-----------|
| Elevating and Training Gear          | 10. HP.         | 440 V. | 3ø | 60~       |
| Hoist                                | 7.5 HP.         |        |    |           |
| Rammer                               | 7.5 HP.         |        |    |           |
| Gun Firing Transformer               | 115 V. to 20 V. |        |    | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  |        |    | 100 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            |        |    | 100 A. H. |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Countercoil Cylinder (for Charging)               |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 9, 19   | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 4 | Northern       |

## INDICATOR REGULATORS

|                |         |            |
|----------------|---------|------------|
| ELEVATION      | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0  | 2 & 36  | Gen. Elec. |
| TRAIN          |         |            |
| Mk. 39 Mod. 20 | 1 & 36  | Gen. Elec. |
| FUZE SETTING   |         |            |
| Mk. 8 Mod. 8   | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |                        |
|----------------------------------|------------------------|
| Ordnance Pamphlet No. 735        |                        |
| Working Circle Drawing Nos.      | 244070<br>251110       |
| General Arrangement Drawing Nos. | 243426–29<br>246632–35 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 284°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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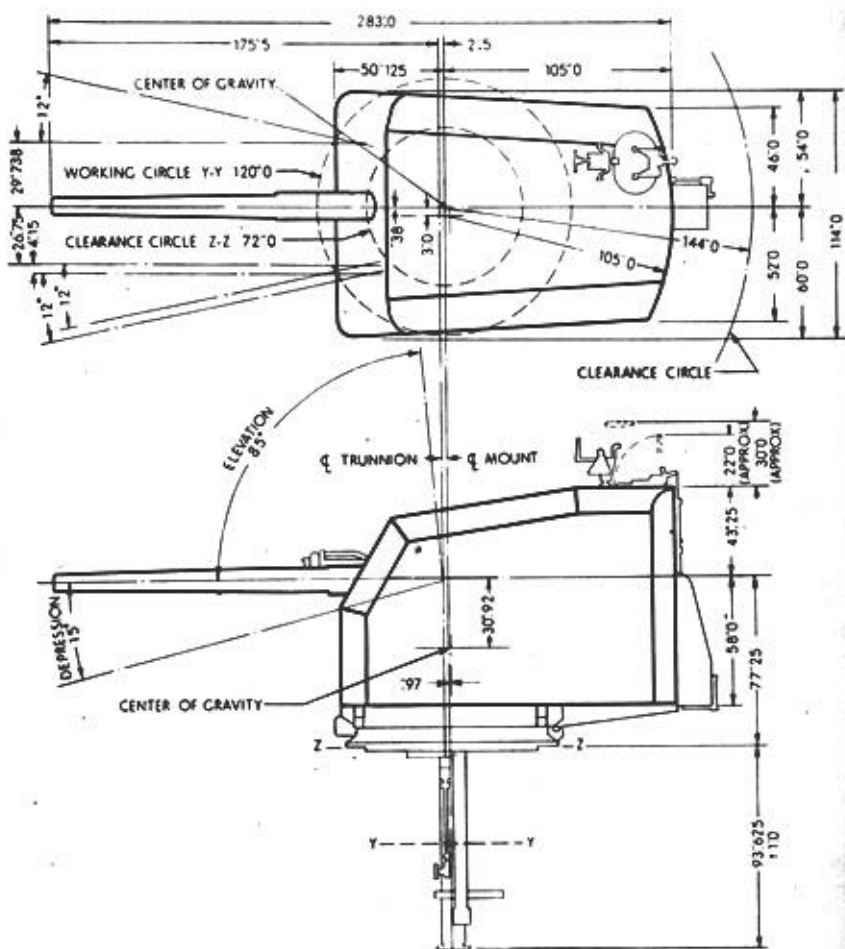
5"/38, MARK 30 MOD. 30

## 5-IN. MOUNT, MARK 30 MOD. 31

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 747       | 92929      |
| 759       | 92952      |
| 783       | 102803     |
| 805       | 102829     |
| 849       | 103144     |
| 864       | 103260     |
| 887       | 106251     |
| 888       | 106252     |
| 987       | 106835     |
| 993       | 106841     |
| 1141      | 107068     |
| 1145      | 107072     |
| 1161      | 107096     |
| 1176      | 107624     |
| 1202      | 107650     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
AO—AVP—DD

MK. 25 MOD. 5  
.125 IN.

MK. 38 MOD. 1  
.25 IN.

Weights below are approximate

41,200 LBS.  
5,630 LBS.  
945 LBS.  
514 LBS.

44,900 LBS.  
8,740 LBS.  
1,385 LBS.  
740 LBS.

13,900 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,500 LBS.

5"/38, MARK 30 MOD. 31



# 5-IN. MOUNT, MARK 30 MOD. 31

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |        |          |           |
|--------------------------------------|-----------------|--------|----------|-----------|
| Elevating and Training Gear          | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Hoist                                | 7.5 HP.         |        |          |           |
| Rammer                               | 7.5 HP.         |        |          |           |
| Gun Firing Transformer               | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  |        |          | 100 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                  |  |
|--------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                        |  |
| Apr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counter recoil Cylinder (for Charging)           |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.               |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 9, 19   | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 4 | Northern       |

## INDICATOR REGULATORS

|                                 |         |            |
|---------------------------------|---------|------------|
| ELEVATION                       | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0                   | 2 & 36  | Gen. Elec. |
| TRAIN                           |         |            |
| Mk. 39 Mods. 13, 14, 21, 29, 33 | 1 & 36  | Gen. Elec. |
| FUZE SETTING                    |         |            |
| Mk. 8 Mods. 1, 5 or 8           | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Apr. 27.5 Lbs.        |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |                        |
|----------------------------------|------------------------|
| Ordnance Pamphlet No. 735        |                        |
| Working Circle Drawing Nos.      | 244071<br>246636       |
| General Arrangement Drawing Nos. | 243426–29<br>246632–35 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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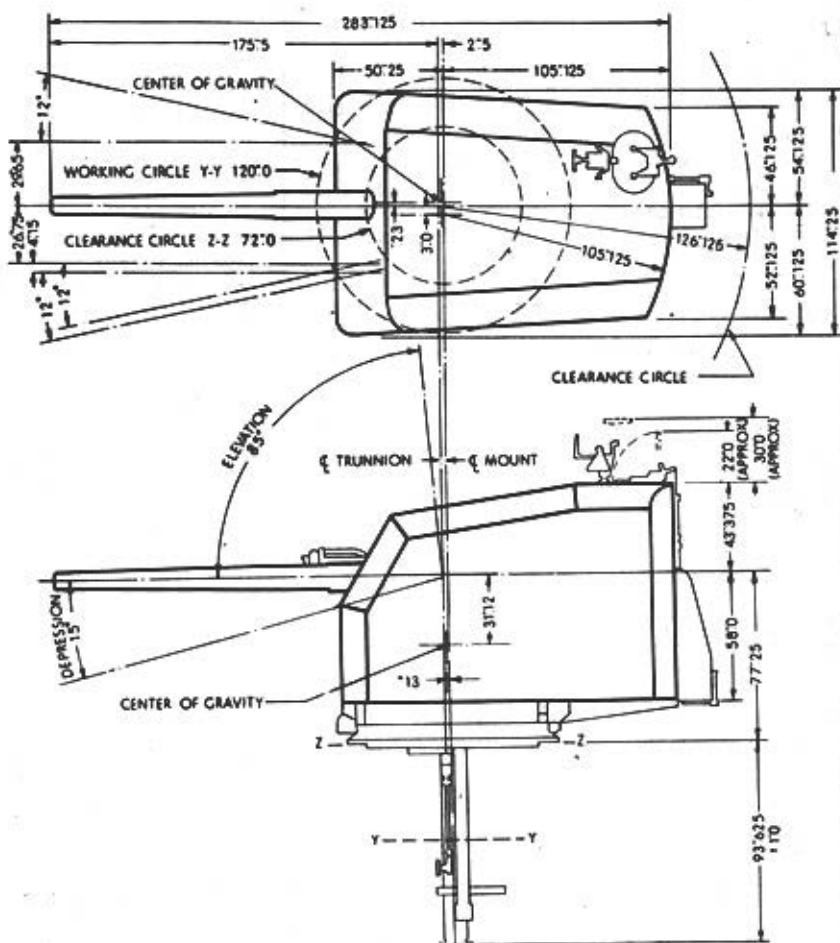
5"/38, MARK 30 MOD. 31



**5-IN. MOUNT, MARK 30 MOD. 32****5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 826       | 103021     |
| 998       | 106846     |
| 1156      | 107083     |
| 1182      | 107630     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
DD

MK. 25 MOD. 1  
.125 IN.

MK. 38 MOD. 1  
.25 IN.

Weights below are approximate

|             |             |
|-------------|-------------|
| 40,900 LBS. | 44,900 LBS. |
| 4,865 LBS.  | 8,740 LBS.  |
| 945 LBS.    | 1,385 LBS.  |
| 514 LBS.    | 740 LBS.    |
| 13,900 LBS. | 14,000 LBS. |
|             | 8,150 LBS.  |
|             | 77,600 LBS. |
|             | 78,900 LBS. |
|             | 91,500 LBS. |

**5"/38, MARK 30 MOD. 32**

# 5-IN. MOUNT, MARK 30 MOD. 32

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |        |          |           |
|--------------------------------------|-----------------|--------|----------|-----------|
| Elevating and Training Gear          | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Hoist                                | 7.5 HP.         |        |          |           |
| Rammer                               | 7.5 HP.         |        |          |           |
| Gun Firing Transformer               | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  |        |          | 100 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 4 | Northern       |

## INDICATOR REGULATORS

|                |         |            |
|----------------|---------|------------|
| ELEVATION      | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0  | 2 & 36  | Gen. Elec. |
| TRAIN          |         |            |
| Mk. 39 Mod. 29 | 1 & 36  | Gen. Elec. |
| FUZE SETTING   |         |            |
| Mk. 8 Mod. 5   | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 243450    |
|                                  | 251111    |
| General Arrangement Drawing Nos. | 236755-58 |
|                                  | 246622-25 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

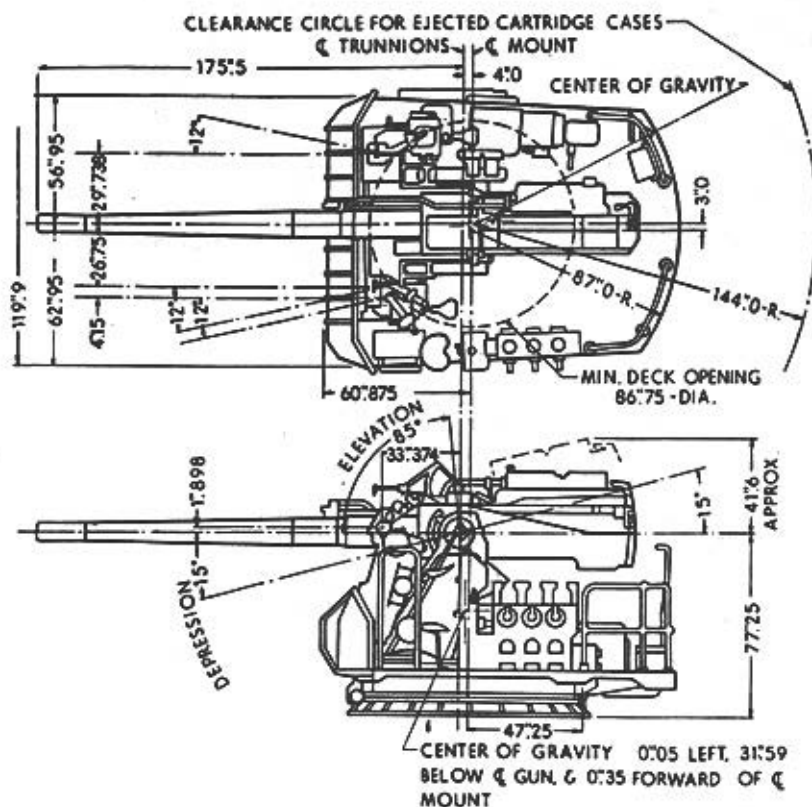
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38, MARK 30 MOD. 32

**5-IN. MOUNT, MARK 30 MOD. 33****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 809       | 102839     |
| 810       | 102840     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

MK. 12 MOD. 1  
CV  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate  
35,700 LBS.  
13,800 LBS.  
8,150 LBS.  
77,600 LBS.  
78,800 LBS.  
91,300 LBS.

**5"/38, MARK 30 MOD. 33**



# 5-IN. MOUNT, MARK 30 MOD. 33

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |        |          |           |
|--------------------------------------|-----------------|--------|----------|-----------|
| Elevating and Training Gear          | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Rammer                               | 7.5 HP.         |        |          |           |
| Gun Firing Transformer               | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  |        |          | 100 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                        |  |
|----------------------------------------|--|
| Counter recoil Cylinder (for Charging) |  |
| 0.34 Cu. Ft. Air at 1450 1550 psi      |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 40 Gals. |

### POWER DRIVES

|                |                     |                |
|----------------|---------------------|----------------|
| Elevating Gear | Mk. 6 Mod. 11       | G. E.—Northern |
| Training Gear  | Mk. 6 Mod. 11       | G. E.—Northern |
| Rammer         | Slide Mk. 24 Mod. 5 | Northern       |

### INDICATOR REGULATORS

| ELEVATION             | SPEEDS  | MFR.       |
|-----------------------|---------|------------|
| Mk. 35 Mod. 0         | 2 & 36  | Gen. Elec. |
| TRAIN                 |         |            |
| Mk. 39 Mods. 36 or 38 | 1 & 36  | Gen. Elec. |
| FUZE SETTING          |         |            |
| Mk. 8 Mod. 9          | 2 & 100 | Armo       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

| Cartridge                 |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### FUZE SETTER

Mk. 7 Mod. 1 or Mk. 17 Mod. 0

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 735             |           |
| Working Circle Drawing No.            | 244774    |
| General Arrangement Drawing Nos.      | 244779-82 |
| Gun Foundation, BuShips Drawing No.   | 506283    |
| Shore Emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

### REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

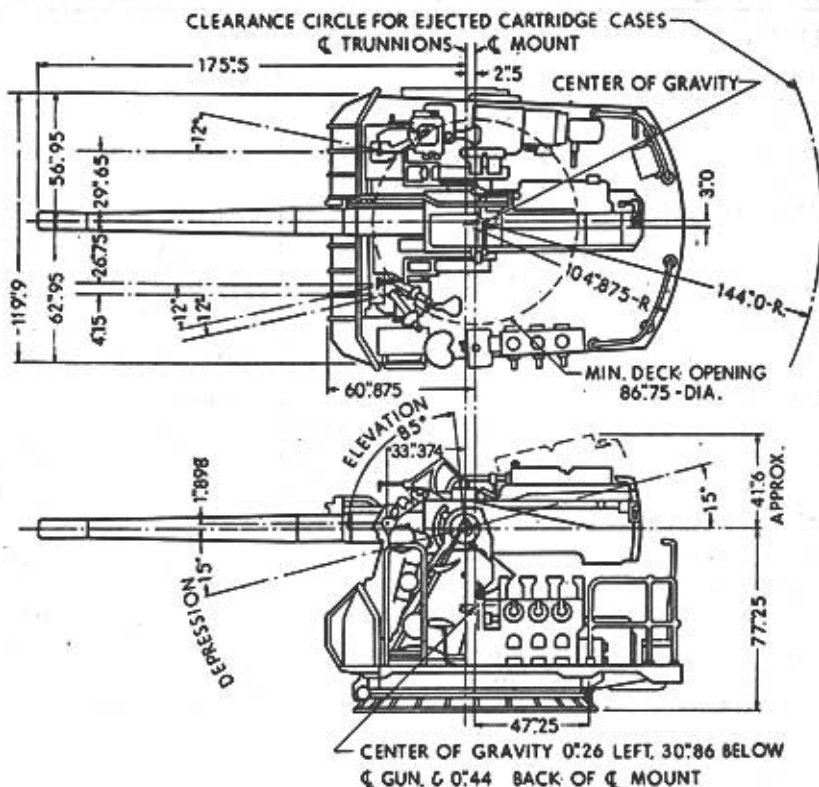
5"/38, MARK 30 MOD. 33



**5-IN. MOUNT, MARK 30 MOD. 34****5-IN. 38-CAL. D. P., SINGLE MOUNT, OPEN, BASE RING TYPE**

|           |            |
|-----------|------------|
| ASSY. NO. | SKETCH NO. |
| 811       | 102841     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

MK. 12 MOD. 1  
CV  
NONE

TOTAL WEIGHT OF ASSEMBLY

OSCILLATING WEIGHT

RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate

35,700 LBS.

13,800 LBS.

8,150 LBS.

77,600 LBS.

78,800 LBS.

91,300 LBS.

**5"/38, MARK 30 MOD. 34**

# 5-IN. MOUNT, MARK 30 MOD. 34

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |                           |
|--------------------------------------|-----------------|---------------------------|
| Elevating and Training Gear          | 10. HP.         | } 440 V. . . 3 $\phi$ 60~ |
| Rammer                               | 7.5 HP.         |                           |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts                 |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts                 |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H.                 |

### PNEUMATIC

|                                     |                                    |
|-------------------------------------|------------------------------------|
| Countercoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi. |
|-------------------------------------|------------------------------------|

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 40 Gals. |

## POWER DRIVES

|                |                     |                |
|----------------|---------------------|----------------|
| Elevating Gear | Mk. 6 Mod. 12       | G. E.—Northern |
| Training Gear  | Mk. 6 Mod. 12       | G. E.—Northern |
| Rammer         | Slide Mk. 24 Mod. 5 | Northern       |

## INDICATOR REGULATORS

|                |         |            |
|----------------|---------|------------|
| ELEVATION      | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0  | 2 & 36  | Gen. Elec. |
| TRAIN          |         |            |
| Mk. 39 Mod. 39 | 1 & 36  | Gen. Elec. |
| FUZE SETTING   |         |            |
| Mk. 8 Mod. 9   | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

### Typical Projectiles

|              |        |               |
|--------------|--------|---------------|
| Common       | Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                 |
|---------------------------|-------------------|-----------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.   |
| Charge                    | Nominal           | Wt. 15.2 Lbs.   |
| Primer                    | Mk. 13 Mods. 0, 1 |                 |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs. |

## FUZE SETTER

Mk. 7 Mod. 1 or Mk. 17 Mod. 0

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordinance Pamphlet No. 735            |           |
| Working Circle Drawing No.            | 244775    |
| General Arrangement Drawing Nos.      | 244785-88 |
| Gun Foundation, BuShips Drawing No.   | 506283    |
| Shore Emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

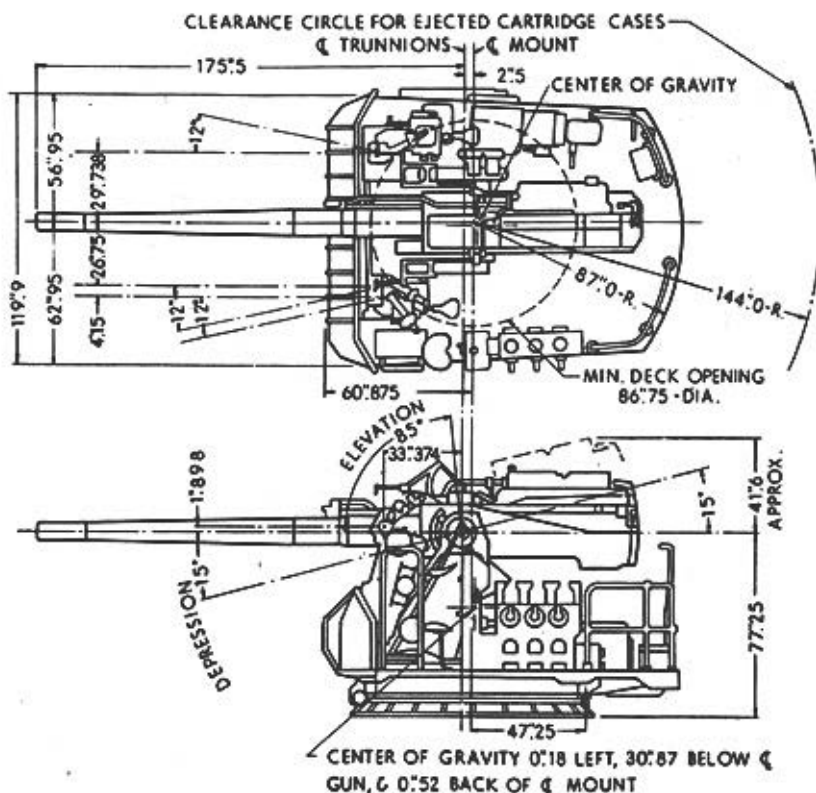
5"/38, MARK 30 MOD. 34

## 5-IN. MOUNT, MARK 30 MOD. 35

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 812       | 102842     |
| 813       | 102843     |
| 873       | 103281     |
| 874       | 103282     |
| 875       | 103283     |
| 876       | 103284     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY

OSCILLATING WEIGHT

RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
CV  
NONE

Weights below are approximate

35,700 LBS.

13,800 LBS.

8,150 LBS.

77,600 LBS.

78,900 LBS.

91,300 LBS.

5"/38, MARK 30 MOD. 35



# 5-IN. MOUNT, MARK 30 MOD. 35

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                             |           |
|--------------------------------------|-----------------------------|-----------|
| Elevating and Training Gear Rammer   | 10. HP. 440 V. 3 $\phi$ 60~ | 7.5 HP.   |
| Gun Firing Transformer               | 115 V. to 20 V.             | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.              | 100 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.                        | 100 A. H. |

### PNEUMATIC

Countercoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450-1550 psi.

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 40 Gals. |

### POWER DRIVES

|                |                     |                |
|----------------|---------------------|----------------|
| Elevating Gear | Mk. 6 Mods. 6, 11   | G. E.-Northern |
| Training Gear  | Mk. 6 Mods. 10, 14  | G. E.-Northern |
| Rammer         | Slide Mk. 24 Mod. 5 | Northern       |

## INDICATOR REGULATORS

|                 |         |            |
|-----------------|---------|------------|
| ELEVATION       | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0   | 2 & 36  | Gen. Elec. |
| TRAIN           |         |            |
| Mods. of Mk. 39 | 1 & 36  | Gen. Elec. |
| FUZE SETTING    |         |            |
| Mk. 8 Mod. 9    | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mod. 1 or Mk. 17 Mod. 0

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordinance Pamphlet No. 735            |           |
| Working Circle Drawing No.            | 244776    |
| General Arrangement Drawing Nos.      | 244789-92 |
| Gun Foundation, BuShips Drawing No.   | 506283    |
| Shore Emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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5"/38, MARK 30 MOD. 35

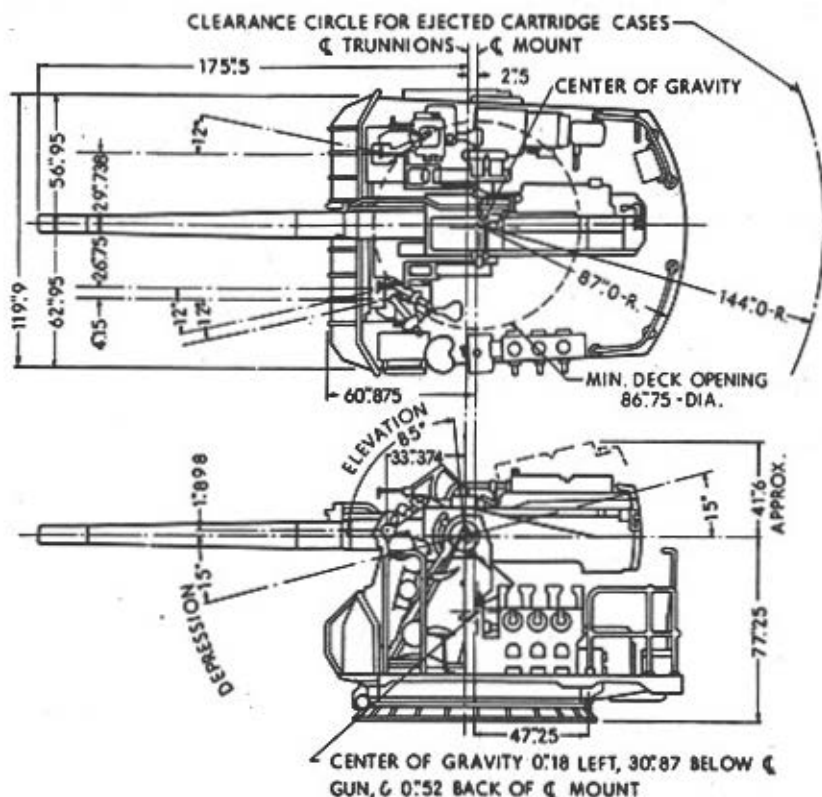


## 5-IN. MOUNT, MARK 30 MOD. 36

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 814       | 102844     |
| 815       | 102845     |
| 816       | 102846     |
| 877       | 103285     |
| 878       | 103286     |
| 879       | 103287     |
| 880       | 103288     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

MK. 12 MOD. 1  
CV  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate

|             |
|-------------|
| 37,700 LBS. |
| 13,800 LBS. |
| 8,150 LBS.  |
| 77,600 LBS. |
| 78,900 LBS. |
| 91,300 LBS. |

5"/38, MARK 30 MOD. 36

# 5-IN. MOUNT, MARK 30 MOD. 36

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                        |           |          |      |
|--------------------------------------|------------------------|-----------|----------|------|
| Elevating and Training Gear Rammer   | 10. HP. }<br>7.5 HP. } | 440 V.    | 3 $\phi$ | 60 ~ |
| Gun Firing Transformer               | 115 V. to 20 V.        | 200 Watts |          |      |
| Illumination Transformer             | 115 V. to 6 V.         | 100 Watts |          |      |
| Stand-by Firing and Lighting—Battery | 6 V.                   | 100 A. H. |          |      |

### PNEUMATIC

|                                     |                                    |
|-------------------------------------|------------------------------------|
| Countercoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi. |
|-------------------------------------|------------------------------------|

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 40 Gals. |

## POWER DRIVES

|                |                     |                |
|----------------|---------------------|----------------|
| Elevating Gear | Mk. 6 Mods. 6, 11   | G. E.-Northern |
| Training Gear  | Mk. 6 Mods. 10, 14  | G. E.-Northern |
| Rammer         | Slide Mk. 24 Mod. 5 | Northern       |

## INDICATOR REGULATORS

|                 |         |            |
|-----------------|---------|------------|
| ELEVATION       | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0   | 2 & 36  | Gen. Elec. |
| TRAIN           |         |            |
| Mods. of Mk. 39 | 1 & 36  | Gen. Elec. |
| FUZE SETTING    |         |            |
| Mk. 8 Mod. 9    | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mod. 1 or Mk. 17 Mod. 0

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 735             |           |
| Working Circle Drawing No.            | 244777    |
| General Arrangement Drawing Nos.      | 244793-96 |
| Gun Foundation, BuShips Drawing No.   | 506283    |
| Shore Emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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5"/38 MARK 30 MOD. 36

## 5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 830          | 103025        |
| 1104         | 106904        |
| 1150         | 107077        |
| 1186         | 107634        |
| 1224         | 107697        |

Technical drawing of a gun mount showing two views: a top view and a side elevation.

**Top View Dimensions:**

- Overall width: 283.125
- Trunnion diameter: 105.0
- Mounting bracket width: 114.25
- Trunnion offset: 2.5
- Working circle Y-Y: 120°
- Clearance circle Z-Z: 72°
- Center of gravity marked

**Side Elevation Dimensions:**

- Barrel length: 270
- Mounting bracket height: 30.75
- Trunnion diameter: 105.0
- Mounting bracket width: 114.25
- Trunnion offset: 2.5
- Center of gravity marked
- Depression angle: 15°
- Elevation angle: 8.5°
- Trunnion and Mount axes indicated

**91,500 LBS.**

**5"/38, MARK 30 MOD. 37**

# 5-IN. MOUNT, MARK 30 MOD. 37

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |                     |  |
|--------------------------------------|-----------------|---------------------|--|
| Elevating and Training Gear          | 10. HP.         | 440 V. 3 $\phi$ 60~ |  |
| Hoist                                | 7.5 HP.         |                     |  |
| Rammer                               | 7.5 HP.         |                     |  |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts           |  |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts           |  |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H            |  |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150 200 psi. |  |
| Countercoil Cylinder (for Charging)               |  |
| 0.34 Cu. Ft. Air at 1450 1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 4 | Northern       |

## INDICATOR REGULATORS

| ELEVATION          | SPEEDS  | MFR.       |
|--------------------|---------|------------|
| Mk. 35 Mod. 0      | 2 & 36  | Gen. Elec. |
| TRAIN              |         |            |
| Mk. 39 Mod. 20     | 1 & 36  | Gen. Elec. |
| FUZE SETTING       |         |            |
| Mk. 8 Mods. 5 or 8 | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 245404    |
|                                  | 251112    |
| General Arrangement Drawing Nos. | 236755-58 |
|                                  | 246622-25 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 284°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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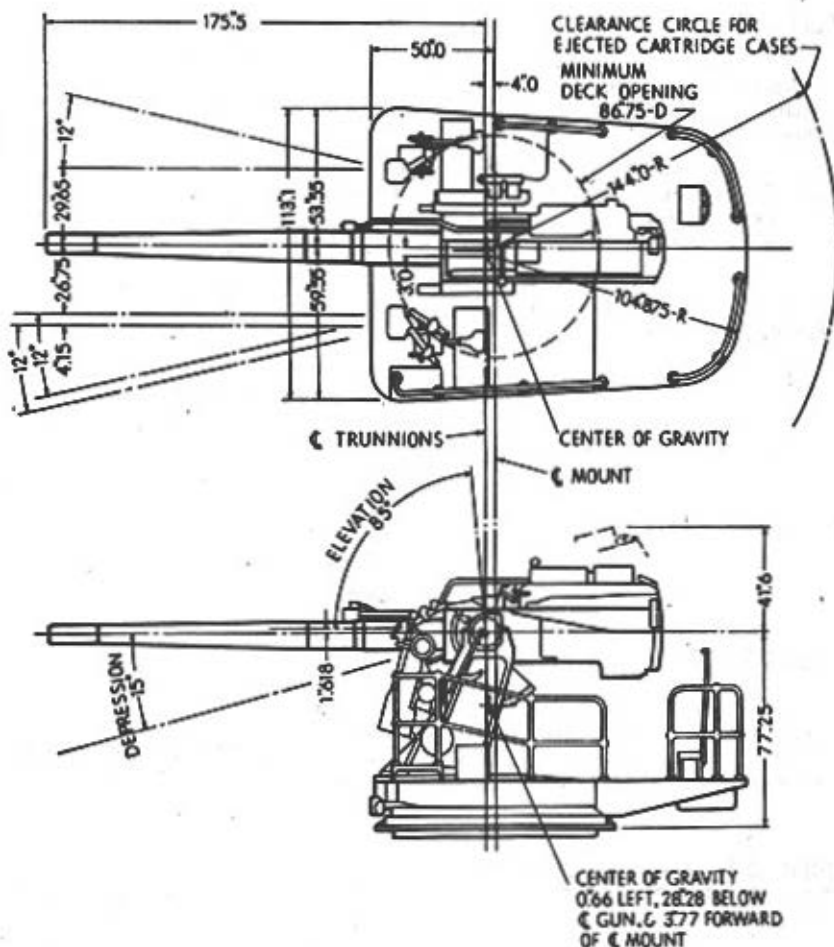
5"/38 MARK 30 MOD. 37



**5-IN. MOUNT, MARK 30 MOD. 38****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 837       | 103114     |
| 929       | 106306     |

Note: Assembly number of mount is required for precise information.



**GUN—5"/38**  
**INSTALLATION FOR**  
**SHIELD**

**TOTAL WEIGHT OF ASSEMBLY**  
**OSCILLATING WEIGHT**  
**RECOILING WEIGHT**  
**BRAKE LOAD**  
**TRUNNION PRESSURE HORIZ. FIRE**  
**TRUNNION PRESSURE 85° ELEV. FIRE**

**MK. 12 MOD. 1**  
**APA-AV-IX-PG-MERCHANT SHIPS**  
**NONE**

Weights below are approximate  
 30,600 LBS.  
 13,900 LBS.  
 8,150 LBS.  
 77,600 LBS.  
 78,900 LBS.  
 91,500 LBS.

**5"/38, MARK 30 MOD. 38**

# 5-IN. MOUNT, MARK 30 MOD. 38

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Rammer 7.5 HP. 440 V. 3  $\phi$  60 ~  
Gun Firing and Illumination—Battery 6 V. 100 A. H.

### PNEUMATIC

Counterrecoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450–1550 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 6 Qts.  
Speed Gear Oil O. S. 2943 10 Gals.

## POWER DRIVES

Rammer Slide Mk. 24 Mod. 8 Northern

## GUN AND AMMUNITION DATA

### GUN

5-In. 38-Cal. Mk. 12 Mod. 1  
Max. Powder Pressure 18 Long Tons per Sq. In.  
Barrel Weight 3,990 Lbs.  
Vertical Sliding Breechblock

### BALLISTICS

Muzzle Velocity 2,600 Feet per Second  
Max. Altitude 37,200 Feet at 85° Elev.  
Max. Range 18,200 Yards at 45°10' Elev.

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                 |
|---------------------------|-------------------|-----------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.   |
| Charge                    | Nominal           | Wt. 15.2 Lbs.   |
| Primer                    | Mk. 13 Mods. 0, 1 |                 |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs. |

## FUZE SETTER

Hand Wrench

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 1013       |           |
| Working Circle Drawing No.       | 245617    |
| General Arrangement Drawing Nos. | 245613–16 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Length of recoil is 15 inches.

Gun elevation per turn of the handwheel is 1° 15'.  
Gun train per turn of the handwheel at high speed is 1° 25' 15".

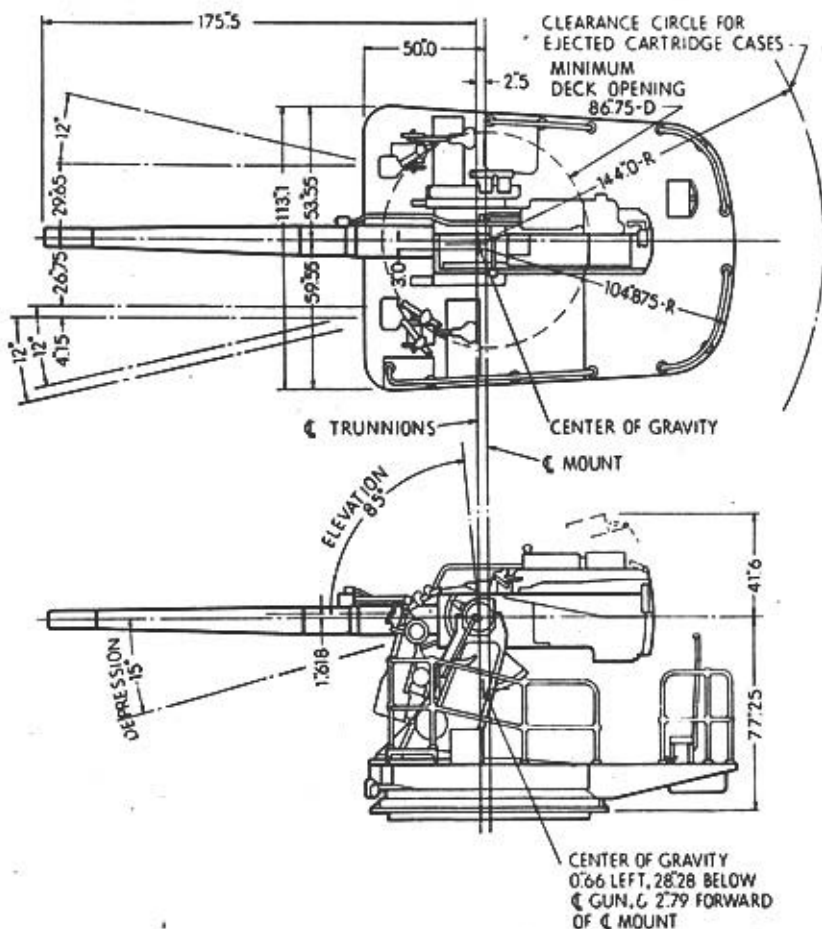
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38, MARK 30 MOD. 38

**5-IN. MOUNT, MARK 30 MOD. 39****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 838       | 103115     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

MK. 12 MOD. 1  
AO—MERCHANT SHIPS  
NONE

Weights below are approximate

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

29,900 LBS.  
13,900 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,500 LBS.

**5"/38, MARK 30 MOD. 39**

# 5-IN. MOUNT, MARK 30 MOD. 39

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Rammer 7.5 HP. 440 V. 3  $\phi$  60~  
Gun Firing and Illumination—Battery 6 V. 100 A. H.

### PNEUMATIC

Countercoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450–1550 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 6 Qts.  
Speed Gear Oil O. S. 2943 10 Gals.

## POWER DRIVES

Rammer Slide Mk. 24 Mod. 3 Northern

## GUN AND AMMUNITION DATA

### GUN

5-In. 38-Cal. Mk. 12 Mod. 1  
Max. Powder Pressure 18 Long Tons per Sq. In.  
Barrel Weight 3,990 Lbs.  
Vertical Sliding Breechblock

### BALLISTICS

Muzzle Velocity 2,600 Feet per Second  
Max. Altitude 37,200 Feet at 85° Elev.  
Max. Range 18,200 Yards at 45°10' Elev.

### AMMUNITION—Separate Case

|                     |        |               |
|---------------------|--------|---------------|
| Typical Projectiles |        |               |
| Common              | Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mk. 30 | Wt. 54.5 Lbs. |

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Hand Wrench

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 1013  
Working Circle Drawing No. 245625  
General Arrangement Drawing Nos. 245621–24

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

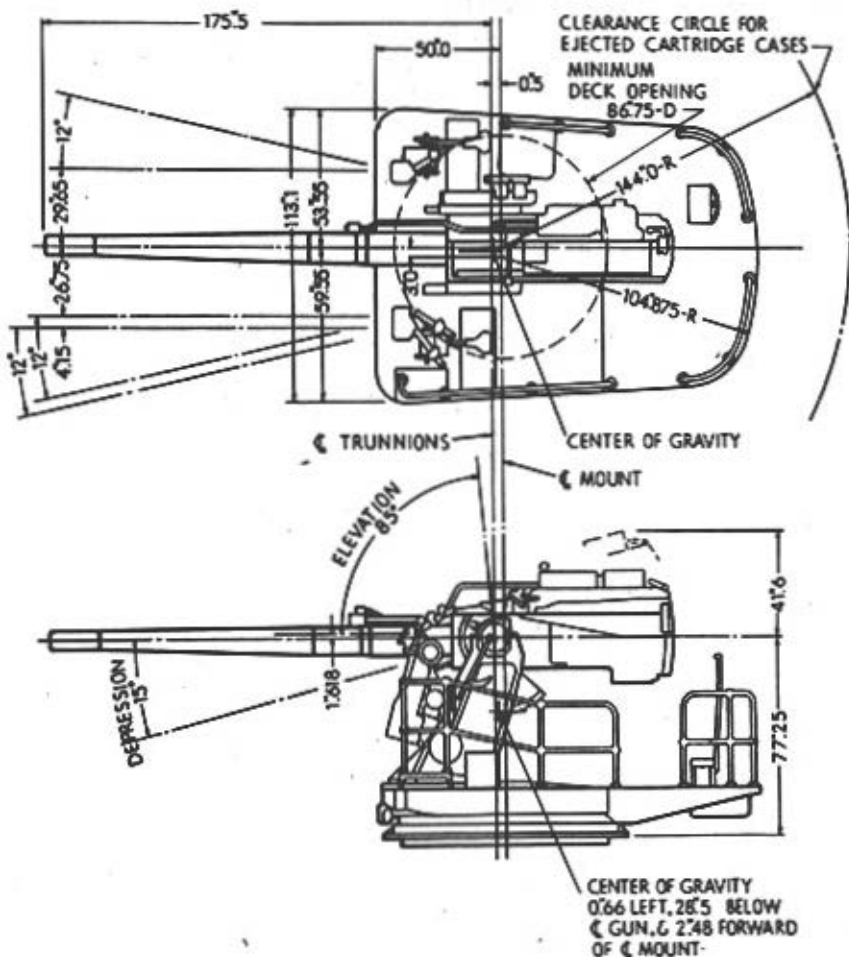
Length of recoil is 15 inches.

Gun elevation per turn of the handwheel is 1° 15'.  
Gun train per turn of the handwheel at high speed is 1° 25' 1.03.



## 5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

**Note:** Assembly number of mount is required for precise information.



**5"/38, MARK 30 MOD. 40**

91,500 LBS.

# 5-IN. MOUNT, MARK 30 MOD. 40

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Rammer 7.5 HP. 440 V. 3  $\phi$  60 ~  
Gun Firing and Illumination—Battery 6 V. 100 A. H.

### PNEUMATIC

Counterrecoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450–1550 psi.

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 10 Gals. |

### POWER DRIVES

|        |                     |          |
|--------|---------------------|----------|
| Rammer | Slide Mk. 24 Mod. 3 | Northern |
|--------|---------------------|----------|

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs                |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### FUZE SETTER

Hand Wrench

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 1013       |           |
| Working Circle Drawing No.       | 245630    |
| General Arrangement Drawing Nos. | 245626–29 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Length of recoil is 15 inches.

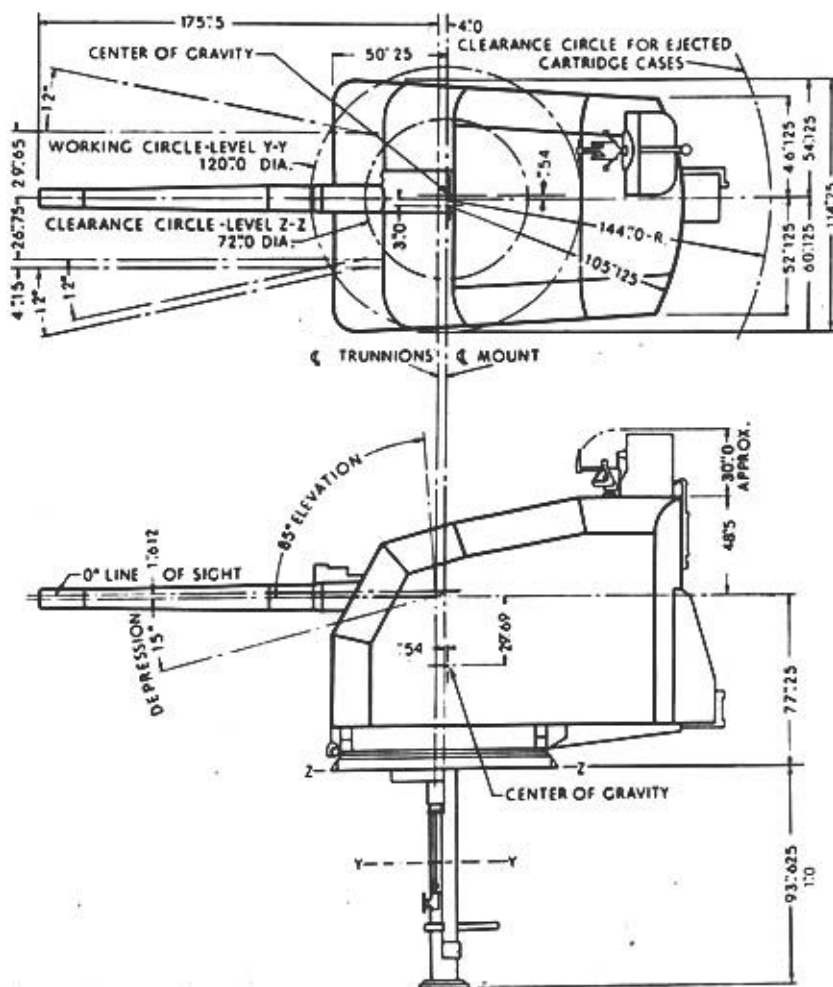
Gun elevation per turn of the handwheel is 1° 15'.  
Gun train per turn of the handwheel at high speed is 1° 25' 1".

## 5-IN. MOUNT, MARK 30 MOD. 41

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 570       | 93308      |
| 574       | 93319      |
| 575       | 93320      |
| 579       | 93324      |
| 580       | 93325      |
| 584       | 93329      |
| 807       | 102833     |
| 1164      | 107612     |
| 1168      | 107616     |
| 1169      | 107617     |
| 1173      | 107621     |
| 1189      | 107637     |
| 1193      | 107641     |
| 1194      | 107642     |
| 1198      | 107646     |
| 1215      | 107684     |
| 1219      | 107688     |
| 1381      | 108442     |
| 1547      | 138933     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS.

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD  
Roof Plate Weight  
Rear Plate Weight  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
AVP-DD

MK. 38 MOD. 0  
.25 IN.

Weights below are approximate  
45,900 LBS.  
9,615 LBS.  
2,025 LBS.  
765 LBS.  
14,000 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,600 LBS.

5"/38, MARK 30 MOD. 41

# 5-IN. MOUNT, MARK 30 MOD. 41

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |        |          |           |
|--------------------------------------|-----------------|--------|----------|-----------|
| Elevating and Training Gear          | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Hoist                                | 7.5 HP.         |        |          |           |
| Rammer                               | 7.5 HP.         |        |          |           |
| Gun Firing Transformer               | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  |        |          | 100 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 0                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                        |                |
|------------------|------------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 6, 17, 20  | G. E.-Northern |
| Training Gear    | Mk. 6 Mods. 10, 20, 25 | G. E.-Northern |
| Projectile Hoist | Mk. 2 Mod. 1           | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 9    | Northern       |

## INDICATOR REGULATORS

| ELEVATION           | SPEEDS  | MFR.       |
|---------------------|---------|------------|
| Mk. 35 Mods. 0 or 1 | 2 & 36  | Gen. Elec. |
| TRAIN               |         |            |
| Mk. 39              | 1 & 36  | Gen. Elec. |
| FUZE SETTING        |         |            |
| Mk. 8 Mods. 5 or 8  | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

| Cartridge                 |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 246631    |
| General Arrangement Drawing Nos. | 246627-30 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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5"/38, MARK 30 MOD. 41



| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 571          | 93309         |
| 576          | 93321         |
| 581          | 93326         |
| 808          | 102837        |
| 1165         | 107613        |
| 1170         | 107618        |
| 1190         | 107638        |
| 1195         | 107643        |
| 1216         | 107685        |
| 1345         | 108396        |

Technical drawing of the gun mount showing elevation and depression views with dimensions and labels.

**Elevation View (Top):**

- Overall width: 283.125
- Distance from left edge to center of gravity: 175.5
- Distance from center of gravity to right edge: 2.5
- Distance from center of gravity to the front of the mount: 50.25
- Distance from the front of the mount to the rear of the mount: 105.125
- Working circle Y-Y: 120.0
- Clearance circle Z-Z: 72.0
- Distance from center of gravity to the front of the mount (along the working circle): 21.0
- Distance from center of gravity to the front of the mount (along the clearance circle): 30.0
- Distance from the front of the mount to the rear of the mount (along the working circle): 105.0
- Distance from the front of the mount to the rear of the mount (along the clearance circle): 144.0
- Distance from the front of the mount to the rear of the mount (along the working circle): 52.125
- Distance from the front of the mount to the rear of the mount (along the clearance circle): 60.125
- Distance from the front of the mount to the rear of the mount (along the working circle): 114.725

**Depression View (Bottom):**

- Overall width: 93.625
- Distance from left edge to center of gravity: 175.5
- Distance from center of gravity to right edge: 2.5
- Distance from center of gravity to the front of the mount: 50.25
- Distance from the front of the mount to the rear of the mount: 105.125
- Working circle Y-Y: 120.0
- Clearance circle Z-Z: 72.0
- Distance from center of gravity to the front of the mount (along the working circle): 21.0
- Distance from center of gravity to the front of the mount (along the clearance circle): 30.0
- Distance from the front of the mount to the rear of the mount (along the working circle): 105.0
- Distance from the front of the mount to the rear of the mount (along the clearance circle): 144.0
- Distance from the front of the mount to the rear of the mount (along the working circle): 52.125
- Distance from the front of the mount to the rear of the mount (along the clearance circle): 60.125
- Distance from the front of the mount to the rear of the mount (along the working circle): 114.725

**Labels:**

- CENTER OF GRAVITY
- WORKING CIRCLE Y-Y 120.0
- CLEARANCE CIRCLE Z-Z 72.0
- CLEARANCE CIRCLE
- ELEVATION
- TRUNNION
- MOUNT
- DEPRESSION
- CENTER OF GRAVITY
- Y-Y
- Z-Z

**91,600 LBS.**

EugeneLeeSlover.com

# 5-IN. MOUNT, MARK 30 MOD. 42

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                         |                 |           |              |
|-----------------------------------------|-----------------|-----------|--------------|
| Elevating and<br>Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                   | 7.5 HP.         |           |              |
| Rammer                                  | 7.5 HP.         |           |              |
| Gun Firing Transformer                  | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer                | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and<br>Lighting—Battery | 6 V.            | 100 A. H  |              |

### PNEUMATIC

|                                       |                                                   |  |  |
|---------------------------------------|---------------------------------------------------|--|--|
| Gas Ejector, Mk. 6 Mod. 1             | Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |  |
| Counterrecoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 7, 18   | G. E.-Northern |
| Training Gear    | Mk. 6 Mods. 9, 19   | G. E.-Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 9 | Northern       |

### INDICATOR REGULATORS

|                    |         |            |
|--------------------|---------|------------|
| ELEVATION          | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0      | 2 & 36  | Gen. Elec. |
| TRAIN              |         |            |
| Mk. 39 Mods. 2, 33 | 1 & 36  | Gen. Elec. |
| FUZE SETTING       |         |            |
| Mk. 8 Mods. 5 or 8 | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 246636    |
| General Arrangement Drawing Nos. | 246632-35 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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5"/38, MARK 30 MOD. 42





# 5-IN. MOUNT, MARK 30 MOD. 43

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |             |
|--------------------------------------|-----------------|-----------|-------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60 |
| Hoist                                | 7.5 HP.         |           |             |
| Rammer                               | 7.5 HP.         |           |             |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |             |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |             |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |             |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 0                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 6 or 17 | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 6 or 17 | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 9 | Northern       |

## INDICATOR REGULATORS

|                     |         |            |
|---------------------|---------|------------|
| ELEVATION           | SPEEDS  | MFR.       |
| Mk. 35 Mods. 0 or 1 | 2 & 36  | Gen. Elec. |
| TRAIN               |         |            |
| Mods. of Mk. 39     | 1 & 36  | Gen. Elec. |
| FUZE SETTING        |         |            |
| Mk. 8 Mods. 5 or 8  | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Maximum Powder Pressure      | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Typical Projectiles       |                   |                       |
| Common                    | Mods. of Mk. 32   | Wt. 54.0 Lbs.         |
| Common                    | Mods. of Mk. 38   | Wt. 55.2 Lbs.         |
| A. A. Common              | Mods. of Mk. 35   | Wt. 55.2 Lbs.         |
| Illuminating              | Mods. of Mk. 30   | Wt. 54.5 Lbs.         |
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 246621    |
| General Arrangement Drawing Nos. | 246617–20 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51 & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

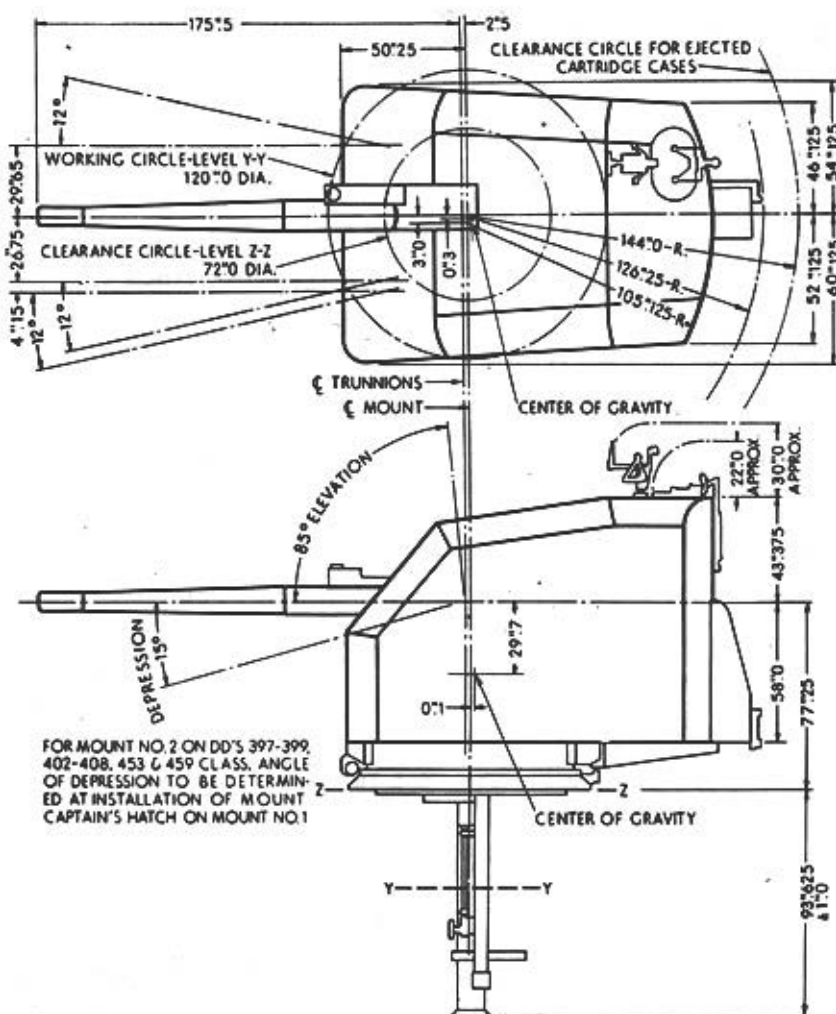
5"/38, MARK 30 MOD. 43



**5-IN. MOUNT, MARK 30 MOD. 44****5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 859          | 103241        |
| 1249         | 107830        |
| 1254         | 107835        |
| 1259         | 107840        |
| 1264         | 107845        |

Note: Assembly number of mount is required for precise information.



**GUN—5"/38**  
**INSTALLATION FOR**  
**SHIELD**  
**SHIELD THICKNESS**

**TOTAL WEIGHT OF ASSEMBLY**  
**TOTAL WEIGHT OF SHIELD**  
 Roof Plate Weight  
 Rear Plate Weight

**OSCILLATING WEIGHT**  
**RECOILING WEIGHT**

**BRAKE LOAD**  
**TRUNNION PRESSURE HORIZ. FIRE**  
**TRUNNION PRESSURE 85° ELEV. FIRE**

**MK. 12 MOD. 1**  
 DD  
**MK. 38 MOD. 1**  
 .25 IN.

Weights below are approximate  
 45,000 LBS.  
 8,740 LBS.  
 1,385 LBS.  
 740 LBS.  
 14,090 LBS.  
 8,150 LBS.  
 77,600 LBS.  
 78,900 LBS.  
 91,600 LBS.

**5"/38, MARK 30 MOD. 44**

# 5-IN. MOUNT, MARK 30 MOD. 44

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |             |
|--------------------------------------|-----------------|-----------|-------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60 |
| Hoist                                | 7.5 HP.         |           |             |
| Rammer                               | 7.5 HP.         |           |             |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |             |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |             |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |             |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counterrecoil Cylinder (for Charging)             |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 7 or 18 | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 7 or 18 | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 9 | Northern       |

## INDICATOR REGULATORS

|                     |         |            |
|---------------------|---------|------------|
| ELEVATION           | SPEEDS  | MFR.       |
| Mk. 35 Mods. 0 or 1 | 2 & 36  | Gen. Elec. |
| TRAIN               |         |            |
| Mods. of Mk. 39     | 1 & 36  | Gen. Elec. |
| FUZE SETTING        |         |            |
| Mk. 8 Mods. 5 or 8  | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Maximum Powder Pressure      | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

|                           |                   |                 |
|---------------------------|-------------------|-----------------|
| Typical Projectiles       |                   |                 |
| Common                    | Mods. of Mk. 32   | Wt. 54.0 Lbs.   |
| Common                    | Mods. of Mk. 38   | Wt. 55.2 Lbs.   |
| A. A. Common              | Mods. of Mk. 35   | Wt. 55.2 Lbs.   |
| Illuminating              | Mods. of Mk. 30   | Wt. 54.5 Lbs.   |
| Cartridge                 |                   |                 |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.   |
| Charge                    | Nominal           | Wt. 15.2 Lbs.   |
| Primer                    | Mk. 13 Mods. 0, 1 |                 |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs. |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 735       |           |
| Working Circle Drawing No.       | 246626    |
| General Arrangement Drawing Nos. | 246622–25 |

## REMARKS

Elevation limits are minus 15°, minus 10° or minus 8° 45' to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51 & 52.

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5"/38, MARK 30 MOD. 44



# 5-IN. MOUNT, MARK 30 MOD. 45

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Rammer 7.5 HP. 440 V. 3  $\phi$  60~  
Gun Firing and Illumination—Battery 6 V. 100 A. H.

### PNEUMATIC

Counterrecoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450-1550 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 6 Qts.  
Speed Gear Oil O. S. 2943 10 Gals.

## POWER DRIVES

Rammer Slide Mk. 24 Mod. 5 Northern

## GUN AND AMMUNITION DATA

### GUN

5-In. 38-Cal. Mk. 12 Mod. 1  
Max. Powder Pressure 18 Long Tons per Sq. In.  
Barrel Weight 3,990 Lbs.  
Vertical Sliding Breechblock

### BALLISTICS

Muzzle Velocity 2,600 Feet per Second  
Max. Altitude 37,200 Feet at 85° Elev.  
Max. Range 18,200 Yards at 45°10' Elev.

### AMMUNITION—Separate Case

|                     |        |               |
|---------------------|--------|---------------|
| Typical Projectiles |        |               |
| Common              | Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Hand Wrench

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 1013       | 245617    |
| Working Circle Drawing Nos.      | 250552    |
| General Arrangement Drawing Nos. | 245613-16 |
|                                  | 250548-51 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Length of recoil is 15 inches.

Gun elevation per turn of the handwheel is 1° 15'.

Gun train per turn of the handwheel at high speed is 1° 25' 1" 03.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38, MARK 30 MOD. 45

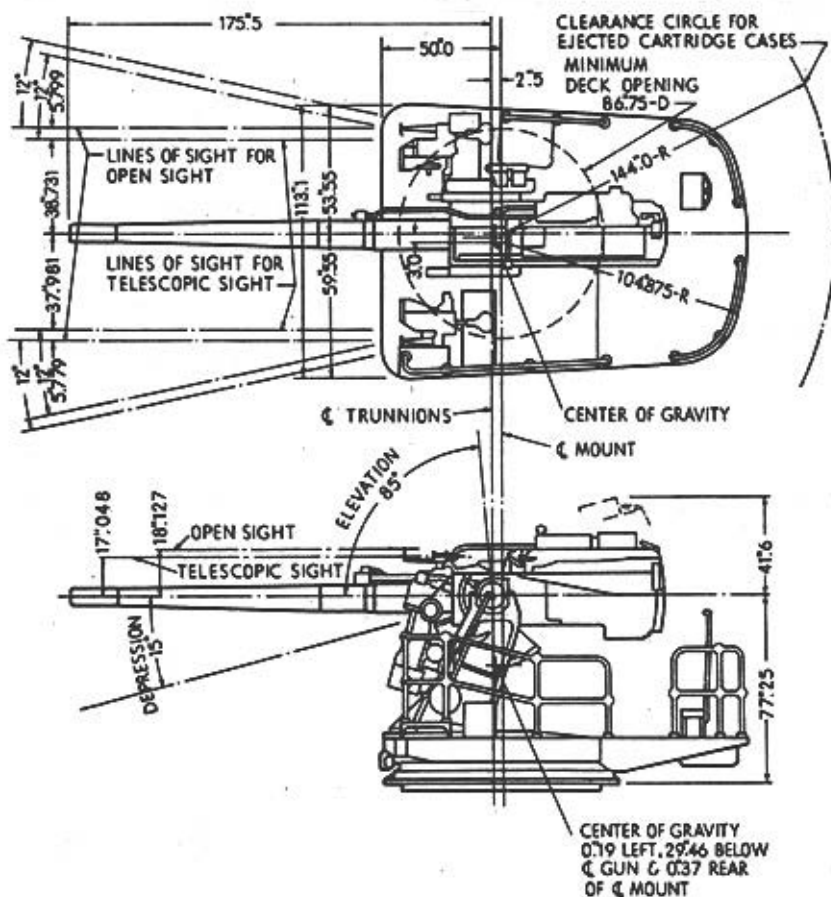


## 5-IN. MOUNT, MARK 30 MOD. 46

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 861          | 103254        |
| 936          | 106321        |
| 944          | 106344        |
| 945          | 106345        |
| 946          | 106346        |
| 1024         | 107667        |
| 1026         | 107669        |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
AO-MERCHANT SHIPS  
NONE

Weights below are approximate

|             |
|-------------|
| 30,200 LBS. |
| 13,800 LBS. |
| 8,150 LBS.  |
| 77,600 LBS. |
| 78,900 LBS. |
| 91,400 LBS. |

5"/38, MARK 30 MOD. 46

# 5-IN. MOUNT, MARK 30 MOD. 46

5-IN.-38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Rammer 7.5 HP. 440 V. 3  $\phi$  60~  
Gun Firing and Illumination—Battery 6 V. 100 A. H

### PNEUMATIC

Counterrecoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450–1550 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 6 Qts.  
Speed Gear Oil O. S. 2943 10 Gals.

## POWER DRIVES

Rammer Slide Mk. 24 Mod. 5 Northern

## GUN AND AMMUNITION DATA

### GUN

5-In. 38-Cal. Mk. 12 Mod. 1  
Max. Powder Pressure 18 Long Tons per Sq. In.  
Barrel Weight 3,990 Lbs.  
Vertical Sliding Breechblock

### BALLISTICS

Muzzle Velocity 2,600 Feet per Second  
Max. Altitude 37,200 Feet at 85° Elev.  
Max. Range 18,200 Yards at 45° 10' Elev.

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Hand Wrench

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |                        |
|----------------------------------|------------------------|
| Ordnance Pamphlet No. 1013       |                        |
| Working Circle Drawing Nos.      | 245625<br>250561       |
| General Arrangement Drawing Nos. | 245621–24<br>250557–60 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Length of recoil is 15 inches.

Gun elevation per turn of the handwheel is 1° 13'  
Gun train per turn of the handwheel at high speed is 1° 25' 1" 03'.

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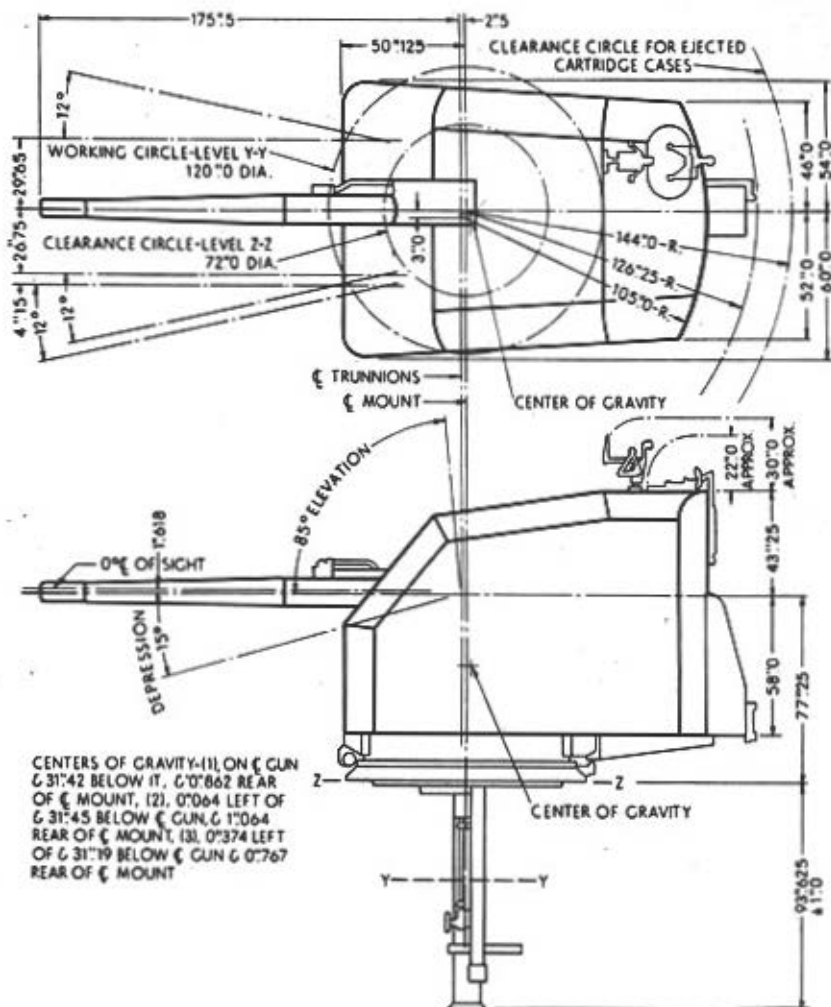
5"/38, MARK 30 MOD. 46

# 5-IN. MOUNT, MARK 30 MOD. 47

## 5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 600          | 94531         |
| 627          | 94775         |
| 648          | 94848         |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
DD

MK. 25 MOD. 3  
.125 IN.

Weights below are approximate  
40,260 TO 41,380 LBS.  
4,865 LBS.  
945 LBS.  
514 LBS.  
13,900 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,500 LBS.

5"/38, MARK 30 MOD. 47



# 5-IN. MOUNT, MARK 30 MOD. 47

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |             |
|--------------------------------------|-----------------|-----------|-------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60 |
| Hoist                                | 7.5 HP.         |           |             |
| Rammer                               | 7.5 HP.         |           |             |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |             |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |             |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |             |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 2 Mod. 5        | Ford-Waterbury |
|                  | Mk. 6 Mod. 1        | G. E.-Northern |
|                  | Mk. 8 Mod. 1        | Ford-Waterbury |
| Training Gear    | Mk. 2 Mod. 5        | Ford-Waterbury |
|                  | Mk. 6 Mod. 1        | G. E.-Northern |
|                  | Mk. 8 Mod. 1        | Ford-Waterbury |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 6 | Northern       |

## INDICATOR REGULATORS

| ELEVATION      | SPEEDS  | MFR.       |
|----------------|---------|------------|
| Mk. 28 Mod. 0  | 2 & 36  | Ford       |
| Mk. 35 Mod. 0  | 2 & 36  | Gen. Elec. |
| Mk. 37 Mod. 0  | 2 & 36  | Ford       |
| TRAIN          |         |            |
| Mk. 36 Mod. 4  | 1 & 36  | Ford       |
| Mk. 39 Mod. 29 | 1 & 36  | Gen. Elec. |
| Mk. 41 Mod. 4  | 1 & 36  | Ford       |
| FUZE SETTING   |         |            |
| Mk. 8 Mod. 5   | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Maximum Powder Pressure      | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles       |                   |                       |
|---------------------------|-------------------|-----------------------|
| Common                    | Mods. of Mk. 32   | Wt. 54.0 Lbs.         |
| Common                    | Mods. of Mk. 38   | Wt. 55.2 Lbs.         |
| A. A. Common              | Mods. of Mk. 35   | Wt. 55.2 Lbs.         |
| Illuminating              | Mods. of Mk. 30   | Wt. 54.5 Lbs.         |
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 254092    |
|                                  | 256328    |
|                                  | 256333    |
| General Arrangement Drawing Nos. | 254087–90 |
|                                  | 256324–27 |
|                                  | 256329–32 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate with General Electric controls is 15° per second; maximum training gear rate 28.75° per second. Maximum elevating gear rate with Ford controls is 18° per second; maximum training gear rate 34° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51 & 52.

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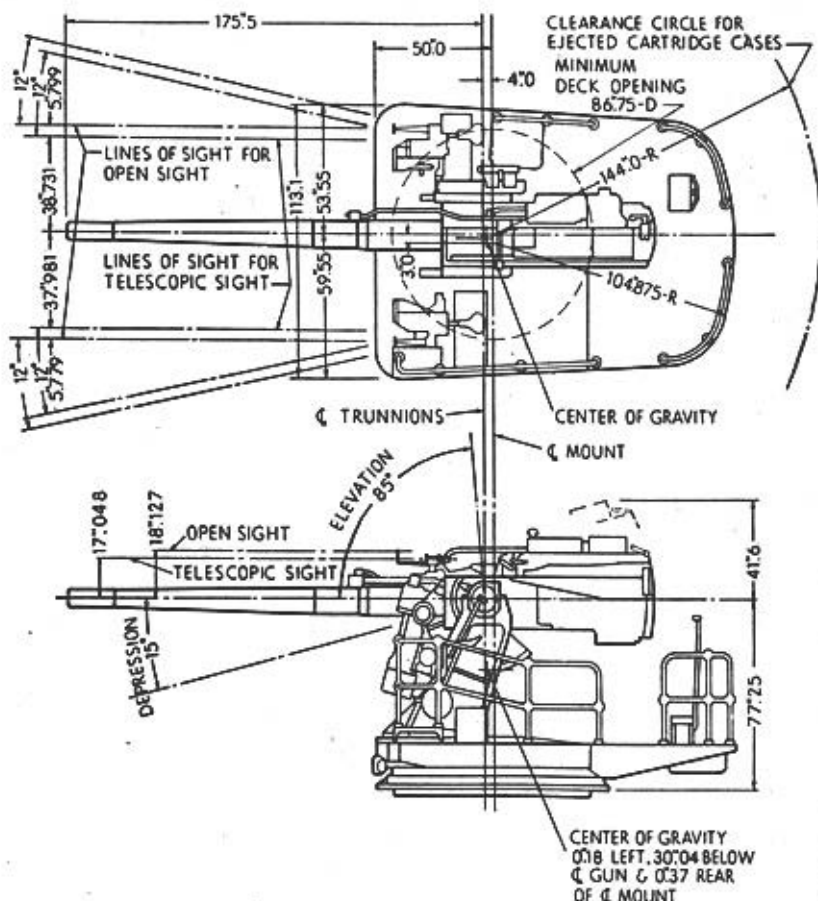
5"/38, MARK 30 MOD. 47



**5-IN. MOUNT, MARK 30 MOD. 48****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 795       | 102815     |
| 907       | 106298     |
| 965       | 106777     |
| 970       | 106803     |
| 1019      | 107662     |
| 1021      | 107664     |
| 1127      | 106947     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
AK-AO-MERCHANT SHIPS  
NONE

Weights below are approximate  
30,500 LBS.  
13,800 LBS.  
8,150 LBS.  
77,600 LBS.  
78,800 LBS.  
91,400 LBS.

**5"/38, MARK 30 MOD. 48**

# 5-IN. MOUNT, MARK 30 MOD. 48

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Rammer 7.5 HP. 440 V. 3  $\phi$  60~  
Gun Firing and Illumination—Battery 6 V. 100 A. H.

### PNEUMATIC

Counter recoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450–1550 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 6 Qts.  
Speed Gear Oil O. S. 2943 10 Gals.

## POWER DRIVES

Rammer Slide Mk. 24 Mod. 5 Northern

## GUN AND AMMUNITION DATA

### GUN

5-In. 38-Cal. Mk. 12 Mod. 1  
Max. Powder Pressure 18 Long Tons per Sq. In.  
Barrel Weight 3,990 Lbs.  
Vertical Sliding Breechblock

### BALLISTICS

Muzzle Velocity 2,600 Feet per Second  
Max. Altitude 37,200 Feet at 85° Elev.  
Max. Range 18,200 Yards at 45°10' Elev.

### AMMUNITION—Separate Case

| Typical Projectiles |        |               |
|---------------------|--------|---------------|
| Common              | Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Hand Wrench

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |                        |
|----------------------------------|------------------------|
| Ordnance Pamphlet No. 1013       |                        |
| Working Circle Drawing Nos.      | 247794<br>250566       |
| General Arrangement Drawing Nos. | 247790–93<br>250562–65 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Length of recoil is 15 inches

Gun elevation per turn of the handwheel is 1° 15'.  
Gun train per turn of the handwheel at high speed is 1° 25' 1" 03 or 2° 50' 2" 07.

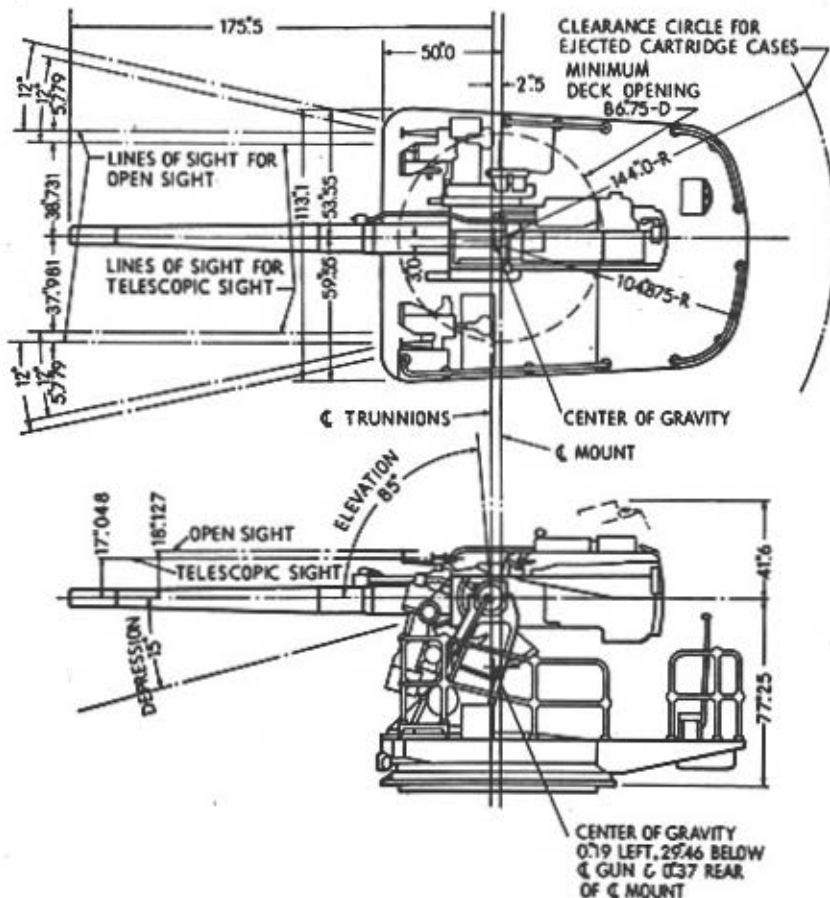
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5"/38, MARK 30 MOD. 48

**5-IN. MOUNT, MARK 30 MOD. 49****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 908       | 106299     |
| 966       | 106778     |
| 1020      | 107663     |
| 1022      | 107665     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
AK-AS-MERCHANT SHIPS  
NONE

Weights below are approximate  
30,100 LBS.  
13,800 LBS.  
8,150 LBS.  
77,600 LBS.  
78,800 LBS.  
91,400 LBS.

**5"/38, MARK 30 MOD. 49**

# 5-IN. MOUNT, MARK 30 MOD. 49

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Rammer 7.5 HP. 440 V. 3  $\phi$  60~  
Gun Firing and Illumination—Battery 6 V. 100 A. H.

### PNEUMATIC

Counterrecoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450–1550 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 6 Qts.  
Speed Gear Oil O. S. 2943 10 Gals.

## POWER DRIVES

Rammer Slide Mk. 24 Mod. 5 Northern

## GUN AND AMMUNITION DATA

### GUN

5-In. 38-Cal. Mk. 12 Mod. 1  
Max. Powder Pressure 18 Long Tons per Sq. In.  
Barrel Weight 3,990 Lbs.  
Vertical Sliding Breechblock

### BALLISTICS

Muzzle Velocity 2,600 Feet per Second  
Max. Altitude 37,200 Feet at 85° Elev.  
Max. Range 18,200 Yards at 45° 10' Elev.

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Hand Wrench

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |                        |
|----------------------------------|------------------------|
| Ordnance Pamphlet No. 1013       |                        |
| Working Circle Drawing Nos.      | 247799<br>250571       |
| General Arrangement Drawing Nos. | 247795–98<br>250: 7–70 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Length of recoil is 15 inches.

Gun elevation perturn of the handwheel is 1° 15'.  
Gun train per turn of the handwheel at high speed is 2° 50' 2" 07

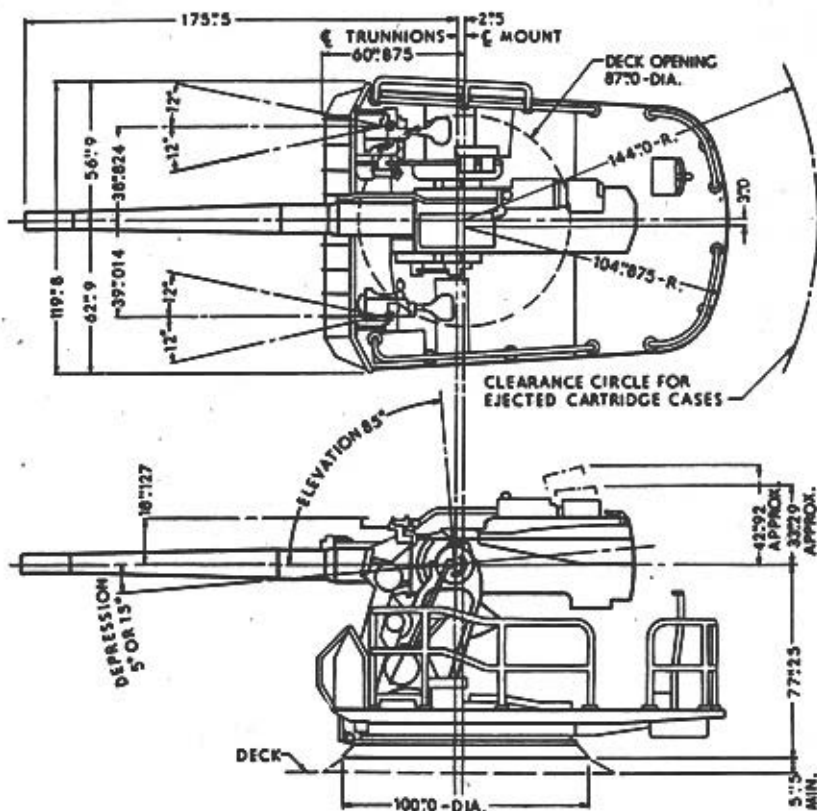


# 5-IN. MOUNT, MARK 30 MOD. 50

## 5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 955       | 106752     |
| 1422      | 132221     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
AUXILIARIES AND MERCHANT SHIPS  
NONE

Weights below are approximate  
35,600 LBS.  
13,900 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,500 LBS.

5"/38, MARK 30 MOD. 50

# 5-IN. MOUNT, MARK 30 MOD. 50

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |           |              |
|------------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear              | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Rammer                                   | 7.5 HP.         |           |              |
| Gun Firing and Illumination Transformer— |                 |           |              |
| Firing                                   | 440 V. to 20 V. | 100 Watts |              |
| Illumination                             | 440 V. to 6 V.  | 50 Watts  |              |
| Stand-by Firing and Lighting—Battery     | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                        |                                    |
|----------------------------------------|------------------------------------|
| Counter recoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450–1550 psi. |
|----------------------------------------|------------------------------------|

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 26 Gals. |

## POWER DRIVES

|                |                     |          |
|----------------|---------------------|----------|
| Elevating Gear | Mk. 14 Mod. 0       | Northern |
| Training Gear  | Mk. 14 Mod. 1       | Northern |
| Rammer         | Slide Mk. 24 Mod. 5 | Northern |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                       |                 |
|---------------------------|-----------------------|-----------------|
| Case                      | Mk. 5 Mod. 0          | Wt. 12.3 Lbs.   |
| Charge                    | Nominal Wt. 15.2 Lbs. |                 |
| Primer                    | Mk. 13 Mods. 0, 1     |                 |
| Total Weight of Cartridge |                       | Appr. 27.5 Lbs. |

## FUZE SETTER

Mk. 13 Mod. 0

## OPERATING SELECTION

Manual Drive—Hand Control (Hydraulic)

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 895             |           |
| Working Circle Drawing Nos.           | 363476    |
|                                       | 378311    |
| General Arrangement Drawing Nos.      | 378314–17 |
| Gun Foundation, BuShips Drawing No.   | 506283    |
| Shore Emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

## REMARKS

Elevation limits are minus 5° to plus 85°, though the depression limit may be increased to 15° by adjustment of the positive and power drive stops. The training limit is 330°

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 30° per second.

Length of recoil is 15 inches.

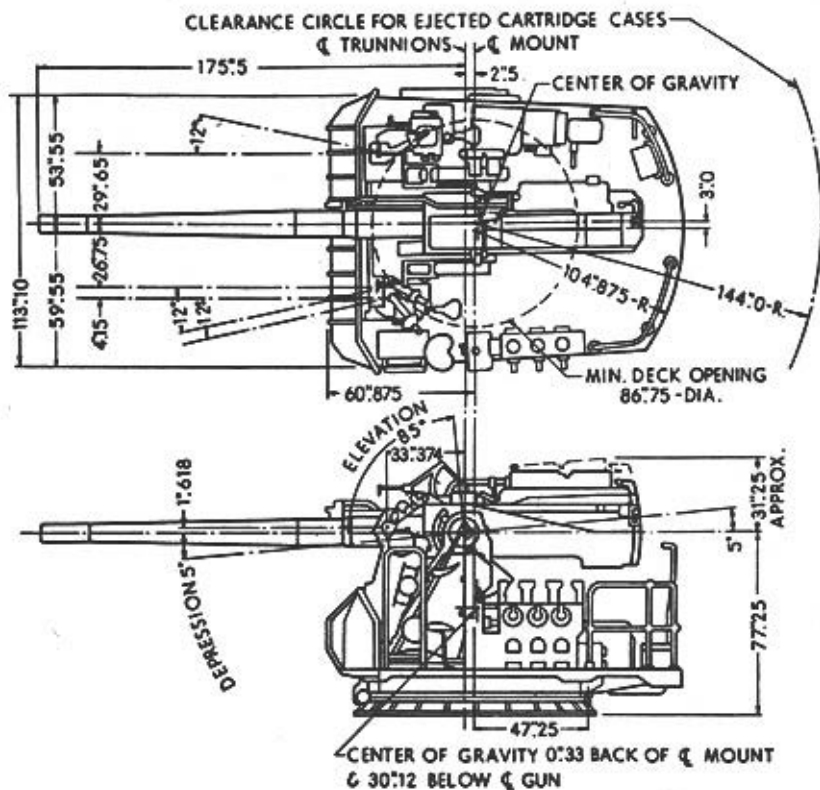
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38, MARK 30 MOD. 50

**5-IN. MOUNT, MARK 30 MOD. 51****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 585          | 93330         |
| 910          | 106204        |
| 1100         | 106900        |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
AGP-AVP  
NONE

Weights below are approximate  
35,000 LBS.  
13,800 LBS.  
8,150 LBS.  
77,600 LBS.  
78,800 LBS.  
91,300 LBS.

**5"/38, MARK 30 MOD. 51**



# 5-IN. MOUNT, MARK 30 MOD. 51

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                  |           |
|--------------------------------------|------------------|-----------|
| Elevating and Training Gear Rammer   | 10. HP. } 440 V. | 34 60~    |
|                                      | 7.5 HP. }        |           |
| Gun Firing Transformer               | 115 V. to 20 V.  | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.   | 100 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.             | 100 A.H.  |

### PNEUMATIC

|                                       |                                    |
|---------------------------------------|------------------------------------|
| Counterrecoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450–1550 psi. |
|---------------------------------------|------------------------------------|

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 40 Gals. |

### POWER DRIVES

|                |                     |                |
|----------------|---------------------|----------------|
| Elevating Gear | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Training Gear  | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Rammer         | Slide Mk. 24 Mod. 5 | Northern       |

### INDICATOR REGULATORS

|                |         |            |
|----------------|---------|------------|
| ELEVATION      | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0  | 2 & 36  | Gen. Elec. |
| TRAIN          |         |            |
| Mk. 39 Mod. 20 | 1 & 36  | Gen. Elec. |
| FUZE SETTING   |         |            |
| Mk. 8 Mod. 9   | 2 & 100 | Ama        |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### FUZE SETTER

Mk. 7 Mod. 1 or Mk. 17 Mod. 0

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordinance Pamphlet No. 735            |           |
| Working Circle Drawing No.            | 247781    |
| General Arrangement Drawing Nos.      | 247777–80 |
| Gun Foundation, BuShips Drawing No.   | 506283    |
| Shore Emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

### REMARKS

Elevation limits are minus 5° to plus 85°. The training limit is 271°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

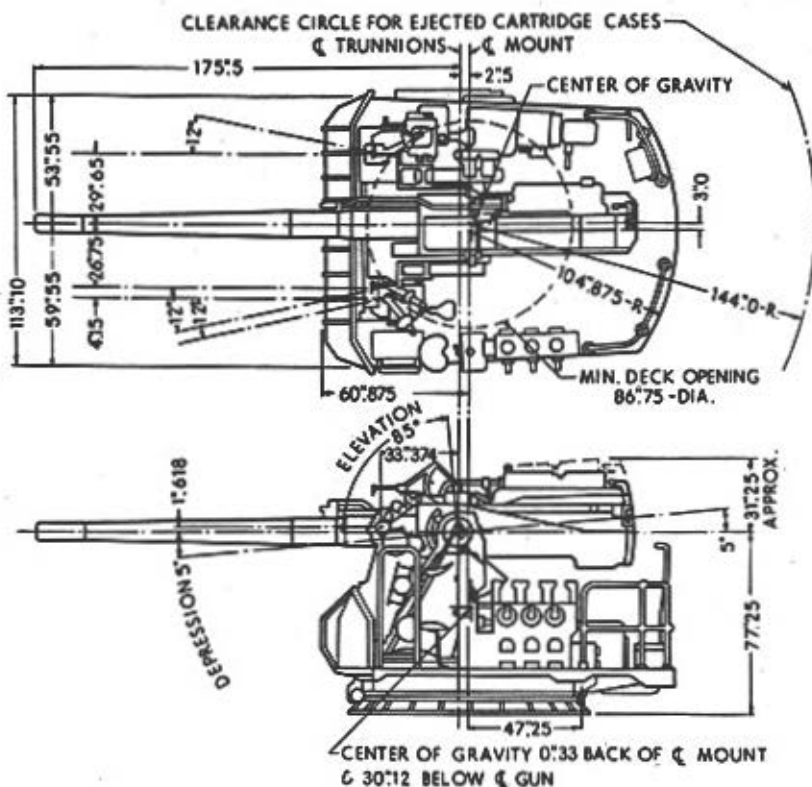


## 5-IN. MOUNT, MARK 30 MOD. 52

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 586       | 93331      |
| 911       | 106205     |
| 1101      | 106901     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
AVP  
NONE

Weights below are approximate  
35,000 LBS.  
13,800 LBS.  
8,150 LBS.  
77,600 LBS.  
78,800 LBS.  
91,300 LBS.

5"/38, MARK 30 MOD. 52

# 5-IN. MOUNT, MARK 30 MOD. 52

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                     |                                    |  |
|-------------------------------------|------------------------------------|--|
| Countercoil Cylinder (for Charging) |                                    |  |
|                                     | 0.34 Cu. Ft. Air at 1450-1550 psi. |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 40 Gals. |

## POWER DRIVES

|                |                     |                |
|----------------|---------------------|----------------|
| Elevating Gear | Mk. 6 Mods. 7, 18   | G. E.-Northern |
| Training Gear  | Mk. 6 Mods. 7, 18   | G. E.-Northern |
| Rammer         | Slide Mk. 24 Mod. 5 | Northern       |

## INDICATOR REGULATORS

|               |         |            |
|---------------|---------|------------|
| ELEVATION     | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0 | 2 & 36  | Gen. Elec. |
| TRAIN         |         |            |
| Mk. 39 Mod. 4 | 1 & 36  | Gen. Elec. |
| FUZE SETTING  |         |            |
| Mk. 8 Mod. 9  | 2 & 100 | Ama        |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-in. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mod. 1 or Mk. 17 Mod. 0

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 735             |           |
| Working Circle Drawing No.            | 247782    |
| General Arrangement Drawing Nos.      | 247777-80 |
| Gun Foundation, BuShips Drawing No.   | 506283    |
| Shore Emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

## REMARKS

Elevation limits are minus 5° to plus 85°. The training limit is 294°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

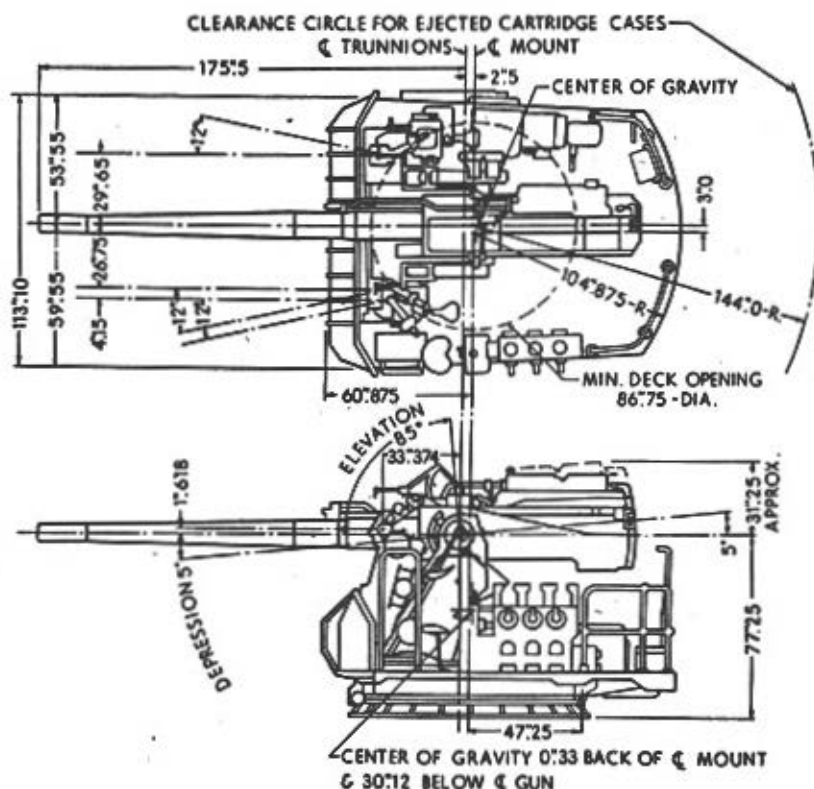
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38. MARK 30 MOD. 52

**5-IN. MOUNT, MARK 30 MOD. 53****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 912       | 106206     |
| 1112      | 106919     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MARK 12 MOD. 1  
AVP  
NONE

Weights below are approximate  
34,200 LBS.  
13,800 LBS.  
8,150 LBS.  
77,600 LBS.  
78,800 LBS.  
91,300 LBS.

**5"/38, MARK 30 MOD. 53**

# 5-IN. MOUNT, MARK 30 MOD. 53

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                        |           |              |
|--------------------------------------|------------------------|-----------|--------------|
| Elevating and Training Gear Rammer   | 10. HP. }<br>7.5 HP. } | 440 V.    | 3 $\phi$ 60~ |
| Gun Firing Transformer               | 115 V. to 20 V.        | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.         | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.                   | 100 A. H. |              |

### PNEUMATIC

|                                        |                                    |
|----------------------------------------|------------------------------------|
| Counter recoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450–1550 psi. |
|----------------------------------------|------------------------------------|

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 40 Gals. |

## POWER DRIVES

|                |                     |                |
|----------------|---------------------|----------------|
| Elevating Gear | Mk. 6 Mod. 7        | G. E.—Northern |
| Training Gear  | Mk. 6 Mod. 9        | G. E.—Northern |
| Rammer         | Slide Mk. 24 Mod. 5 | Northern       |

## INDICATOR REGULATORS

| ELEVATION      | SPEEDS  | MFR.       |
|----------------|---------|------------|
| Mk. 35 Mod. 0  | 2 & 36  | Gen. Elec. |
| TRAIN          |         |            |
| Mk. 39 Mod. 20 | 1 & 36  | Gen. Elec. |
| FUZE SETTING   |         |            |
| Mk. 8 Mod. 9   | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |        |               |
|---------------------|--------|---------------|
| Common              | Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mod. 1 or Mk. 17 Mod. 0

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordinance Pamphlet No. 735            |           |
| Working Circle Drawing No.            | 247786    |
| General Arrangement Drawing Nos.      | 247777–80 |
| Gun Foundation, BuShips Drawing No.   | 506283    |
| Shore Emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

## REMARKS

Elevation limits are minus 5° to plus 85°. The training limit is 271°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

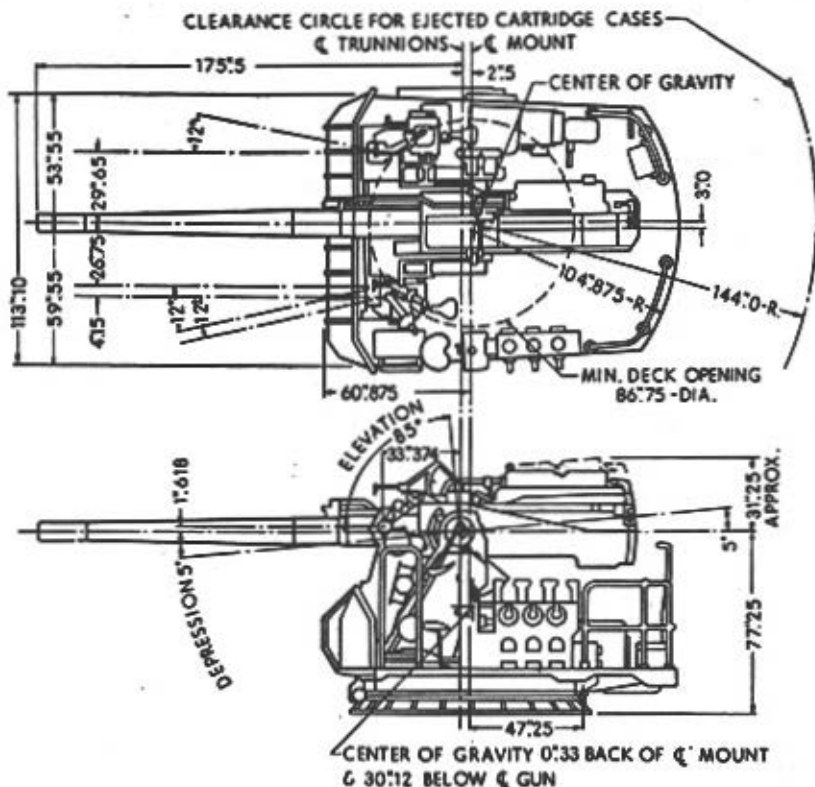
This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.



**5-IN. MOUNT, MARK 30 MOD. 54****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 913       | 106207     |
| 1113      | 106920     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

MARK 12 MOD. 1  
AVP  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate

|             |
|-------------|
| 34,200 LBS. |
| 13,800 LBS. |
| 8,150 LBS.  |
| 77,600 LBS. |
| 78,800 LBS. |
| 91,300 LBS. |

**5"/38, MARK 30 MOD. 54**

# 5-IN. MOUNT, MARK 30 MOD. 54

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                                            |
|--------------------------------------|--------------------------------------------|
| Elevating and Training Gear Rammer   | 10. HP. } 440 V. 3 $\phi$ 60~<br>7.5 HP. } |
| Gun Firing Transformer               | 115 V. to 20 V. 200 Watts                  |
| Illumination Transformer             | 115 V. to 6 V. 100 Watts                   |
| Stand-by Firing and Lighting—Battery | 6 V. 100 A. H.                             |

### PNEUMATIC

|                                     |                                    |
|-------------------------------------|------------------------------------|
| Countercoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450–1550 psi. |
|-------------------------------------|------------------------------------|

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 40 Gals. |

## POWER DRIVES

|                |                     |                |
|----------------|---------------------|----------------|
| Elevating Gear | Mk. 6 Mod. 7        | G. E.—Northern |
| Training Gear  | Mk. 6 Mod. 9        | G. E.—Northern |
| Rammer         | Slide Mk. 24 Mod. 5 | Northern       |

## INDICATOR REGULATORS

| ELEVATION     | SPEEDS  | MFR.       |
|---------------|---------|------------|
| Mk. 35 Mod. 0 | 2 & 36  | Gen. Elec. |
| TRAIN         |         |            |
| Mk. 39 Mod. 4 | 1 & 36  | Gen. Elec. |
| FUZE SETTING  |         |            |
| Mk. 8 Mod. 9  | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |        |               |
|---------------------|--------|---------------|
| Common              | Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mod. 1 or Mk. 17 Mod. 0

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordinance Pamphlet No. 735            |           |
| Working Circle Drawing No.            | 247787    |
| General Arrangement Drawing Nos.      | 247777–80 |
| Gun Foundation, BuShips Drawing No.   | 506283    |
| Shore Emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

## REMARKS

Elevation limits are minus 5° to plus 85°. The training limit is 294°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

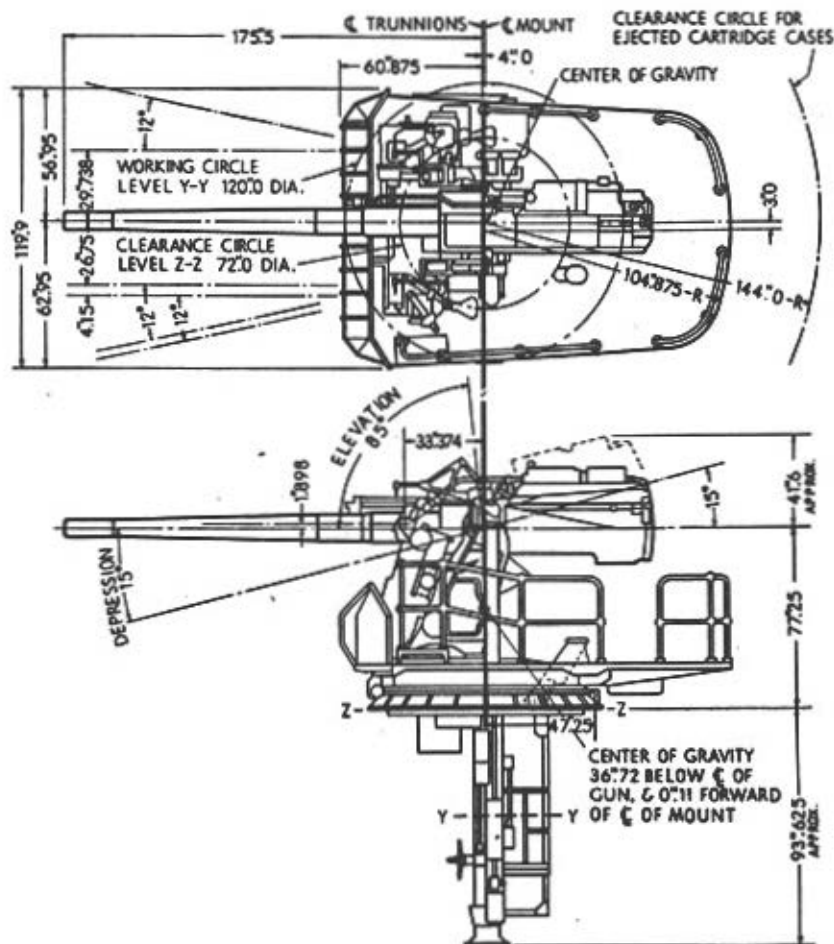
This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

# 5-IN. MOUNT, MARK 30 MOD. 56

## 5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

ASSY. SKETCH  
NO. NO.  
1116 106925

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
SPARES  
NONE

Weights below are approximate  
38,700 LBS.  
13,800 LBS.  
8,150 LBS.  
77,600 LBS.  
78,800 LBS.  
91,300 LBS.

5"/38, MARK 30 MOD. 56

# 5-IN. MOUNT, MARK 30 MOD. 56

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |        |
|--------------------------------------|-----------------|-----------|--------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 34 60~ |
| Hoist                                | 7.5 HP.         |           |        |
| Rammer                               | 7.5 HP.         |           |        |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |        |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |        |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |        |

### PNEUMATIC

|                                       |                                    |
|---------------------------------------|------------------------------------|
| Counterrecoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi. |
|---------------------------------------|------------------------------------|

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 6        | G. E.-Northern |
| Training Gear    | Mk. 6 Mod. 6        | G. E.-Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 5 | Northern       |

## INDICATOR REGULATORS

|               |         |            |
|---------------|---------|------------|
| ELEVATION     | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0 | 2 & 36  | Gen. Elec. |
| TRAIN         |         |            |
| Mk. 39        | 1 & 36  | Gen. Elec. |
| FUZE SETTING  |         |            |
| Mk. 8 Mod. 5  | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

|                     |        |               |
|---------------------|--------|---------------|
| Typical Projectiles |        |               |
| Common              | Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 735       |           |
| Working Circle Drawing No.       | 249750    |
| General Arrangement Drawing Nos. | 250050-53 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52

5"/38. MARK 30 MOD. 56

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

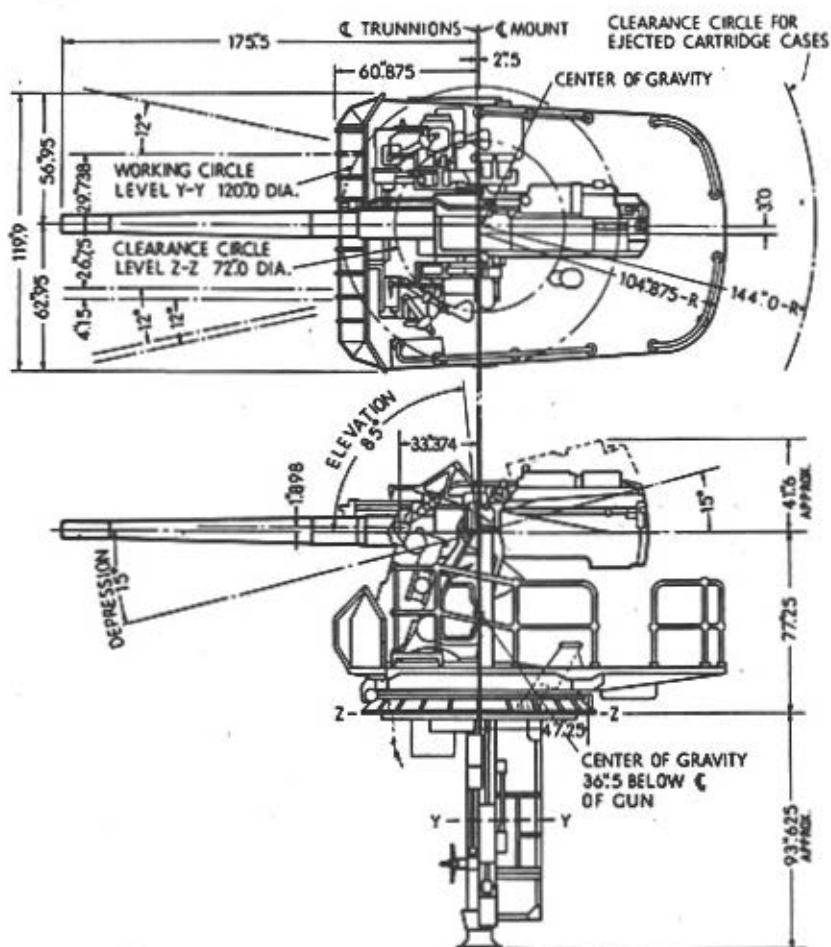


# 5-IN. MOUNT, MARK 30 MOD. 57

## 5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 1118      | 106787     |
| 1119      | 106849     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

MK. 12 MOD. 1  
SPARES  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate

|             |
|-------------|
| 38,300 LBS. |
| 13,800 LBS. |
| 8,150 LBS.  |
| 77,600 LBS. |
| 78,800 LBS. |
| 91,300 LBS. |

### 5"/38, MARK 30 MOD. 57

# 5-IN. MOUNT, MARK 30 MOD. 57

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                        |                                    |
|----------------------------------------|------------------------------------|
| Counter recoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450–1550 psi. |
|----------------------------------------|------------------------------------|

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 7        | G. E.—Northern |
| Training Gear    | Mk. 6 Mod. 7        | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 5 | Northern       |

### INDICATOR REGULATORS

|               |         |            |
|---------------|---------|------------|
| ELEVATION     | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0 | 2 & 36  | Gen. Elec. |
| TRAIN         |         |            |
| Mk. 39        | 1 & 36  | Gen. Elec. |
| FUZE SETTING  |         |            |
| Mk. 8 Mod. 5  | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |        |               |
|---------------------|--------|---------------|
| Typical Projectiles |        |               |
| Common              | Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 249751    |
| General Arrangement Drawing Nos. | 250054–57 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38 MARK 30 MOD. 57

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 582          | 93327         |
| 1166         | 107614        |
| 1171         | 107619        |
| 1217         | 107686        |

The technical drawing consists of two views of a gun turret.

**Plan View (Top):**

- Overall width: 175'5
- Overall length: 283'125
- Distance from front edge to center of gravity: 105'125
- Radius of working circle Y-Y: 120'0
- Radius of clearance circle Z-Z: 72'0
- Distance from center of gravity to trunnion: 50'25
- Trunnion diameter: 3'0
- Mount diameter: 105'725
- Distance from trunnion to mount: 126'375
- Distance from front edge to trunnion: 2'5
- Distance from front edge to center of gravity: 12'
- Distance from front edge to working circle Y-Y: 206'5
- Distance from front edge to clearance circle Z-Z: 4'15
- Distance from front edge to trunnion: 12'
- Distance from front edge to center of gravity: 12'
- Distance from front edge to working circle Y-Y: 54'725
- Distance from front edge to clearance circle Z-Z: 60'125
- Distance from front edge to trunnion: 114'725

**Elevation View (Bottom):**

- Elevation angle: 83°0
- Depression angle: 15°
- Trunnion diameter: 3'104
- Mount diameter: 1'14
- Distance from front edge to trunnion: 27'0 APPROX
- Distance from front edge to mount: 30'0 APPROX
- Distance from front edge to trunnion: 43'375
- Distance from front edge to mount: 58'0
- Distance from front edge to trunnion: 77'25
- Distance from front edge to mount: 93'625
- Distance from front edge to trunnion: 1'10

Weights below are approximate

|        |      |
|--------|------|
| 45,000 | LBS. |
| 8,740  | LBS. |
| 1,385  | LBS. |
| 740    | LBS. |
| 14,000 | LBS. |
| 8,150  | LBS. |
| 77,600 | LBS. |
| 78,900 | LBS. |
| 91,600 | LBS. |

EugeneLeeSlover.com

# 5-IN. MOUNT, MARK 30 MOD. 60

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Countercoil Cylinder (for Charging)               |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 9, 19   | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 9 | Northern       |

## INDICATOR REGULATORS

| ELEVATION      | SPEEDS  | MFR.       |
|----------------|---------|------------|
| Mk. 35 Mod. 0  | 2 & 36  | Gen. Elec. |
| TRAIN          |         |            |
| Mk. 39 Mod. 20 | 1 & 36  | Gen. Elec. |
| FUZE SETTING   |         |            |
| Mk. 8 Mod. 8   | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 251110    |
| General Arrangement Drawing Nos. | 246632–35 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38. MARK 30 MOD. 60



| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 572          | 93317         |
| 577          | 93322         |
| 583          | 93328         |
| 1167         | 107615        |
| 1172         | 107620        |
| 1191         | 107639        |
| 1196         | 107644        |
| 1218         | 107687        |
| 1242         | 107817        |
| 1243         | 107818        |
| 1346         | 108397        |
| 1382         | 108443        |
| 1449         | 138165        |
| 1450         | 138166        |

Technical drawing of a gun turret, showing plan and elevation views with dimensions and labels.

**Plan View (Top):**

- Overall width: 175"5
- Overall height: 114"75
- Center of Gravity (CG) location: 12" from the left edge, 3"0 from the bottom edge.
- Clearance Circle for Ejected Cartridge Cases: 72"0
- Working Circle Y-Y: 120"0
- Clearance Circle for Ejected Cartridge Cases: 114"0
- Clearance Circle for Ejected Cartridge Cases: 105"75
- Trunnion Mount: 2"5
- Trunnion Mount: 50"25
- Trunnion Mount: 52"75
- Trunnion Mount: 46"75
- Trunnion Mount: 54"75
- Trunnion Mount: 60"75
- Trunnion Mount: 114"75

**Elevation View (Bottom):**

- Overall height: 255"4
- Overall width: 43"75
- Center of Gravity (CG) location: 15" from the left edge, 30"58 from the bottom edge.
- Clearance Circle for Ejected Cartridge Cases: 77"75
- Clearance Circle for Ejected Cartridge Cases: 58"0
- Trunnion Mount: 30"58
- Trunnion Mount: 15"
- Trunnion Mount: 85° ELEVATION
- Trunnion Mount: 10"8
- Trunnion Mount: 30"58
- Trunnion Mount: 77"75
- Trunnion Mount: 58"0
- Trunnion Mount: 43"75
- Trunnion Mount: 255"4
- Trunnion Mount: 15"
- Trunnion Mount: 30"58
- Trunnion Mount: 10"8
- Trunnion Mount: 30"58
- Trunnion Mount: 77"75
- Trunnion Mount: 58"0
- Trunnion Mount: 43"75
- Trunnion Mount: 255"4

14,000 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,600 LBS.

# 5-IN. MOUNT, MARK 30 MOD. 61

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                        |                                                   |  |  |
|----------------------------------------|---------------------------------------------------|--|--|
| Gas Ejector, Mk. 6 Mod. 1              | Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |  |
| Counter recoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 9, 19   | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 9 | Northern       |

## INDICATOR REGULATORS

|                     |         |            |
|---------------------|---------|------------|
| ELEVATION           | SPEEDS  | MFR.       |
| Mk. 35 Mods. 0 or 1 | 2 & 36  | Gen. Elec. |
| TRAIN               |         |            |
| Mods of Mk. 39      | 1 & 36  | Gen. Elec. |
| FUZE SETTING        |         |            |
| Mk. 8 Mods. 5 or 8  | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 735       |           |
| Working Circle Drawing Nos.      | 246636    |
|                                  | 252015    |
| General Arrangement Drawing Nos. | 246632–35 |
|                                  | 252011–14 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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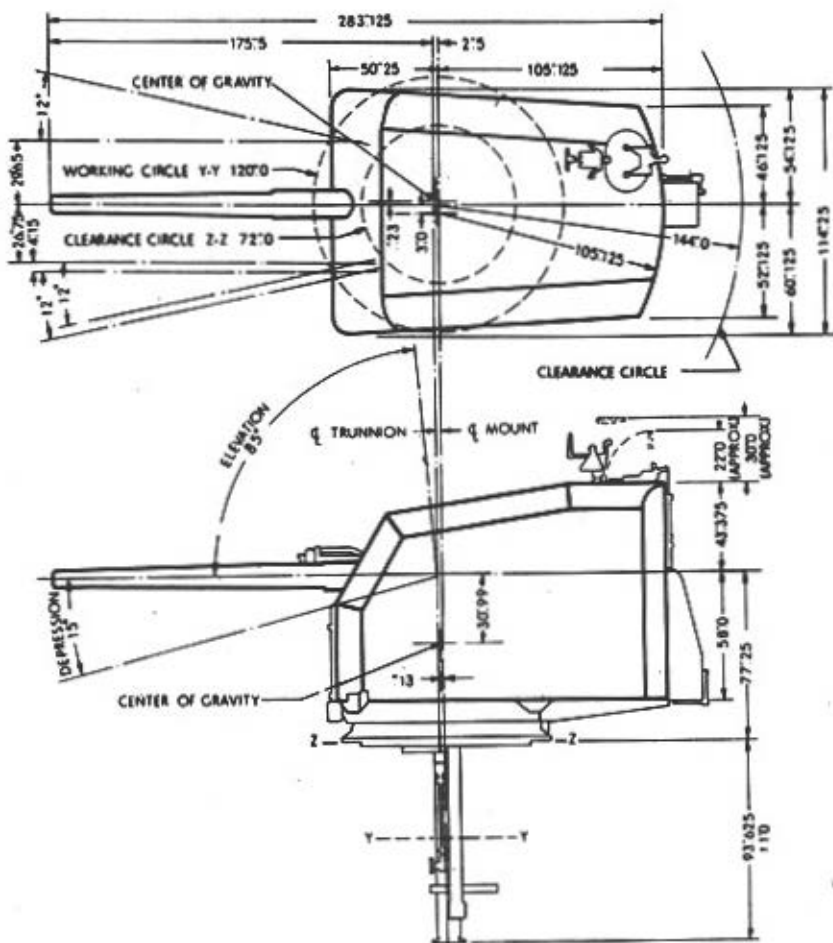
5"/38. MARK 30 MOD. 61

# 5-IN. MOUNT, MARK 30 MOD. 62

## 5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 573       | 93318      |
| 578       | 93323      |
| 1192      | 107640     |
| 1197      | 107645     |
| 1405      | 108486     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY

TOTAL WEIGHT OF SHIELD

Roof Plate Weight

Rear Plate Weight

OSCILLATING WEIGHT

RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
DD

MK. 38 MOD. 1  
.25 IN.

Weights below are approximate

45,000 LBS.

8,740 LBS.

1,385 LBS.

740 LBS.

14,000 LBS.

8,150 LBS.

77,600 LBS.

78,900 LBS.

91,600 LBS.

5"/38, MARK 30 MOD. 62

# 5-IN. MOUNT, MARK 30 MOD. 62

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                       |                                                   |  |  |
|---------------------------------------|---------------------------------------------------|--|--|
| Gas Ejector, Mk. 6 Mod. 1             | Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |  |
| Counterrecoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 9, 19   | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 9 | Northern       |

## INDICATOR REGULATORS

|                       |         |            |
|-----------------------|---------|------------|
| ELEVATION             | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0         | 2 & 36  | Gen. Elec. |
| TRAIN                 |         |            |
| Mk. 39 Mods. 20 or 29 | 1 & 36  | Gen. Elec. |
| FUZE SETTING          |         |            |
| Mk. 8 Mod. 5          | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 251109    |
| General Arrangement Drawing Nos. | 246632-35 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

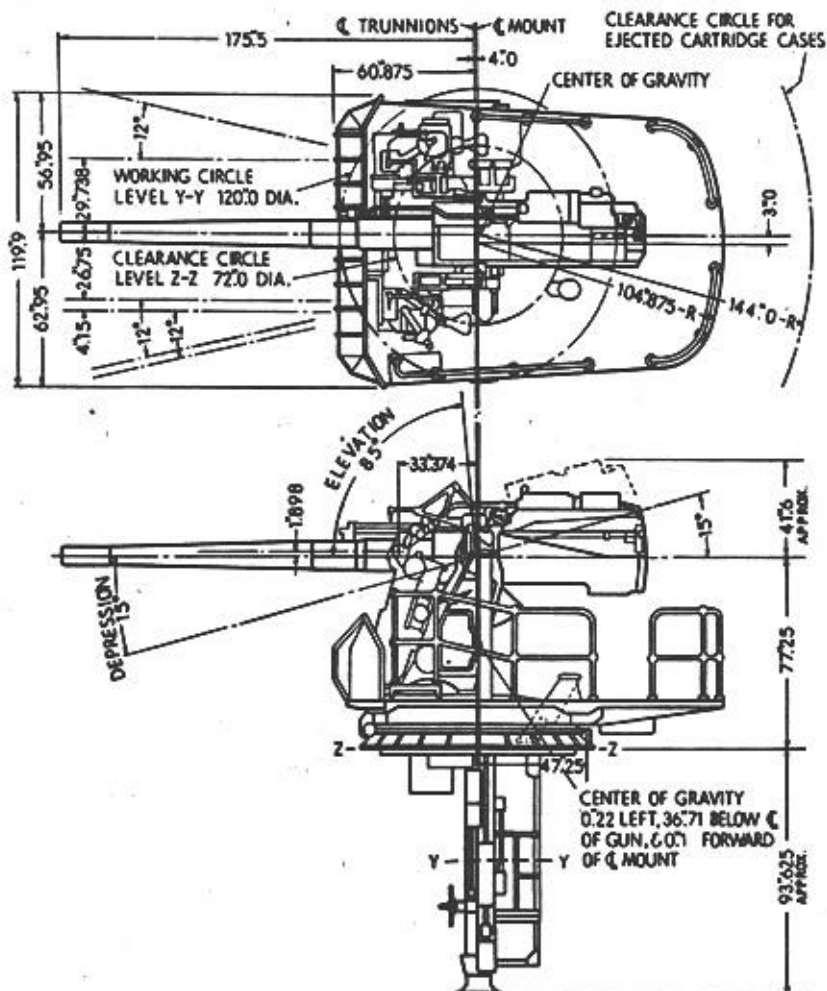
5"/38, MARK 30 MOD. 62



**5-IN. MOUNT, MARK 30 MOD. 63****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 1222         | 107679        |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
DD  
NONE

Weights below are approximate  
38,700 LBS.  
14,000 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,600 LBS.

**5"/38, MARK 30 MOD. 63**

# 5-IN. MOUNT, MARK 30 MOD. 63

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A.H.  |              |

### PNEUMATIC

|                                        |  |
|----------------------------------------|--|
| Counter recoil Cylinder (for Charging) |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.     |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 0        | G. E.—Northern |
| Training Gear    | Mk. 6 Mod. 0        | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 8 | Northern       |

## INDICATOR REGULATORS

|               |         |            |
|---------------|---------|------------|
| ELEVATION     | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0 | 2 & 36  | Gen. Elec. |
| TRAIN         |         |            |
| Mk. 39 Mod. 4 | 1 & 36  | Gen. Elec. |
| FUZE SETTING  |         |            |
| Mk. 8 Mod. 1  | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 250921    |
| General Arrangement Drawing Nos. | 250050–53 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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5"/38, MARK 30 MOD. 63

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 1239         | 107798        |

**5"/38, MARK 30 MOD. 64**



# 5-IN. MOUNT, MARK 30 MOD. 64

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Countercoil Cylinder (for Charging)               |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |          |
|------------------|---------------------|----------|
| Elevating Gear   | Mk. 14 Mod. 1       | Northern |
| Training Gear    | Mk. 14 Mod. 4       | Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers  |
| Rammer           | Slide Mk. 24 Mod. 4 | Northern |

## INDICATOR REGULATORS

|              |         |      |
|--------------|---------|------|
| FUZE SETTING | SPEEDS  | MFR. |
| Mk. 8 Mod. 5 | 2 & 100 | Arma |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Hand Control (Hydraulic)

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet Nos. 735, 895  |           |
| Working Circle Drawing No.       | 251741    |
| General Arrangement Drawing Nos. | 251737–40 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15°. Maximum training gear rate is 30°.

Length of recoil is 15 inches.



## 5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

[illegible]

91,600 LBS.

**5"/38, MARK 30 MOD. 65**

# 5-IN. MOUNT, MARK 30 MOD. 65

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

## PNEUMATIC

|                                       |                                                   |  |  |
|---------------------------------------|---------------------------------------------------|--|--|
| Gas Ejector, Mk. 6 Mod. 1             | Appl. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |  |
| Counterrecoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |  |

## HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 7, 18   | G. E.-Northern |
| Training Gear    | Mk. 6 Mods. 7, 18   | G. E.-Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 9 | Northern       |

## INDICATOR REGULATORS

|                     |         |            |
|---------------------|---------|------------|
| ELEVATION           | SPEEDS  | MFR.       |
| Mk. 35 Mods. 0 or 1 | 2 & 36  | Gen. Elec. |
| TRAIN               |         |            |
| Mods. of Mk. 39     | 1 & 36  | Gen. Elec. |
| FUZE SETTING        |         |            |
| Mk. 8 Mods. 5 or 8  | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appl. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 735       | 234370    |
| Working Circle Drawing Nos.      | 246626    |
| General Arrangement Drawing Nos. | 236755-58 |
|                                  | 246622-25 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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5"/38, MARK 30 MOD. 65

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 1251         | 107832        |
| 1256         | 107837        |

Technical drawing of a crane hook, showing two views: a plan view (top) and an elevation view (bottom).

**Plan View Dimensions:**

- Overall width: 175.5
- Pin diameter: 28.375
- Pin length: 2.5
- Hook outer diameter: 105.125
- Hook thickness: 1.2
- Center of Gravity (marked)
- Working Circle Y-Y: 120.0
- Clearance Circle Z-Z: 72.0
- Pin diameter (inner): 23
- Pin diameter (outer): 30
- Hook diameter (inner): 105.125
- Hook diameter (outer): 144.0
- Hook height (inner): 52.125
- Hook height (outer): 60.125
- Hook height (total): 114.75

**Elevation View Dimensions:**

- Overall height: 114.75
- Hook height: 52.125
- Base height: 60.125
- Pin height: 4.6125
- Center of Gravity (marked)
- Elevation angle: 85°
- Depression angle: 15°
- Hook height (inner): 52.125
- Hook height (outer): 60.125
- Hook height (total): 114.75

MK. 12 MOD. 1  
DD  
MK. 38 MOD. 1  
.25 IN.

**Weights below are approximate**

45,000 LBS.  
8,740 LBS.  
1,385 LBS.  
740 LBS.

14,100 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,600 LBS.

**5"/38, MARK 30 MOD. 66**



# 5-IN. MOUNT, MARK 30 MOD. 66

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 7, 18   | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 9 | Northern       |

## INDICATOR REGULATORS

|                |         |            |
|----------------|---------|------------|
| ELEVATION      | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0  | 2 & 36  | Gen. Elec. |
| TRAIN          |         |            |
| Mk. 39 Mod. 29 | 1 & 36  | Gen. Elec. |
| FUZE SETTING   |         |            |
| Mk. 8 Mod. 5   | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 252355    |
| General Arrangement Drawing Nos. | 246622–25 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38, MARK 30 MOD. 66

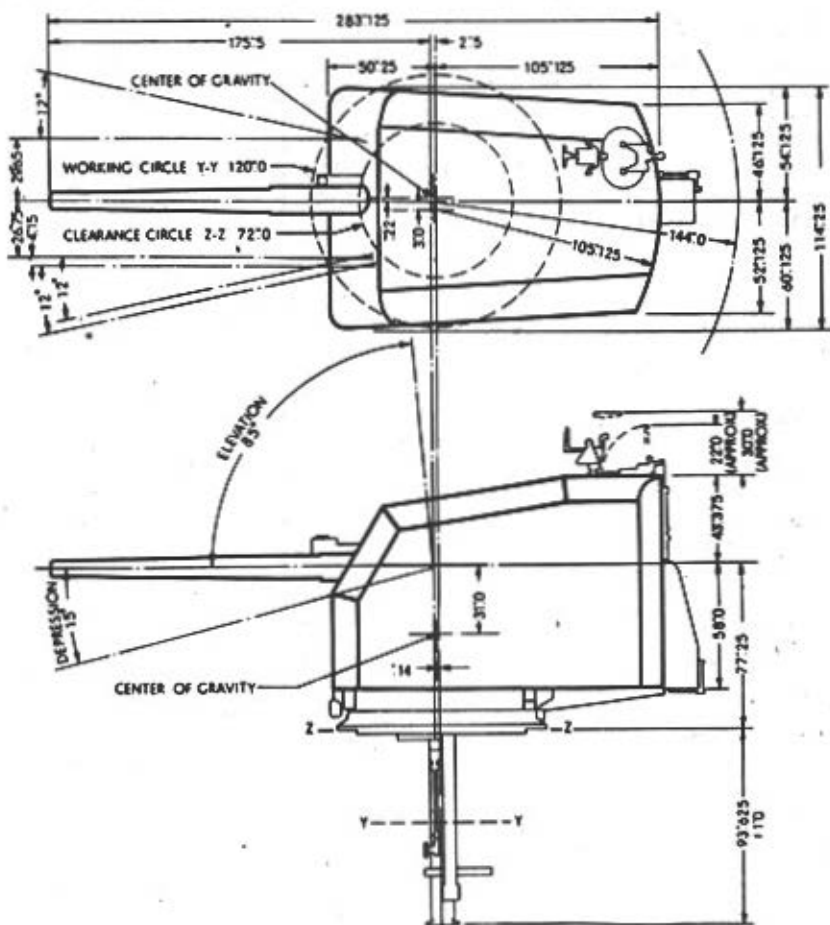


5-IN. MOUNT, MARK .30 MOD. 67

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 1260         | 107841        |
| 1265         | 107846        |

**Note:** Assembly number of mount is required for precise information.



**GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS**

MK. 12 MOD. 1  
 DD  
 MK. 38 MOD. 1  
 .95 IN.

TOTAL WEIGHT OF ASSEMBLY

TOTAL WEIGHT OF SHIELD

### Roof Plate Weight

Rear Plate Weight

### OSCILLATING WEIGHT

### RECOILING WEIGHT

### BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate

|             |
|-------------|
| 45,000 LBS. |
| 8,740 LBS.  |
| 1,385 LBS.  |
| 740 LBS.    |
| 14,100 LBS. |
| 8,150 LBS.  |
| 77,600 LBS. |
| 78,900 LBS. |
| 91,600 LBS. |

**5"/38, MARK 30 MOD. 67**

# 5-IN. MOUNT, MARK 30 MOD. 67

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |        |          |           |
|--------------------------------------|-----------------|--------|----------|-----------|
| Elevating and Training Gear          | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Hoist                                | 7.5 HP.         |        |          |           |
| Rammer                               | 7.5 HP.         |        |          |           |
| Gun Firing Transformer               | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  |        |          | 100 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 7, 18   | G. E.-Northern |
| Training Gear    | Mk. 6 Mods. 7, 18   | G. E.-Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 9 | Northern       |

### INDICATOR REGULATORS

|                |         |            |
|----------------|---------|------------|
| ELEVATION      | SPEEDS  | MFR.       |
| Mk. 35 Mod. 0  | 2 & 36  | Gen. Elec. |
| TRAIN          |         |            |
| Mk. 39 Mod. 20 | 1 & 36  | Gen. Elec. |
| FUZE SETTING   |         |            |
| Mk. 8 Mod. 8   | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 252356    |
| General Arrangement Drawing Nos. | 246622–25 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 284°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38, MARK 30 MOD. 67

|                      |                         |
|----------------------|-------------------------|
| ASSY.<br>NO.<br>1294 | SKETCH<br>NO.<br>107895 |
|----------------------|-------------------------|

The technical drawing consists of two main views of a gun mount:

- Top View:** Shows the plan view of the gun barrel and its mounting. Key features include:
  - CLEARANCE CIRCLE FOR EJECTED CARTRIDGE CASES:** A dashed circle at the rear of the barrel.
  - WORKING CIRCLE - LEVEL Y-Y:** A solid circle labeled "120° DIA."
  - CLEARANCE CIRCLE - LEVEL Z-Z:** A solid circle labeled "72° DIA."
  - CENTER OF GRAVITY:** Indicated by a point near the front of the barrel.
  - TRUNNIONS & MOUNT:** Labels pointing to the base of the barrel assembly.
  - Dimensions:** Various linear measurements are provided, such as 175±5, 470, 50°25', 12°, 26'75", 29'65", 4'15", 12", 8'0", 144°0-R, 105'125, 52'125, 60'125, 54'125, and 118'75".
- Side View:** Shows the elevation view of the gun barrel. Key features include:
  - 85° ELEVATION:** The angle of the barrel relative to the horizontal.
  - 0° LINE OF SIGHT:** A horizontal reference line.
  - DEPRESSION 15°:** The angle between the line of sight and the barrel axis.
  - CENTER OF GRAVITY:** Indicated by a point below the barrel.
  - Dimensions:** Linear measurements include 1'612, 29'87, 48'5, 30'0 APPROX., 58'0, 77'25, 93'625 ±10, and 1'10.

78,900 LBS.  
91,430 LBS.

**5"/38, MARK 30 MOD. 68**

# 5-IN. MOUNT, MARK 30 MOD. 68

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |        |          |           |
|------------------------------------------|-----------------|--------|----------|-----------|
| Elevating and Training Gear              | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Hoist                                    | 7.5 HP.         |        |          |           |
| Rammer                                   | 7.5 HP.         |        |          |           |
| Gun Firing Transformer                   | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer                 | 115 V. to 6 V.  |        |          | 100 Watts |
| Stand-by Firing and Illumination—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 0                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Countercoiled Cylinder (for Charging)             |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 17       | G. E.—Northern |
| Training Gear    | Mk. 6 Mod. 20       | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 9 | Northern       |

### INDICATOR REGULATORS

| ELEVATION           | SPEEDS  | MFR.       |
|---------------------|---------|------------|
| Mk. 35 Mods. 0 or 1 | 2 & 36  | Gen. Elec. |
| TRAIN               |         |            |
| Mods. of Mk. 39     | 1 & 36  | Gen. Elec. |
| FUZE SETTING        |         |            |
| Mk. 8 Mod. 8        | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal                 | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 735       |           |
| Working Circle Drawing No.       | 252924    |
| General Arrangement Drawing Nos. | 246627–30 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The maximum training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.



| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 1295         | 107896        |
| 1392         | 108459        |
| 1393         | 108460        |

Technical drawing of a gun mount showing two views: a plan view (top) and an elevation view (bottom).

**Plan View (Top):**

- Dimensions: 175°5', 50°25', 12°, 47°5', 26°75', 29°63', 72°0', 120°0', 3°0', 102°1', 126°375', 105°125', 58°125', 46°125', 54°125', 114°25'.
- Labels: CENTER OF GRAVITY, CLEARANCE CIRCLE 2-2, WORKING CIRCLE Y-Y, CLEARANCE CIRCLE FOR EJECTED CARTRIDGE CASES.
- Mounting: TRUNNION, MOUNT.

**Elevation View (Bottom):**

- Dimensions: 25°5', 43°375', 56°0', 77°25', 93°625', 1°10', 30°06', 1°084', 15°.
- Labels: 85° ELEVATION, DEPRESSION, CENTER OF GRAVITY.

14,090 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,630 LBS.

**5"/38, MARK 30 MOD. 69**

# 5-IN. MOUNT, MARK 30 MOD. 69

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |        |          |           |
|------------------------------------------|-----------------|--------|----------|-----------|
| Elevating and Training Gear              | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Hoist                                    | 7.5 HP.         |        |          |           |
| Rammer                                   | 7.5 HP.         |        |          |           |
| Gun Firing Transformer                   | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer                 | 115 V. to 6 V.  |        |          | 100 Watts |
| Stand-by Firing and Illumination—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                     |                |
|------------------|---------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 18       | G. E.—Northern |
| Training Gear    | Mk. 6 Mod. 19       | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1        | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 9 | Northern       |

## INDICATOR REGULATORS

| ELEVATION           | SPEEDS   | MFR.       |
|---------------------|----------|------------|
| Mk. 35 Mods. 0 or 1 | 1 2 & 36 | Gen. Elec. |
| TRAIN               |          |            |
| Mods. of Mk. 39     | 1 & 36   | Gen. Elec. |
| FUZE SETTING        |          |            |
| Mk. 8 Mod. 8        | 2 & 100  | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                 |
|---------------------------|-------------------|-----------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.   |
| Charge                    | Nominal           | Wt. 15.2 Lbs.   |
| Primer                    | Mk. 13 Mods. 0, 1 |                 |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs. |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 252925    |
|                                  | 256352    |
| General Arrangement Drawing Nos. | 246632–35 |
|                                  | 252011–14 |

## REMARKS

Elevation limits are minus 10° or 15° to plus 85°. The maximum training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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5"/38, MARK 30 MOD. 69





# 5-IN. MOUNT, MARK 30 MOD. 70

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                             |         |        |          |     |
|-----------------------------|---------|--------|----------|-----|
| Elevating and Training Gear | 10. HP. | 440 V. | 3 $\phi$ | 60~ |
| Hoist                       | 7.5 HP. |        |          |     |
| Rammer                      | 7.5 HP. |        |          |     |

|                                          |                 |           |
|------------------------------------------|-----------------|-----------|
| Gun Firing Transformer                   | 115 V. to 20 V. | 200 Watts |
| Illumination Transformer                 | 115 V. to 6 V.  | 100 Watts |
| Stand-by Firing and Illumination—Battery | 6 V.            | 100 A. H. |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 0                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                      |                |
|------------------|----------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 17, 20   | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 20, 25   | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1         | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 14 | Northern       |

## INDICATOR REGULATORS

| ELEVATION             | SPEEDS  | MFR.       |
|-----------------------|---------|------------|
| Mk. 35 Mods. 0 or 1   | 2 & 36  | Gen. Elec. |
| TRAIN                 |         |            |
| Mods. of Mk. 39       | 1 & 36  | Gen. Elec. |
| FUZE SETTING          |         |            |
| Mk. 8 Mods. 1, 5 or 8 | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 241995    |
|                                  | 246631    |
| General Arrangement Drawing Nos. | 243422-25 |
|                                  | 246627-30 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The maximum training limit is 300°

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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5"/38. MARK 30 MOD. 70



| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 1293         | 107892        |
| 1297         | 107898        |
| 1364         | 108422        |
| 1391         | 108458        |
| 1394         | 108461        |
| 1395         | 108462        |
| 1468         | 138190        |

Technical drawing of a 105mm mortar gun, showing plan and elevation views with dimensions.

**Plan View (Top):**

- Overall width: 175"5
- Overall height: 114"25
- Center of Gravity: Indicated by a dashed line.
- Clearance Circle Z-Z: 72"0
- Working Circle Y-Y: 120"0
- Clearance Circle for Ejected Cartridge Cases: 25"
- Trunnion: Indicated by a dashed line.
- Mount: Indicated by a dashed line.
- Dimensions: 50"25, 12", 47"5, 26"75, 29"65, 3"0, 114"0, 105"125, 57"25, 46"125, 60"125, 54"125, 114"25.

**Elevation View (Bottom):**

- Overall height: 93"625
- Overall width: 170"
- Center of Gravity: Indicated by a dashed line.
- Trunnion: Indicated by a dashed line.
- Mount: Indicated by a dashed line.
- Dimensions: 85° ELEVATION, 15°, 30"58, 58"0, 77"25, 43"375, 25"5.

13,800 LBS.  
8,150 LBS.  
77,600 LBS.  
78,850 LBS.  
91,400 LBS.

**5"/38, MARK 30 MOD. 71**

# 5-IN. MOUNT, MARK 30 MOD. 71

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |                     |  |
|------------------------------------------|-----------------|---------------------|--|
| Elevating and Training Gear              | 10. HP.         | 440 V. 3 $\phi$ 60~ |  |
| Hoist                                    | 7.5 HP.         |                     |  |
| Rammer                                   | 7.5 HP.         |                     |  |
| Gun Firing Transformer                   | 115 V. to 20 V. | 200 Watts           |  |
| Illumination Transformer                 | 115 V. to 6 V.  | 100 Watts           |  |
| Stand-by Firing and Illumination—Battery | 6 V.            | 100 A. H.           |  |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| RECOIL FLUID   | O. D. 1914 | 6 Qts.   |
| SPEED GEAR OIL | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                      |                |
|------------------|----------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 18, 21   | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 19, 24   | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1         | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 14 | Northern       |

### INDICATOR REGULATORS

| ELEVATION           | SPEEDS  | MFR.       |
|---------------------|---------|------------|
| Mk. 35 Mods. 0 or 1 | 2 & 36  | Gen. Elec. |
| TRAIN               |         |            |
| Mods. of Mk. 39     | 1 & 36  | Gen. Elec. |
| FUZE SETTING        |         |            |
| Mk. 8 Mods. 5 or 8  | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

| Cartridge                 |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 246631    |
|                                  | 246636    |
|                                  | 252015    |
| General Arrangement Drawing Nos. | 246627–30 |
|                                  | 246632–35 |
|                                  | 252011–14 |

### REMARKS

Elevation limits are minus 15°, 10° or 8° 45' to plus 85°. The maximum training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

## 5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 1298         | 107899        |
| 1368         | 108426        |
| 1372         | 108430        |

Technical drawing of a gun mount, showing two views: a top view and a side elevation view.

**Top View Dimensions:**

- Overall width: 175.5
- Overall height: 47.0
- Center of Gravity (CG) location: 12" from the left edge, 12" from the bottom edge.
- Working Circle - Level Y-Y: 120" DIA.
- Clearance Circle - Level Z-Z: 72" DIA.
- Clearance Circle for Ejected Cartridge Cases: 50" DIA.
- Trunnions: 50" DIA.
- Mount: 31" DIA.
- Gun Barrel: 144" O.D., 105" I.D.
- Gun Mounting: 52" DIA., 60" DIA., 54" DIA.

**Side Elevation View Dimensions:**

- Gun Barrel: 85° ELEVATION
- 0° LINE OF SIGHT: 1" DIA.
- DEPRESSION: 15"
- Gun Mounting: 30" O.D. APPROX., 48" DIA.
- Gun Barrel: 58" O.D.
- Gun Mounting: 77" DIA.
- Center of Gravity (CG) location: 93" O.D., 110"

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD  
Roof Plate Weight  
Rear Plate Weight  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate

|        |      |
|--------|------|
| 45,600 | LBS. |
| 9,615  | LBS. |
| 2,025  | LBS. |
| 765    | LBS. |
| 13,800 | LBS. |
| 8,150  | LBS. |
| 77,600 | LBS. |
| 78,850 | LBS. |
| 91,400 | LBS. |

**5"/38, MARK 30 MOD. 72**



# 5-IN. MOUNT, MARK 30 MOD. 72

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |        |          |           |
|------------------------------------------|-----------------|--------|----------|-----------|
| Elevating and Training Gear              | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Hoist                                    | 7.5 HP.         |        |          |           |
| Rammer                                   | 7.5 HP.         |        |          |           |
| Gun Firing Transformer                   | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer                 | 115 V. to 6 V.  |        |          | 100 Watts |
| Stand-by Firing and Illumination—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 0                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                      |                |
|------------------|----------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 17        | G. E.—Northern |
| Training Gear    | Mk. 6 Mod. 20        | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1         | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 14 | Northern       |

### INDICATOR REGULATORS

| ELEVATION           | SPEEDS  | MFR.       |
|---------------------|---------|------------|
| Mk. 35 Mods. 0 or 1 | 2 & 36  | Gen. Elec. |
| TRAIN               |         |            |
| Mods. of Mk. 39     | 1 & 36  | Gen. Elec. |
| FUZE SETTING        |         |            |
| Mk. 8 Mod. 8        | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 252924    |
| General Arrangement Drawing Nos. | 246627-30 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The maximum training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

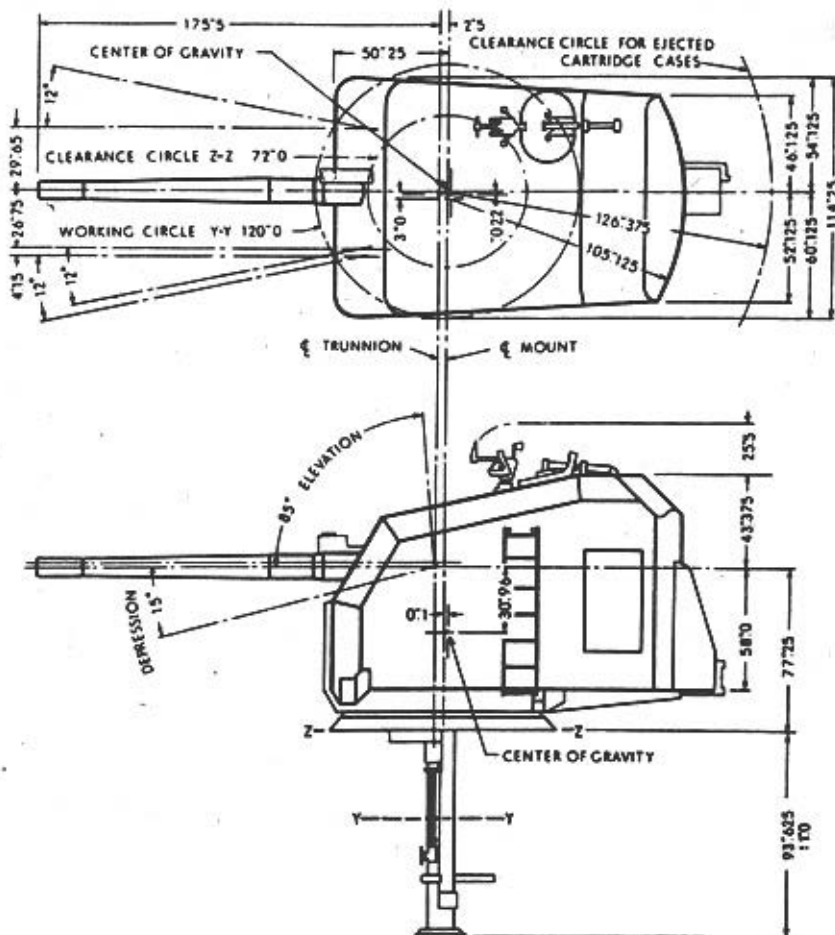
5"/38, MARK 30 MOD. 72



**5-IN. MOUNT, MARK 30 MOD. 73****5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 1299         | 108301        |
| 1369         | 108427        |
| 1396         | 108463        |
| 1397         | 108464        |
| 1469         | 138300        |

Note: Assembly number of mount is required for precise information.



**GUN—5"/38**  
**INSTALLATION FOR**  
**SHIELD**  
**SHIELD THICKNESS**

**TOTAL WEIGHT OF ASSEMBLY**  
**TOTAL WEIGHT OF SHIELD**  
 Roof Plate Weight  
 Rear Plate Weight

**OSCILLATING WEIGHT**  
**RECOILING WEIGHT**

**BRAKE LOAD**  
**TRUNNION PRESSURE HORIZ. FIRE**  
**TRUNNION PRESSURE 85° ELEV. FIRE**

**MK. 12 MOD. 1**  
**DD-DE**

**MK. 38 MOD. 1**  
**.25 IN.**

**MK. 38 MOD. 2**  
**.25 IN.**

Weights below are approximate

44,750 LBS.  
 8,740 LBS.  
 1,385 LBS.  
 740 LBS.

44,250 LBS.  
 8,250 LBS.  
 1,350 LBS.  
 800 LBS.

13,800 LBS.  
 8,150 LBS.  
 77,600 LBS.  
 78,850 LBS.  
 91,400 LBS.

**5"/38, MARK 30 MOD. 73**

# 5-IN. MOUNT, MARK 30 MOD. 73

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE.

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |        |          |           |
|------------------------------------------|-----------------|--------|----------|-----------|
| Elevating and Training Gear              | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Hoist                                    | 7.5 HP.         |        |          |           |
| Rammer                                   | 7.5 HP.         |        |          |           |
| Gun Firing Transformer                   | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer                 | 115 V. to 6 V.  |        |          | 100 Watts |
| Stand-by Firing and Illumination—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counterrecoil Cylinder (for Charging)             |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                      |                |
|------------------|----------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 18, 21   | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 19, 24   | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1         | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 14 | Northern       |

## INDICATOR REGULATORS

| ELEVATION           | SPEEDS  | MFR.       |
|---------------------|---------|------------|
| Mk. 35 Mods. 0 or 1 | 2 & 36  | Gen. Elec. |
| TRAIN               |         |            |
| Mods. of Mk. 39     | 1 & 36  | Gen. Elec. |
| FUZE SETTING        |         |            |
| Mk. 8 Mod. 8        | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |                        |
|----------------------------------|------------------------|
| Ordnance Pamphlet No. 735        |                        |
| Working Circle Drawing Nos.      | 252925<br>256111       |
| General Arrangement Drawing Nos. | 246632–35<br>252011–14 |

## REMARKS

Elevation limits are minus 15° or 10° to plus 85°. The maximum training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38, MARK 30 MOD. 73





# 5-IN. MOUNT, MARK 30 MOD. 74

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |                     |  |
|------------------------------------------|-----------------|---------------------|--|
| Elevating and Training Gear              | 10. HP.         | 440 V. 3 $\phi$ 60~ |  |
| Hoist                                    | 7.5 HP.         |                     |  |
| Rammer                                   | 7.5 HP.         |                     |  |
| Gun Firing Transformer                   | 115 V. to 20 V. | 200 Watts           |  |
| Illumination Transformer                 | 115 V. to 6 V.  | 100 Watts           |  |
| Stand-by Firing and Illumination—Battery | 6 V.            | 100 A. H.           |  |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                      |                |
|------------------|----------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 18        | G. E.-Northern |
| Training Gear    | Mk. 6 Mod. 19        | G. E.-Northern |
| Projectile Hoist | Mk. 2 Mod. 1         | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 14 | Northern       |

### INDICATOR REGULATORS

| ELEVATION           | SPEEDS  | MFR.       |
|---------------------|---------|------------|
| Mk. 35 Mods. 0 or 1 | 2 & 36  | Gen. Elec. |
| TRAIN               |         |            |
| Mods. of Mk. 39     | 1 & 36  | Gen. Elec. |
| FUZE SETTING        |         |            |
| Mk. 8 Mod. 8        | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 251109    |
| General Arrangement Drawing Nos. | 246632-35 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The maximum training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.



| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 1361         | 108418        |
| 1398         | 108465        |
| 1399         | 108466        |
| 1424         | 132224        |
| 1425         | 132225        |
| 1429         | 132246        |
| 1431         | 132248        |
| 1455         | 138179        |
| 1470         | 138301        |
| 1486         | 138332        |
| 1487         | 138333        |
| 1500         | 138349        |
| 1508         | 138868        |
| 1536         | 138912        |
| 1544         | 138925        |

Technical drawings of the M1919 Browning machine gun, showing top and side views with dimensions and labels.

**Top View:**

- Overall width: 175"3
- Overall height: 2'3"
- Center of Gravity: Indicated by a dashed line.
- Clearance Circle 2-2: 72"0
- Working Circle Y-Y: 120"0
- Clearance Circle for Ejected Cartridge Cases: Indicated by a dashed line.
- Dimensions: 50"25, 3"0, 126"375, 105"125, 52"125, 60"125, 54"125, 46"125.
- Angles: 12°, 12°, 12°.
- Labels: TRUNNION, MOUNT.

**Side View:**

- Overall height: 93"625
- Overall width: 77"25
- Center of Gravity: Indicated by a dashed line.
- Clearance Circle for Ejected Cartridge Cases: Indicated by a dashed line.
- Dimensions: 253, 433"75, 58"0, 300"96, 0"1, 15°, 85° ELEVATION.
- Labels: CENTER OF GRAVITY, Y, Z.

91,400 LBS.

EugeneLeeSlover.com

# 5-IN. MOUNT, MARK 30 MOD. 75

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |                |  |
|------------------------------------------|-----------------|----------------|--|
| Elevating and Training Gear              | 10. HP.         | 440 V. 3 φ 60~ |  |
| Hoist                                    | 7.5 HP.         |                |  |
| Rammer                                   | 7.5 HP.         |                |  |
| Gun Firing Transformer                   | 115 V. to 20 V. | 200 Watts      |  |
| Illumination Transformer                 | 115 V. to 6 V.  | 100 Watts      |  |
| Stand-by Firing and Illumination—Battery | 6 V.            | 100 A. H.      |  |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                      |                |
|------------------|----------------------|----------------|
| Elevating Gear   | Mk. 6 Mods. 18, 21   | G. E.—Northern |
| Training Gear    | Mk. 6 Mods. 19, 24   | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1         | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 18 | Northern       |

## INDICATOR REGULATORS

| ELEVATION           | SPEEDS  | MFR.       |
|---------------------|---------|------------|
| Mk. 35 Mods. 0 or 1 | 2 & 36  | Gen. Elec. |
| TRAIN               |         |            |
| Mods. of Mk. 39     | 1 & 36  | Gen. Elec. |
| FUZE SETTING        |         |            |
| Mk. 8 Mod. 8        | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

| Typical Projectiles       |                   |                       |
|---------------------------|-------------------|-----------------------|
| Common                    | Mods. of Mk. 32   | Wt. 54.0 Lbs.         |
| Common                    | Mods. of Mk. 38   | Wt. 55.2 Lbs.         |
| A. A. Common              | Mods. of Mk. 35   | Wt. 55.2 Lbs.         |
| Illuminating              | Mods. of Mk. 30   | Wt. 54.5 Lbs.         |
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 255508    |
|                                  | 256111    |
|                                  | 256352    |
| General Arrangement Drawing Nos. | 246632–35 |
|                                  | 252011–14 |

## REMARKS

Elevation limits are minus 15° or 10° to plus 85°. The maximum training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

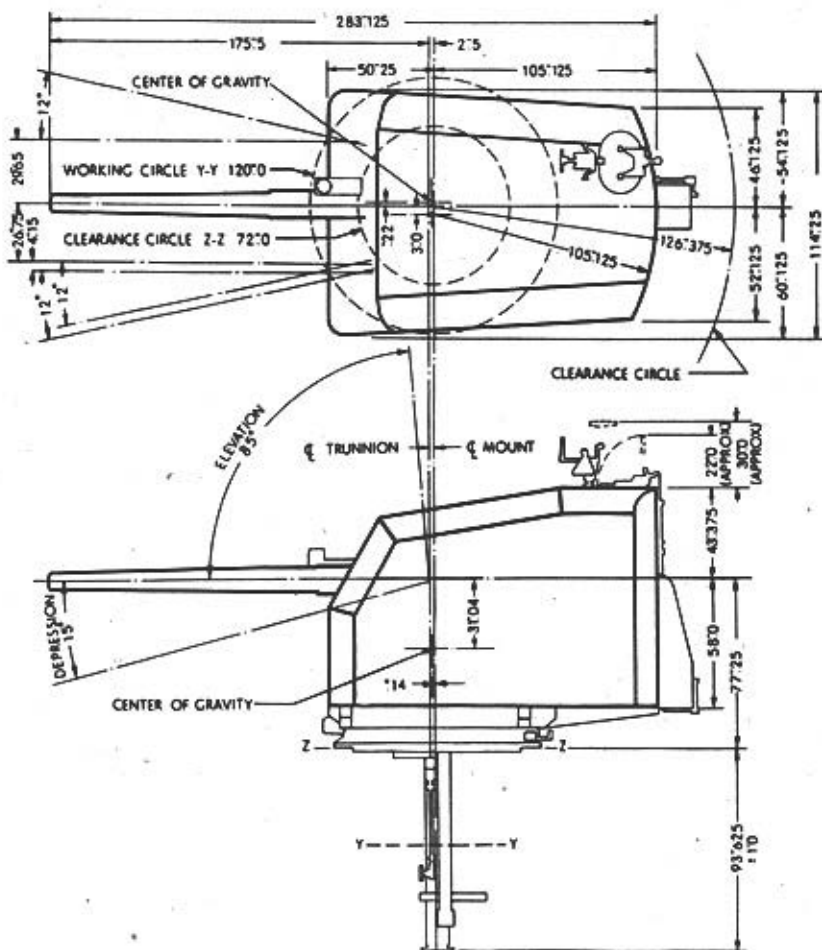
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38. MARK 30 MOD. 75

**5-IN. MOUNT, MARK 30 MOD. 76****5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE**

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 1365         | 108423        |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
DD

MK. 38 MOD. 1  
.25 IN.

Weights below are approximate

44,750 LBS.

8,740 LBS.

1,385 LBS.

740 LBS.

13,850 LBS.

8,150 LBS.

77,600 LBS.

78,900 LBS.

91,500 LBS.

**5"/38, MARK 30 MOD. 76**



# 5-IN. MOUNT, MARK 30 MOD. 76

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |        |          |           |
|------------------------------------------|-----------------|--------|----------|-----------|
| Elevating and Training Gear              | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Hoist                                    | 7.5 HP.         |        |          |           |
| Rammer                                   | 7.5 HP.         |        |          |           |
| Gun Firing Transformer                   | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer                 | 115 V. to 6 V.  |        |          | 100 Watts |
| Stand-by Firing and Illumination—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |
| Countercoil Cylinder (for Charging)               |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                      |                |
|------------------|----------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 18        | G. E.-Northern |
| Training Gear    | Mk. 6 Mod. 19        | G. E.-Northern |
| Projectile Hoist | Mk. 2 Mod. 1         | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 14 | Northern       |

### INDICATOR REGULATORS

| ELEVATION           | SPEEDS  | MFR.       |
|---------------------|---------|------------|
| Mk. 35 Mods. 0 or 1 | 2 & 36  | Gen. Elec. |
| TRAIN               |         |            |
| Mods. of Mk. 39     | 1 & 36  | Gen. Elec. |
| FUZE SETTING        |         |            |
| Mk. 8 Mod. 8        | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                 |
|---------------------------|-------------------|-----------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.   |
| Charge                    | Nominal           | Wt. 15.2 Lbs.   |
| Primer                    | Mk. 13 Mods. 0, 1 |                 |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs. |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 735       |           |
| Working Circle Drawing No.       | 251110    |
| General Arrangement Drawing Nos. | 246632-35 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 284°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

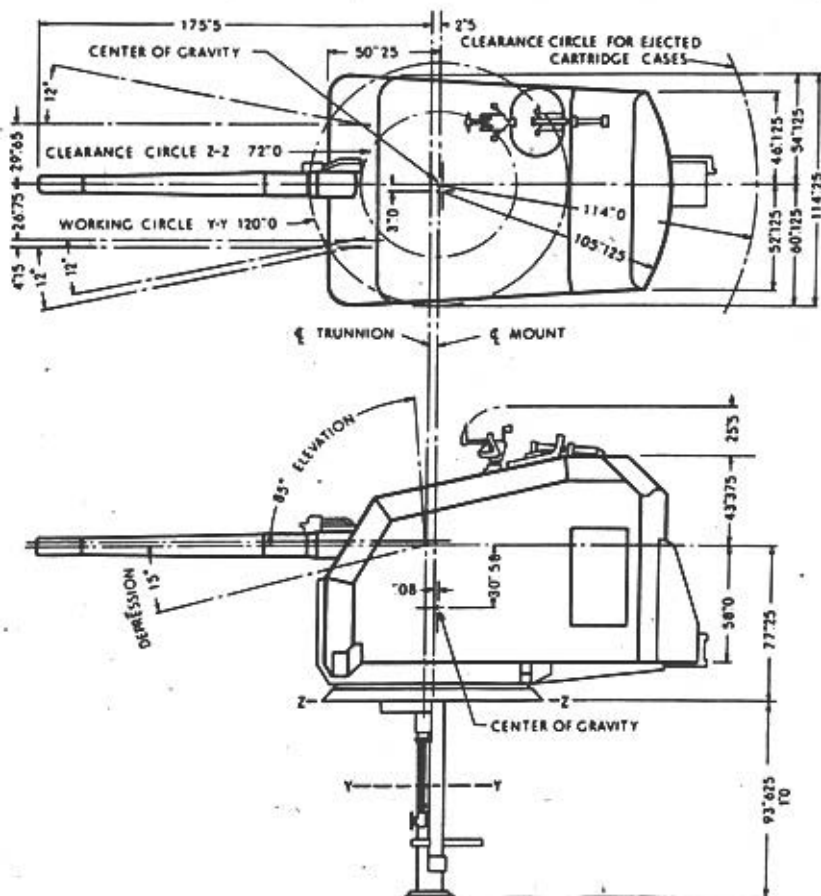


**5-IN. MOUNT, MARK 30 MOD. 77**

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 530          | 92681         |
| 1366         | 108424        |
| 1375         | 108436        |
| 1377         | 108438        |
| 1378         | 108439        |
| 1383         | 108447        |
| 1415         | 132204        |
| 1416         | 132205        |
| 1487         | 132233        |

**Note:** Assembly number of mount is required for precise information.



### GUN—5"/38 INSTALLATION FOR SHIELD SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY

TOTAL WEIGHT OF SHIELD

### Roof Plate Weight

### Rear Plate Weight

### OSCILLATING WEIGHT

### RECOILING WEIGHT

### BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 05° ELEV. FIRE

AD-AS-AV-AVP-DD-DE  
MK. 12 MOD. 1

|                                 |                          |                          |
|---------------------------------|--------------------------|--------------------------|
| MK. 25 MODS. 1 or 5<br>.125 IN. | MK. 38 MOD. 1<br>.25 IN. | MK. 38 MOD. 2<br>.25 IN. |
|---------------------------------|--------------------------|--------------------------|

**Weights below are approximate**

**40,900 LBS.**

4,865 LBS.      8,740 LBS.      8,250 LBS.

**945 LBS.**

514 LBS.                      740 LBS.                      800 LBS.

13,800 TO 14,100 LBS.

0.150 LBS.

77,600 LBS.

78,900 LBS.

91,600 LBS.

# 5-IN. MOUNT, MARK 30 MOD. 77

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |        |          |           |
|------------------------------------------|-----------------|--------|----------|-----------|
| Elevating and Training Gear              | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Hoist                                    | 7.5 HP.         |        |          |           |
| Rammer                                   | 7.5 HP.         |        |          |           |
| Gun Firing Transformer                   | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer                 | 115 V. to 6 V.  |        |          | 100 Watts |
| Stand-by Firing and Illumination—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counterrecoil Cylinder (for Charging)             |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                      |                |
|------------------|----------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 18        | G. E.—Northern |
| Training Gear    | Mk. 6 Mod. 19        | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1         | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 14 | Northern       |

## INDICATOR REGULATORS

|                     |         |            |
|---------------------|---------|------------|
| ELEVATION           | SPEEDS  | MFR.       |
| Mk. 35 Mods. 0 or 1 | 2 & 36. | Gen. Elec. |
| TRAIN               |         |            |
| Mods. of Mk. 39     | 1 & 36  | Gen. Elec. |
| FUZE SETTING        |         |            |
| Mk. 8 Mod. 8        | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing Nos.      | 242448    |
|                                  | 246636    |
|                                  | 252015    |
| General Arrangement Drawing Nos. | 243426–29 |
|                                  | 246632–35 |
|                                  | 252011–14 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The maximum training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

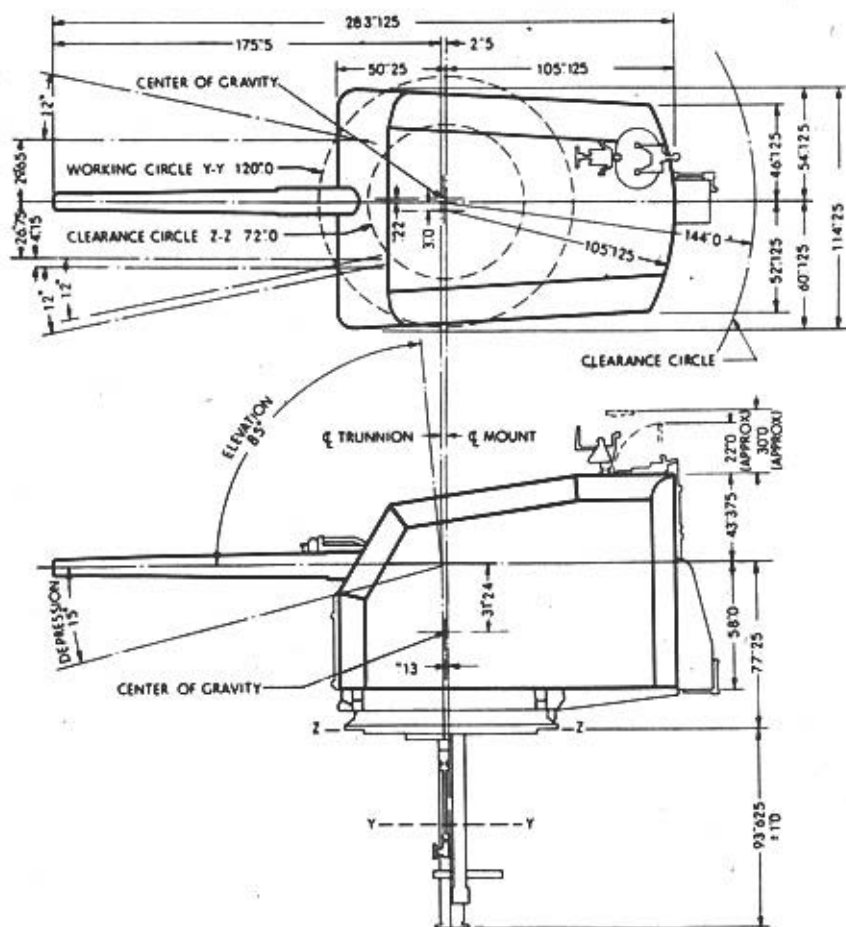
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38, MARK 30 MOD. 77

**5-IN. MOUNT, MARK 30 MOD. 78****5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE**

ASSY. SKETCH  
NO. NO.  
1370 108428

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY

TOTAL WEIGHT OF SHIELD

Roof Plate Weight

Rear Plate Weight

OSCILLATING WEIGHT

RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
DD

MK. 38 MOD. 1  
.25 IN.

Weights below are approximate

44,750 LBS.

8,740 LBS.

1,385 LBS.

740 LBS.

13,800 LBS.

8,150 LBS.

77,600 LBS.

78,850 LBS.

91,400 LBS.

**5"/38, MARK 30 MOD. 78**



# 5-IN. MOUNT, MARK 30 MOD. 78

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |                     |  |
|------------------------------------------|-----------------|---------------------|--|
| Elevating and Training Gear              | 10. HP.         | 440 V. 3 $\phi$ 60~ |  |
| Hoist                                    | 7.5 HP.         |                     |  |
| Rammer                                   | 7.5 HP.         |                     |  |
| Gun Firing Transformer                   | 115 V. to 20 V. | 200 Watts           |  |
| Illumination Transformer                 | 115 V. to 6 V.  | 100 Watts           |  |
| Stand-by Firing and Illumination—Battery | 6 V.            | 100 A. H.           |  |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Countercoil Cylinder (for Charging)               |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                      |                |
|------------------|----------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 18        | G. E.—Northern |
| Training Gear    | Mk. 6 Mod. 19        | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1         | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 14 | Northern       |

### INDICATOR REGULATORS

| ELEVATION           | SPEEDS  | MFR.       |
|---------------------|---------|------------|
| Mk. 35 Mods. 0 or 1 | 2 & 36  | Gen. Elec. |
| TRAIN               |         |            |
| Mods. of Mk. 39     | 1 & 36  | Gen. Elec. |
| FUZE SETTING        |         |            |
| Mk. 8 Mod. 8        | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 255520    |
| General Arrangement Drawing Nos. | 246632–35 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 284°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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5"/38, MARK 30 MOD. 78



5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

|                      |                         |
|----------------------|-------------------------|
| ASSY.<br>NO.<br>1371 | SKETCH<br>NO.<br>108429 |
|----------------------|-------------------------|

**GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS**

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

### BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1

DD

MK. 38 MOD. 1

.25 IN.

**Weights below are approximate**

**44.750 LBS**

8.740 LBS.

1.385 LBS.

740 LBS.

**13,800 LBS**

8,150 LBS.

77,400 LBS.

78,850 LBS.

91,400 LBS.

**5"/38, MARK 30 MOD. 79**

# 5-IN. MOUNT, MARK 30 MOD. 79

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |        |          |           |
|------------------------------------------|-----------------|--------|----------|-----------|
| Elevating and Training Gear              | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Hoist                                    | 7.5 HP.         |        |          |           |
| Rammer                                   | 7.5 HP.         |        |          |           |
| Gun Firing Transformer                   | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer                 | 115 V. to 6 V.  |        |          | 100 Watts |
| Stand-by Firing and Illumination—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counterrecoil Cylinder (for Charging)             |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

### POWER DRIVES

|                  |                      |                |
|------------------|----------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 18        | G. E.—Northern |
| Training Gear    | Mk. 6 Mod. 19        | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1         | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 14 | Northern       |

### INDICATOR REGULATORS

| ELEVATION           | SPEEDS  | MFR.       |
|---------------------|---------|------------|
| Mk. 35 Mods. 0 or 1 | 2 & 36  | Gen. Elec. |
| TRAIN               |         |            |
| Mods. of Mk. 39     | 1 & 36  | Gen. Elec. |
| FUZE SETTING        |         |            |
| Mk. 8 Mod. 8        | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### OPERATING SELECTION

Manual Drive—Local Control—Automatic

### PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 735       |           |
| Working Circle Drawing No.       | 252925    |
| General Arrangement Drawing Nos. | 246632–35 |

### REMARKS

Elevation limits are minus 15° to plus 85°. The maximum training limit is 300°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

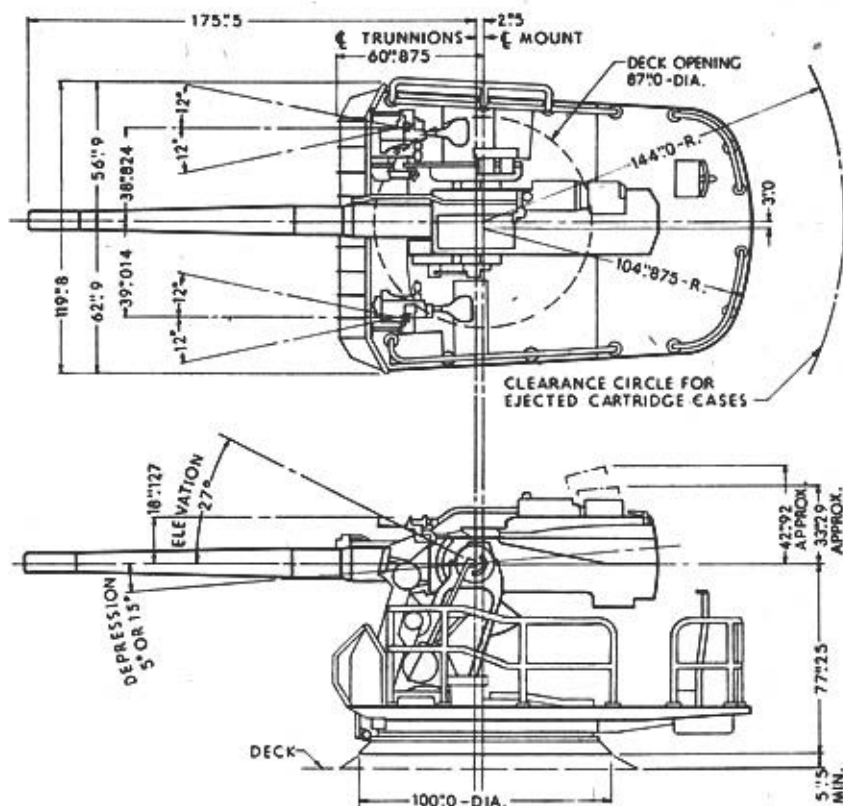
5"/38 MARK 30 MOD. 79

5-IN. MOUNT, MARK 30 MOD. 80

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 1428         | 132245        |

**Note:** Assembly number of mount is required for precise information.



### GUN—5"/38 INSTALLATION FOR SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 27° ELEV. FIRE

MK. 12 MOD. 1  
 CVE  
 NONE

Weights below are approximate

|             |
|-------------|
| 35,500 LBS. |
| 13,900 LBS. |
| 8,150 LBS.  |
| 77,600 LBS. |
| 78,900 LBS. |
| 84,850 LBS. |

**5"/38, MARK 30 MOD. 80**



# 5-IN. MOUNT, MARK 30 MOD. 80

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                         |                 |           |               |
|-----------------------------------------|-----------------|-----------|---------------|
| Elevating and Training Gear             | 10. HP.         | 440 V.    | 3 $\phi$ · 60 |
| Rammer                                  | 7.5 HP.         |           |               |
| Gun Firing and Illumination Transformer |                 |           |               |
| Firing                                  | 440 V. to 20 V. |           |               |
| Illumination                            | 440 V. to 6 V.  | 150 Watts |               |
| Stand-by Firing and Lighting—Battery    | 6 V.            | 100 A. H. |               |
|                                         | —or—            |           |               |
| Gun Firing Transformer                  | 115 V. to 20 V. | 200 Watts |               |
| Illumination Transformer                | 115 V. to 6 V.  | 150 Watts |               |
| Stand-by Firing and Lighting—Battery    | 6 V.            | 100 A. H. |               |

### PNEUMATIC

Counterrecoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450–1550 psi.

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 26 Gals. |

## POWER DRIVES

|                |                     |          |
|----------------|---------------------|----------|
| Elevating Gear | Mk. 14 Mod. 0       | Northern |
| Training Gear  | Mk. 14 Mod. 1       | Northern |
| Rammer         | Slide Mk. 24 Mod. 5 | Northern |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Maximum Powder Pressure      | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

|                           |                   |                 |
|---------------------------|-------------------|-----------------|
| Cartridge                 |                   |                 |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.   |
| Charge                    | Nominal           | Wt. 15.2 Lbs.   |
| Primer                    | Mk. 13 Mods. 0, 1 |                 |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs. |

## FUZE SETTER

Mk. 13 Mod. 0

## OPERATING SELECTION

Manual Drive—Hand Control (Hydraulic)

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 895       |           |
| Working Circle Drawing No.       | 378311    |
| General Arrangement Drawing Nos. | 378314–17 |

## REMARKS

Elevation limits are minus 15° to plus 27°. The maximum training limit is 330°.

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 30° per second.

Length of recoil is 15 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38, MARK 30 MOD. 80

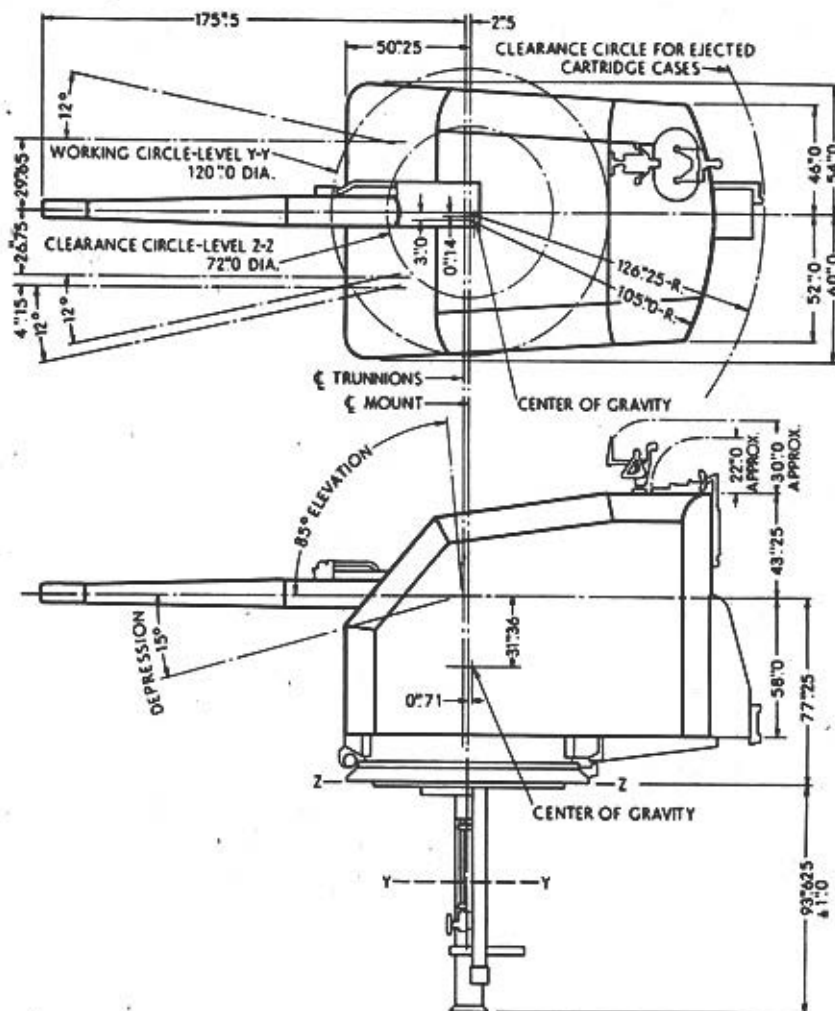


# 5-IN. MOUNT, MARK 30 MOD. 81

## 5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

ASSY. NO. 587  
SKETCH NO. 93334

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY

TOTAL WEIGHT OF SHIELD

Roof Plate Weight

Rear Plate Weight

OSCILLATING WEIGHT

RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
AV

MK. 25 MOD. 1  
.125 IN.

Weights below are approximate

41,300 LBS.

4,870 LBS.

945 LBS.

514 LBS.

13,800 LBS.

8,150 LBS.

77,600 LBS.

78,800 LBS.

91,300 LBS.

5"/38, MARK 30 MOD. 81

# 5-IN. MOUNT, MARK 30 MOD. 81

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                        |                                                   |  |  |
|----------------------------------------|---------------------------------------------------|--|--|
| Gas Ejector, Mk. 6 Mod. 1              | Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |  |
| Counter recoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                      |                |
|------------------|----------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 18        | G. E.—Northern |
| Training Gear    | Mk. 6 Mod. 19        | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1         | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 14 | Northern       |

## INDICATOR REGULATORS

|                |         |            |
|----------------|---------|------------|
| ELEVATION      | SPEEDS  | MFR.       |
| Mk. 35 Mod. 1  | 2 & 36  | Gen. Elec. |
| TRAIN          |         |            |
| Mk. 39 Mod. 52 | 1 & 36  | Gen. Elec. |
| FUZE SETTING   |         |            |
| Mk. 8 Mod. 8   | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Maximum Powder Pressure      | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

|                           |                       |               |
|---------------------------|-----------------------|---------------|
| Cartridge                 |                       |               |
| Case                      | Mk. 5 Mod. 0          | Wt. 12.3 Lbs. |
| Charge                    | Nominal Wt. 15.2 Lbs. |               |
| Primer                    | Mk. 13 Mods. 0, 1     |               |
| Total Weight of Cartridge | Appr. 27.5 Lbs.       |               |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 735       |           |
| Working Circle Drawing No.       | 257251    |
| General Arrangement Drawing Nos. | 246632–35 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limits is 255°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

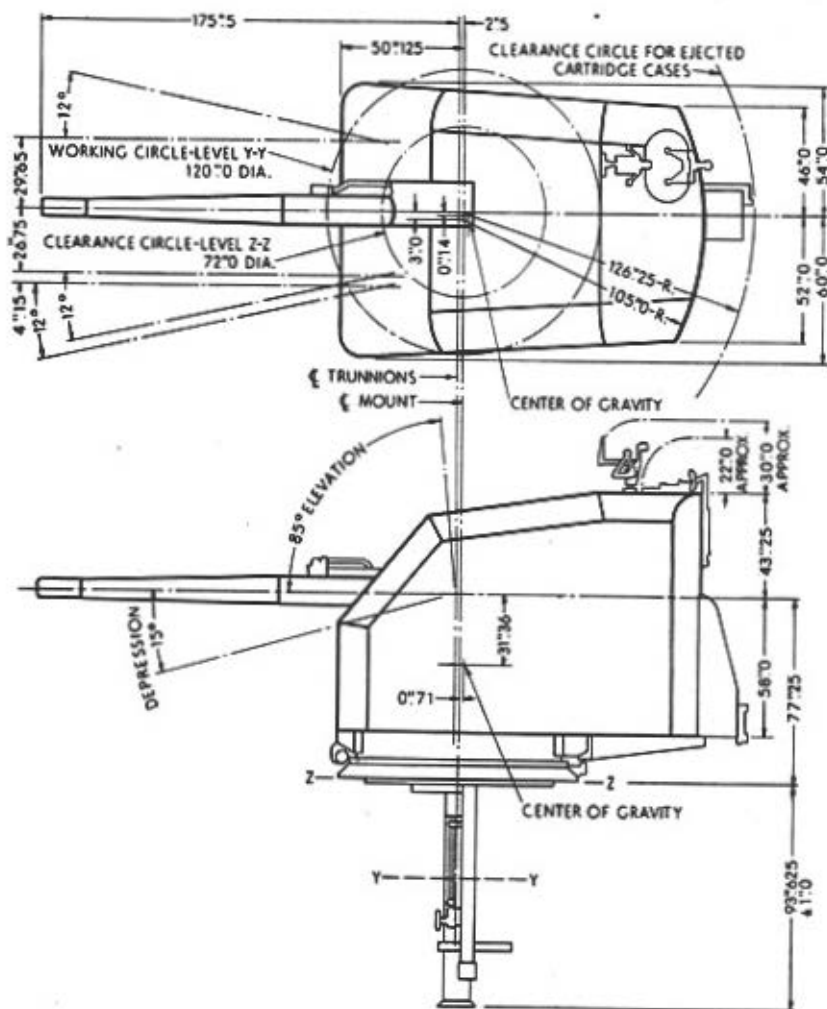
This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51 & 52.

# 5-IN. MOUNT, MARK 30 MOD. 82

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 588          | 107678        |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY

TOTAL WEIGHT OF SHIELD

Roof Plate Weight

Rear Plate Weight

OSCILLATING WEIGHT

RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1

AV

MK. 25 MOD. 1

.125 IN.

Weights below are approximate

41,300 LBS.

4,870 LBS.

945 LBS.

514 LBS.

13,800 LBS.

8,150 LBS.

77,600 LBS.

78,800 LBS.

91,300 LBS.

5"/38, MARK 30 MOD. 82



# 5-IN. MOUNT, MARK 30 MOD. 82

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                                   |  |  |  |
|---------------------------------------------------|--|--|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |  |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |  |  |
| Counterrecoil Cylinder (for Charging)             |  |  |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |  |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                      |                |
|------------------|----------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 18        | G. E.—Northern |
| Training Gear    | Mk. 6 Mod. 19        | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1         | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 14 | Northern       |

## INDICATOR REGULATORS

| ELEVATION      | SPEEDS  | MFR.       |
|----------------|---------|------------|
| Mk. 35 Mod. 1  | 2 & 36  | Gen. Elec. |
| TRAIN          |         |            |
| Mk. 39 Mod. 53 | 1 & 36  | Gen. Elec. |
| FUZE SETTING   |         |            |
| Mk. 8 Mod. 8   | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Maximum Powder Pressure      | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

| Typical Projectiles       |                       |               |
|---------------------------|-----------------------|---------------|
| Common                    | Mods. of Mk. 32       | Wt. 54.0 Lbs. |
| Common                    | Mods. of Mk. 38       | Wt. 55.2 Lbs. |
| A. A. Common              | Mods. of Mk. 35       | Wt. 55.2 Lbs. |
| Illuminating              | Mods. of Mk. 30       | Wt. 54.5 Lbs. |
| Cartridge                 |                       |               |
| Case                      | Mk. 5 Mod. 0          | Wt. 12.3 Lbs. |
| Charge                    | Nominal Wt. 15.2 Lbs. |               |
| Primer                    | Mk. 13 Mods. 0, 1     |               |
| Total Weight of Cartridge | Appr. 27.5 Lbs.       |               |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 735       |           |
| Working Circle Drawing No.       | 958204    |
| General Arrangement Drawing Nos. | 246632–35 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 230°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

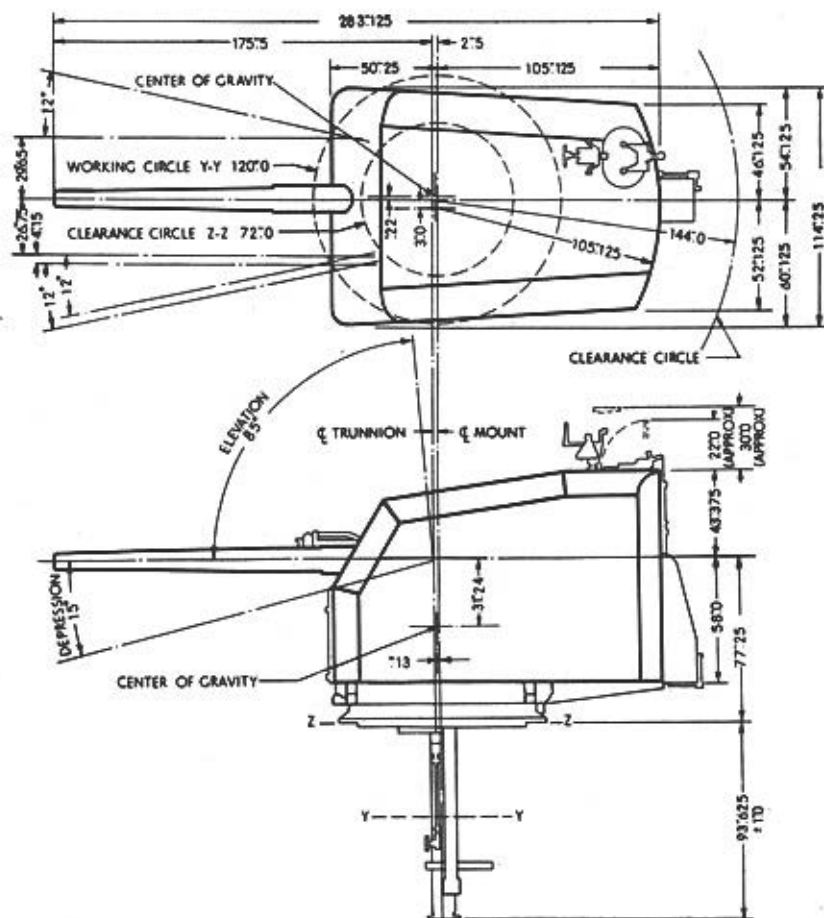
This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51 & 52.



**5-IN. MOUNT, MARK 30 MOD. 83****5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE**

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 1430         | 132247        |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
DD

MK. 38 MOD. 1  
.25 IN.

Weights below are approximate

45,800 LBS.

8,740 LBS.

1,385 LBS.

740 LBS.

13,850 LBS.

8,150 LBS.

77,600 LBS.

78,900 LBS.

91,500 LBS.

**5"/38, MARK 30 MOD. 83**

# 5-IN. MOUNT, MARK 30 MOD. 83

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                         |                 |           |              |
|-----------------------------------------|-----------------|-----------|--------------|
| Elevating and<br>Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                   | 7.5 HP.         |           |              |
| Rammer                                  | 7.5 HP.         |           |              |
| Gun Firing Transformer                  | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer                | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and<br>Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counterrecoil Cylinder (for Charging)             |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                      |                |
|------------------|----------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 18        | G. E.—Northern |
| Training Gear    | Mk. 6 Mod. 19        | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1         | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 18 | Northern       |

## INDICATOR REGULATORS

|                     |         |            |
|---------------------|---------|------------|
| ELEVATION           | SPEEDS  | MFR.       |
| Mk. 35 Mods. 0, 1   | 2 & 36  | Gen. Elec. |
| TRAIN               |         |            |
| Mk. 39 Mods. 20, 64 | 1 & 36  | Gen. Elec. |
| FUZE SETTING        |         |            |
| Mk. 8 Mod. 8        | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Maximum Powder Pressure      | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Typical Projectiles       |                   |                       |
| Common                    | Mods. of Mk. 32   | Wt. 54.0 Lbs.         |
| Common                    | Mods. of Mk. 38   | Wt. 55.2 Lbs.         |
| A. A. Common              | Mods. of Mk. 35   | Wt. 55.2 Lbs.         |
| Illuminating              | Mods. of Mk. 30   | Wt. 54.5 Lbs.         |
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 255520    |
| General Arrangement Drawing Nos. | 246632–35 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 284°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51 & 52.

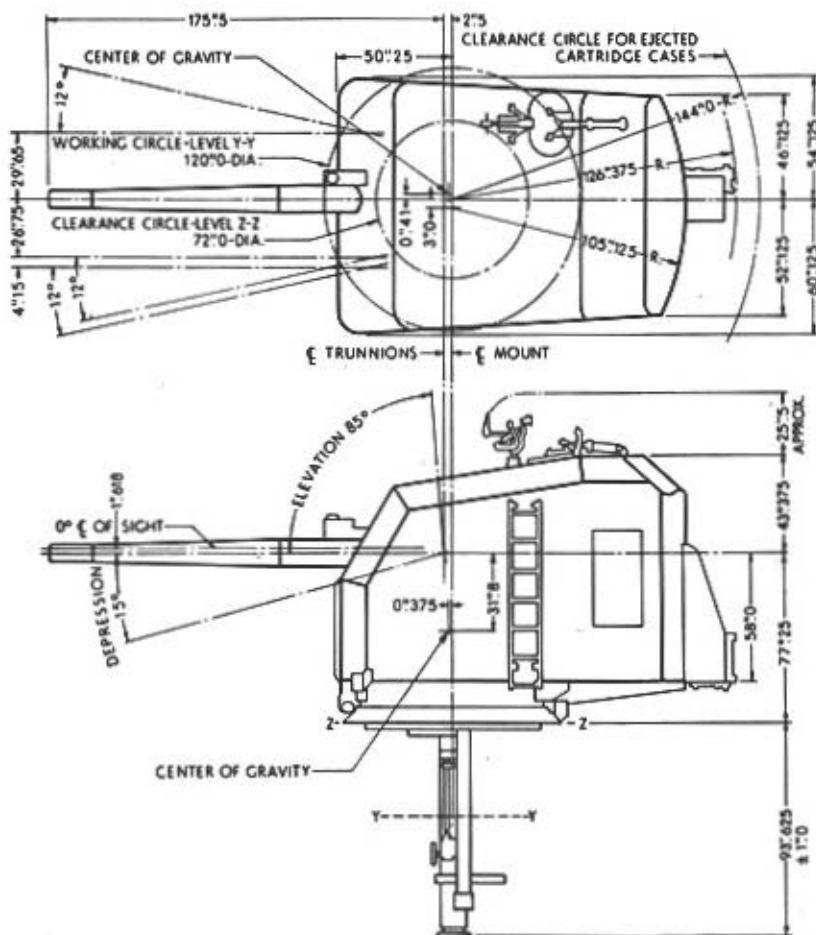
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38, MARK 30 MOD. 83

**5-IN. MOUNT, MARK 30 MOD. 84****5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE**

|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 1456         | 138180        |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD  
Roof Plate Weight  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
DE  
MK. 38 MOD. 2  
.25 IN.

Weights below are approximate  
45,100 LBS.  
8,250 LBS.  
1,350 LBS.  
800 LBS.  
13,800 LBS.  
8,150 LBS.  
77,600 LBS.  
78,800 LBS.  
91,400 LBS.

**5"/38, MARK 30 MOD. 84**

# 5-IN. MOUNT, MARK 30 MOD. 84

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Hoist                                | 7.5 HP.         |           |              |
| Rammer                               | 7.5 HP.         |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 1                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150-200 psi. |  |
| Counterrecoil Cylinder (for Charging)             |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                      |                |
|------------------|----------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 18        | G. E.-Northern |
| Training Gear    | Mk. 6 Mod. 19        | G. E.-Northern |
| Projectile Hoist | Mk. 2 Mod. 1         | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 18 | Northern       |

## INDICATOR REGULATORS

| ELEVATION       | SPEEDS  | MFR.       |
|-----------------|---------|------------|
| Mk. 35 Mod. 1   | 2 & 36  | Gen. Elec. |
| TRAIN           |         |            |
| Mk. 39 Mod. 106 | 1 & 36  | Gen. Elec. |
| FUZE SETTING    |         |            |
| Mk. 8 Mod. 8    | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Maximum Powder Pressure      | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |        |               |
|---------------------|--------|---------------|
| Common              | Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mk. 30 | Wt. 54.5 Lbs. |

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 735       |           |
| Working Circle Drawing No.       | 258261    |
| General Arrangement Drawing Nos. | 252011-14 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 322°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51 & 52.



|              |               |
|--------------|---------------|
| ASSY.<br>NO. | SKETCH<br>NO. |
| 1457         | 138181        |

Technical drawing of the M1919 Browning machine gun, showing top and side views with dimensions and labels.

**Top View Dimensions and Labels:**

- 175.5
- CENTER OF GRAVITY
- 50.25
- 4.70
- CLEARANCE CIRCLE FOR EJECTED CARTRIDGE CASES
- 12°
- WORKING CIRCLE-LEVEL Y-Y 120.0 DIA.
- 4.715
- 26.75
- 29.654
- 12°
- CLEARANCE CIRCLE-LEVEL Z-Z 72.0 DIA.
- 3.70
- 0.51
- 144.0-R
- 126.375-R
- 105.125-R
- 52.7125
- 60.125
- 54.7125

**Side View Dimensions and Labels:**

- TRUNNIONS
- MOUNT
- 85° ELEVATION
- 0° LINE OF SIGHT
- 1.618
- DEPRESSION 15°
- 30.05
- 0.056
- 48.5
- 30.0 APPROX.
- 56.0
- 77.25
- 93.625
- 1.0
- CENTER OF GRAVITY

**GUN—5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS**

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weight  
Rear Plate Weight

**OSCILLATING WEIGHT  
RECOILING WEIGHT**

BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
DEMK. 38 MOD. 0  
.25 IN.

**Weights below are approximate**

45,600 LBS.

9,620 LBS.

2,025 LBS.

765 LBS.

13,800 LBS.

8.150 LBS.

77,400 LBS.

77,600 LBS.  
78,900 LBS.

78,900 LBS.  
91,500 LBS.

**5"/38, MARK 30 MOD. 85**

# 5-IN. MOUNT, MARK 30 MOD. 85

5-IN. 38-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |             |
|--------------------------------------|-----------------|-----------|-------------|
| Elevating and Training Gear          | 10. HP.         | 440 V.    | 3 $\phi$ 60 |
| Hoist                                | 7.5 HP.         |           |             |
| Rammer                               | 7.5 HP.         |           |             |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |             |
| Illumination Transformer             | 115 V. to 6 V.  | 100 Watts |             |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |             |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 0                         |  |
| Appr. 2 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counter recoil Cylinder (for Charging)            |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.                |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 60 Gals. |

## POWER DRIVES

|                  |                      |                |
|------------------|----------------------|----------------|
| Elevating Gear   | Mk. 6 Mod. 17        | G. E.—Northern |
| Training Gear    | Mk. 6 Mod. 20        | G. E.—Northern |
| Projectile Hoist | Mk. 2 Mod. 1         | Vickers        |
| Rammer           | Slide Mk. 24 Mod. 14 | Northern       |

## INDICATOR REGULATORS

|                |         |            |
|----------------|---------|------------|
| ELEVATION      | SPEEDS  | MFR.       |
| Mk. 35 Mod. 1  | 2 & 36  | Gen. Elec. |
| TRAIN          |         |            |
| Mk. 39 Mod. 52 | 1 & 36  | Gen. Elec. |
| FUZE SETTING   |         |            |
| Mk. 8 Mod. 8   | 2 & 100 | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Maximum Powder Pressure      | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

|                     |                |               |
|---------------------|----------------|---------------|
| Typical Projectiles |                |               |
| Common              | Mds. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mds. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mds. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mds. of Mk. 30 | Wt. 54.5 Lbs. |

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 735        |           |
| Working Circle Drawing No.       | 258262    |
| General Arrangement Drawing Nos. | 246627–30 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 318°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 28.75° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51 & 52.





# 5-IN. MOUNT, MARK 32 MOD. 0

5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |        |    |           |
|--------------------------------------|-----------------|--------|----|-----------|
| Elevating Gear                       | 10. HP.         | 440 V. | 3ø | 60~       |
| Training Gear                        | 40. HP.         |        |    |           |
| Hoist, per gun                       | 10. HP.         |        |    |           |
| Rammer, per gun                      | 7.5 HP.         |        |    |           |
| Ventilation                          | 2. HP.          |        |    |           |
| Gun Firing Transformer               | 115 V. to 20 V. |        |    | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  |        |    | 150 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            |        |    | 100 A. H. |

### PNEUMATIC

|                                                           |  |
|-----------------------------------------------------------|--|
| Gas Ejector, Mk. 5 Mods. 2 & 3                            |  |
| Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150-200 psi. |  |
| Counterrecoil Cylinder (for Charging)                     |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi. per Gun.               |  |

### HYDRAULIC

|                |            |                |
|----------------|------------|----------------|
| Recoil Fluid   | O. D. 1914 | 6 Qts. per Gun |
| Speed Gear Oil | O. S. 2943 | 190 Gals.      |

## POWER DRIVES

|                |                          |                |
|----------------|--------------------------|----------------|
| Elevating Gear | Mk. 10 Mod. 0            | Ford-Waterbury |
| Training Gear  | Mk. 10 Mods. 0, 1        | Ford-Waterbury |
| Hoists         | Mk. 4 Mods. 10, 11       | Vickers        |
| Rammers        | Slides Mk. 27 Mods. 4, 5 | Northern       |

## INDICATOR REGULATORS

| ELEVATION                          | SPEEDS  | MFR. |
|------------------------------------|---------|------|
| Mk. 34 Mod. 0 or Mk. 42 Mod. 0     | 2 & 36  | Ford |
| TRAIN                              |         |      |
| Mods. of Mk. 38 or Mods. of Mk. 46 | 1 & 36  | Ford |
| FUZE SETTING                       |         |      |
| Mk. 8 Mod. 7 or Mk. 9 Mods. 0 or 1 | 2 & 100 | Arma |
| SIGHT SETTER'S INDICATOR           |         |      |
| Mk. 4 Mods. 0, 1                   |         | Arma |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Hand Control—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 805             |           |
| Working Circle Drawing Nos.           | 234360    |
|                                       | 237304    |
|                                       | 237312    |
| General Arrangement Drawing Nos.      | 237073-77 |
| Shore Emplacements, BuOrd Drawing No. | 300339    |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit varies up to 306°, according to the installation.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 25° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38 TWIN, MARK 32 MOD. 0



| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 561          | 93052         |
| 589          | 93990         |
| 720          | 102491        |
| 721          | 102492        |
| 722          | 102493        |
| 723          | 102494        |
| 724          | 102495        |
| 725          | 102496        |
| 981          | 106829        |

[illegible]

Weights below are approximate and per gun:

- 14,500 LBS.
- 8,150 LBS.
- 77,600 LBS.
- 79,000 LBS.
- 91,800 LBS.

**5"/38 TWIN, MARK 32 MOD. 1**

# 5-IN. MOUNT, MARK 32 MOD. 1

5-IN. 38-CAL.. D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |        |          |           |
|--------------------------------------|-----------------|--------|----------|-----------|
| Elevating Gear                       | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Training Gear                        | 40. HP.         |        |          |           |
| Hoist, per gun                       | 10. HP.         |        |          |           |
| Rammer, per gun                      | 7.5 HP.         |        |          |           |
| Ventilation                          | 2. HP.          |        |          |           |
| Gun Firing Transformer               | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  |        |          | 150 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                           |  |
|-----------------------------------------------------------|--|
| Gas Ejector, Mk. 5 Mods. 2 & 3                            |  |
| Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150–200 psi. |  |
| Counterrecoil Cylinder (for Charging)                     |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi. per Gun.               |  |

### HYDRAULIC

|                |            |                |
|----------------|------------|----------------|
| Recoil Fluid   | O. D. 1914 | 6 Qts. per Gun |
| Speed Gear Oil | O. S. 2943 | 190 Gals.      |

## POWER DRIVES

|                |                          |                |
|----------------|--------------------------|----------------|
| Elevating Gear | Mk. 10 Mod. 0            | Ford-Waterbury |
| Training Gear  | Mk. 10 Mod. 0            | Ford-Waterbury |
| Hoists         | Mk. 4 Mods. 10, 11       | Vickers        |
| Rammers        | Slides Mk. 27 Mods. 8, 9 | Northern       |

## INDICATOR REGULATORS

| ELEVATION        | SPEEDS | MFR. |
|------------------|--------|------|
| Mk. 34 Mod. 0 or |        |      |
| Mk. 42 Mod. 0    | 2 & 36 | Ford |

| TRAIN              |        |      |
|--------------------|--------|------|
| Mods. of Mk. 38 or | 1 & 36 | Ford |
| Mods. of Mk. 46    |        |      |

| FUZE SETTING                 |         |      |
|------------------------------|---------|------|
| Mk. 8 Mod. 7 or Mk. 9 Mod. 0 | 2 & 100 | Arma |

| SIGHT SETTER'S INDICATOR |  |      |
|--------------------------|--|------|
| Mk. 4 Mods. 0, 1         |  | Arma |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Hand Control—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 805             |           |
| Working Circle Drawing No.            | 238480    |
| General Arrangement Drawing Nos.      | 238900–04 |
| Shore Emplacements, BuOrd Drawing No. | 300339    |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit varies up to 306°, according to the installation.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 25° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38 TWIN, MARK 32 MOD. 1

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
|--------------|---------------|

[illegible]

Weights below are approximate and per gun

5"/38 TWIN, MARK 32 MOD. 2



# 5-IN. MOUNT, MARK 32 MOD. 2

5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                 |         |        |          |     |
|-----------------|---------|--------|----------|-----|
| Elevating Gear  | 10. HP. | 440 V. | 3 $\phi$ | 60~ |
| Training Gear   | 40. HP. |        |          |     |
| Hoist, per gun  | 10. HP. |        |          |     |
| Rammer, per gun | 7.5 HP. |        |          |     |
| Ventilation     | 2. HP.  |        |          |     |

|                                      |                 |           |
|--------------------------------------|-----------------|-----------|
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  | 150 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |

### PNEUMATIC

|                                                           |  |
|-----------------------------------------------------------|--|
| Gas Ejector, Mk. 5 Mods. 2 & 3                            |  |
| Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150–200 psi. |  |
| Counterclock Cylinder (for Charging)                      |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi. per Gun.               |  |

### HYDRAULIC

|                |            |                |
|----------------|------------|----------------|
| Recoil Fluid   | O. D. 1914 | 6 Qts. per Gun |
| Speed Gear Oil | O. S. 2943 | 190 Gals.      |

## POWER DRIVES

|                |                          |                |
|----------------|--------------------------|----------------|
| Elevating Gear | Mk. 10 Mod. 0            | Ford-Waterbury |
| Training Gear  | Mk. 10 Mod. 1            | Ford-Waterbury |
| Hoists         | Mk. 4 Mods. 10, 11       | Vickers        |
| Rammers        | Slides Mk. 27 Mods. 4, 5 | Northern       |

## INDICATOR REGULATORS

| ELEVATION                          | SPEEDS  | MFR. |
|------------------------------------|---------|------|
| Mk. 34 Mod. 0 or Mk. 42 Mod. 0     |         |      |
|                                    | 2 & 36  | Ford |
| TRAIN                              |         |      |
| Mods. of Mk. 38 or Mods. of Mk. 46 | 1 & 36  | Ford |
| FUZE SETTING                       |         |      |
| Mk. 8 Mod. 7 or Mk. 9 Mods. 0 or 1 | 2 & 100 | Arma |
| SIGHT SETTER'S INDICATOR           |         |      |
| Mk. 4 Mods. 0 or 1                 |         | Arma |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Hand Control—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 805             |           |
| Working Circle Drawing No.            | 234360    |
|                                       | 237312    |
| General Arrangement Drawing Nos.      | 237073–77 |
| Shore Emplacements, BuOrd Drawing No. | 300339    |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit varies up to 306°, according to the installation.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 25° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.



| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 921          | 106236        |
| 932          | 106220        |
| 933          | 106221        |
| 934          | 106313        |
| 1220         | 107689        |
| 1357         | 108412        |
| 1358         | 108413        |
| 1359         | 108414        |
| 1406         | 108494        |
| 1407         | 108495        |
| 1473         | 138307        |

Technical drawing of the M16 anti-aircraft gun, showing top and side views with dimensions and labels.

**Top View Labels and Dimensions:**

- WORKING CIRCLE 11700-0
- CLEARANCE CIRCLE 10600-0
- CLEARANCE CIRCLE FOR OPEN ACCESS DOORS
- CLEARANCE CIRCLE FOR EJECTED CARTRIDGE CASES
- TRUNNIONS
- MOUNT
- ACCESS DOOR
- CASE EJECTOR CHUTE
- CENTER OF GRAVITY
- 150°0
- 138°15
- 114°5
- 187°0
- 427°0
- 42°0
- 97°32
- 20°
- 10°
- 12°5
- 187°0
- 15°
- 85°
- 85°
- 79°75
- 36°5
- 47°5
- 72°3
- 67°5
- 28°75
- 4°4
- 95°0
- 87°0
- 15°15
- 40°5
- 45°0

**Side View Labels and Dimensions:**

- DEPRESSION
- SIGHT DEPRESSION
- CENTER OF GRAVITY
- CASE EJECTOR CHUTE
- ACCESS DOOR
- 15°
- 85°
- 85°
- 79°75
- 36°5
- 47°5
- 72°3
- 67°5
- 28°75
- 4°4
- 95°0
- 87°0
- 15°15
- 40°5
- 45°0

Weights below are approximate and per gun

**5"/38 TWIN, MARK 32 MOD. 3**

# 5-IN. MOUNT, MARK 32 MOD. 3

5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                 |         |                     |  |
|-----------------|---------|---------------------|--|
| Elevating Gear  | 10. HP. | 440 V. 3 $\phi$ 60~ |  |
| Training Gear   | 40. HP. |                     |  |
| Hoist, per gun  | 10. HP. |                     |  |
| Rammer, per gun | 7.5 HP. |                     |  |
| Ventilation     | 2. HP.  |                     |  |

|                                          |                 |           |
|------------------------------------------|-----------------|-----------|
| Gun Firing Transformer                   | 115 V. to 20 V. | 200 Watts |
| Illumination Transformer                 | 115 V. to 6 V.  | 150 Watts |
| Stand-by Firing and Illumination—Battery | 6 V.            | 100 A. H. |

### PNEUMATIC

|                                                           |  |
|-----------------------------------------------------------|--|
| Gas Ejector, Mk. 5 Mods. 2 & 3                            |  |
| Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150–200 psi. |  |
| Counter recoil Cylinder (for Charging)                    |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi. per Gun.               |  |

### HYDRAULIC

|                |            |                |
|----------------|------------|----------------|
| Recoil Fluid   | O. D. 1914 | 6 Qts. per Gun |
| Speed Gear Oil | O. S. 2943 | 190 Gals.      |

## POWER DRIVES

|                |                          |                |
|----------------|--------------------------|----------------|
| Elevating Gear | Mk. 10 Mod. 0            | Ford-Waterbury |
| Training Gear  | Mk. 10 Mod. 1            | Ford-Waterbury |
| Hoists         | Mk. 4 Mods. 10, 11       | Vickers        |
| Rammers        | Slides Mk. 27 Mods. 4, 5 | Northern       |

## INDICATOR REGULATORS

|                              |  |         |      |
|------------------------------|--|---------|------|
| ELEVATION                    |  | SPEEDS  | MFR. |
| Mk. 42 Mod. 0                |  | 2 & 36  | Ford |
| TRAIN                        |  |         |      |
| Mods. of Mk. 46              |  | 1 & 36  | Ford |
| FUZE SETTING                 |  |         |      |
| Mk. 8 Mod. 7 or Mk. 9 Mod. 0 |  | 2 & 100 | Arma |
| SIGHT SETTER'S INDICATOR     |  |         |      |
| Mk. 4 Mod. 0                 |  |         | Arma |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Typical Projectiles       |                   |                       |
| Common                    | Mods. of Mk. 32   | Wt. 54.0 Lbs.         |
| Common                    | Mods. of Mk. 38   | Wt. 55.2 Lbs.         |
| A. A. Common              | Mods. of Mk. 35   | Wt. 55.2 Lbs.         |
| Illuminating              | Mods. of Mk. 30   | Wt. 54.5 Lbs.         |
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Hand Control—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 805             |           |
| Working Circle Drawing No.            | 248387    |
| General Arrangement Drawing Nos.      | 248382–86 |
| Shore Emplacements, BuOrd Drawing No. | 300339    |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit varies up to 306°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 25° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

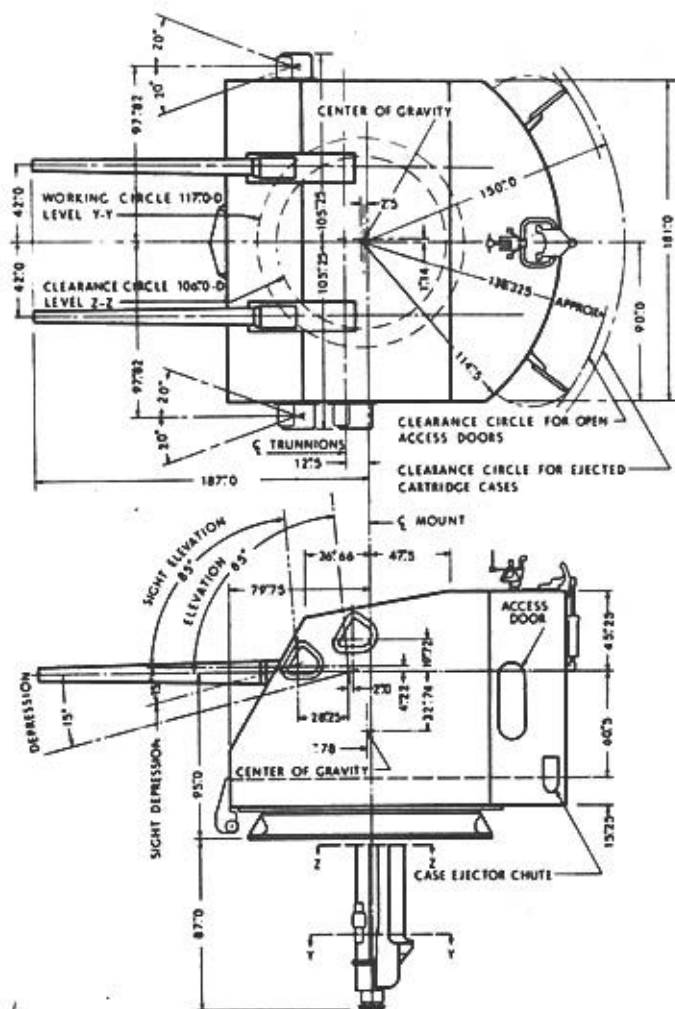
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38 TWIN, MARK 32 MOD. 3

**5-IN. MOUNT, MARK 32 MOD. 4****5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 540       | 92859      |
| 591       | 94384      |
| 702       | 102466     |
| 703       | 102467     |
| 704       | 102468     |
| 705       | 102469     |
| 922       | 106237     |
| 1221      | 107690     |
| 1304      | 108320     |
| 1318      | 108343     |
| 1319      | 108344     |
| 1320      | 108345     |
| 1321      | 108346     |
| 1404      | 108481     |
| 1408      | 108496     |
| 1409      | 108497     |
| 1443      | 132745     |
| 1444      | 132746     |
| 1445      | 132747     |
| 1446      | 132748     |
| 1447      | 132749     |
| 1448      | 132750     |
| 1489      | 138337     |
| 1490      | 138338     |
| 1491      | 138339     |
| 1492      | 138340     |

Note: Assembly number of mount is required for precise information.



**GUNS—TWO 5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS**

**TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD**  
Roof Plate Weights  
Rear Plate Weight

**OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE**

| MK. 12 MOD. 1<br>BB-CA-CB-CGC-CL-CV |               |               |
|-------------------------------------|---------------|---------------|
| MK. 31 MOD. 1                       | MK. 33 MOD. 1 | MK. 36 MOD. 1 |
| .75 IN.                             | .75 & 1.0 IN. | .75 & 1.0 IN. |

Weights below are approximate

|                    |                    |                    |
|--------------------|--------------------|--------------------|
| 120,200 LBS.       | 123,500 LBS.       | 123,500 LBS.       |
| 33,700 LBS.        | 35,250 LBS.        | 37,000 LBS.        |
| 3,335 & 1,825 LBS. | 3,335 & 1,825 LBS. | 4,375 & 2,575 LBS. |
| 4,980 LBS.         | 4,980 LBS.         | 4,980 LBS.         |

Weights below are approximate and per gun

|             |
|-------------|
| 13,900 LBS. |
| 8,150 LBS.  |
| 77,600 LBS. |
| 78,900 LBS. |
| 91,500 LBS. |

**5"/38 TWIN, MARK 32 MOD. 4**



# 5-IN. MOUNT, MARK 32 MOD. 4

5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |                     |  |
|------------------------------------------|-----------------|---------------------|--|
| Elevating Gear                           | 10. HP.         | 440 V. 3 $\phi$ 60~ |  |
| Training Gear                            | 40. HP.         |                     |  |
| Hoist, per gun                           | 10. HP.         |                     |  |
| Rammer, per gun                          | 7.5 HP.         |                     |  |
| Ventilation                              | 2. HP.          |                     |  |
| Gun Firing Transformer                   | 115 V. to 20 V. | 200 Watts           |  |
| Illumination Transformer                 | 115 V. to 6 V.  | 150 Watts           |  |
| Stand-by Firing and Illumination—Battery | 6 V.            | 100 A. H.           |  |

### PNEUMATIC

|                                                           |  |
|-----------------------------------------------------------|--|
| Gas Ejector, Mk. 5 Mods. 2 & 3                            |  |
| Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150–200 psi. |  |
| Counterrecoil Cylinder (for Charging)                     |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi. per Gun.               |  |

### HYDRAULIC

|                |            |                |
|----------------|------------|----------------|
| Recoil Fluid   | O. D. 1914 | 6 Qts. per Gun |
| Speed Gear Oil | O. S. 2943 | 190 Gals.      |

## POWER DRIVES

|                |                          |                |
|----------------|--------------------------|----------------|
| Elevating Gear | Mk. 10 Mod. 0            | Ford-Waterbury |
| Training Gear  | Mk. 10 Mod. 1            | Ford-Waterbury |
| Hoists         | Mk. 4 Mods. 10, 11       | Vickers        |
| Rammers        | Slides Mk. 27 Mods. 4, 5 | Northern       |

## INDICATOR REGULATORS

|                          |  |         |      |
|--------------------------|--|---------|------|
| ELEVATION                |  | SPEEDS  | MFR. |
| Mk. 42 Mod. 0            |  | 2 & 36  | Ford |
| TRAIN                    |  |         |      |
| Mods. of Mk. 46          |  | 1 & 36  | Ford |
| FUZE SETTING             |  |         |      |
| Mk. 8 Mod. 7             |  |         |      |
| or Mk. 9 Mods. 0 or 1    |  | 2 & 100 | Arma |
| SIGHT SETTER'S INDICATOR |  |         |      |
| Mk. 4 Mod. 0             |  |         | Arma |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Hand Control—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 805             | 248387    |
| Working Circle Drawing Nos.           | 252059    |
|                                       | 254045    |
| General Arrangement Drawing Nos.      | 248382–86 |
|                                       | 252054–58 |
|                                       | 254009–13 |
| Shore Emplacements, BuOrd Drawing No. | 300339    |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit varies up to 306°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 25° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

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5"/38 TWIN, MARK 32 MOD. 4

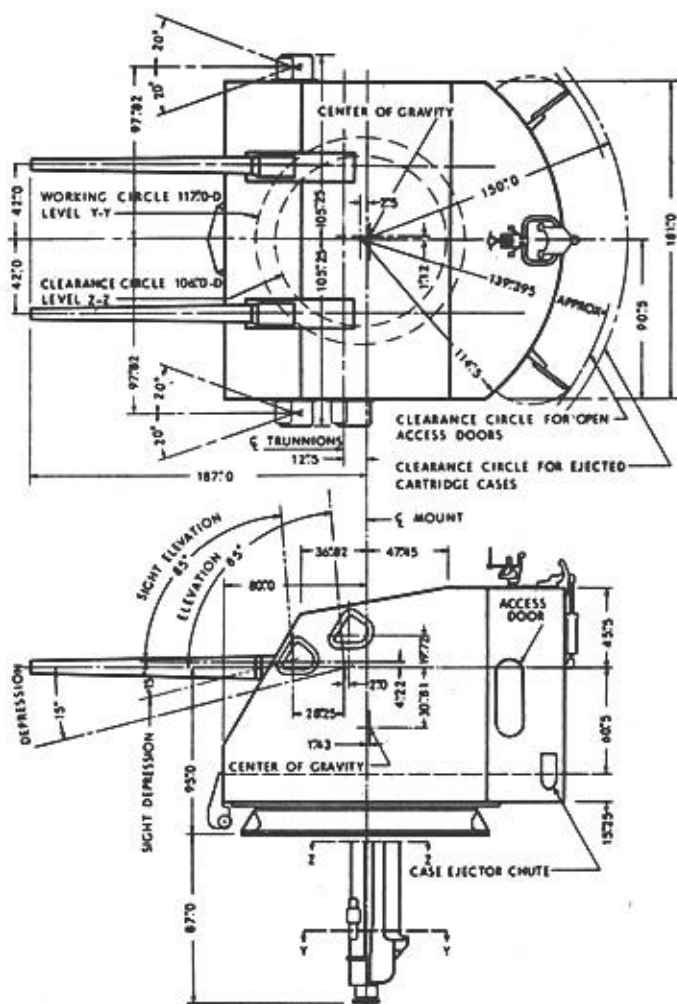


## 5-IN. MOUNT, MARK 32 MOD. 5

5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 968          | 106791        |
| 1532         | 138909        |
| 1533         | 138910        |
| 1534         | 138911        |
| 1535         | 138912        |
| 1542         | 138923        |
| 1543         | 138924        |

Note: Assembly number of mount is required for precise information.



GUNS—TWO 5"/38  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD  
Roof Plate Weights  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
CL  
MK. 34 MOD. 1  
1.25 IN.

Weights below are approximate  
133,500 LBS.  
45,100 LBS.  
5,500 & 3,225 LBS.  
7,880 LBS.

Weights below are approximate and per gun  
14,700 LBS.  
8,150 LBS.  
77,600 LBS.  
79,000 LBS.  
91,800 LBS.

5"/38 TWIN, MARK 32 MOD. 5

# 5-IN. MOUNT, MARK 32 MOD. 5

5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |        |          |           |
|------------------------------------------|-----------------|--------|----------|-----------|
| Elevating Gear                           | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Training Gear                            | 40. HP.         |        |          |           |
| Hoist, per gun                           | 10. HP.         |        |          |           |
| Rammer, per gun                          | 7.5 HP.         |        |          |           |
| Ventilation                              | 2. HP.          |        |          |           |
| Gun Firing Transformer                   | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer                 | 115 V. to 6 V.  |        |          | 150 Watts |
| Stand-by Firing and Illumination—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                           |  |
|-----------------------------------------------------------|--|
| Gas Ejector, Mk. 5 Mods. 2 & 3                            |  |
| Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150–200 psi. |  |
| Counterrecoil Cylinder (for Charging)                     |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi. per Gun.               |  |

### HYDRAULIC

|                |            |                |
|----------------|------------|----------------|
| Recoil Fluid   | O. D. 1914 | 6 Qts. per Gun |
| Speed Gear Oil | O. S. 2943 | 190 Gals.      |

## POWER DRIVES

|                |                          |                |
|----------------|--------------------------|----------------|
| Elevating Gear | Mk. 10 Mod. 0            | Ford-Waterbury |
| Training Gear  | Mk. 10 Mods. 0, 1        | Ford-Waterbury |
| Hoists         | Mk. 4 Mods. 10, 11       | Vickers        |
| Rammers        | Slides Mk. 27 Mods. 8, 9 | Northern       |

## INDICATOR REGULATORS

|                          |  |         |      |
|--------------------------|--|---------|------|
| ELEVATION                |  | SPEEDS  | MFR  |
| Mk. 42 Mod. 0            |  | 2 & 36  | Ford |
| TRAIN                    |  |         |      |
| Mods. of Mk. 46          |  | 1 & 36  | Ford |
| FUZE SETTING             |  |         |      |
| Mk. 9 Mod. 1             |  | 2 & 100 | Arma |
| SIGHT SETTER'S INDICATOR |  |         |      |
| Mk. 4 Mod. 0             |  |         | Arma |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                 |               |
|--------------|-----------------|---------------|
| Common       | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Hand Control—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 805             |           |
| Working Circle Drawing No.            | 249242    |
| General Arrangement Drawing Nos.      | 249237–41 |
| Shore Emplacements, BuOrd Drawing No. | 300339    |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit varies up to 306°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 25° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38 TWIN. MARK 32 MOD. 5

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 1268         | 107849        |
| 1980         | 107878        |

Technical drawing of the M107 mortar system, showing top and side views with dimensions and labels.

**Top View Labels and Dimensions:**

- CLEARANCE CIRCLE FOR EJECTED CARTRIDGE CASES
- 12.5
- 105.00
- CENTER OF GRAVITY
- 150° 0' R.
- 145° 0' R.
- 14° 0' R.
- 105.05
- 97.82
- 42.0
- WORKING CIRCLE - 117.0" D. LEVEL Y-Y
- CLEARANCE CIRCLE - 106.0" D. LEVEL Z-Z
- 42.0
- 187.0
- OF TRUNNIONS
- OF MOUNT
- CLEARANCE
- CIRCLE FOR OPEN ACCESS DOORS
- 107.0
- 107.0

**Side View Labels and Dimensions:**

- SIGHT ELEVATION 83°
- ELEVATION 85°
- 79° 3'
- 34.5
- 47.5
- 104.7-107.8
- 4.72
- 20
- 28.25
- CENTER OF GRAVITY
- 99.0
- DEPRESSION 15°
- SIGHT DEPRESSION 1.5
- ACCESS DOOR
- 60.50
- 43.0 APPROX.
- 132.5
- CASE EJECTOR CHUTE
- Y
- 87.0

Weights below are approximate and per gun

|             |
|-------------|
| 13,900 LBS. |
| 8,150 LBS.  |
| 77,600 LBS. |
| 78,900 LBS. |
| 91,500 LBS. |

**5"/38 TWIN, MARK 32 MOD. 6**



# 5-IN. MOUNT, MARK 32 MOD. 6

5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |        |          |           |
|------------------------------------------|-----------------|--------|----------|-----------|
| Elevating Gear                           | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Training Gear                            | 40. HP.         |        |          |           |
| Hoist, per gun                           | 7.5 HP.         |        |          |           |
| Rammer, per gun                          | 7.5 HP.         |        |          |           |
| Ventilation                              | 2. HP.          |        |          |           |
| Gun Firing Transformer                   | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer                 | 115 V. to 6 V.  |        |          | 150 Watts |
| Stand-by Firing and Illumination—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                                           |  |
|-----------------------------------------------------------|--|
| Gas Ejector, Mk. 5 Mods. 2 & 3                            |  |
| Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150–200 psi. |  |
| Counterrecoil Cylinder (for Charging)                     |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi. per Gun.               |  |

### HYDRAULIC

|                |            |                |
|----------------|------------|----------------|
| Recoil Fluid   | O. D. 1914 | 6 Qts. per Gun |
| Speed Gear Oil | O. S. 2943 | 190 Gals.      |

## POWER DRIVES

|                |                          |                |
|----------------|--------------------------|----------------|
| Elevating Gear | Mk. 10 Mod. 0            | Ford-Waterbury |
| Training Gear  | Mk. 10 Mod. 1            | Ford-Waterbury |
| Hoists         | Mk. 4 Mods. 10, 11       | Vickers        |
| Rammers        | Slides Mk. 27 Mods. 4, 5 | Northern       |

## INDICATOR REGULATORS

|                          |  |         |      |
|--------------------------|--|---------|------|
| ELEVATION                |  | SPEEDS  | MFR. |
| Mk. 42 Mod. 0            |  | 2 & 36  | Ford |
| TRAIN                    |  |         |      |
| Mods. of Mk. 46          |  | 1 & 36  | Ford |
| FUZE SETTING             |  |         |      |
| Mk. 9 Mod. 0             |  | 2 & 100 | Arma |
| SIGHT SETTER'S INDICATOR |  |         |      |
| Mk. 4 Mod. 0             |  |         | Arma |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Hand Control—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 805             |           |
| Working Circle Drawing No.            | 234360    |
| General Arrangement Drawing Nos.      | 237073–77 |
| Shore Emplacements, BuOrd Drawing No. | 300339    |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit varies up to 306°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 25° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38 TWIN MARK 32 MOD. 6



## 5-IN. MOUNT, MARK 32 MODS. 10, 12

5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

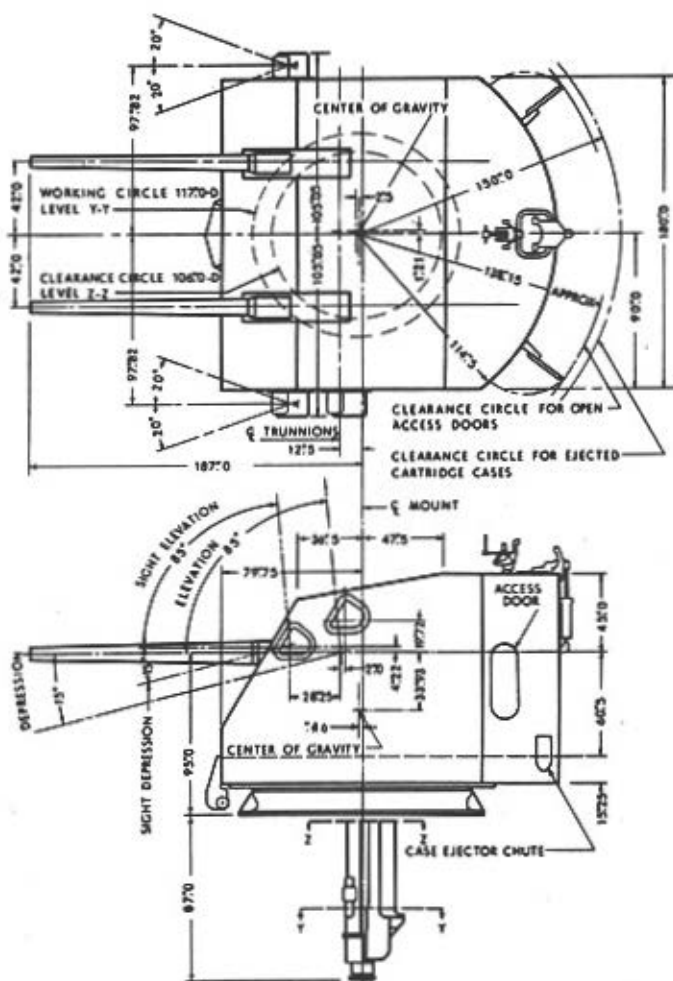
| ASSY. NO. | SKETCH NO. |
|-----------|------------|
|-----------|------------|

|                      |        |
|----------------------|--------|
| Mount Mk. 32 Mod. 10 |        |
| 1403                 | 108479 |

|                      |  |
|----------------------|--|
| Mount Mk. 32 Mod. 12 |  |
|----------------------|--|

|      |        |
|------|--------|
| 1451 | 138167 |
| 1452 | 138168 |
| 1453 | 138169 |
| 1458 | 138182 |
| 1488 | 138334 |
| 1493 | 138342 |
| 1494 | 138343 |
| 1495 | 138344 |
| 1496 | 138345 |
| 1497 | 138346 |
| 1498 | 138347 |
| 1499 | 138348 |
| 1511 | 138872 |
| 1512 | 138873 |
| 1513 | 138874 |
| 1514 | 138875 |
| 1527 | 138900 |
| 1528 | 138901 |
| 1529 | 138902 |
| 1530 | 138903 |

Note: Assembly number of mount is required for precise information.



GUNS—TWO 5"/38  
INSTALLATION FOR

SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD

Roof Plate Weights  
Rear Plate Weight

OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
(Mount Mk. 32 Mod. 10) CGC  
(Mount Mk. 32 Mod. 12) BB—CA—CL  
MK. 31 MOD. 1  
.75 IN.

Weights below are approximate  
119,000 TO 122,000 LBS.  
33,700 LBS.  
3,335 & 1,825 LBS.  
4,980 LBS.

Weights below are approximate and per gun  
13,900 LBS.  
8,150 LBS.  
77,600 LBS.  
78,900 LBS.  
91,500 LBS.

5"/38 TWIN, MARK 32 MODS. 10, 12

# 5-IN. MOUNT, MARK 32 MODS. 10, 12

5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                 |           |              |
|------------------------------------------|-----------------|-----------|--------------|
| Elevating Gear                           | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Training Gear                            | 40. HP.         |           |              |
| Hoist, per gun                           | 7.5 HP.         |           |              |
| Rammer, per gun                          | 7.5 HP.         |           |              |
| Ventilation                              | 2. HP.          |           |              |
| Gun Firing Transformer                   | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer                 | 115 V. to 6 V.  | 150 Watts |              |
| Stand-by Firing and Illumination—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                                           |  |
|-----------------------------------------------------------|--|
| Gas Ejector, Mk. 5 Mods. 2 & 3                            |  |
| Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150–200 psi. |  |
| Countercoil Cylinder (for Charging)                       |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi. per Gun                |  |

### HYDRAULIC

|                |            |                |
|----------------|------------|----------------|
| Recoil Fluid   | O. D. 1914 | 6 Qts. per Gun |
| Speed Gear Oil | O. S. 2943 | 190 Gals.      |

## POWER DRIVES

|                |                          |                |
|----------------|--------------------------|----------------|
| Elevating Gear | Mk. 10 Mod. 0            | Ford-Waterbury |
| Training Gear  | Mk. 10 Mod. 0            | Ford-Waterbury |
| Hoists         | Mk. 4 Mods. 10, 11       | Vickers        |
| Rammers        | Slides Mk. 27 Mods. 4, 5 | Northern       |

## INDICATOR REGULATORS

|                          |         |      |
|--------------------------|---------|------|
| ELEVATION                | SPEEDS  | MFR. |
| Mk. 42 Mod. 0            | 2 & 36  | Ford |
| TRAIN                    |         |      |
| Mk. 46                   | 1 & 36  | Ford |
| FUZE SETTING             |         |      |
| Mk. 8 Mod. 7 or          |         |      |
| Mk. 9 Mods. 0 or 1       | 2 & 100 | Arma |
| SIGHT SETTER'S INDICATOR |         |      |
| Mk. 4 Mods. 0 or 1       |         | Arma |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Maximum Powder Pressure      | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Typical Projectiles       |                   |                       |
| Common                    | Mods. of Mk. 32   | Wt. 54.0 Lbs.         |
| Common                    | Mods. of Mk. 38   | Wt. 55.2 Lbs.         |
| A. A. Common              | Mods. of Mk. 35   | Wt. 55.2 Lbs.         |
| Illuminating              | Mods. of Mk. 30   | Wt. 54.5 Lbs.         |
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Hand Control—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 805        |           |
| Working Circle Drawing No.       | 248387    |
| General Arrangement Drawing Nos. | 248382–86 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is determined by the installation.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 25° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51 & 52.

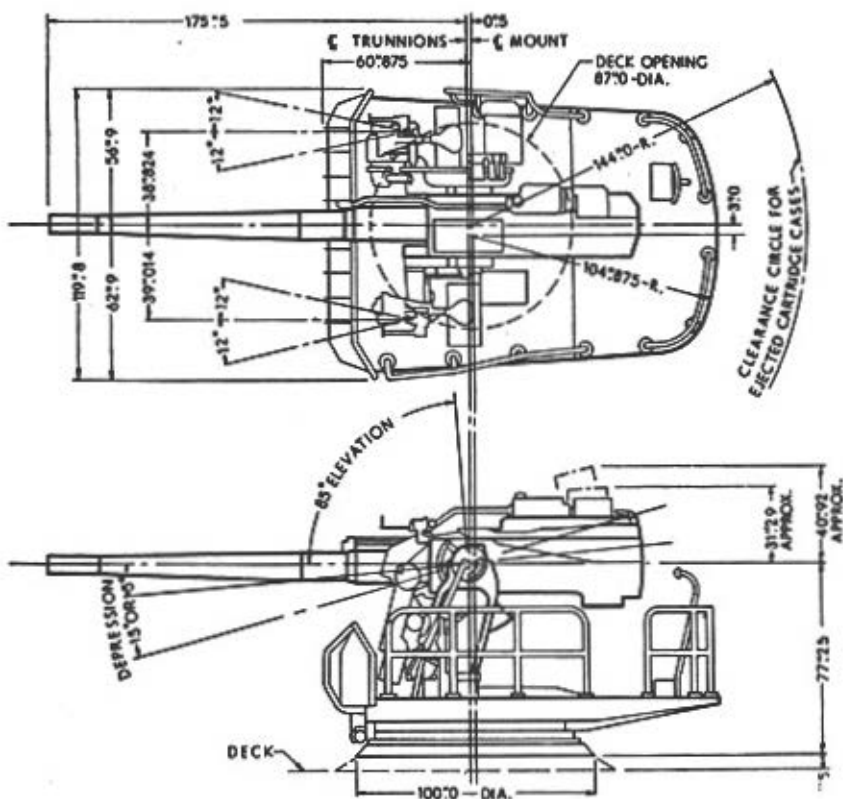
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38 TWIN, MARK 32 MODS. 10, 12

**5-IN. MOUNT, MARK 37 MOD. 0****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE**

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 872       | 103280     |
| 1423      | 132222     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MARK 12 MOD. 1  
AUX. & MERCHANT SHIPS  
NONE

Weights below are approximate

|                                  |             |
|----------------------------------|-------------|
| TOTAL WEIGHT OF ASSEMBLY         | 34,700 LBS. |
| OSCILLATING WEIGHT               | 13,900 LBS. |
| RECOILING WEIGHT                 | 8,150 LBS.  |
| BRAKE LOAD                       | 77,635 LBS. |
| TRUNNION PRESSURE HORIZ. FIRE    | 78,840 LBS. |
| TRUNNION PRESSURE 85° ELEV. FIRE | 91,360 LBS. |

**5"/38, MARK 37 MOD. 0**



# 5-IN. MOUNT, MARK 37 MOD. 0

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                         |                 |                     |  |
|-----------------------------------------|-----------------|---------------------|--|
| Elevating and Training Gear             | 10. HP.         | 440 V. 3 $\phi$ 60~ |  |
| Rammer                                  | 7.5 HP.         |                     |  |
| Gun Firing and Illumination Transformer |                 |                     |  |
| Firing                                  | 440 V. to 20 V. | 150 Watts           |  |
| Illumination                            | 440 V. to 6 V.  |                     |  |
| Stand-by Firing and Lighting—Battery    | 6 V.            | 100 A. H.           |  |
|                                         | —or—            |                     |  |
| Gun Firing Transformer                  | 115 V. to 20 V. | 200 Watts           |  |
| Illumination Transformer                | 115 V. to 6 V.  | 150 Watts           |  |
| Stand-by Firing and Lighting—Battery    | 6 V.            | 100 A. H.           |  |

### PNEUMATIC

Counterrecoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450–1550 psi.

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 26 Gals. |

## POWER DRIVES

|                |                      |          |
|----------------|----------------------|----------|
| Elevating Gear | Mk. 14 Mod. 0        | Northern |
| Training Gear  | Mk. 14 Mod. 0        | Northern |
| Rammer         | Slide Mk. 24 Mod. 10 | Northern |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 13 Mod. 0

## OPERATING SELECTION

Manual Drive—Hand Control (Hydraulic)

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 868             |           |
| Working Circle Drawing No.            | 363500    |
| General Arrangement Drawing Nos.      | 378094–97 |
| Gun foundation, BuShips Drawing No.   | 506283    |
| Shore emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 30° per second.

Length of recoil is 15 inches.

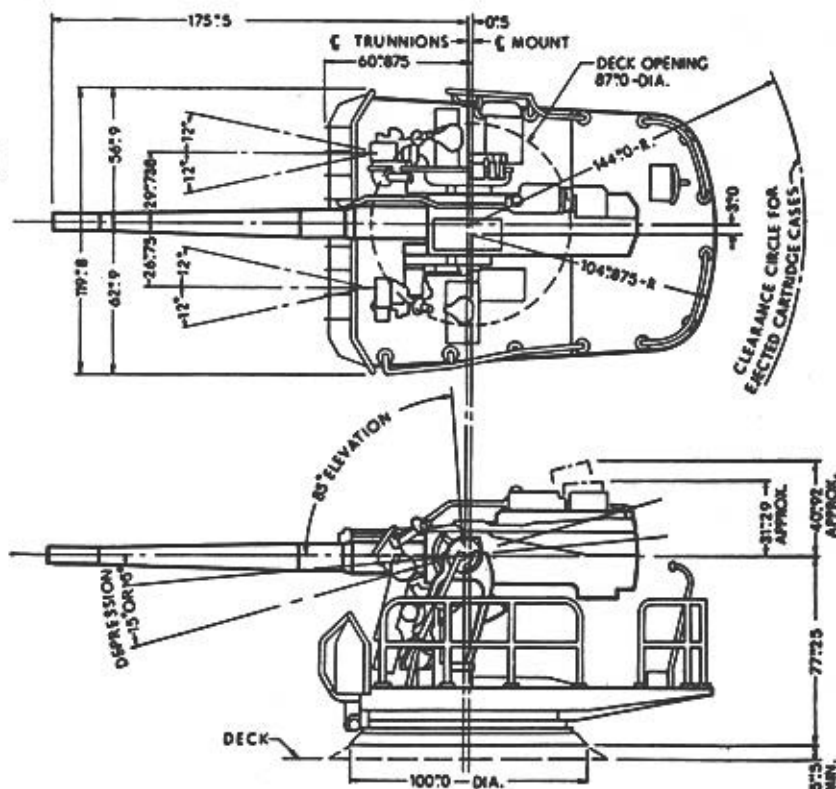


# 5-IN. MOUNT, MARK 37 MOD. 1

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 983       | 106831     |
| 1305      | 108321     |
| 1312      | 108336     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
AUX. & MERCHANT SHIPS  
NONE

Weights below are approximate  
35,000 LBS.  
13,800 LBS.  
8,150 LBS.  
77,635 LBS.  
78,840 LBS.  
91,360 LBS.

5"/38, MARK 37 MOD. 1

# 5-IN. MOUNT, MARK 37 MOD. 1

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                         |                 |              |
|-----------------------------------------|-----------------|--------------|
| Elevating and Training Gear             | 10. HP.         | 230 V. D. C. |
| Rammer                                  | 4.5 HP.         |              |
| Gun Firing and Illumination Transformer |                 | 150 Watts    |
| Firing                                  | 440 V. to 20 V. |              |
| Illumination                            | 440 V. to 6 V.  |              |
| Stand-by Firing and Lighting—Battery    | 6 V.            | 100 A. H.    |
|                                         | — or —          |              |
| Gun Firing Transformer                  | 115 V. to 20 V. | 200 Watts    |
| Illumination Transformer                | 115 V. to 6 V.  | 150 Watts    |
| Stand-by Firing and Lighting—Battery    | 6 V.            | 100 A. H.    |
|                                         | — or —          |              |
| Firing and Lighting—Battery             | 6 V.            | 100 A. H.    |

### PNEUMATIC

|                                        |                                    |
|----------------------------------------|------------------------------------|
| Counter recoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450–1550 psi. |
|----------------------------------------|------------------------------------|

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 26 Gals. |

## POWER DRIVES

|                |                      |          |
|----------------|----------------------|----------|
| Elevating Gear | Mk. 14 Mod. 2        | Northern |
| Training Gear  | Mk. 14 Mod. 3        | Northern |
| Rammer         | Slide Mk. 24 Mod. 12 | Northern |

## INDICATORS (Assy. 1312)

|                |        |              |
|----------------|--------|--------------|
| ELEVATION      | SPEEDS | MFR.         |
| Mds. of Mk. 21 | 2 & 36 | Cont. Instr. |
| TRAIN          |        |              |
| Mds. of Mk. 23 | 1 & 36 | Cont. Instr. |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

|                     |                |               |
|---------------------|----------------|---------------|
| Typical Projectiles |                |               |
| Common              | Mds. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mds. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mds. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mds. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 13 Mod. 0

## OPERATING SELECTION

Manual Drive—Hand Control (Hydraulic)

## PAMPHLET AND DRAWING NUMBERS

|                                       |                          |
|---------------------------------------|--------------------------|
| Ordnance Pamphlet No. 868             |                          |
| Working Circle Drawing Nos.           | 363500<br>378122         |
| General Arrangement Drawing Nos.      | 378098–101<br>378125–128 |
| Gun foundation, BuShips Drawing No.   | 506283                   |
| Shore emplacements, BuOrd Drawing No. | 393701                   |
| (BuDocks Drawing No. 250339)          |                          |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 30° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun directors Mk. 51 and 52.

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 1246         | 107826        |
| 1306         | 108322        |
| 1313         | 108337        |

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TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate

|             |
|-------------|
| 35,000 LBS. |
| 13,900 LBS. |
| 8,150 LBS.  |
| 77,635 LBS. |
| 78,840 LBS. |
| 91,360 LBS. |

**5"/38, MARK 37 MOD. 2**

# 5-IN. MOUNT, MARK 37 MOD. 2

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                          |                            |             |           |
|------------------------------------------|----------------------------|-------------|-----------|
| Elevating and Training Gear Rammer       | 10. HP. } 440 V. 7.5 HP. } | 3 $\phi$    | 60~       |
| Gun Firing and Illumination Transformer: |                            |             |           |
| Firing                                   | 440 V. to 20 V.            | } 150 Watts |           |
| Illumination                             | 440 V. to 6 V.             |             |           |
| Stand-by Firing and Lighting—Battery     | 6 V.                       |             | 100 A. H. |
|                                          | —or—                       |             |           |
| Gun Firing Transformer                   | 115 V. to 20 V.            |             | 200 Watts |
| Illumination Transformer                 | 115 V. to 6 V.             |             | 150 Watts |
| Stand-by Firing and Lighting—Battery     | 6 V.                       |             | 100 A. H. |

### PNEUMATIC

Counter recoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450–1550 psi.

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 26 Gals. |

## POWER DRIVES

|                |                      |          |
|----------------|----------------------|----------|
| Elevating Gear | Mk. 14 Mod. 2        | Northern |
| Training Gear  | Mk. 14 Mod. 5        | Northern |
| Rammer         | Slide Mk. 24 Mod. 10 | Northern |

## INDICATORS (Assys. 1246, 1313)

|                |        |              |
|----------------|--------|--------------|
| ELEVATION      | SPEEDS | MFR.         |
| Mds. of Mk. 21 | 2 & 36 | Cont. Instr. |
| TRAIN          |        |              |
| Mds. of Mk. 23 | 1 & 36 | Cont. Instr. |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

|                     |                |               |
|---------------------|----------------|---------------|
| Typical Projectiles |                |               |
| Common              | Mds. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mds. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mds. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mds. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 13 Mod. 0

## OPERATING SELECTION

Manual Drive—Hand Control (Hydraulic)

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 868             | 363500    |
| Working Circle Drawing Nos.           | 378122    |
| General Arrangement Drawing Nos.      | 378102-05 |
|                                       | 378129-32 |
| Gun foundation, BuShips Drawing No.   | 506283    |
| Shore emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 30° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun directors Mk. 51 & 52.

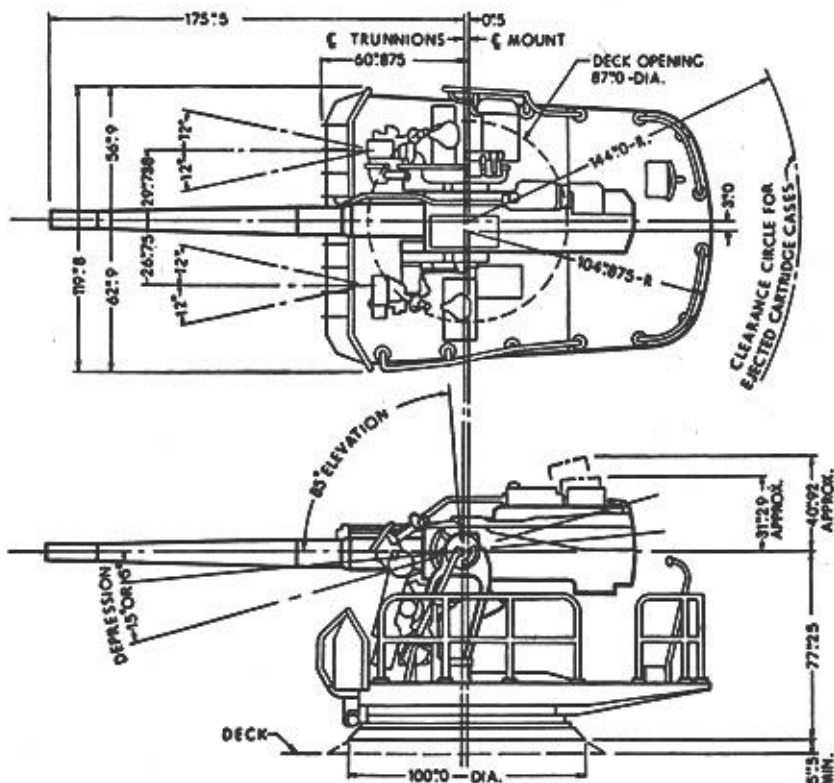


## 5-IN. MOUNT, MARK 37 MOD. 4

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 1247         | 107827        |
| 1307         | 108323        |
| 1314         | 108338        |
| 1418         | 132212        |

Note: Assembly number of mount is required for precise information



GUN—5"/38  
INSTALLATION FOR  
SHIELD

MK. 12 MOD. 1  
MERCHANT SHIPS  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate  
35,200 LBS.  
13,800 LBS.  
8,150 LBS.  
77,635 LBS.  
78,840 LBS.  
91,360 LBS.

5"/38, MARK 37 MOD. 4

# 5-IN. MOUNT, MARK 37 MOD. 4

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                         |                 |                |
|-----------------------------------------|-----------------|----------------|
| Elevating and Training Gear             | 10. HP.         | } 115 V. D. C. |
| Rammer                                  | 4.5 HP.         |                |
| Gun Firing and Illumination Transformer |                 | } 150 Watts    |
| Firing                                  | 440 V. to 20 V. |                |
| Illumination                            | 440 V. to 6 V.  |                |
| Stand-by Firing and Lighting—Battery    | 6 V.            | 100 A. H.      |
|                                         | —or—            |                |
| Gun Firing Transformer                  | 115 V. to 20 V. | 200 Watts      |
| Illumination Transformer                | 115 V. to 6 V.  | 150 Watts      |
| Stand-by Firing and Lighting—Battery    | 6 V.            | 100 A. H.      |
|                                         | —or—            |                |
| Firing and Lighting—Battery             | 6 V.            | 100 A. H.      |

### PNEUMATIC

Counterrecoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450–1550 psi.

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 26 Gals. |

### POWER DRIVES

|                |                      |          |
|----------------|----------------------|----------|
| Elevating Gear | Mk. 14 Mod. 2        | Northern |
| Training Gear  | Mk. 14 Mod. 6        | Northern |
| Rammer         | Slide Mk. 24 Mod. 16 | Northern |

### INDICATORS (Assys. 1247, 1314)

|                |        |              |
|----------------|--------|--------------|
| ELEVATION      | SPEEDS | MFR.         |
| Mds. of Mk. 21 | 2 & 36 | Cont. Instr. |
| TRAIN          |        |              |
| Mds. of Mk. 23 | 1 & 36 | Cont. Instr. |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

|                     |                |               |
|---------------------|----------------|---------------|
| Typical Projectiles |                |               |
| Common              | Mds. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mds. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mds. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mds. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### FUZE SETTER

Mk. 13 Mod. 0

### OPERATING SELECTION

Manual Drive—Hand Control (Hydraulic)

### PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 868             | 363500    |
| Working Circle Drawing Nos.           | 378122    |
| General Arrangement Drawing Nos.      | 378106-09 |
|                                       | 378133-36 |
|                                       | 378187-90 |
| Gun foundation, BuShips Drawing No.   | 506283    |
| Shore emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

### REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 30° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun directors Mk. 51 and 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

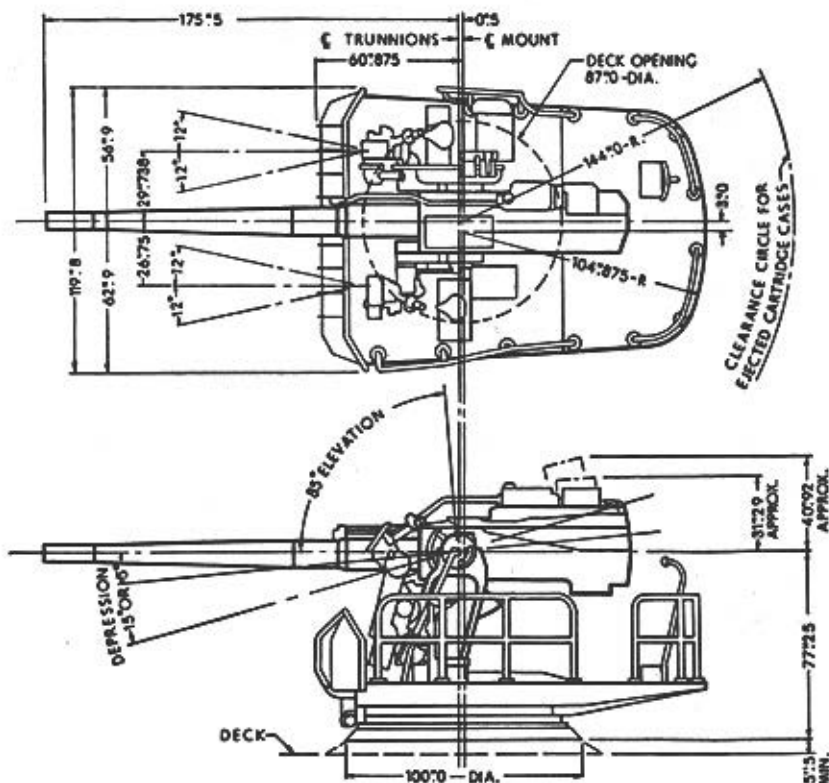
5"/38, MARK 37 MOD. 4

## 5-IN. MOUNT, MARK 37 MOD. 5

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 1274      | 108867     |
| 1315      | 108339     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

MK. 12 MOD. 1  
MERCHANT SHIPS  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate  
34,500 LBS.  
13,800 LBS.  
8,150 LBS.  
77,635 LBS.  
78,840 LBS.  
91,360 LBS.

5"/38, MARK 37 MOD. 5

# 5-IN. MOUNT, MARK 37 MOD. 5

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |              |
|--------------------------------------|-----------------|--------------|
| Elevating and Training Gear          | 10. HP.         | 230 V. D. C. |
| Rammer                               | 4.5 HP.         |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts    |
| Illumination Transformer             | 115 V. to 6 V.  | 150 Watts    |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H.    |

### PNEUMATIC

Counter recoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450-1550 psi.

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 26 Gals. |

## POWER DRIVES

|                |                      |          |
|----------------|----------------------|----------|
| Elevating Gear | Mk. 14 Mod. 2        | Northern |
| Training Gear  | Mk. 14 Mod. 3        | Northern |
| Rammer         | Slide Mk. 24 Mod. 12 | Northern |

## INDICATORS (Assy. 1315)

|                |        |              |
|----------------|--------|--------------|
| ELEVATION      | SPEEDS | MFR.         |
| Mds. of Mk. 21 | 2 & 36 | Cont. Instr. |
| TRAIN          |        |              |
| Mds. of Mk. 23 | 1 & 36 | Cont. Instr. |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max Powder Pressure          | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

|                     |                |               |
|---------------------|----------------|---------------|
| Typical Projectiles |                |               |
| Common              | Mds. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mds. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mds. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mds. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

### FUZE SETTER

Mk. 13 Mod. 0

## OPERATING SELECTION

Manual Drive—Hand Control (Hydraulic)

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordinance Pamphlet No. 868            |           |
| Working Circle Drawing No.            | 378122    |
| General Arrangement Drawing Nos.      | 378110-13 |
| Gun foundation, BuShips Drawing No.   | 506283    |
| Shore emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 30° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun directors Mk. 51 and 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38, MARK 37 MOD. 5

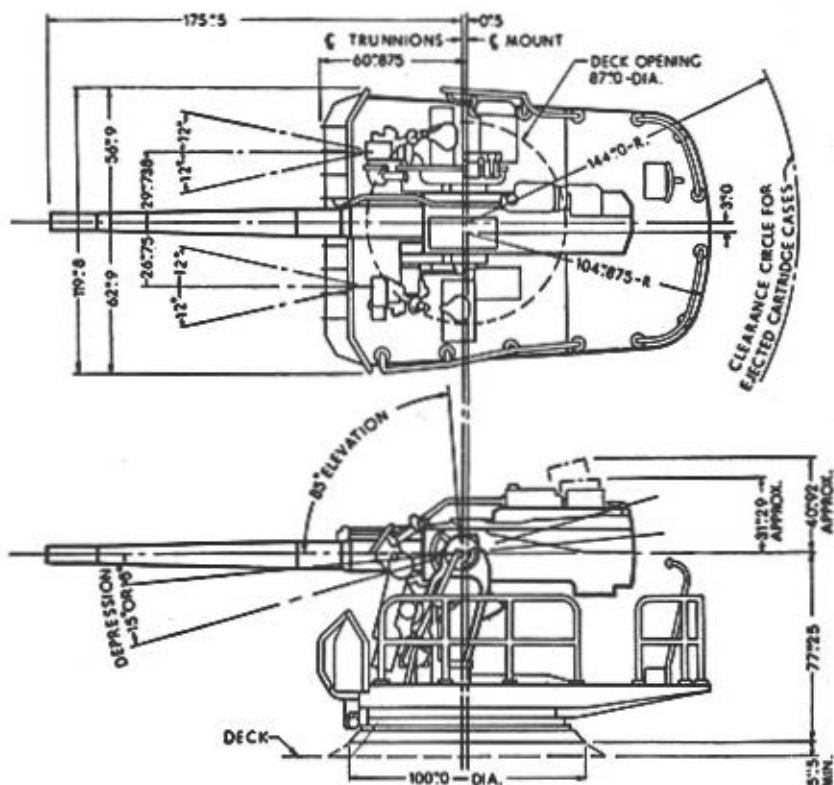


## 5-IN. MOUNT, MARK 37 MOD. 6

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 1278      | 107876     |
| 1316      | 108340     |
| 1419      | 132213     |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
MERCHANT SHIPS  
NONE

Weights below are approximate  
34,500 LBS.  
13,900 LBS.  
8,150 LBS.  
77,635 LBS.  
78,840 LBS.  
91,360 LBS.

5"/38, MARK 37 MOD. 6

# 5-IN. MOUNT, MARK 37 MOD. 6

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                            |             |
|--------------------------------------|----------------------------|-------------|
| Elevating and Training Gear Rammer   | 10. HP. } 440 V. 7.5 HP. } | 3 $\phi$ 6~ |
| Gun Firing Transformer               | 115 V. to 20 V.            | 200 Watts   |
| Illumination Transformer             | 115 V. to 6 V.             | 150 Watts   |
| Stand-by Firing and Lighting—Battery | 6 V.                       | 100 A. H.   |

### PNEUMATIC

Counter recoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450–1550 psi.

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 26 Gals. |

## POWER DRIVES

|                |                      |          |
|----------------|----------------------|----------|
| Elevating Gear | Mk. 14 Mod. 2        | Northern |
| Training Gear  | Mk. 14 Mod. 5        | Northern |
| Rammer         | Slide Mk. 24 Mod. 10 | Northern |

## INDICATORS (Assy. 1316)

|                |        |              |
|----------------|--------|--------------|
| ELEVATION      | SPEEDS | MFR.         |
| Mds. of Mk. 21 | 2 & 36 | Cont. Instr. |
| TRAIN          |        |              |
| Mds. of Mk. 23 | 1 & 36 | Cont. Instr. |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

### Typical Projectiles

|              |                |               |
|--------------|----------------|---------------|
| Common       | Mds. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mds. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mds. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mds. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 13 Mod. 0

## OPERATING SELECTION

Manual Drive—Hand Control (Hydraulic)

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 868             |           |
| Working Circle Drawing No.            | 378122    |
| General Arrangement Drawing Nos.      | 378114–17 |
| Gun foundation, BuShips Drawing No.   | 506283    |
| Shore emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 30° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun directors Mk. 51 and 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38. MARK 37 MOD. 6



# 5-IN. MOUNT, MARK 37 MOD. 8

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |        |           |
|--------------------------------------|-----------------|--------|-----------|
| Elevating and Training Gear          | 10. HP.         | 115 V. | D. C.     |
| Rammer                               | 4.5 HP.         |        |           |
| Gun Firing Transformer               | 115 V. to 20 V. |        | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  |        | 150 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            |        | 100 A. H. |

### PNEUMATIC

|                                       |                                    |  |  |
|---------------------------------------|------------------------------------|--|--|
| Counterrecoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi. |  |  |
|---------------------------------------|------------------------------------|--|--|

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 26 Gals. |

## POWER DRIVES

|                |                      |          |
|----------------|----------------------|----------|
| Elevating Gear | Mk. 14 Mod. 2        | Northern |
| Training Gear  | Mk. 14 Mod. 6        | Northern |
| Rammer         | Slide Mk. 24 Mod. 16 | Northern |

## INDICATORS (Assy. 1317)

|                 |        |              |
|-----------------|--------|--------------|
| ELEVATION       | SPEEDS | MFR.         |
| Mods. of Mk. 21 | 2 & 36 | Cont. Instr. |
| TRAIN           |        |              |
| Mods. of Mk. 23 | 1 & 36 | Cont. Instr. |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

## AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Cartridge                 |                   |                       |
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 13 Mod. 0

## OPERATING SELECTION

Manual Drive—Hand Control (Hydraulic)

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 868             |           |
| Working Circle Drawing No.            | 378122    |
| General Arrangement Drawing No.       | 378118-21 |
| Gun foundation, BuShips Drawing No.   | 506283    |
| Shore emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 30° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun directors Mk. 51 and 52.



|                      |                         |
|----------------------|-------------------------|
| ASSY.<br>NO.<br>1400 | SKETCH<br>NO.<br>108467 |
|----------------------|-------------------------|

[illegible]

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate

|             |
|-------------|
| 35,900 LBS. |
| 13,800 LBS. |
| 8,150 LBS.  |
| 77,635 LBS. |
| 78,840 LBS. |
| 91,360 LBS. |

5"/38, MARK 37 MOD. 9

# 5-IN. MOUNT, MARK 37 MOD. 9

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |                |
|--------------------------------------|-----------------|----------------|
| Elevating and Training Gear          | 10. HP.         | } 230 V. D. C. |
| Rammer                               | 4.5 HP.         |                |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts      |
| Illumination Transformer             | 115 V. to 6 V.  | 150 Watts      |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H.      |

### PNEUMATIC

|                                       |                                    |  |
|---------------------------------------|------------------------------------|--|
| Counterrecoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi. |  |
|---------------------------------------|------------------------------------|--|

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 26 Gals. |

## POWER DRIVES

|                |                      |          |
|----------------|----------------------|----------|
| Elevating Gear | Mk. 14 Mod. 2        | Northern |
| Training Gear  | Mk. 14 Mod. 3        | Northern |
| Rammer         | Slide Mk. 24 Mod. 12 | Northern |

## INDICATORS

|                                  |         |              |
|----------------------------------|---------|--------------|
| ELEVATION                        | SPEEDS  | MFR.         |
| Mk. 21                           | 2 & 36  | Cont. Instr. |
| TRAIN                            |         |              |
| Mk. 23                           | 1 & 36  | Cont. Instr. |
| FUZE SETTING INDICATOR REGULATOR |         |              |
| Mk. 8 Mod. 9                     | 2 & 100 | Arma         |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

|                     |        |               |
|---------------------|--------|---------------|
| Typical Projectiles |        |               |
| Common              | Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mod. 1 or Mk. 17 Mod. 0

## OPERATING SELECTION

Manual Drive—Hand Control (Hydraulic)

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 868             |           |
| Working Circle Drawing No.            | 378175    |
| General Arrangement Drawing Nos.      | 378281-84 |
| Gun Foundation, BuShips Drawing No.   | 506283    |
| Shore Emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 30° per second.

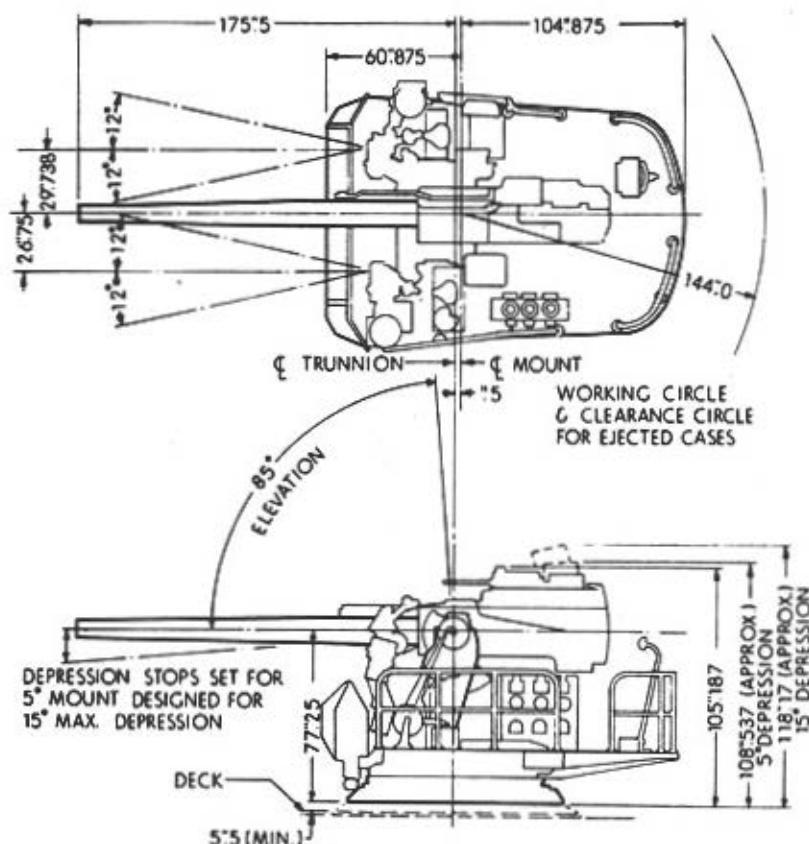
Length of recoil is 15 inches.

This mount may be used with specific modifications of gun directors Mk. 51 and 52.

**5-IN. MOUNT, MARK 37 MOD. 10****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 1401         | 108468        |
| 1515         | 138876        |
| 1516         | 138877        |
| 1517         | 138878        |

Note: Assembly number of mount is required for precise information.



GUN—5"/38  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
AP, AUX. & MERCHANT SHIPS  
NONE

Weights below are approximate

|             |
|-------------|
| 36,300 LBS. |
| 13,900 LBS. |
| 8,150 LBS.  |
| 77,635 LBS. |
| 78,840 LBS. |
| 91,360 LBS. |

**5"/38, MARK 37 MOD. 10**

# 5-IN. MOUNT, MARK 37 MOD. 10

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |          |          |           |
|--------------------------------------|-----------------|----------|----------|-----------|
| Elevating and Training Gear          | 10. HP.         | } 440 V. | 3 $\phi$ | 60~       |
| Rammer                               | 7.5 HP.         |          |          |           |
| Gun Firing Transformer               | 115 V. to 20 V. |          |          | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  |          |          | 150 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            |          |          | 100 A. H. |

### PNEUMATIC

|                                        |  |
|----------------------------------------|--|
| Counter recoil Cylinder (for Charging) |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi.     |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 26 Gals. |

## POWER DRIVES

|                |                      |          |
|----------------|----------------------|----------|
| Elevating Gear | Mk. 14 Mod. 2        | Northern |
| Training Gear  | Mk. 14 Mod. 5        | Northern |
| Rammer         | Slide Mk. 24 Mod. 10 | Northern |

## INDICATORS

|                                  |         |              |
|----------------------------------|---------|--------------|
| ELEVATION                        | SPEEDS  | MFR.         |
| Mk. 21                           | 2 & 36  | Cont. Instr. |
| TRAIN                            |         |              |
| Mk. 23                           | 1 & 36  | Cont. Instr. |
| FUZE SETTING INDICATOR REGULATOR |         |              |
| Mk. 8 Mod. 9                     | 2 & 100 | Arma         |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |        |               |
|--------------|--------|---------------|
| Common       | Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mods. 0, 1 or Mk. 17 Mod. 0

## OPERATING SELECTION

Manual Drive—Hand Control (Hydraulic)

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 868             |           |
| Working Circle Drawing No.            | 378175    |
| General Arrangement Drawing Nos.      | 378285–88 |
| Gun Foundation, BuShips Drawing No.   | 506283    |
| Shore Emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 30° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun directors Mk. 51 and 52.



|                      |                         |
|----------------------|-------------------------|
| ASSY.<br>NO.<br>1402 | SKETCH<br>NO.<br>108469 |
|----------------------|-------------------------|

Technical drawings of the M16 machine gun, showing top and side views with dimensions.

**Top View Dimensions:**

- Overall width: 175"5
- Distance from centerline to rear: 104"875
- Distance from centerline to front: 60"875
- Trunnion diameter:  $\phi$  TRUNNION
- Mount diameter:  $\phi$  MOUNT
- Mount offset: .5
- Working circle & clearance circle for ejected cases: 144"0
- Angles: 12°, 12°, 12°, 12°, 12°
- Distance from centerline to front: 29"738
- Distance from centerline to front: 26"75

**Side View Dimensions:**

- Overall height: 105"187
- Height to top of receiver: 108"537 (APPROX.)
- Height to top of receiver: 5" DEPRESSION
- Height to top of receiver: 118"17 (APPROX.)
- Height to top of receiver: 15" DEPRESSION
- Height to top of receiver: 77"5
- Deck height: 5"5 (MIN.)
- Elevation: 85°
- Depression stops set for 5° mount designed for 15° max. depression

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

Weights below are approximate

|             |
|-------------|
| 36,100 LBS. |
| 13,800 LBS. |
| 8,150 LBS.  |
| 77,635 LBS. |
| 78,840 LBS. |
| 91,360 LBS. |

**5"/38, MARK 37 MOD. 11**

# 5-IN. MOUNT, MARK 37 MOD. 11

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |                |           |
|--------------------------------------|-----------------|----------------|-----------|
| Elevating and Training Gear          | 10. HP.         | } 115 V. D. C. |           |
| Rammer                               | 4.5 HP.         |                |           |
| Gun Firing Transformer               | 115 V. to 20 V. |                | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  |                | 150 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            |                | 100 A. H. |

### PNEUMATIC

|                                        |  |
|----------------------------------------|--|
| Counter recoil Cylinder (for Charging) |  |
| 0.34 Cu. Ft. Air at 1450-1550 psi.     |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 26 Gals. |

## POWER DRIVES

|                |                      |          |
|----------------|----------------------|----------|
| Elevating Gear | Mk. 14 Mod. 2        | Northern |
| Training Gear  | Mk. 14 Mod. 6        | Northern |
| Rammer         | Slide Mk. 24 Mod. 16 | Northern |

## INDICATORS

|                                  |         |              |
|----------------------------------|---------|--------------|
| ELEVATION                        | SPEEDS  | MFR.         |
| Mds. of Mk. 21                   | 2 & 36  | Cont. Instr. |
| TRAIN                            |         |              |
| Mds. of Mk. 23                   | 1 & 36  | Cont. Instr. |
| FUZE SETTING INDICATOR REGULATOR |         |              |
| Mk. 8 Mod. 9                     | 2 & 100 | Arma         |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

### Typical Projectiles

|              |                |               |
|--------------|----------------|---------------|
| Common       | Mds. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mds. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mds. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mds. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mod. 1 or Mk. 17 Mod. 0

## OPERATING SELECTION

Manual Drive—Hand Control (Hydraulic)

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 868             |           |
| Working Circle Drawing No.            | 378175    |
| General Arrangement Drawing Nos.      | 378289-92 |
| Gun Foundation, BuShips Drawing No.   | 506283    |
| Shore Emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 30° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun directors Mk. 51 and 52.

|                      |                         |
|----------------------|-------------------------|
| ASSY.<br>NO.<br>1308 | SKETCH<br>NO.<br>108324 |
|----------------------|-------------------------|

[illegible]

**5"/38, MARK 37 MOD. 12**

Weights below are approximate

|             |
|-------------|
| 35,500 LBS. |
| 13,800 LBS. |
| 8,150 LBS.  |
| 77,635 LBS. |
| 78,840 LBS. |
| 91,360 LBS. |

# 5-IN. MOUNT, MARK 37 MOD. 12

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |              |
|--------------------------------------|-----------------|--------------|
| Elevating and Training Gear          | 10. HP. }       | 230 V. D. C. |
| Rammer                               | 4.5 HP. }       |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts    |
| Illumination Transformer             | 115 V. to 6 V.  | 150 Watts    |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H.    |

### PNEUMATIC

Counter recoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450-1550 psi.

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 26 Gals. |

## POWER DRIVES

|                |                      |          |
|----------------|----------------------|----------|
| Elevating Gear | Mk. 14 Mod. 2        | Northern |
| Training Gear  | Mk. 14 Mod. 3        | Northern |
| Rammer         | Slide Mk. 24 Mod. 12 | Northern |

## INDICATORS

|                                  |         |              |
|----------------------------------|---------|--------------|
| ELEVATION                        | SPEEDS  | MFR.         |
| Mds. of Mk. 21                   | 2 & 36  | Cont. Instr. |
| TRAIN                            |         |              |
| Mds. of Mk. 23                   | 1 & 36  | Cont. Instr. |
| FUZE SETTING INDICATOR REGULATOR |         |              |
| Mk. 8 Mod. 9                     | 2 & 100 | Arma         |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

#### Typical Projectiles

|              |                |               |
|--------------|----------------|---------------|
| Common       | Mds. of Mk. 32 | Wt. 54.0 Lbs. |
| Common       | Mds. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common | Mds. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating | Mds. of Mk. 30 | Wt. 54.5 Lbs. |

#### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mod. 1 or Mk. 17 Mod. 0

## OPERATING SELECTION

Manual Drive—Hand Control (Hydraulic)

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordnance Pamphlet No. 868             |           |
| Working Circle Drawing No.            | 378175    |
| General Arrangement Drawing Nos.      | 378293-96 |
| Gun Foundation, BuShips Drawing No.   | 506283    |
| Shore Emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 30° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of gun directors Mk. 51 and 52.

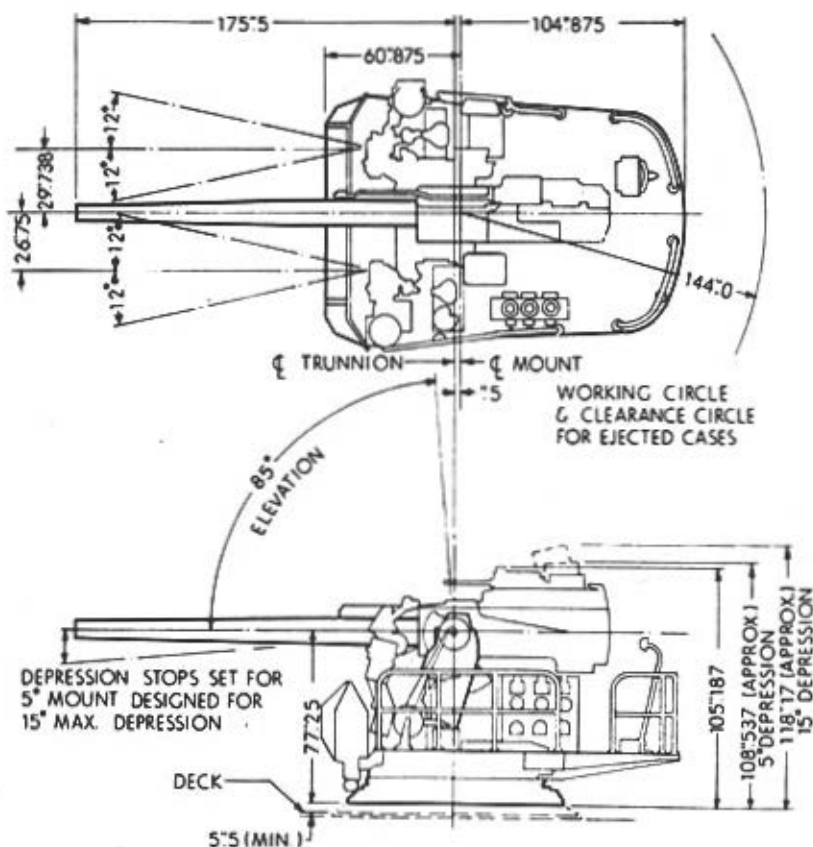


5-IN. MOUNT, MARK 37 MOD. 13

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

|                      |                         |
|----------------------|-------------------------|
| ASSY.<br>NO.<br>1309 | SKETCH<br>NO.<br>108325 |
|----------------------|-------------------------|

**Note:** Assembly number of mount is required for precise information.



### GUN—5"/38 INSTALLATION FOR SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 85° ELEV. FIRE

MK. 12 MOD. 1  
 AUX. & MERCHANT SHIPS  
 NONE

Weights below are approximate

|             |
|-------------|
| 35,600 LBS. |
| 13,900 LBS. |
| 8,150 LBS.  |
| 77,635 LBS. |
| 78,840 LBS. |
| 91,360 LBS. |

**5"/38, MARK 37 MOD. 13**

# 5-IN. MOUNT, MARK 37 MOD. 13

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |        |          |           |
|--------------------------------------|-----------------|--------|----------|-----------|
| Elevating and Training Gear          | 10. HP.         | 440 V. | 3 $\phi$ | 60~       |
| Rammer                               | 7.5 HP.         |        |          |           |
| Gun Firing Transformer               | 115 V. to 20 V. |        |          | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  |        |          | 150 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            |        |          | 100 A. H. |

### PNEUMATIC

|                                        |                                    |
|----------------------------------------|------------------------------------|
| Counter recoil Cylinder (for Charging) | 0.34 Cu. Ft. Air at 1450-1550 psi. |
|----------------------------------------|------------------------------------|

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 26 Gals. |

## POWER DRIVES

|                |                      |          |
|----------------|----------------------|----------|
| Elevating Gear | Mk. 14 Mod. 2        | Northern |
| Training Gear  | Mk. 14 Mod. 5        | Northern |
| Rammer         | Slide Mk. 24 Mod. 10 | Northern |

## INDICATORS

|                                  |         |              |
|----------------------------------|---------|--------------|
| ELEVATION                        | SPEEDS  | MFR.         |
| Mds. of Mk. 21                   | 2 & 36  | Cont. Instr. |
| TRAIN                            |         |              |
| Mds. of Mk. 23                   | 1 & 36  | Cont. Instr. |
| FUZE SETTING INDICATOR REGULATOR |         |              |
| Mk. 8 Mod. 9                     | 2 & 100 | Arma         |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

|                     |                |               |
|---------------------|----------------|---------------|
| Typical Projectiles |                |               |
| Common              | Mds. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mds. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mds. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mds. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mod. 1 or Mk. 17 Mod. 0

## OPERATING SELECTION

Manual Drive—Hand Control (Hydraulic)

## PAMPHLET AND DRAWING NUMBERS

|                                       |            |
|---------------------------------------|------------|
| Ordnance Pamphlet No. 868             |            |
| Working Circle Drawing No.            | 378175     |
| General Arrangement Drawing Nos.      | 378297-300 |
| Gun Foundation, BuShips Drawing No.   | 506283     |
| Shore Emplacements, BuOrd Drawing No. | 393701     |
| (BuDocks Drawing No. 250339)          |            |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 30° per second.

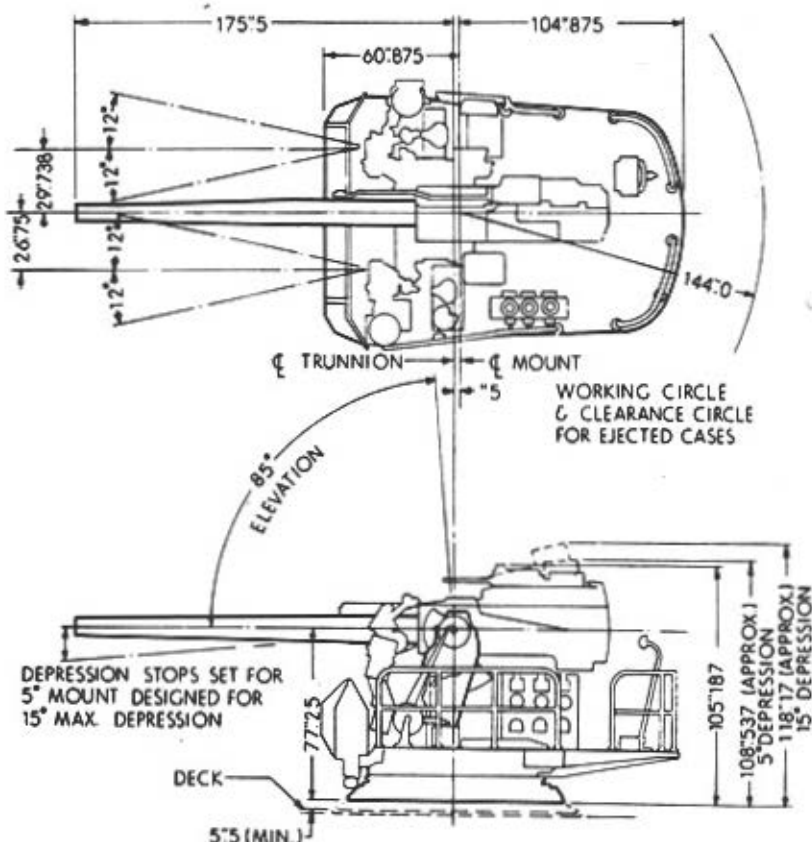
Length of recoil is 15 inches.

This mount may be used with specific modifications of gun directors Mk. 51 and 52.

**5-IN. MOUNT, MARK 37 MOD. 14****5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 1310         | 108326        |

Note: Assembly number of mount is required for precise information.



**GUN—5"/38**  
**INSTALLATION FOR**  
**SHIELD**

**TOTAL WEIGHT OF ASSEMBLY**  
**OSCILLATING WEIGHT**  
**RECOILING WEIGHT**  
**BRAKE LOAD**  
**TRUNNION PRESSURE HORIZ. FIRE**  
**TRUNNION PRESSURE 85° ELEV. FIRE**

**MK. 12 MOD. 1**  
**AUX. & MERCHANT SHIPS**  
**NONE**

Weights below are approximate

|  |             |
|--|-------------|
|  | 35,600 LBS. |
|  | 13,800 LBS. |
|  | 8,150 LBS.  |
|  | 77,635 LBS. |
|  | 78,840 LBS. |
|  | 91,360 LBS. |

**5"/38, MARK 37 MOD. 14**

# 5-IN. MOUNT, MARK 37 MOD. 14

5-IN. 38-CAL., D. P., SINGLE MOUNT, OPEN, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |              |           |
|--------------------------------------|-----------------|--------------|-----------|
| Elevating and Training Gear          | 10. HP.         | 115 V. D. C. |           |
| Rammer                               | 4.5 HP.         |              |           |
| Gun Firing Transformer               | 115 V. to 20 V. |              | 200 Watts |
| Illumination Transformer             | 115 V. to 6 V.  |              | 150 Watts |
| Stand-by Firing and Lighting—Battery | 6 V.            |              | 100 A. H. |

### PNEUMATIC

Counterrecoil Cylinder (for Charging)  
0.34 Cu. Ft. Air at 1450-1550 psi.

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 6 Qts.   |
| Speed Gear Oil | O. S. 2943 | 26 Gals. |

## POWER DRIVES

|                |                      |          |
|----------------|----------------------|----------|
| Elevating Gear | Mk. 14 Mod. 2        | Northern |
| Training Gear  | Mk. 14 Mod. 6        | Northern |
| Rammer         | Slide Mk. 24 Mod. 16 | Northern |

## INDICATORS

|                                  |         |              |
|----------------------------------|---------|--------------|
| ELEVATION                        | SPEEDS  | MFR.         |
| Mds. of Mk. 21                   | 2 & 36  | Cont. Instr. |
| TRAIN                            |         |              |
| Mds. of Mk. 23                   | 1 & 36  | Cont. Instr. |
| FUZE SETTING INDICATOR REGULATOR |         |              |
| Mk. 8 Mod. 9                     | 2 & 100 | Arma         |

## GUN AND AMMUNITION DATA

### GUN

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

## AMMUNITION—Separate Case

|                     |                |               |
|---------------------|----------------|---------------|
| Typical Projectiles |                |               |
| Common              | Mds. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mds. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mds. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mds. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## FUZE SETTER

Mk. 7 Mod. 1 or Mk. 17 Mod. 0

## OPERATING SELECTION

Manual Drive—Hand Control (Hydraulic)

## PAMPHLET AND DRAWING NUMBERS

|                                       |           |
|---------------------------------------|-----------|
| Ordinance Pamphlet No. 868            |           |
| Working Circle Drawing No.            | 378175    |
| General Arrangement Drawing Nos.      | 378301-04 |
| Gun Foundation, BuShips Drawing No.   | 506283    |
| Shore Emplacements, BuOrd Drawing No. | 393701    |
| (BuDocks Drawing No. 250339)          |           |

## REMARKS

Elevation limits are minus 15° to plus 85°. The training limit is 330°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 30° per second.

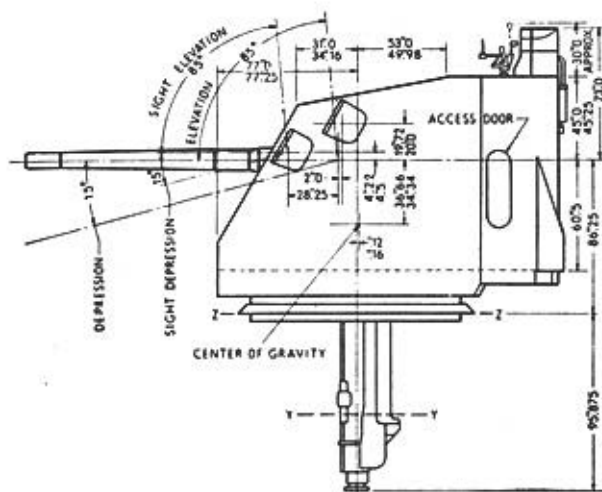
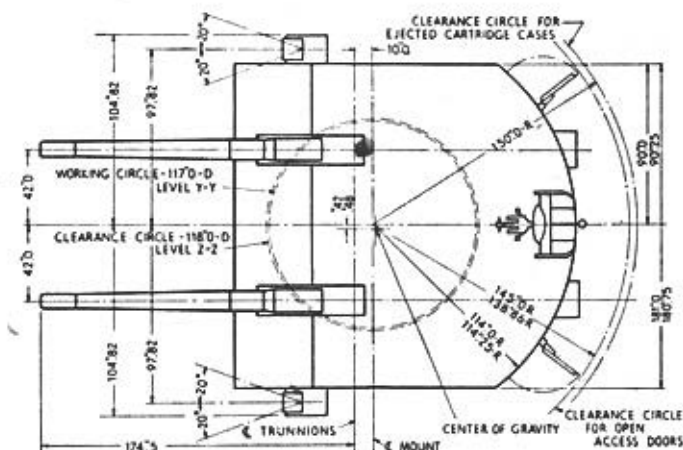
Length of recoil is 15 inches.

This mount may be used with specific modifications of gun directors Mk. 51 and 52.



| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 928          | 106301        |
| 971          | 106805        |
| 1331         | 108372        |
| 1332         | 108373        |
| 1333         | 108374        |
| 1411         | 132200        |
| 1465         | 138194        |
| 1466         | 138195        |
| 1503         | 138859        |
| 1505         | 138861        |
| 1506         | 138862        |

**Note:** Assembly number of mount is required for precise information.



|               |               |               |
|---------------|---------------|---------------|
|               | MK. 12 MOD. 1 |               |
|               | AG-CR-DD      |               |
| MK. 41 MOD. 0 | MK. 48 MOD. 0 | MK. 53 MOD. 0 |
| 25 IN.        | .5 IN.        | 125 IN.       |

Weights below are approximate:

|             |                    |             |
|-------------|--------------------|-------------|
| 96,200 LBS. | 105,600 LBS.       | 95,700 LBS. |
| 15,000 LBS. | 24,400 LBS.        | 14,500 LBS. |
| 2,350 LBS.  | 1,475 & 2,475 LBS. | 3,900 LBS.  |
| 2,500 LBS.  | 3,260 LBS.         | 2,425 LBS.  |

Weights below are approximate and per gun

|             |
|-------------|
| 13,700 LBS. |
| 8,150 LBS.  |
| 77,600 LBS. |
| 78,800 LBS. |
| 91,300 LBS. |

5"/38 TWIN, MARK 38 MOD. 0

# 5-IN. MOUNT, MARK 38 MOD. 0

5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |                     |  |
|--------------------------------------|-----------------|---------------------|--|
| Elevating Gear                       | 10. HP.         | 440 V. 3 $\phi$ 60~ |  |
| Training Gear                        | 40. HP.         |                     |  |
| Hoist, per gun                       | 10. HP.         |                     |  |
| Rammer, per gun                      | 7.5 HP.         |                     |  |
| Ventilation                          | 2. HP.          |                     |  |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts           |  |
| Illumination Transformer             | 115 V. to 6 V.  | 150 Watts           |  |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H.           |  |

### PNEUMATIC

|                                                           |  |
|-----------------------------------------------------------|--|
| Gas Ejector, Mk. 10 Mods. 0 & 1                           |  |
| Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150–200 psi. |  |
| Counterrecoil Cylinder (for Charging)                     |  |
| 0.34 Cu. Ft. Air at 1450–1550 psi, per Gun.               |  |

### HYDRAULIC

|                |            |                |
|----------------|------------|----------------|
| Recoil Fluid   | O. D. 1914 | 6 Qts. per Gun |
| Speed Gear Oil | O. S. 2943 | 190 Gals.      |

### POWER DRIVES

|                |                            |                |
|----------------|----------------------------|----------------|
| Elevating Gear | Mk. 10 Mod. 1              | Ford-Waterbury |
| Training Gear  | Mk. 10 Mod. 2              | Ford-Waterbury |
| Hoists         | Mk. 4 Mods. 16, 17         | Vickers        |
| Rammers        | Slides Mk. 27 Mods. 14, 15 | Northern       |

## INDICATOR REGULATORS

|                          |         |      |
|--------------------------|---------|------|
| ELEVATION                | SPEEDS  | MFR. |
| Mk. 42 Mod. 0            | 2 & 36  | Ford |
| TRAIN                    |         |      |
| Mods. of Mk. 46          | 1 & 36  | Ford |
| FUZE SETTING             |         |      |
| Mk. 9 Mods. 0, 1         | 2 & 100 | Arma |
| SIGHT SETTER'S INDICATOR |         |      |
| Mk. 4 Mod. 0             |         | Arma |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Max. Powder Pressure         | 18 Long Tons per Sq. In. |
| Barrel Weight, per Gun       | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                              |
|-----------------|------------------------------|
| Muzzle Velocity | 2,600 Feet per Second        |
| Max. Altitude   | 37,200 Feet at 85° Elev.     |
| Max. Range      | 18,200 Yards at 45°10' Elev. |

### AMMUNITION—Separate Case

|                     |                 |               |
|---------------------|-----------------|---------------|
| Typical Projectiles |                 |               |
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

### Cartridge

|                           |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Hand Control—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 805        |           |
| Working Circle Drawing Nos.      | 248720    |
|                                  | 251282    |
|                                  | 258299    |
| General Arrangement Drawing Nos. | 248724–28 |
|                                  | 251277–81 |
|                                  | 258294–98 |

## REMARKS

Elevation limits are minus 15° to plus 85° The maximum training limit is 328.5°.

Maximum elevating gear rate is 15° per second.  
Maximum training gear rate is 25° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51, & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38 TWIN, MARK 38 MOD. 0

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 1223         | 107693        |
| 1300         | 108300        |
| 1328         | 108369        |
| 1329         | 108370        |
| 1330         | 108371        |
| 1348         | 108401        |
| 1350         | 108403        |
| 1389         | 108456        |
| 1501         | 138856        |
| 1502         | 138857        |
| 1510         | 138870        |

[illegible]

13,600 LBS.  
8,150 LBS.  
77,600 LBS.  
78,800 LBS.  
91,300 LBS.

EugeneLeeSlover.com



# 5-IN. MOUNT, MARK 38 MOD. 1

5-IN. 38-CAL., D. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                      |                 |           |              |
|--------------------------------------|-----------------|-----------|--------------|
| Elevating Gear                       | 10. HP.         |           |              |
| Training Gear                        | 40. HP.         |           |              |
| Hoist, per gun                       | 10. HP.         | 440 V.    | 3 $\phi$ 60~ |
| Rammer, per gun                      | 7.5 HP.         |           |              |
| Ventilation                          | 2. HP.          |           |              |
| Gun Firing Transformer               | 115 V. to 20 V. | 200 Watts |              |
| Illumination Transformer             | 115 V. to 6 V.  | 150 Watts |              |
| Stand-by Firing and Lighting—Battery | 6 V.            | 100 A. H. |              |

### PNEUMATIC

|                                                           |  |
|-----------------------------------------------------------|--|
| Gas Ejector, Mk. 10 Mods. 0 & 1                           |  |
| Appr. 2 Cu. Ft. Free Air per Sec. per Gun at 150–200 psi. |  |
| Counterrecoil Cylinder (for Charging)                     |  |
| • 0.34 Cu. Ft. Air at 1450–1550 psi. per Gun              |  |

### HYDRAULIC

|                |            |                |
|----------------|------------|----------------|
| Recoil Fluid   | O. D. 1914 | 6 Qts. per Gun |
| Speed Gear Oil | N. S. 2075 | 190 Gals.      |

## POWER DRIVES

|                |                            |                |
|----------------|----------------------------|----------------|
| Elevating Gear | Mk. 10 Mod. 1              | Ford-Waterbury |
| Training Gear  | Mk. 10 Mod. 2              | Ford-Waterbury |
| Hoists         | Mk. 4 Mods. 16, 17         | Vickers        |
| Rammers        | Slides Mk. 27 Mods. 14, 15 | Northern       |

## INDICATOR REGULATORS

| ELEVATION                | SPEEDS  | MFR. |
|--------------------------|---------|------|
| Mk. 42 Mod. 0            | 2 & 36  | Ford |
| TRAIN                    |         |      |
| Mods. of Mk. 46          | 1 & 36  | Ford |
| FUZE SETTING             |         |      |
| Mk. 9 Mods. 0, 1         | 2 & 100 | Arma |
| SIGHT SETTER'S INDICATOR |         |      |
| Mk. 4 Mods. 0, 1         |         | Arma |

## GUN AND AMMUNITION DATA

### GUNS

|                              |                          |
|------------------------------|--------------------------|
| 5-In. 38-Cal.                | Mk. 12 Mod. 1            |
| Maximum Powder Pressure      | 18 Long Tons per Sq. In. |
| Barrel Weight                | 3,990 Lbs.               |
| Vertical Sliding Breechblock |                          |

### BALLISTICS

|                 |                               |
|-----------------|-------------------------------|
| Muzzle Velocity | 2,600 Feet per Second         |
| Max. Altitude   | 37,200 Feet at 85° Elev.      |
| Max. Range      | 18,200 Yards at 45° 10' Elev. |

### AMMUNITION—Separate Case

| Typical Projectiles |                 |               |
|---------------------|-----------------|---------------|
| Common              | Mods. of Mk. 32 | Wt. 54.0 Lbs. |
| Common              | Mods. of Mk. 38 | Wt. 55.2 Lbs. |
| A. A. Common        | Mods. of Mk. 35 | Wt. 55.2 Lbs. |
| Illuminating        | Mods. of Mk. 30 | Wt. 54.5 Lbs. |

| Cartridge                 |                   |                       |
|---------------------------|-------------------|-----------------------|
| Case                      | Mk. 5 Mod. 0      | Wt. 12.3 Lbs.         |
| Charge                    |                   | Nominal Wt. 15.2 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                       |
| Total Weight of Cartridge |                   | Appr. 27.5 Lbs.       |

## OPERATING SELECTION

Manual Drive—Hand Control—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordinance Pamphlet No. 805       | 251289    |
| Working Circle Drawing Nos.      | 252935    |
| General Arrangement Drawing Nos. | 248724–28 |
|                                  | 251284–88 |

## REMARKS

Elevation limits are minus 15° to plus 85°. The maximum training limit is 328.5°.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 25° per second.

Length of recoil is 15 inches.

This mount may be used with specific modifications of any of the following gun directors: Mk. 33, 37, 50, 51 & 52.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/38 TWIN, MARK 38 MOD. 1



| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 982          | 106830        |
| 1549         | 167300        |
| 1550         | 167301        |
| 1551         | 167302        |
| 1552         | 167303        |
| 1553         | 167304        |
| 1554         | 167305        |
| 1555         | 167306        |
| 1556         | 167307        |
| 1557         | 167308        |
| 1558         | 167309        |
| 1559         | 167310        |
| 1560         | 167311        |
| 1561         | 167312        |
| 1562         | 167313        |
| 1563         | 167314        |
| 1564         | 167315        |
| 1565         | 167316        |
| 1566         | 167317        |

Technical drawing of a gun mount, showing two views: a top view (plan) and a side view (elevation).

**Top View (Plan):**

- Dimensions:**
  - Overall width: 93.0
  - Overall height: 120.0
  - Clearance circle Z-Z: 72.0-D
  - Working circle Y-Y: 120.0-D
  - Trunnion diameter: 7.7
  - Mount diameter: 60.0
  - Trunnion offset: 15.0
  - Trunnion diameter: 2.61.0
  - Trunnion offset: 4.75
  - Trunnion offset: 16.03
  - Trunnion offset: 16.03
  - Trunnion offset: 27.0
  - Trunnion offset: 29.738
  - Trunnion offset: 16.03
- Labels:**
  - CENTER OF GRAVITY
  - CLEARANCE CIRCLE Z-Z 72.0-D
  - WORKING CIRCLE Y-Y 120.0-D
  - TRUNNION
  - MOUNT

**Side View (Elevation):**

- Dimensions:**
  - Overall height: 92.0
  - Overall width: 84.25
  - Overall width: 73.875
  - Overall width: 33.970
  - Overall width: 33.241
  - Overall width: 1.096
  - Overall width: 10
  - Overall width: 10
- Labels:**
  - 85° ELEVATION
  - CENTER OF GRAVITY
  - DEPRESSION 10

**103,100 LBS.**

**5"/54, MARK 39 MOD. 0**

# 5-IN. MOUNT, MARK 39 MOD. 0

5-IN. 54-CAL., D. P., SINGLE MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                             |                 |                                                                 |
|---------------------------------------------|-----------------|-----------------------------------------------------------------|
| Elevating Gear                              | 7. HP.          | D.C. from 440 V. 3 $\phi$ 60~<br>Amplidyne Controlled<br>Source |
| Training Gear                               | 39. HP.         |                                                                 |
| Powder & Proj. Hoists                       | 7.5 HP.         | 440 V. 3 $\phi$ 60~                                             |
| Rammer                                      | 10. HP.         |                                                                 |
| Ventilation                                 | 1. HP.          |                                                                 |
| Gun Firing Transformer                      | 115 V. to 20 V. | 200 Watts                                                       |
| Illumination Transformer                    | 115 V. to 6 V.  | 150 Watts                                                       |
| Stand-by Firing and<br>Illumination—Battery | 6 V.            | 100 A. H.                                                       |

### PNEUMATIC

|                                                     |  |
|-----------------------------------------------------|--|
| Gas Ejector, Mk. 11 Mod. 0                          |  |
| Appr. 2.5 Cu. Ft. Free Air per Sec. at 150–200 psi. |  |
| Counterrecoil Cylinder (for Charging)               |  |
| 0.57 Cu. Ft. Air at 1350–1450 psi.                  |  |

### HYDRAULIC

|                |            |          |
|----------------|------------|----------|
| Recoil Fluid   | O. D. 1914 | 7.7 Qts. |
| Speed Gear Oil | O. S. 2943 | 47 Gals. |

## POWER DRIVES

|                                 |                     |            |
|---------------------------------|---------------------|------------|
| Elevation Power Drive           | Mk. 14 Mod. 0       | Gen. Elec. |
| (Elevating Gear, Mk. 15 Mod. 0) |                     |            |
| Train Power Drive               | Mk. 14 Mod. 0       | Gen. Elec. |
| (Training Gear, Mk. 15 Mod. 0)  |                     |            |
| Projectile Hoist                | Mk. 6 Mod. 0        | Vickers    |
| Powder Hoist                    | Mk. 6 Mod. 0        | Vickers    |
| Rammer                          | Slide Mk. 28 Mod. 2 | Northern   |

## INDICATOR REGULATORS

| ELEVATION                | SPEEDS  | MFR.       |
|--------------------------|---------|------------|
| Mds. of Mk. 54           | 2 & 36  | Gen. Elec. |
| TRAIN                    |         |            |
| Mds. of Mk. 46           | 1 & 36  | Gen. Elec. |
| FUZE SETTING             |         |            |
| Mk. 8 Mod. 10            | 2 & 100 | Arma       |
| SIGHT SETTER'S INDICATOR |         |            |
| Mk. 7 Mod. 0             |         | Arma       |

## GUN AND AMMUNITION DATA

### GUN

|                              |                            |
|------------------------------|----------------------------|
| 5-In. 54-Cal.                | Mk. 16 Mod. 0              |
| Maximum Powder Pressure      | 18.5 Long Tons per Sq. In. |
| Barrel Weight                | 5,400 Lbs.                 |
| Vertical Sliding Breechblock |                            |

### BALLISTICS

|                  |                           |
|------------------|---------------------------|
| Muzzle Velocity  | 2,650 Feet per Second     |
| Maximum Altitude | 51,600 Feet at 85° Elev.  |
| Maximum Range    | 25,900 Yards at 45° Elev. |

## AMMUNITION—Separate Case

| Typical Projectiles       |                  |                     |
|---------------------------|------------------|---------------------|
| H. C.                     | Mk. 41 & Mods.   | Wt. 70 Lbs.         |
| Common                    | Mk. 42 & Mods.   | Wt. 70 Lbs.         |
| Illuminating              | Mk. 43 & Mods.   |                     |
| Cartridge                 |                  |                     |
| Case                      | Mk. 6 Mods. 0    | Wt. 13 Lbs.         |
| Charge                    |                  | Nominal Wt. 19 Lbs. |
| Primer                    | Mk. 13 Mods. 0–2 |                     |
| Total Weight of Cartridge |                  | Appr. 34 Lbs.       |

## OPERATING SELECTION

Manual Drive—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

|                                 |           |
|---------------------------------|-----------|
| Ordinance Pamphlet No. 1027     |           |
| Working Circle Drawing No.      | 251982    |
| General Arrangement Drawing No. | 251978–81 |

## REMARKS

Elevation limits are minus 10° to plus 85°. The training limit is determined by the installation.

Maximum elevating gear rate is 15° per second. Maximum training gear rate is 30° per second.

Length of recoil is 19 inches.

This mount may be used with specific modifications of gun director Mods. of Mk. 37; auxiliary control from gun fire control system Mk. 57 & Mods.

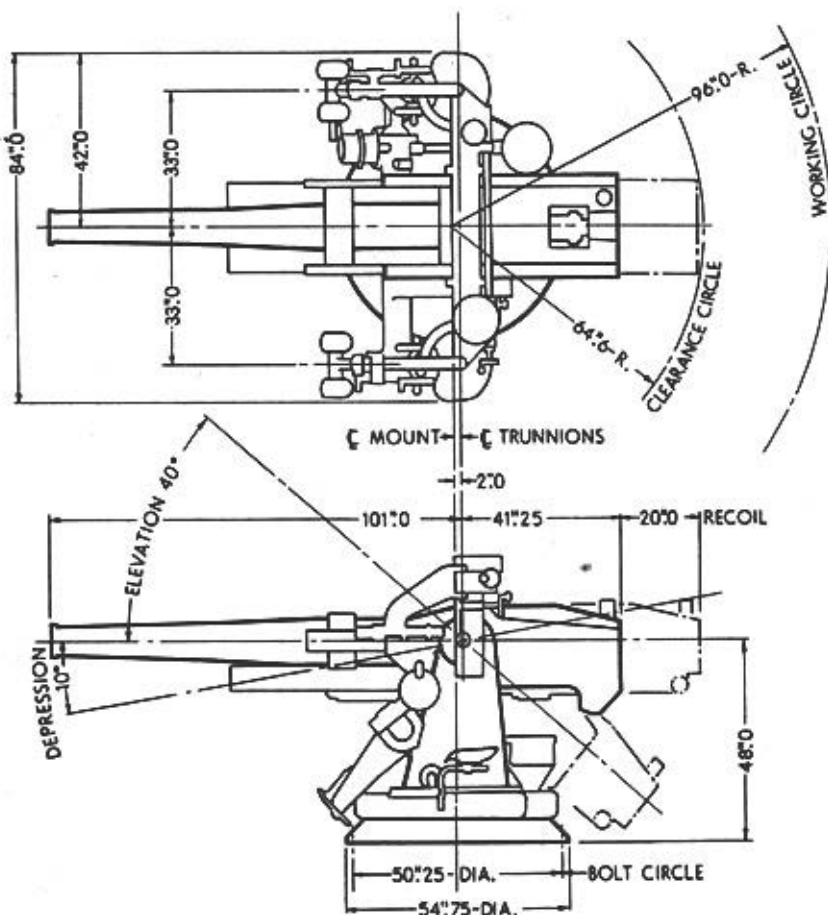
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

5"/54, MARK 39 MOD. 0

**5-IN. MOUNT, MARK 40 MOD. 0****5-IN. .25-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 1325         | 108355        |
| 1420         | 132215        |
| 15C7         | 138865        |
| 1545         | 138927        |
| 1546         | 138932        |

Note: Assembly number of mount is required for precise information.



GUN—.5"/25  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 40° ELEV. FIRE

MK. 17 MODS. 0, 1  
SS  
NONE

Weights below are approximate  
14,000 LBS.  
9,140 LBS.  
5,030 LBS.  
52,500 LBS.  
53,100 LBS.  
58,000 LBS.

**5"/25, MARK 40 MOD. 0**

# 5-IN. MOUNT, MARK 40 MOD. 0

5-IN. 25-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### HYDRAULIC

|                       |            |                |
|-----------------------|------------|----------------|
| Recoil Fluid          | O. D. 1914 | Appr. 6.5 Qts. |
| Foot Firing Mechanism | O. D. 1914 | .7 Pt.         |

## GUN AND AMMUNITION DATA

### GUN

|                              |                            |
|------------------------------|----------------------------|
| 5-In. 25-Cal.                | Mk. 17 Mods. 0, 1          |
| Maximum Powder Pressure      | 16.7 Long Tons per Sq. In. |
| Barrel Weight                | 2,163 Lbs.                 |
| Vertical Sliding Breechblock |                            |

### BALLISTICS

|                  |                           |
|------------------|---------------------------|
| Muzzle Velocity  | 2,110 Feet per Second     |
| Maximum Altitude | 12,000 Feet at 40° Elev.  |
| Maximum Range    | 14,500 Yards at 40° Elev. |

### AMMUNITION—Fixed

#### Typical Projectiles

|              |                 |                        |
|--------------|-----------------|------------------------|
| S. S.        | Mods. of Mk. 27 | Wt. 53.65 to 54.5 Lbs. |
| A. A. Common | Mods. of Mk. 36 | Wt. 53.85 Lbs.         |

#### Cartridge

|                           |                   |                      |
|---------------------------|-------------------|----------------------|
| Case                      | Mk. 4 Mod. 2      | Wt. 11.4 Lbs.        |
| Charge                    |                   | Nominal Wt. 9.6 Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                      |
| Total Weight of Cartridge |                   | Appr. 21. Lbs.       |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |                                     |
|----------------------------------|-------------------------------------|
| Ordnance Pamphlet No. 1029       |                                     |
| Working Circle Drawing Nos.      | 253588<br>256955<br>506573          |
| General Arrangement Drawing Nos. | 253584-87<br>256951-54<br>506569-72 |

## REMARKS

Elevation limits are minus 10° to plus 40°. The training limit is 316°.

Gun elevation per turn of the handwheel is 1.5°. Gun train per turn of the handwheel is 2.5°.

Length of recoil is 20 inches.

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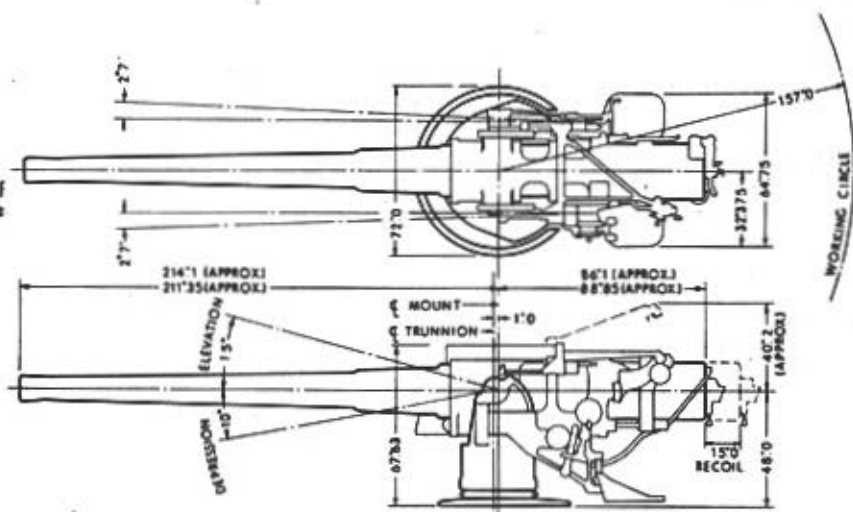
5"/25, MARK 40 MOD. 0



**6-IN. MOUNT, MARK 10 MOD. 4****6-IN. 50-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 15           | 3368          |
| 88           | 14916         |
| 165          | 92446         |
| 339          | 102376        |
| 340          | 102377        |

Note: Assembly number of mount is required for precise information.



GUN—6"/50  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 15° ELEV. FIRE

MK. 6 MOD. 2 OR MK. 8 MOD. 2  
AP-IX  
NONE

Weights below are approximate  
32,260 TO 37,000 LBS.  
25,000 LBS.  
19,350 OR 19,600 LBS.  
158,500 TO 168,000 LBS.  
170,000 LBS.  
176,000 LBS.

**6"/50, MARK 10 MOD. 4**

# 6-IN. MOUNT, MARK 10 MOD. 4

6-IN. 50-CAL., S. P., SINGLE-MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Gun Firing and Illumination—Battery 6 V. 100 A. H.

### PNEUMATIC

Gas Ejector

4.25 Cu. Ft. Free Air per Round at 125 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 42.34 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                          |                              |
|------------------------------------------|------------------------------|
| 6-In. 50-Cal.                            | Mk. 6 Mod. 2 or Mk. 8 Mod. 2 |
| Max. Powder Pressure                     | 17 Long Tons per Sq. In.     |
| Barrel Weights (inc. breech mechanism)   |                              |
| Mk. 6 Mod. 2                             | 18,890 Lbs.                  |
| Mk. 8 Mod. 2                             | 19,156 Lbs.                  |
| Welin Interrupted Screw Type Breechblock |                              |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,800 Feet Per Second     |
| Maximum Range   | 25,000 Yards at 15° Elev. |

### AMMUNITION—Bag

#### Typical Projectiles

|               |                     |              |
|---------------|---------------------|--------------|
| Common        | Mk. 20 & Mods.      | Wt. 106 Lbs. |
| Illuminating  | Mk. 23 Mods. 1, 2   | Wt. 96 Lbs.  |
| Powder Charge | Nominal Wt. 39 Lbs. |              |
| Primer        | Mk. 15 Mod. 1       |              |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                        |        |
|----------------------------------------|--------|
| Ordnance Pamphlet No. 873              |        |
| Working Circle Drawing No.             | 244072 |
| General Arrangement Drawing No.        | 35663  |
| Shore Emplacements, BuOrd Drawing Nos. | 273184 |
|                                        | 273185 |

## REMARKS

Elevation limits are minus 10° to plus 15°. The maximum training limit is 360°.

Gun elevation per turn of the handwheel is 39' 12".  
Gun train per turn of the handwheel is 1° 2' 58".

Length of recoil is 15 inches.

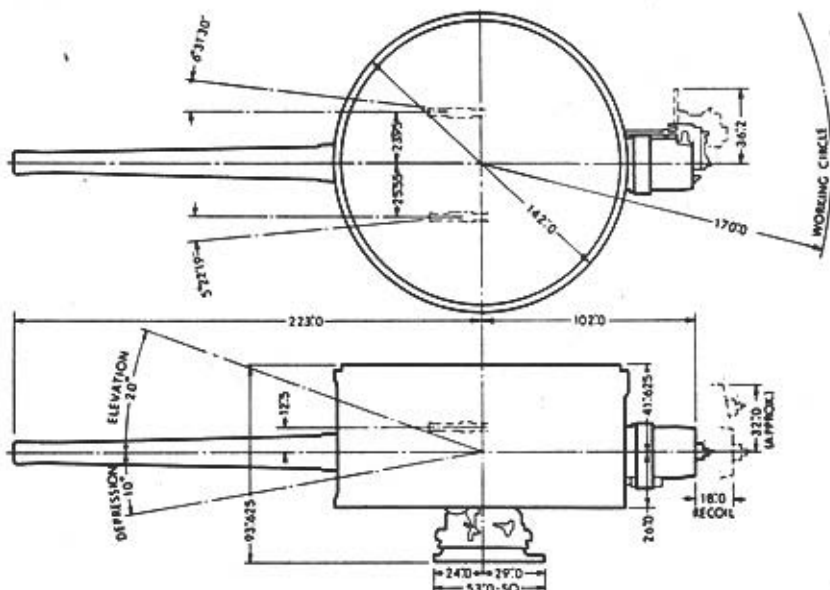
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6"/50, MARK 10 MOD. 4

**6-IN. MOUNT, MARK 13 MOD. 1****6-IN. 53-CAL., S. P., SINGLE, OPEN OR SHIELDED, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 67           | 13933         |
| 68           | 13934         |
| 69           | 13935         |
| 70           | 13936         |
| 76           | 14029         |
| 468          | 108483        |
| 470          | 132224        |

Note: Assembly number of mount is required for precise information.



GUN—6"/53  
INSTALLATION FOR  
BLAST SHIELD  
SHIELD THICKNESS  
SHIELD WEIGHTS

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 20° ELEV. FIRE

MK. 12 MODS. 0, 3, 7 OR MK. 18 MOD. 0  
CL

|      |    |              |    |              |
|------|----|--------------|----|--------------|
| NONE | OR | MK. 1 MOD. 0 | OR | MK. 1 MOD. 1 |
|      |    | .25 IN.      |    | .25 IN.      |
|      |    | 5,120 LBS.   |    | 6,070 LBS.   |

Weights below are approximate

35,700 TO 41,800 LBS.

28,300 TO 28,500 LBS.

23,250 TO 23,500 LBS.

145,000 LBS.

148,000 LBS.

157,000 LBS.

**6"/53, MARK 13 MOD. 1**

# 6-IN. MOUNT, MARK 13 MOD. 1

6-IN. 53-CAL., S. P., SINGLE, OPEN OR SHIELDED, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                           |                 |           |
|---------------------------|-----------------|-----------|
| Gun Firing                |                 |           |
| Transformer               | 115 V. to 20 V. | 200 Watts |
| Illumination and Stand-by |                 |           |
| Firing—Battery            | 6 V.            | 50 A. H.  |

### PNEUMATIC

|             |                                          |
|-------------|------------------------------------------|
| Gas Ejector | 50 Cu. Ft. Free Air per Min. at 150 psi. |
|-------------|------------------------------------------|

### HYDRAULIC

|              |            |         |
|--------------|------------|---------|
| Recoil Fluid | O. D. 1914 | 48 Qts. |
|--------------|------------|---------|

## GUN AND AMMUNITION DATA

### GUN

|                                       |                                          |
|---------------------------------------|------------------------------------------|
| 6-In. 53-Cal.                         | Mk. 12 Mods. 0, 3, 7 or<br>Mk. 18 Mod. 0 |
| Max. Powder Pressure                  | 17.5 Long Tons per Sq. In.               |
| Barrel Weight (inc. breech mechanism) | 22,648 Lbs.                              |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 3,000 Feet per Second     |
| Maximum Range   | 21,100 Yards at 20° Elev. |

### AMMUNITION—Bag

#### Typical Projectiles

|               |                 |                     |
|---------------|-----------------|---------------------|
| Common        | Mods. of Mk. 27 | Wt. 105 Lbs.        |
| Illuminating  | Mods. of Mk. 23 | Wt. 96 Lbs.         |
| H. C.         | Mods. of Mk. 34 | Wt. 105 Lbs.        |
| Powder Charge |                 | Nominal Wt. 44 Lbs. |
| Primer        | Mk. 15 Mod. 1   |                     |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |                         |
|---------------------------------|-------------------------|
| Ordnance Pamphlet No. 220       |                         |
| Working Circle Drawing Nos.     | 66884<br>96705<br>96706 |
| General Arrangement Drawing No. | 118752                  |

## REMARKS

Elevation limits are minus 10° to plus 20°. The maximum training limit is 360°.

Gun elevation per turn of the handwheel at high speed is 58' 10".6. Gun train per turn of the handwheel at high speed is 2° 25'.8.

Length of recoil is 18 inches.

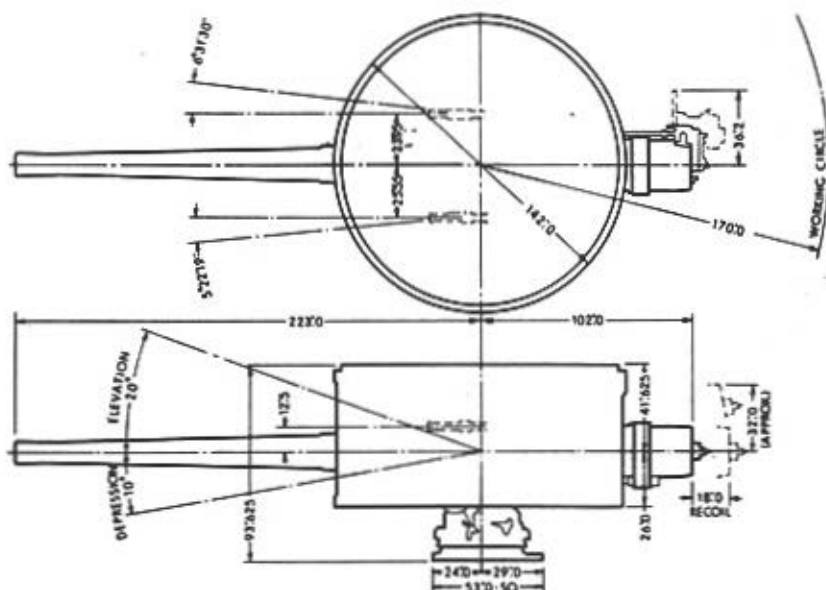
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6"/53, MARK 13 MOD. 1



**6-IN. MOUNT, MARK 13 MODS. 2, 3****6-IN. 53-CAL., S. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE**

| ASSY.<br>NO.        | SKETCH<br>NO. |
|---------------------|---------------|
| Mount Mk. 13 Mod. 2 |               |
| 71                  | 13919         |
| 72                  | 14021         |
| 73                  | 14022         |
| 74                  | 14023         |
| 91                  | 55905         |
| 93                  | 56537         |
| Mount Mk. 13 Mod. 3 |               |
| 79                  | 14166         |
| 80                  | 14167         |
| 81                  | 14168         |
| 82                  | 14169         |
| 84                  | 14365         |
| 85                  | 14366         |
| 86                  | 14367         |
| 87                  | 14368         |
| 92                  | 55906         |
| 94                  | 56538         |
| 360                 | 106424        |
| 361                 | 106425        |
| 438                 | 107893        |
| 439                 | 107894        |



Note: Assembly number of mount is required for precise information.

**GUN—6"/53**

**INSTALLATION FOR  
BLAST SHIELD  
SHIELD THICKNESS  
SHIELD WEIGHTS**

**TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 20° ELEV. FIRE**

**MK. 12 MODS. 0, 1, 3, 4  
MK. 14 MOD. 0, OR  
MK. 18 MODS. 0 OR 2  
CL**

| MK. 1<br>.25 IN.<br>5,120 LBS. | MK. 1 MOD. 1<br>.25 IN.<br>6,070 LBS. | MK. 1 MOD. 2<br>.25 IN.<br>6,577 LBS. |
|--------------------------------|---------------------------------------|---------------------------------------|
|--------------------------------|---------------------------------------|---------------------------------------|

Weights below are approximate  
42,800 LBS.  
28,400 LBS.  
24,000 LBS.  
145,000 LBS.  
148,000 LBS.  
157,000 LBS.

**6"/53, MARK 13 MODS. 2, 3**

# 6-IN. MOUNT, MARK 13 MODS. 2, 3

6-IN. 53-CAL., S. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                           |                                 |
|---------------------------|---------------------------------|
| Gun Firing                |                                 |
| Transformer               | 115 V. to 20 V. A. C. 200 Watts |
| Illumination and Stand-by |                                 |
| Firing—Battery            | 6 V. D. C. 50 A. H.             |

### PNEUMATIC

|             |                                          |
|-------------|------------------------------------------|
| Gas Ejector | 50 Cu. Ft. Free Air per Min. at 150 psi. |
|-------------|------------------------------------------|

### HYDRAULIC

|              |            |         |
|--------------|------------|---------|
| Recoil Fluid | O. D. 1914 | 48 Qts. |
|--------------|------------|---------|

## RECEIVERS (on Mount Mk. 13 Mod. 2)

| ELEVATION    | SPEEDS    | MFR. |
|--------------|-----------|------|
| Mk. 1 Mod. 3 | 1 & 60    | NYNY |
| TRAINING     |           |      |
| Mk. 1 Mod. 1 | 60/7 & 60 | NYNY |

## INDICATORS (on Mount Mk. 13 Mod. 3)

| ELEVATION                  | SPEEDS | MFR.              |
|----------------------------|--------|-------------------|
| None or Mk. 7 Mods. 2 or 5 | 2 & 36 | Gen. Elec. & Ford |
| TRAINING                   |        |                   |
| None or Mk. 7 Mod. 2       | 1 & 36 | Gen. Elec.        |

## GUN AND AMMUNITION DATA

### GUN

|                                       |                                                                     |
|---------------------------------------|---------------------------------------------------------------------|
| 6-In. 53-Cal.                         | Mk. 12 Mods. 0, 1, 3, 4<br>Mk. 14 Mod. 0, or<br>Mk. 18 Mods. 0 or 2 |
| Max. Powder Pressure                  | 17.5 Long Tons per Sq. In.                                          |
| Barrel Weight (inc. breech mechanism) |                                                                     |
| Mk. 12 & Mods., Mk. 14 Mod. 0         | 22,648 Lbs.                                                         |
| Mk. 18 & Mods.                        | 22,143 Lbs.                                                         |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 3,000 Feet per Second     |
| Maximum Range   | 21,100 Yards at 20° Elev. |

### AMMUNITION—Bag

| Typical Projectiles |                 |                     |
|---------------------|-----------------|---------------------|
| Common              | Mods. of Mk. 27 | Wt. 105 Lbs.        |
| Illuminating        | Mods. of Mk. 23 | Wt. 96 Lbs.         |
| H. C.               | Mods. of Mk. 34 | Wt. 105 Lbs.        |
| Powder Charge       |                 | Nominal Wt. 44 Lbs. |
| Primer              | Mk. 15 Mod. 1   |                     |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |                                                        |
|----------------------------------|--------------------------------------------------------|
| Ordnance Pamphlet No. 220        |                                                        |
| Working Circle Drawing Nos.      | 96705<br>96706<br>250672<br>118752<br>250667<br>252778 |
| General Arrangement Drawing Nos. |                                                        |

## REMARKS

Elevation limits are minus 10° to plus 20°. The maximum training limit is 360°.

Gun elevation per turn of the handwheel at high speed is 58° 10'. 6. Gun train per turn of the handwheel at high speed is 2° 25'. 8.

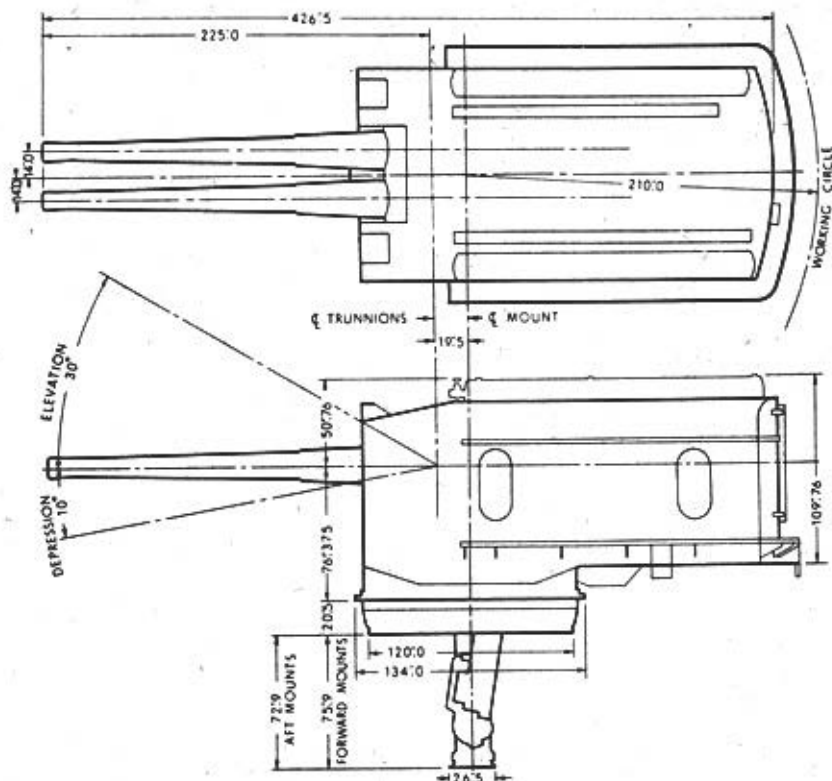
Length of recoil is 18 inches.

Mount Mk. 13 Mod. 2 may be used with specific modifications of gun directors Mk. 6 and Mk. 8; Mount Mk. 13 Mod. 2 may be used with specific modifications of gun director Mk. 16.

# 6-IN. MOUNT, MARK 16 MOD. 1

6-IN. 53-CAL., S. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
| 66        | 14005      |
| 75        | 14026      |
| 77        | 14156      |
| 78        | 14157      |
| 83        | 14337      |
| 95        | 56863      |
| 96        | 56864      |
| 97        | 56865      |
| 98        | 56866      |
| 99        | 56867      |
| 349       | 103049     |
| 350       | 103100     |
| 351       | 103101     |
| 352       | 103102     |
| 353       | 103103     |
| 354       | 103104     |
| 355       | 103105     |
| 356       | 103106     |
| 357       | 103237     |
| 358       | 103238     |
| 431       | 106909     |
| 432       | 106910     |



Note: Assembly number of mount is required for precise information.

GUNS—TWO 6"/53

INSTALLATION FOR

SHIELD

SHIELD THICKNESS

TOTAL WEIGHT OF SHIELD

Roof Plate Weight

Rear Plate Weight

TOTAL WEIGHT OF ASSEMBLY

OSCILLATING WEIGHT

RECOILING WEIGHT

BRAKE LOAD

TRUNNION PRESSURE HORIZ. FIRE

TRUNNION PRESSURE 30° ELEV. FIRE

MK. 12 MODS. 3, 7,

MK. 14 MODS. 0, 1

OR MK. 18 MOD. 0

CL

MK. 2 MOD. 0

.25 IN.

16,350 LBS.

2,700 LBS.

1,400 LBS.

MK. 4 MOD. 0

.25 IN.

17,000 LBS.

2,230 LBS.

1,100 LBS.

Weights below are approximate and per mount

116,000 LBS.

59,200 LBS.

49,600 LBS.

257,000 LBS.

265,000 LBS.

290,000 LBS.

6"/53 TWIN, MARK 16 MOD. 1



# 6-IN. MOUNT, MARK 16 MOD. 1

6-IN. 53-CAL., S. P., TWIN MOUNT, ENCLOSED, BASE RING TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                                |                 |              |
|--------------------------------|-----------------|--------------|
| Elevating Gear                 | 3.5 HP.         | 120 V. D. C. |
| Training Gear                  | 7.5 HP.         |              |
| Hoist                          | 1.5 HP.         |              |
| Gun Firing                     |                 |              |
| Transformer                    | 115 V. to 20 V. | 200 Watts    |
| Illumination—Battery           | 6 V.            | 100 A. H.    |
| Stand-by Firing—Four Batteries | 24 V.           | 100 A. H.    |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 6 Mod. 0                         |  |
| 50 Cu. Ft. Free Air per Min. at 150 psi. per Gun. |  |

### HYDRAULIC

|                       |            |                    |
|-----------------------|------------|--------------------|
| Recoil Fluid          | O. D. 1914 | 63.25 Qts. per Gun |
| Training Stop Buffers | O. D. 1914 | .46 Qts.           |
| Speed Gear Oil        | O. S. 2943 | 1.5 Gals.          |

## POWER DRIVES

|                |              |           |
|----------------|--------------|-----------|
| Elevating Gear | Mk. 1 Mod. 0 | Waterbury |
| Training Gear  | Mk. 1 Mod. 1 | Waterbury |

## RECEIVERS AND INDICATORS

| ELEVATION               | SPEEDS                   | MFR. |
|-------------------------|--------------------------|------|
| Mk. 1 Mod. 16 (Rec.)    | 60/7 & 60                | NYNY |
| Mk. 7 Mods. 1, 4 (Ind.) | 2 & 36 Gen. Elec. & Ford |      |

### TRAINING

|                           |        |            |
|---------------------------|--------|------------|
| Mk. 1 Mods. 22, 23 (Rec.) | 1 & 60 | NYNY       |
| Mk. 7 Mod. 1 (Ind.)       | 1 & 36 | Gen. Elec. |

## GUN AND AMMUNITION DATA

### GUNS

|                         |                                    |
|-------------------------|------------------------------------|
| 6-In. 53-Cal.           | Mk. 12 Mods. 3, 7,                 |
|                         | Mk. 14 Mods. 0, 1 or Mk. 18 Mod. 0 |
| Max. Powder Pressure    | 17.5 Long Tons per Sq. In.         |
| Barrel Weight, per Gun  |                                    |
| (inc. breech mechanism) | 22,143 Lbs.                        |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 3,000 Feet per Second     |
| Maximum Range   | 25,300 Yards at 30° Elev. |

### AMMUNITION—Bag

#### Typical Projectiles

|               |                 |                     |
|---------------|-----------------|---------------------|
| Common        | Mods. of Mk. 27 | Wt. 105 Lbs.        |
| Illuminating  | Mods. of Mk. 23 | Wt. 96 Lbs.         |
| H. C.         | Mods. of Mk. 34 | Wt. 105 Lbs.        |
| Powder Charge |                 | Nominal Wt. 44 Lbs. |
| Primer        | Mk. 15 Mod. 1   |                     |

## OPERATING SELECTION

Manual Drive—Hand Control

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 219        |           |
| Working Circle Drawing Nos.      | 95615     |
|                                  | 249249    |
| General Arrangement Drawing Nos. | 95614     |
|                                  | 250263-64 |
|                                  | 253042-43 |

## REMARKS

Elevation limits are minus 10° to plus 30°. The training limit is 270°.

Maximum elevating gear rate is 7° 37' 23" per second.

Length of recoil is 18 inches.

This mount may be used with specific modifications of gun directors Mk. 6, 8 and 16.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

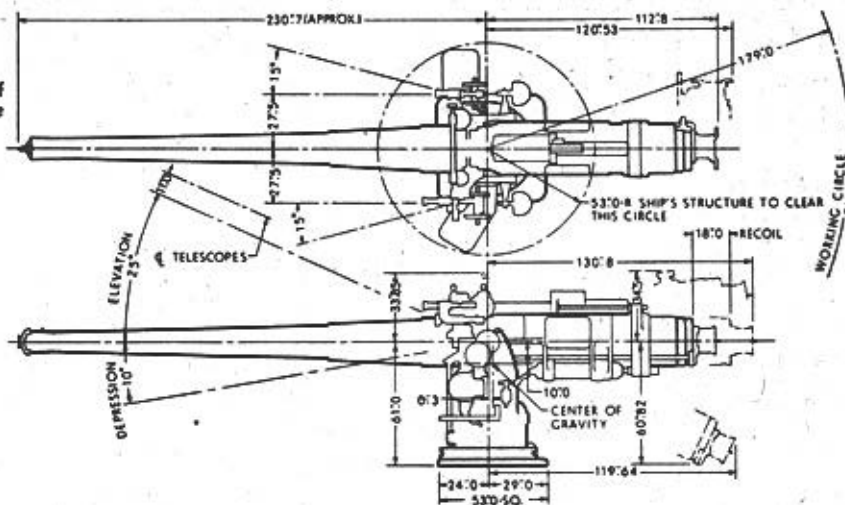
6"/53 TWIN, MARK 16 MOD. 1



**6-IN. MOUNT, MARK 17 MOD. 1****6-IN. 53-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE**

ASSY. NO. 90  
SKETCH NO. 54928

Note: Assembly number of mount is required for precise information.



GUN—6"/53  
INSTALLATION FOR  
SHIELD

MK. 18 MOD. 1  
SS  
NONE

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 25° ELEV. FIRE

Weights below are approximate  
37,700 LBS.  
27,940 LBS.  
24,000 LBS.  
128,500 LBS.  
131,500 LBS.  
142,600 LBS.

**6"/53, MARK 17 MOD. 1**

# 6-IN. MOUNT, MARK 17 MOD. 1

6-IN. 53-CAL., S. P., SINGLE, OPEN, WET, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### PNEUMATIC

Gas Ejector, Mk. 3 Mod. 0  
50 Cu. Ft. Free Air per Min. at 150 psi.

### HYDRAULIC

Recoil Fluid O. D. 1914 35.8 Qts.

## GUN AND AMMUNITION DATA

### GUN

|                                       |                            |
|---------------------------------------|----------------------------|
| 6-In. 53-Cal.                         | Mk. 18 Mod. 1              |
| Max. Powder Pressure                  | 17.5 Long Tons per Sq. In. |
| Barrel Weight (inc. breech mechanism) | 22,858 Lbs.                |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 3,000 Feet per Second     |
| Maximum Range   | 23,300 Yards at 25° Elev. |

### AMMUNITION—Bag

#### Typical Projectiles

|               |                 |                     |
|---------------|-----------------|---------------------|
| Common        | Mods. of Mk. 27 | Wt. 105 Lbs.        |
| Illuminating  | Mods. of Mk. 23 | Wt. 96 Lbs.         |
| H. C.         | Mods. of Mk. 34 | Wt. 105 Lbs.        |
| Powder Charge |                 | Nominal Wt. 44 Lbs. |
| Primer        | Mk. 15 Mod. 1   |                     |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                 |        |
|---------------------------------|--------|
| Ordnance Data No. 1835          |        |
| Working Circle Drawing No.      | 142806 |
| General Arrangement Drawing No. | 141980 |

## REMARKS

Elevation limits are minus 10° to plus 25°. The training limit is determined by the installation.

Gun elevation per turn of the handwheel is 58' 4.78 at high speed. Gun train per turn of the handwheel is 1° 23' 2".4. at high speed.

Length of recoil is 18 inches.

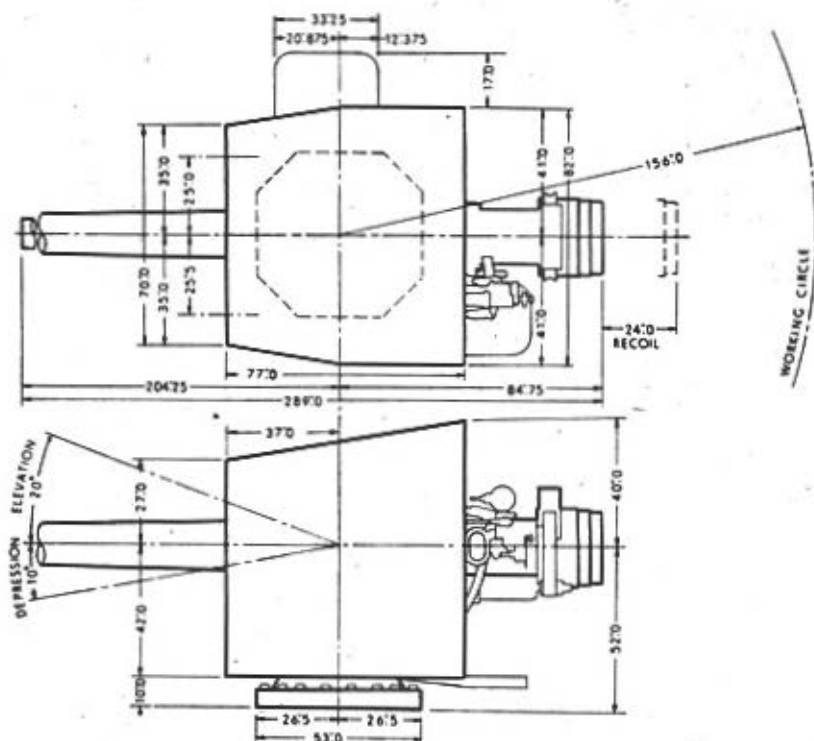
Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

6"/53, MARK 17 MOD. 1

**6-IN. MOUNT, MARK 18 MODS. 0-2****6-IN. 47-CAL., S. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE**

| ASSY.<br>NO.        | SKETCH<br>NO. |
|---------------------|---------------|
| Mount Mk. 18 Mod. 0 |               |
| 100                 | 56989         |
| Mount Mk. 18 Mod. 1 |               |
| 146                 | 61589         |
| Mount Mk. 18 Mod. 2 |               |
| 469                 | 108498        |

Note: Assembly number of mount is required for precise information.



GUN—6"/47  
INSTALLATION FOR  
SHIELD  
SHIELD THICKNESS

TOTAL WEIGHT OF ASSEMBLY  
TOTAL WEIGHT OF SHIELD  
OSCILLATING WEIGHT  
RECOILING WEIGHT  
BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 20° ELEV. FIRE

MK. 17 MOD. 0  
PG  
MK. 3 MOD. 0  
.86 IN.

Weights below are approximate  
34,500 LBS.  
7,600 LBS.  
18,200 LBS.  
13,200 LBS.  
153,000 LBS.  
154,000 LBS.  
160,000 LBS.

**6"/47, MARK 18 MODS. 0-2**

# 6-IN. MOUNT, MARK 18 MODS. 0-2

6-IN. 47-CAL., S. P., SINGLE MOUNT, SHIELDED, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

|                             |                 |           |              |
|-----------------------------|-----------------|-----------|--------------|
| Elevating and Training Gear | 3.5 H.P.        | 440 V.    | 3 $\phi$ 60~ |
| Gun Firing                  |                 |           |              |
| Transformer                 | 115 V. to 20 V. | 200 Watts |              |
| Illumination and Stand-by   |                 |           |              |
| Firing—Battery              | 6 V.            | 50 A. H.  |              |

### PNEUMATIC

|                                          |  |
|------------------------------------------|--|
| Gas Ejector, Mk. 4 Mod. 0                |  |
| 50 Cu. Ft. Free Air per Min. at 150 psi. |  |

### HYDRAULIC

|                |            |           |
|----------------|------------|-----------|
| Recoil Fluid   | O. D. 1914 | 46.2 Qts. |
| Speed Gear Oil | O. S. 2943 | 10 Gals.  |

## POWER DRIVES

Elev. & Train Gear Carriage Mk. 17 Mods. 0, 1, 2 Vickers

## INDICATORS

| ELEVATION     | SPEEDS | MFR.       |
|---------------|--------|------------|
| Mk. 29 Mod. 0 | 2 & 36 | Gen. Elec. |
| TRAINING      |        |            |
| Mk. 31 Mod. 0 | 1 & 36 | Gen. Elec. |

## GUN AND AMMUNITION DATA

### GUN

|                                   |                            |
|-----------------------------------|----------------------------|
| 6-In. 47-Cal.                     | Mk. 17 Mod. 0              |
| Max. Powder Pressure              | 18.5 Long Tons per Sq. In. |
| Barrel Weight (inc. solid breech) | 11,740 Lbs.                |

### BALLISTICS

|                 |                           |
|-----------------|---------------------------|
| Muzzle Velocity | 2,800 Feet per Second     |
| Maximum Range   | 19,800 Yards at 20° Elev. |

### AMMUNITION—Bag

| Typical Projectiles |                   |                       |
|---------------------|-------------------|-----------------------|
| Common              | Mk. 28 Mods. 1, 2 | Wt. 105 Lbs.          |
| Illuminating        | Mk. 23 Mods. 1, 2 | Wt. 96 Lbs.           |
| Powder Charge       |                   | Nominal Wt. 35.5 Lbs. |
| Primer              | Mk. 15 Mod. 1     |                       |

## OPERATING SELECTION

Manual Drive—Local Control

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 720        |           |
| Working Circle Drawing Nos.      |           |
| Mount Mk. 18 Mods. 1, 2          | 178134    |
| Mount Mk. 18 Mod. 2              | 256975    |
| General Arrangement Drawing Nos. |           |
| Mount Mk. 18 Mod. 0              | 178105    |
|                                  | 178117-19 |
|                                  | 178146    |
| Mount Mk. 18 Mod. 1              | 232927    |
|                                  | 232930-31 |
| Mount Mk. 18 Mod. 2              | 232929-30 |
|                                  | 256972-74 |

## REMARKS

Elevation limits are minus 10° to plus 20°. The training limit is 300°.

Length of recoil is 24 inches.

This mount may be used with specific modifications of gun director Mk. 36.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

6"/47, MARK 18 MODS. 0-2



## 6-IN. 47-CAL., TRIPLE GUN TURRET, CL 40 CLASS

| TURRET NO. | ASSY. NO.    | SKETCH NO. | TURRET NO. | ASSY. NO. | SKETCH NO. |
|------------|--------------|------------|------------|-----------|------------|
| CL 40      | BROOKLYN     |            | CL 46      | PHOENIX   |            |
| I          | 101          | 58700      | I          | 121       | 58858      |
| II         | 102          | 58701      | II         | 122       | 58859      |
| III        | 103          | 58702      | III        | 123       | 58860      |
| IV         | 104          | 58703      | IV         | 124       | 58861      |
| V          | 105          | 58704      | V          | 125       | 58862      |
| CL 41      | PHILADELPHIA |            | CL 47      | BOISE     |            |
| I          | 106          | 58700      | I          | 126       | 107000     |
| II         | 107          | 58701      | II         | 127       | 107001     |
| III        | 108          | 58702      | III        | 128       | 107002     |
| IV         | 109          | 58703      | IV         | 129       | 107003     |
| V          | 110          | 58704      | V          | 130       | 107004     |
| CL 42      | SAVANNAH     |            | CL 48      | HONOLULU  |            |
| I          | 111          | 132333     | I          | 131       | 58858      |
| II         | 112          | 132334     | II         | 132       | 58859      |
| III        | 113          | 132335     | III        | 133       | 58860      |
| IV         | 114          | 132336     | IV         | 134       | 58861      |
| V          | 115          | 132337     | V          | 135       | 58862      |
| CL 43      | NASHVILLE    |            | CL 49      | ST. LOUIS |            |
| I          | 116          | 58700      | I          | 136       | 58891      |
| II         | 117          | 58701      | II         | 137       | 58892      |
| III        | 118          | 58702      | III        | 138       | 58893      |
| IV         | 119          | 58703      | IV         | 139       | 58894      |
| V          | 120          | 58704      | V          | 140       | 58895      |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

GUNS—THREE 6"/47  
INSTALLATION FOR

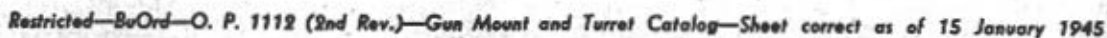
ROTATING WEIGHT, no projectiles  
OSCILLATING WEIGHT, three guns  
RECOILING WEIGHT, per gun  
BRAKE LOAD, per gun  
TRUNNION PRESSURE 60° ELEV. FIRE, three guns

MK. 16 MOD. 0  
CL 40-43, 46-49

Weights below are approximate  
154 TO 167 LONG TONS  
93,600 LBS.  
15,500 LBS.  
142,000 LBS.  
1,122,000 LBS.

6"/47 TRIPLE GUN TURRET, CL 40 CLASS

**PAGE 2 OF FOUR PAGES**



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# 6-IN. 47-CAL., TRIPLE GUN TURRET, CL 40 CLASS

## OPERATION REQUIREMENTS

### ELECTRIC

|                               |                   |                    |
|-------------------------------|-------------------|--------------------|
| Elevating Gear, 1 motor       | 25 HP.            |                    |
| Training Gear, 1 motor        | 50 HP.            |                    |
| B. M. and Rammer, 1 motor     | 20 HP.            |                    |
| Ammunition Hoists,            |                   |                    |
| 3 motors, each                |                   | 440 V. 3 $\phi$ 60 |
| (CL 40-43, 46-48)             | 20 HP.            |                    |
| (CL 49)                       | 15 HP.            |                    |
| Case Ejectors, 3 motors, each |                   |                    |
| (Turrets I, III, V)           | $\frac{3}{4}$ HP. |                    |
| Gun Firing Transformer        | 115 V. to 20 V.   | 200 Watts          |
| Stand-by Firing—              |                   |                    |
| Four 6 V. Batteries           | 24 V.             | 100 A. H.          |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Accumulator (for Charging)                        |  |
| 65 Cu. Ft. Free Air per Gun at 950 psi.           |  |
| Gas Ejector, Mk. 5 Mod. 2                         |  |
| 2.5 Cu. Ft. Free Air per Sec. per Gun at 175 psi. |  |
| Countercoil Cylinder                              |  |
| Initial Air Pressure, 1,000 psi.                  |  |

### HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

|               |                  |                   |
|---------------|------------------|-------------------|
| Recoil Fluid  | O. D. 1914       | 5.3 Gals. per Gun |
| Countercoil   |                  |                   |
| Liquid System | N. S. 2075 Appr. | 1.25 Qts. per Gun |

## POWER DRIVES

|                   |                   |                     |
|-------------------|-------------------|---------------------|
| Elevating Gear    |                   |                     |
| CL 41-43, 46,     |                   |                     |
| 48, 49            | (1) Mk. 2 Mod. 2  | Ford-Waterbury      |
| CL 40, 47         | (1) Mk. 2 Mod. 1  | Arma-Northern       |
| Training Gear     |                   |                     |
| CL 41-43, 46,     |                   |                     |
| 48, 49            | (1) Mk. 2 Mod. 0  | Ford-Waterbury      |
| CL 40, 47         | (1) Mk. 2 Mod. 1  | Arma-Northern       |
| B. M. and Ram-    |                   |                     |
| mers              | (3) Rammer Mk. 1  |                     |
|                   | Mods. 0, 1        | Vickers             |
| Ammunition Hoists |                   |                     |
| CL 41-43, 46-48   | (3) Mk. 2 & Mods. | Vickers             |
| CL 49             | (3) Mk. 2 &       |                     |
|                   | Mods.             | B. I. F. & Northern |

## RECEIVER REGULATORS

|                                  | SPEEDS | MFR. |
|----------------------------------|--------|------|
| Gun Elevation Receiver Regulator |        |      |
| CL 41-43, 46, 48, 49             |        |      |
| Mk. 3 Mod. 0                     | 2 & 36 | Ford |
| CL, 40, 47                       |        |      |
| Mk. 8 Mod. 0                     | 2 & 36 | Arma |
| Turret Train Receiver Regulator  |        |      |
| CL 41-43, 46, 48, 49             |        |      |
| Mods. of Mk. 3                   | 1 & 36 | Ford |
| CL 40, 47                        |        |      |
| Mods. of Mk. 13                  | 1 & 36 | Arma |

## FIRE CONTROL EQUIPMENT

|                                     | SPEEDS           | MFR.  |
|-------------------------------------|------------------|-------|
| Auxiliary Computer                  |                  |       |
| Mk. 6 Mod. 1                        |                  | Ford  |
| Gun Elevation Indicator             |                  |       |
| Mk. 23 & Mods.                      | 2 & 36           | NYNY  |
| Gun Train Indicator                 |                  |       |
| Mk. 25 & Mods.                      | 1 & 36           | NYNY  |
| Sight Setter's Indicator            |                  |       |
| Mk. 1 & Mods.                       | 4 & 216          | NYNY  |
| Multiple Turret Train Indicator     |                  |       |
| Mk. 11 Mod. 0,                      |                  |       |
| Mk. 12 Mods. 1, 2, 3                | 1 & 36           | NYNY  |
| Rangefinder                         |                  |       |
| Mk. 33 & Mods., Mk. 37 & Mods.      |                  | B & L |
| Fire Control Assy. List Sketch Nos. |                  |       |
|                                     | 58604 (CL 40-43) |       |
|                                     | 58774 (CL 46)    |       |
|                                     | 58775 (CL 47)    |       |
|                                     | 58776 (CL 48)    |       |
|                                     | 58949 (CL 49)    |       |



# 6-IN. 47-CAL., TRIPLE GUN TURRET, CL 40 CLASS

## GUN AND AMMUNITION DATA

### GUNS

Three 6-In. 47-Cal. Mk. 16 Mod. 0  
Maximum Powder Pressure 18.5 Long Tons per Sq. In.  
Weight of Gun Barrel Appr. 9,640 Lbs.  
Wedge-type Sliding Breechblock

### BALLISTICS

Muzzle Velocity (A. P.) 2,500 Feet per Second  
(H. C.) 2,665 Feet per Second  
Maximum Range (A. P.) 26,100 Yards at 45° Elev.  
(H. C.) 23,500 Yards at 45° Elev.

### AMMUNITION—Separate Case

Typical Projectiles  
H. C. Mods. of Mk. 34 Wt. 105 Lbs.  
A. P. Mods. of Mk. 35 Wt. 130 Lbs.  
Cartridge  
Case Mk. 4 Wt. 28.2 Lbs.  
Charge Nominal Wt. 32 Lbs.  
Primer Mk. 13 Mods. 0, 1  
Total Weight of Cartridge Appr. 60 Lbs.

## FUZE SETTER

Mk. 16 Mod. 0

## OPERATING SELECTION

Manual Drive—Hand—Local—Automatic—  
Load Control

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 592  
Working Circle Drawing Nos. BuOrd 217279-82.  
General Arrangement Drawing Nos. BuShips 221071-72

## REMARKS

Elevation limits are minus 5° to plus 60°. (CL 47, now 40°, is scheduled to get 60°.) The training limit is 294° (Turret I); 318° (Turret II); 304° (Turret III); 300° (Turret IV); 288° (Turret V).

Maximum elevating gear rate is 10° per second. Maximum training gear rate is 5° per second.

Length of recoil is 21 inches.

Outside diameter of roller path is 15' 3".

These turrets are used with gun directors Mods. of Mk. 34.



## 6-IN. 47-CAL., TRIPLE GUN TURRET, CL 55 &amp; CL 106 CLASSES

| TURRET NO. | ASSY. NO. | SKETCH NO.  | TURRET NO.   | ASSY. NO.   | SKETCH NO. |
|------------|-----------|-------------|--------------|-------------|------------|
| CLEVELAND  | CL 55     | COLUMBIA    | OKLA. CITY   | LITTLE ROCK | GALVESTON  |
| I          | 157       | 62528       | I            | CL 91       | CL 92      |
| II         | 158       | 62529       | II           | 270         | 274        |
| III        | 159       | 62530       | III          | 271         | 275        |
| IV         | 160       | 62531       | IV           | 272         | 276        |
| MONTPELIER | CL 57     | DENVER      | CL 94        | 273         | 277        |
| I          | 166       | 92613       | I            |             | 282        |
| II         | 167       | 92614       | II           |             | 283        |
| III        | 168       | 92615       | III          |             | 284        |
| IV         | 169       | 92616       | IV           |             | 285        |
| SANTA FE   | CL 60     | BIRMINGHAM  | AMSTERDAM    | CL 101      | CL 102     |
| I          | 178       | 92617       | I            | 341         | 345        |
| II         | 179       | 92618       | II           | 342         | 346        |
| III        | 180       | 92619       | III          | 343         | 347        |
| IV         | 181       | 92620       | IV           | 344         | 348        |
|            | VINCENNES | PASADENA    | WILKES-BARRE | CL 103      | CL 104     |
| MOBILE     | CL 63     | 92621       | I            | 367         | 371        |
| I          | 190       | 92622       | II           | 368         | 372        |
| II         | 191       | 92623       | III          | 369         | 373        |
| III        | 192       | 92624       | IV           | 370         | 374        |
| IV         | 193       | SPRINGFIELD | DAYTON       | CL 105      | CL 106     |
| CL 66      |           | 108189      | I            | 375         | 379        |
| I          |           | 108190      | II           | 376         | 380        |
| II         |           | 108191      | III          | 377         | 381        |
| III        |           | 108192      | IV           | 378         | 382        |
| IV         |           | TOPEKA      | HUNTINGTON   | CL 107      | CL 108     |
| CL 67      |           | 92625       | I            | 383         | 387        |
| I          |           | 92626       | II           | 384         | 388        |
| II         |           | 92627       | III          | 385         | 389        |
| III        |           | 92628       | IV           | 386         | 390        |
| IV         |           | HOUSTON     | NEW HAVEN    | CL 109      | CL 110     |
| BILOXI     | CL 80     | 93217       | I            | 391         | 395        |
| I          | 226       | 93218       | II           | 392         | 396        |
| II         | 227       | 93219       | III          | 393         | 397        |
| III        | 228       | 93220       | IV           | 394         | 398        |
| IV         | 229       | MANCHESTER  | CL 111       |             |            |
| PROVIDENCE | CL 82     | 93221       | I            | 399         |            |
| I          | 234       | 93222       | II           | 400         |            |
| II         | 235       | 93223       | III          | 401         |            |
| III        | 236       | 93224       | IV           | 402         |            |
| IV         | 237       | VICKSBURG   | CL 116       |             |            |
| CL 86      |           | 93225       | I            | 419         |            |
| I          |           | 93226       | II           | 420         |            |
| II         |           | 93227       | III          | 421         |            |
| III        |           | 93228       | IV           | 422         |            |
| IV         |           | DULUTH      | CHEYENNE     | CL 117      | CL 118     |
| CL 87      |           | 108193      | I            | 423         | 427        |
| I          |           | 108194      | II           | 424         | 428        |
| II         |           | 108195      | III          | 425         | 429        |
| III        |           | 108196      | IV           | 426         | 430        |
| IV         |           | ASTORIA     |              |             |            |
| MIAMI      | CL 89     | 93229       |              |             |            |
| I          | 262       | 93230       |              |             |            |
| II         | 263       | 93231       |              |             |            |
| III        | 264       | 93232       |              |             |            |
| IV         | 265       |             |              |             |            |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

GUNS—THREE 6"/47  
INSTALLATION FOR

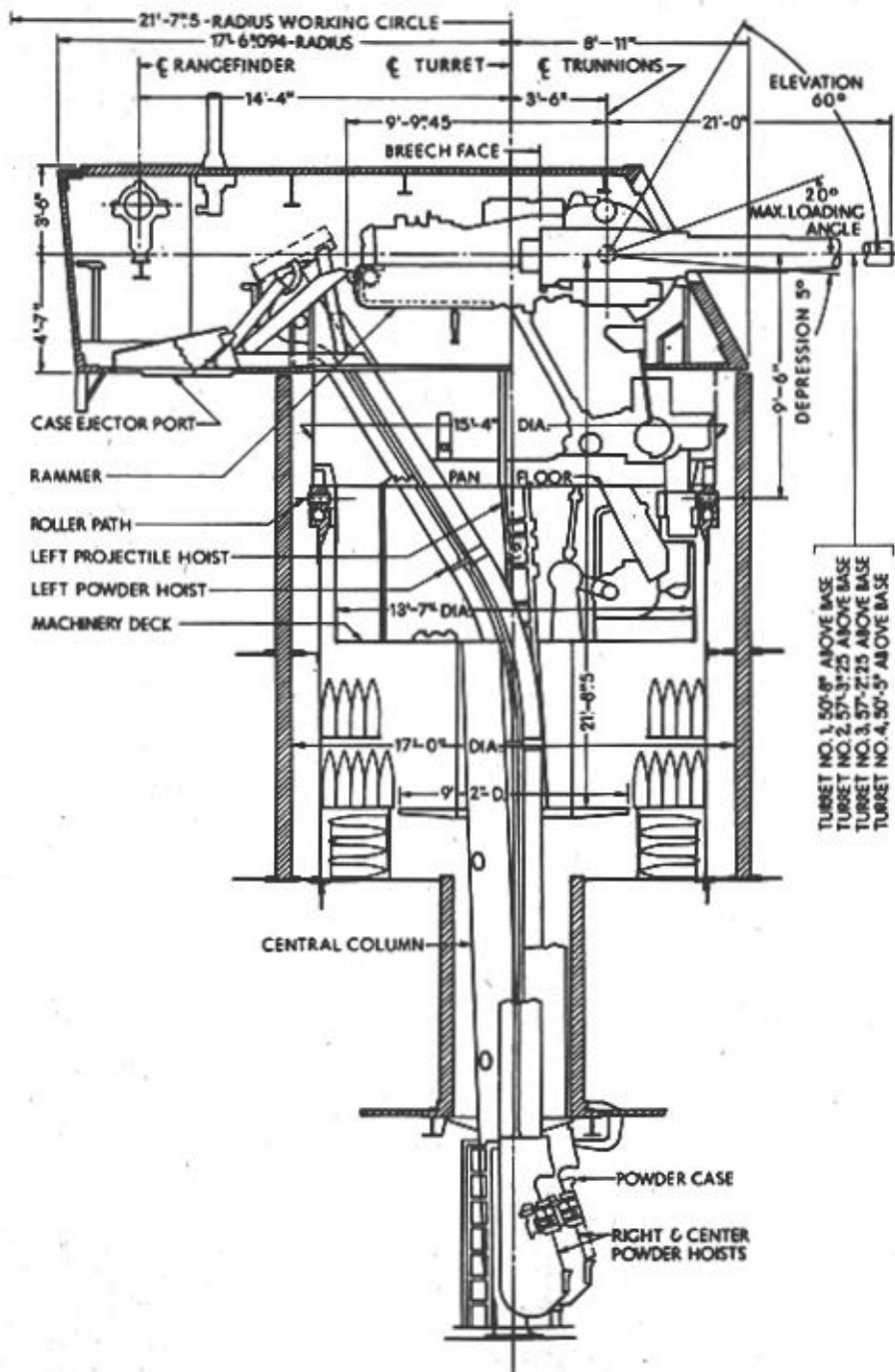
ROTATING WEIGHT, no projectiles  
OSCILLATING WEIGHT, three guns  
RECOILING WEIGHT, per gun  
BRAKE LOAD, per gun  
TRUNNION PRESSURE 60° ELEV. FIRE, three guns

MK. 16 MODS. 0, 1  
CL 55-58, 60, 62-67,  
80-83, 86-87, 89-94,  
101-111, 116-118.

Weights below are approximate  
165 TO 173 LONG TONS  
93,600 LBS.  
15,500 LBS.  
142,000 LBS.  
1,122,000 LBS.

## 6"/47 TRIPLE GUN TURRET, CL 55 &amp; CL 106 CLASSES

# 6-IN. 47-CAL., TRIPLE GUN TURRET, CL 55 & CL 106 CLASSES



PAGE 2 OF FOUR PAGES

# 6-IN. 47-CAL., TRIPLE GUN TURRET, CL 55 & CL 106 CLASSES

## OPERATION REQUIREMENTS

### ELECTRIC

|                          |                 |                     |
|--------------------------|-----------------|---------------------|
| Elevating Gear, 1 motor  | 25. HP.         |                     |
| Training Gear, 1 motor   | 50. HP.         |                     |
| B. M. and Ramsers,       |                 |                     |
| 3 motors, each           | 7.5 HP.         |                     |
| Ammunition Hoists,       |                 |                     |
| 3 motors, each           | 20. HP.         | 440 V. 3 $\phi$ 60~ |
| Case Ejectors, 3 motors, |                 |                     |
| each                     |                 |                     |
| (None on Tur. II, III    |                 |                     |
| of CL 55 Class)          | 3/4 HP.         |                     |
| Gun Firing Transformer   | 115 V. to 20 V. | 200 Watts           |
| Stand-by Firing—         |                 |                     |
| Four 6-V. Batteries      | 24 V.           | 100 A. H.           |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Accumulator (for Charging)                        |  |
| 65 Cu. Ft. Free Air per Gun at 950 psi.           |  |
| Gas Ejector, Mk. 5 Mod. 1                         |  |
| 2.5 Cu. Ft. Free Air per Sec. per Gun at 175 psi. |  |
| Counterrecoil Cylinder                            |  |
| Initial Air Pressure, 1,000 psi.                  |  |

### HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

|               |            |                         |
|---------------|------------|-------------------------|
| Recoil Fluid  | O. D. 1914 | 5.3 Gals. per Gun       |
| Counterrecoil |            |                         |
| Liquid System | N. S. 2075 | Appr. 1.25 Qts. per Gun |

## POWER DRIVES

|                   |                   |               |
|-------------------|-------------------|---------------|
| Elevating Gear    | (1) Mk. 2 Mods.   |               |
|                   | 1 or 3            | Arma-Northern |
| Training Gear     | (1) Mk. 2         |               |
|                   | Mod. 1            | Arma-Northern |
| B. M. and Ramsers | (3) Rammer Mk. 1  |               |
|                   | Mods. 2, 3        | Vickers       |
| Ammunition Hoists | (3) Mk. 4 & Mods. | Vickers       |

## RECEIVER REGULATORS

|                                  | SPEEDS | MFR. |
|----------------------------------|--------|------|
| Gun Elevation Receiver Regulator |        |      |
| Mk. 8 Mod. 0                     | 2 & 36 | Arma |
| Turret Train Receiver Regulator  |        |      |
| Mods. of Mk. 13                  | 1 & 36 | Arma |

## FIRE CONTROL EQUIPMENT

|                                     | SPEEDS              | MFR.         |
|-------------------------------------|---------------------|--------------|
| Auxiliary Computer                  |                     |              |
| Mk. 6 Mod. 1                        |                     | Ford         |
| Gun Elevation Indicator             |                     |              |
| Mods. of Mk. 23                     | 2 & 36              | NYNY         |
| Gun Train Indicator                 |                     |              |
| Mods. of Mk. 25                     | 1 & 36              | NYNY         |
| Sight Setter's Indicator            |                     | NYNY or      |
| Mods. of Mk. 1                      | 4 & 216             | Conf. Instr. |
| Multiple Turret Train Indicator     |                     |              |
| Mk. 12 Mods. 7, 8                   | 1 & 36              | NYNY         |
| Range Transmitter (None in Tur. IV) |                     |              |
| Mk. 1 and Mods.                     |                     | Cont. Instr. |
| Rangefinder (None in Turret IV)     |                     |              |
| Mods. of Mk. 33 or                  |                     |              |
| Mods. of Mk. 37                     |                     | B. & L.      |
| Fire Control Assy. List Sketch Nos. |                     |              |
| 62905                               | (CL 55-56)          |              |
| 93172                               | (CL 57-58, 80-83,   |              |
|                                     | 86-87)              |              |
| 106518                              | (CL 60)             |              |
| 106519                              | (CL 62-63)          |              |
| 106520                              | (CL 64-67)          |              |
| 94292                               | (CL 89-94, 101-102) |              |
| 108259                              | (CL 103)            |              |

# 6"/47 TRIPLE GUN TURRET, CL 55 & CL 106 CLASSES



# 6-IN. 47-CAL., TRIPLE GUN TURRET, CL 55 & CL 106 CLASSES

## GUN AND AMMUNITION DATA

### GUNS

Three 6-In. 47-Cal. Mk. 16 Mods. 0, 1  
Maximum Powder Pressure 18.5 Long Tons per Sq. In.  
Weight of Gun Barrel Appr. 9,640 Lbs.  
Wedge-type Sliding Breechlock

### BALLISTICS

Muzzle Velocity (A. P.) 2,500 Feet per Second  
(H. C.) 2,665 Feet per Second  
Maximum Range (A. P.) 26,100 Yards at 45° Elev.  
(H. C.) 23,500 Yards at 45° Elev.

### AMMUNITION—Separate Case

|                           |                   |                      |
|---------------------------|-------------------|----------------------|
| Typical Projectiles       |                   |                      |
| H. C.                     | Mods. of Mk. 34   | Wt. 105 Lbs.         |
| A. P.                     | Mods. of Mk. 35   | Wt. 130 Lbs.         |
| Cartridge                 |                   |                      |
| Case                      | Mk. 4 Mod. 0      | Wt. 28.2 Lbs.        |
| Charge                    |                   | Nominal Wt. 32. Lbs. |
| Primer                    | Mk. 13 Mods. 0, 1 |                      |
| Total Weight of Cartridge |                   | Appr. 60. Lbs.       |

## FUZE SETTER

Mk. 16 Mod. 0

## OPERATING SELECTION

Manual Drive—Hand—Local—Automatic—  
- Load Control

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 833 (Turrets)  
Ordnance Pamphlet No. 1069 (Receiver Regulators)  
General Arrangement Drawing Nos. BuShips 379280-81

## REMARKS

Elevation limits are minus 5° to plus 40° or plus 60°. (All ships of CL 55 Class now at 40° are scheduled to get 60°.)

The training limit is 300° (Turrets I, II, III); 288° (Turret IV).

Maximum elevating gear rate is 11° per second. Maximum training gear rate is 10° per second.

Length of recoil is 21 inches.

Outside diameter of roller path is 15' 3".

CL 55 Class turrets are used with gun directors Mods. of Mk. 34; CL 106 Class turrets with gun directors Mods. of Mk. 34 and Mods. of Mk. 55.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

## 6"/47 TRIPLE GUN TURRET, CL 55 & CL 106 CLASSES



**6-IN. 47-CAL., D. P., 2-GUN TURRET, CL 144 CLASS**

| TURRET NO.              | ASSY. NO. | SKETCH NO. |
|-------------------------|-----------|------------|
| <b>CL 144 WORCESTER</b> |           |            |
| I                       | 444       | 132713     |
| II                      | 445       | 132714     |
| III                     | 446       | 132715     |
| IV                      | 447       | 132716     |
| V                       | 448       | 132717     |
| VI                      | 449       | 132718     |
| <b>CL 145</b>           |           |            |
| I                       | 450       | 132719     |
| II                      | 451       | 132720     |
| III                     | 452       | 132721     |
| IV                      | 453       | 132722     |
| V                       | 454       | 132723     |
| VI                      | 455       | 132724     |
| <b>CL 146</b>           |           |            |
| I                       | 456       | 132725     |
| II                      | 457       | 132726     |
| III                     | 458       | 132727     |
| IV                      | 459       | 132728     |
| V                       | 460       | 132729     |
| VI                      | 461       | 132730     |
| <b>CL 147</b>           |           |            |
| I                       | 462       | 132731     |
| II                      | 463       | 132732     |
| III                     | 464       | 132733     |
| IV                      | 465       | 132734     |
| V                       | 466       | 132735     |
| VI                      | 467       | 132736     |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

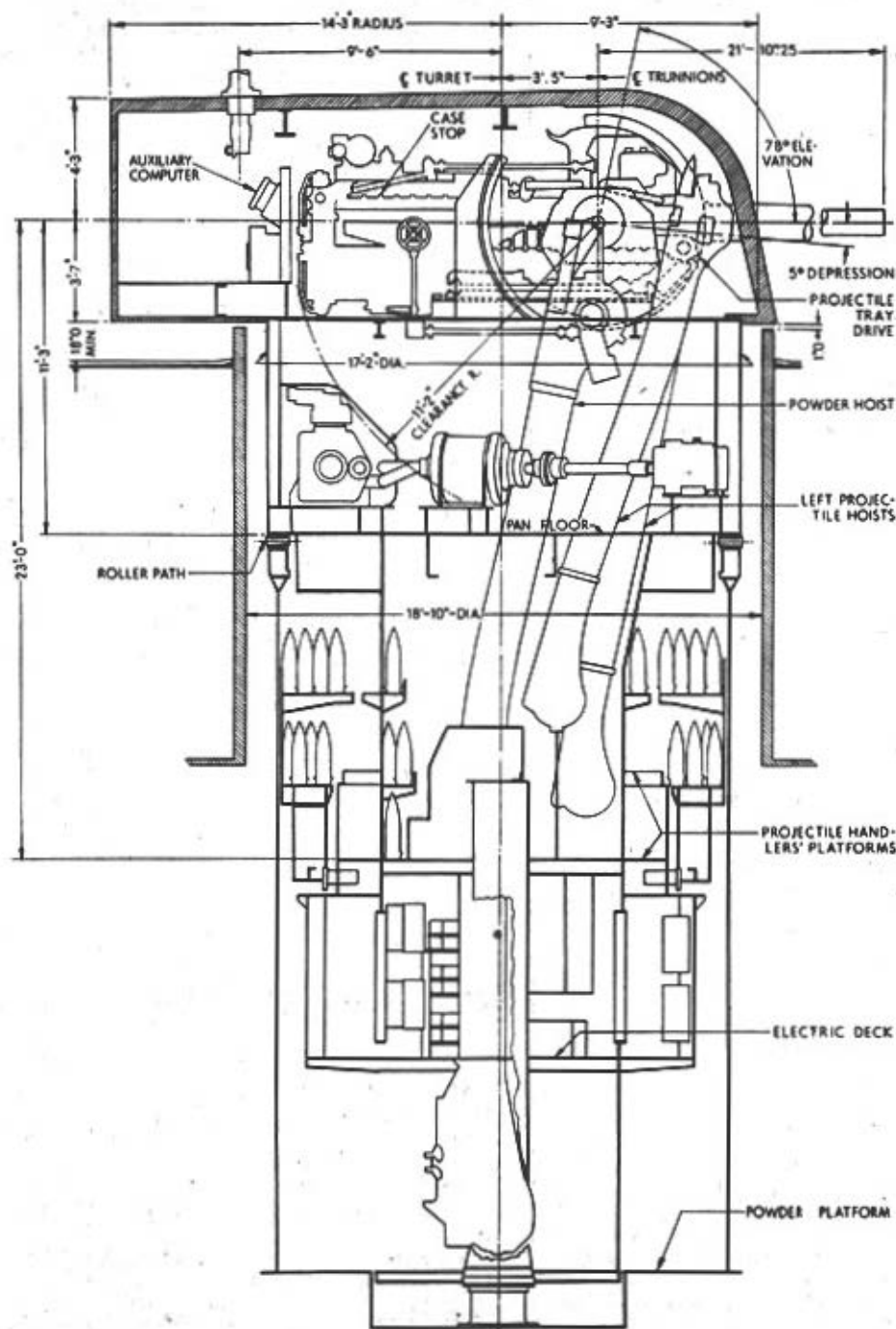
GUNS—TWO 6"/47  
INSTALLATION FOR

ROTATING WEIGHT, without projectiles  
OSCILLATING WEIGHT, per gun  
RECOILING WEIGHT, per gun  
BRAKE LOAD, per gun  
TRUNNION PRESSURE HORIZ. FIRE, per gun  
TRUNNION PRESSURE 78° ELEV. FIRE, per gun

MK. 16 MOD. 0  
CL 144-147

Weights below are approximate  
208.5 LONG TONS  
40,600 LBS.  
15,300 LBS.  
152,900 LBS.  
158,100 LBS.  
192,250 LBS.

**6"/47 2-GUN TURRET, CL 144 CLASS**



## OPERATION REQUIREMENTS

### ELECTRIC

|                                         |                 |           |                     |
|-----------------------------------------|-----------------|-----------|---------------------|
| Elevating Gears,<br>2 motors, each      | 15.             | HP.       |                     |
| Training Gear, 1 motor                  | 200.            | HP.       |                     |
| Rammers, 2 motors,<br>each              | 30.             | HP.       |                     |
| Projectile Hoists,<br>4 motors, each    | 7.5             | HP.       | 440 V. 3 $\phi$ 60~ |
| Powder Hoists,<br>2 motors, each        | 10.             | HP.       |                     |
| Projectile Ring,<br>1 motor             | 10.             | HP.       |                     |
| Case Ejectors, 2 motors,<br>each        | .75             | HP.       |                     |
| Gun Firing Transformer                  | 115 V. to 20 V. | 200 Watts |                     |
| Stand-by Firing—<br>Four 6 V. Batteries | 24 V.           | 100 A. H. |                     |

## POWER DRIVES

|                   |                               |               |
|-------------------|-------------------------------|---------------|
| Elevating Gears   | (2) Mk. 3 Mods. 4, 5          | Arma-Northern |
| Training Gear     | (1) Mk. 3 Mod. 1              | Arma-Northern |
| Rammers           | (2) Mk. 2 Mods. 4, 5          | Vickers       |
| Projectile Hoists | (4) Mk. 3 Mods. 0, 1,<br>2, 3 | Vickers       |
| Powder Hoists     | (2) Mk. 3 Mods. 0, 1          | Vickers       |

## REGULATORS

|                                   | SPEEDS | MFR. |
|-----------------------------------|--------|------|
| Gun Elevation Indicator Regulator |        |      |
| Mk. 51 Mod. 0 &<br>Mk. 52 Mod. 0  | 2 & 36 | Arma |
| Turret Train Receiver Regulator   |        |      |
| Mk. 26 & Mods.                    | 1 & 36 | Arma |

### PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Accumulator (for Charging)                        |  |
| Appr. 100 Cu. Ft. Free Air per Gun at 950 psi.    |  |
| Gas Ejector, Mk. 7 Mods. 0, 1                     |  |
| 2.5 Cu. Ft. Free Air per Sec. per Gun at 175 psi. |  |
| Counterrecoil Cylinder                            |  |
| Initial Air Pressure, 1,200 psi.                  |  |

### HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

|               |            |                        |
|---------------|------------|------------------------|
| Recoil Fluid  | O. D. 1914 | Appr. 5¼ Gals. per Gun |
| Counterrecoil |            |                        |
| Liquid System | N. S. 2075 | Appr. 1¼ Qts. per Gun  |

## FIRE CONTROL EQUIPMENT

|                                        | SPEEDS               | MFR.        |
|----------------------------------------|----------------------|-------------|
| Auxiliary Computer                     |                      |             |
| Mk. 6 Mod. 1                           |                      | Ford        |
| Gun Train Indicator                    |                      |             |
| Mods. of Mk. 40                        | 1 & 36               | NYNY        |
| Multiple Turret Train Indicator        |                      |             |
| Mods. of Mk. 11 and<br>Mods. of Mk. 12 | 1 & 36               | NYNY        |
| Sight Setter's Indicator               |                      |             |
| Mk. 5 Mods. 0, 1                       | 6 & 216              | NYNY        |
| Fuze Setting Indicator Regulator       |                      |             |
| Mk. 10 Mod. 0                          | 180 & 180<br>350 & 7 | Arma        |
| Radar Equipment                        |                      |             |
| Mk. 27 Mod. 0                          |                      | West. Elec. |



GUN AND AMMUNITION DATAGUNS

|                                |                            |
|--------------------------------|----------------------------|
| Two 6-In. 47-Cal.              | Mk. 16 Mod. 0              |
| Maximum Powder Pressure        | 18.5 Long Tons per Sq. In. |
| Weight of Gun Barrel           | Appr. 9,640 Lbs.           |
| Wedge-type Sliding Breechblock |                            |

BALLISTICS

|                  |                           |
|------------------|---------------------------|
| Muzzle Velocity  |                           |
| (130 Lb. Proj.)  | 2,500 Feet per Second     |
| (105 Lb. Proj.)  | 2,665 Feet per Second     |
| Maximum Altitude |                           |
| (105 Lb. Proj.)  | 48,000 Feet at 78° Elev.  |
| Maximum Range    |                           |
| (130 Lb. Proj.)  | 26,100 Yards at 45° Elev. |
| (105 Lb. Proj.)  | 23,500 Yards at 45° Elev. |

AMMUNITION—Separate Case

|                           |                              |
|---------------------------|------------------------------|
| Typical Projectiles       |                              |
| H. C.                     | Mods. of Mk. 39 Wt. 105 Lbs. |
| A. P.                     | Mods. of Mk. 35 Wt. 130 Lbs. |
| Cartridge                 |                              |
| Case                      | Mk. 4 Mod. 0 Wt. 28.2 Lbs.   |
| Charge                    | Nominal Wt. 32. Lbs.         |
| Primer                    | Mk. 13 Mods. 0, 1            |
| Total Weight of Cartridge | Appr. 60. Lbs.               |

FUZE SETTER

Mk. 20 Mods. 4, 5

OPERATING SELECTION

Hand Control—Local Control—Automatic

PAMPHLET AND DRAWING NUMBERS

|                                  |                    |
|----------------------------------|--------------------|
| Ordnance Pamphlet No. 760        |                    |
| Working Circle Drawing No.       | BuOrd 259718       |
| General Arrangement Drawing Nos. |                    |
|                                  | BuOrd Sk. 97450    |
|                                  | BuOrd Sk. 97452-56 |
|                                  | BuOrd Sk. 97458    |
|                                  | BuOrd Sk. 97557    |
|                                  | BuOrd 259713-17    |

REMARKS

Elevation limits are minus 5° to plus 78°. The training limit is 300° for Turrets II, III, IV, V. Training limit on Turrets I and VI will be greater than 300°.

Maximum elevating gear rate is 14.8° per second. Maximum training gear rate is 25° per second.

Length of recoil is 21 inches.

Outside diameter of roller path is 17' 0".

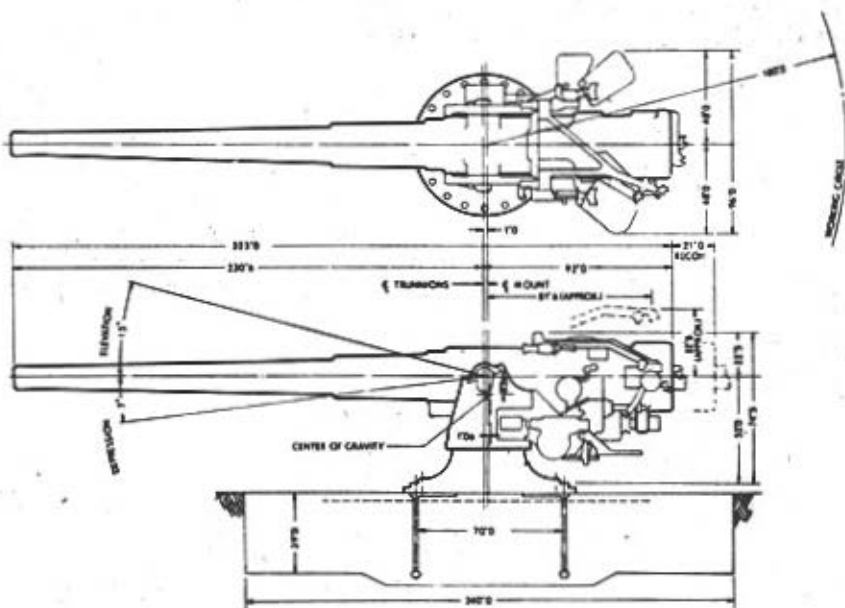
These turrets are used with gun directors Mk. 37 Mods. 77, 78, 81.



**7-IN. MOUNT, MARK 2 MOD. 3****7-IN. 45-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE**

| ASSY.<br>NO. | SKETCH<br>NO. |
|--------------|---------------|
| 2            | 5828          |
| 4            | 5083          |

Note: Assembly number of mount is required for precise information.



**GUN—7"/45**  
**INSTALLATION FOR**  
**SHIELD**

**TOTAL WEIGHT OF ASSEMBLY**  
**OSCILLATING WEIGHT**  
**RECOILING WEIGHT**  
**BRAKE LOAD**  
**TRUNNION PRESSURE HORIZ. FIRE**  
**TRUNNION PRESSURE 15° ELEV. FIRE**

**MK. 2 MOD. 0**  
**SHORE EMPLACEMENTS**  
**NONE**

Weights below are approximate  
50,200 LBS.  
37,400 LBS.  
31,700 LBS.  
173,000 LBS.  
177,000 LBS.  
186,000 LBS.

**7"/45, MARK 2 MOD. 3**

# 7-IN. MOUNT, MARK 2 MOD. 3

7-IN. 45-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Gun Firing and  
Illumination—Battery 6 V. 50 A. H.

### HYDRAULIC

Recoil Fluid O. D. 1914 7.4 Gals.

## GUN AND AMMUNITION DATA

### GUN

7-In. 45-Cal. Mk. 2 Mod. 0  
Max. Powder Pressure 17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism) 28,700 Lbs.

### BALLISTICS

Muzzle Velocity 2,700 Feet per Second  
Maximum Range (165 Lb. Proj.) 16,500 Yards at 15° Elev.  
(153 Lb. Proj.) 15,000 Yards at 15° Elev.

### AMMUNITION—Bag

#### Typical Projectiles

|       |                   |              |
|-------|-------------------|--------------|
| A. P. | Mk. 6 Mods. 0, 1  | Wt. 165 Lbs. |
| A. P. | Mk. 10 Mod. 2     | Wt. 165 Lbs. |
| A. P. | Mk. 12 Mods. 1, 2 | Wt. 165 Lbs. |
| Fld.  | Mk. 13 Mods. 1, 2 | Wt. 153 Lbs. |
| Bbr.  | Mk. 14 Mod. 2     | Wt. 154 Lbs. |

Powder Charge (Two Sections) Nominal Wt. 58 Lbs.  
Primer Mk. 15 Mod. 1

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 224  
Working Circle Drawing No. 243751  
General Arrangement Drawing Nos. 35868-71

## REMARKS

Elevation limits are minus 7° to plus 15°. The training limit is determined by the installation.

Length of recoil is 21 inches.

## 7-IN. MOUNT, MARK 2 MODS. 4-6

7-IN. 45-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

| ASSY. NO. | SKETCH NO. |
|-----------|------------|
|-----------|------------|

Mount Mk. 2 Mod. 4

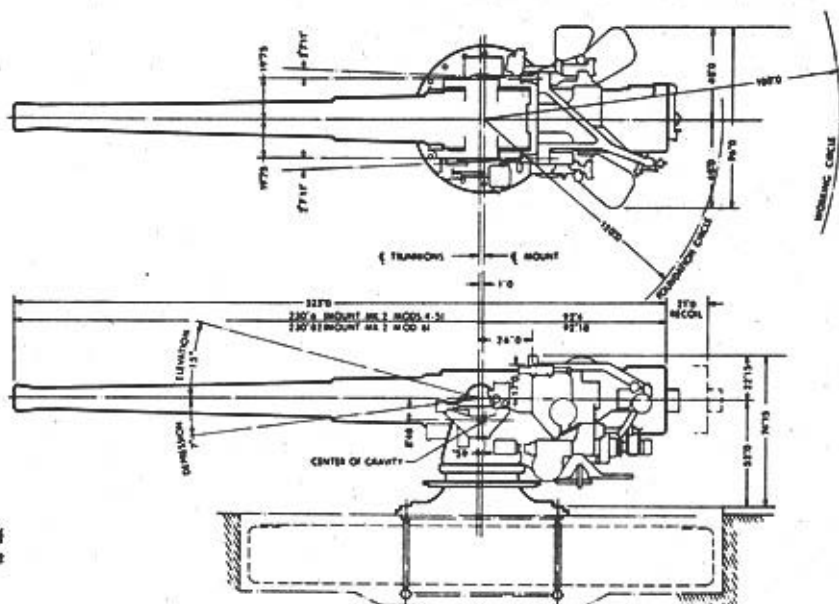
|    |        |
|----|--------|
| 8  | 93991  |
| 9  | 94027  |
| 13 | 94039  |
| 14 | 94040  |
| 15 | 94041  |
| 17 | 94335  |
| 19 | 102457 |

Mount Mk. 2 Mod. 5

|    |        |
|----|--------|
| 10 | 94030  |
| 11 | 94031  |
| 21 | 102498 |
| 23 | 92941  |

Mount Mk. 2 Mod. 6

|    |        |
|----|--------|
| 12 | 94038  |
| 18 | 94637  |
| 20 | 102470 |
| 22 | 102499 |



Note: Assembly number of mount is required for precise information.

GUN—7"/45  
INSTALLATION FOR  
SHIELD

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT  
RECOILING WEIGHT

BRAKE LOAD  
TRUNNION PRESSURE HORIZ. FIRE  
TRUNNION PRESSURE 15° ELEV. FIRE

MK. 2 MODS. 0, 1  
SHORE EMPLACEMENTS  
NONE

Weights below are approximate  
50,500 TO 50,750 LBS.  
37,100 TO 37,300 LBS.  
31,700 LBS.  
173,000 LBS.  
177,000 LBS.  
186,000 LBS.

7"/45, MARK 2 MODS. 4-6

# 7-IN. MOUNT, MARK 2 MODS. 4-6

7-IN. 45-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Gun Firing and  
Illumination—Battery 6 V. 50 A. H.

### HYDRAULIC

Recoil Fluid O. D. 1914 7.4 Gals.

## GUN AND AMMUNITION DATA

### GUN

7-In. 45-Cal. Mk. 2 Mods. 0, 1  
Max. Powder Pressure 17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism) 28,700 Lbs.

### BALLISTICS

Muzzle Velocity 2,700 Feet per Second  
Maximum Range (165 Lb. Proj.) 16,500 Yards at 15° Elev.  
(153 Lb. Proj.) 15,000 Yards at 15° Elev.

### AMMUNITION—Bag

#### Typical Projectiles

|                              |                   |              |
|------------------------------|-------------------|--------------|
| A. P.                        | Mk. 6 Mods. 0, 1  | Wt. 165 Lbs. |
| A. P.                        | Mk. 10 Mod. 2     | Wt. 165 Lbs. |
| A. P.                        | Mk. 12 Mods. 1, 2 | Wt. 165 Lbs. |
| Fld.                         | Mk. 13 Mods. 1, 2 | Wt. 153 Lbs. |
| Bbt.                         | Mk. 14 Mod. 2     | Wt. 154 Lbs. |
| Powder Charge (Two Sections) | Nominal Wt.       | 58 Lbs.      |
| Primer                       | Mk. 15 Mod. 1     |              |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 224  
Working Circle Drawing No. 238965  
General Arrangement Drawing Nos. 238952-55

## REMARKS

Elevation limits are minus 7° to plus 15°. The training limit is determined by the installation.

Length of recoil is 21 inches.



7-IN. 45-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

24 92964

[illegible]

**186,000 LBS.**

7"/45, MARK 3 MODS. 1, 2

# 7-IN. MOUNT, MARK 3 MODS. 1, 2

7-IN. 45-CAL., S. P., SINGLE MOUNT, OPEN, PEDESTAL TYPE

## OPERATION REQUIREMENTS

### ELECTRIC

Gun Firing and  
Illumination—Battery 6 V. 50 A. H.

### HYDRAULIC

Recoil Fluid O. D. 1914 11 Gals.

## GUN AND AMMUNITION DATA

### GUN

7-In. 45-Cal. Mk. 2 Mod. 0  
Max. Powder Pressure 17 Long Tons per Sq. In.  
Barrel Weight (inc. breech mechanism) 28,700 Lbs.

### BALLISTICS

Muzzle Velocity 2,700 Feet per Second  
Maximum Range (165 Lb. Proj.) 16,500 Yards at 15° Elev.  
(153 Lb. Proj.) 15,000 Yards at 15° Elev.

### AMMUNITION—Bag

#### Typical Projectiles

|                              |                   |              |
|------------------------------|-------------------|--------------|
| A. P.                        | Mk. 6 Mods. 0, 1  | Wt. 165 Lbs. |
| A. P.                        | Mk. 10 Mod. 2     | Wt. 165 Lbs. |
| A. P.                        | Mk. 12 Mods. 1, 2 | Wt. 165 Lbs. |
| Fld.                         | Mk. 13 Mods. 1, 2 | Wt. 153 Lbs. |
| Bbt.                         | Mk. 14 Mod. 2     | Wt. 154 Lbs. |
| Powder Charge (Two Sections) | Nominal           | Wt. 58 Lbs.  |
| Primer                       | Mk. 15 Mod. 1     |              |

## OPERATING SELECTION

Manual Drive

## PAMPHLET AND DRAWING NUMBERS

|                                  |           |
|----------------------------------|-----------|
| Ordnance Pamphlet No. 225        |           |
| Working Circle Drawing No.       | 238999    |
| General Arrangement Drawing Nos. |           |
| (Mount Mk. 3 Mod. 1)             | 38139-42  |
| (Mount Mk. 3 Mod. 2)             | 239101-04 |

## REMARKS

Elevation limits are minus 7° to plus 15°. The training limit is determined by the installation.

Length of recoil is 21 inches.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

7"/45, MARK 3 MODS. 1, 2

**8-IN. 55-CAL., TWIN & TRIPLE GUN MOUNTS, CA 24-25**

| MOUNT NO. | ASSY. NO. | SKETCH NO.     |
|-----------|-----------|----------------|
| CA 24     |           | PENSACOLA      |
| I         | 101       | 93244 (Twin)   |
| II        | 102       | 93245 (Triple) |
| III       | 103       | 93246 (Triple) |
| IV        | 104       | 93247 (Twin)   |
| CA 25     |           | SALT LAKE CITY |
| I         | 105       | 62250 (Twin)   |
| II        | 106       | 62251 (Triple) |
| III       | 107       | 62252 (Triple) |
| IV        | 108       | 62253 (Twin)   |

Note: Assembly number of mount is required for precise information. Sketch numbers are subject to frequent changes.

PAGE 1 OF FOUR PAGES

GUNS—TWO OR THREE 8"/55  
INSTALLATION FOR

TOTAL WEIGHT OF ASSEMBLY

OSCILLATING WEIGHT, two guns  
three guns

RECOILING WEIGHT, per gun

BRAKE LOAD, two guns  
three guns

TRUNNION PRESSURE 40° ELEV. FIRE, two guns  
three guns

MK. 14 MOD. 0  
CA 24-25

Weights below are approximate

(twin) 418,000 LBS.

(triple) 553,000 LBS.

185,800 LBS.

280,800 LBS.

76,600 LBS.

330,000 LBS.

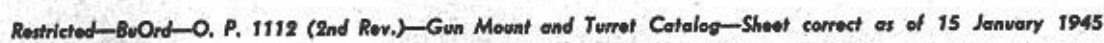
541,800 LBS.

502,500 LBS.

753,700 LBS.

**8"/55 TWIN & TRIPLE GUN MOUNTS, CA 24-25**

**PAGE 2 OF FOUR PAGES**



EugeneLeeSlover.com



## OPERATION REQUIREMENTS

## ELECTRIC

|                                        |         |              |
|----------------------------------------|---------|--------------|
| Elevating Gear,                        |         |              |
| 1 motor, twin                          | 10. HP. |              |
| 1 motor, triple                        | 15. HP. |              |
| Training Gear,                         |         |              |
| 1 motor, twin                          | 20. HP. |              |
| 1 motor, triple                        | 30. HP. |              |
| Rammers,                               |         |              |
| 2 motors, each, twin                   | 7.5 HP. |              |
| 3 motors, each, triple                 | 7.5 HP. |              |
| Projectile Hoists,                     |         |              |
| 2 motors, each, twin                   | 7. HP.  | 230 V. D. C. |
| 3 motors, each, triple                 | 7. HP.  |              |
| Aux. Proj. Hoists,                     |         |              |
| 1 motor, twin                          | 2.5 HP. |              |
| 2 motors, each, triple                 | 2.5 HP. |              |
| Upper Powder Hoists,                   |         |              |
| 2 motors, each                         | 3.5 HP. |              |
| Lower Powder Hoists,                   |         |              |
| 2 motors, each                         | 5. HP.  |              |
| Ventilating,                           |         |              |
| 2 motors, each                         | 1.5 HP. |              |
| Gun Firing Transformer 115 V. to 20 V. |         | 200 Watts    |
| Stand-by Firing—                       |         |              |
| Four 6-V. Batteries                    | 24 V.   | 100 A. H.    |

## PNEUMATIC

|                                                              |  |
|--------------------------------------------------------------|--|
| Gas Ejector, Mk. 12 Mod. 0 (twin), Mk. 11 Mod. 0 (triple)    |  |
| 6.5 Cu. Ft. Free Air per Sec. per Gun at 175 psi.            |  |
| Countercoil Cylinder                                         |  |
| Initial Air Pressure, 1,735 psi. (twin), 1,800 psi. (triple) |  |

## HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

|               |            |                       |
|---------------|------------|-----------------------|
| Recoil Fluid  | O. D. 1914 | 13.58 Gals. per Gun   |
| Countercoil   |            |                       |
| Liquid System | N. S. 2075 | Appr. 1. Gal. per Gun |

## POWER DRIVES

|                   |                        |           |
|-------------------|------------------------|-----------|
| Elevating Gear    |                        |           |
| Twin              | (1) Mk. 15 Mod. 1      | Waterbury |
| Triple            | (1) Mk. 14 Mod. 1      | Waterbury |
| Training Gear     |                        |           |
| Twin              | (1) Mk. 15 Mod. 1      | Waterbury |
| Triple            | (1) Mk. 14 Mod. 1      | Waterbury |
| Projectile Hoists |                        |           |
| • Twin            | (2) Mk. 23 Mods. 8, 9  | Waterbury |
| Triple            | (3) Mk. 23 Mods. 5, 6, |           |
|                   | 7                      | Waterbury |

Modernization will substitute Arma-Northern elevating and training power drives.

## FIRE CONTROL EQUIPMENT

|                                     | SPEEDS | MFR.          |
|-------------------------------------|--------|---------------|
| Auxiliary Computer                  |        |               |
| Mk. 6 Mod. 8                        |        | Ford          |
| Gun Elevation Indicator             |        |               |
| Mk. 11 Mod. 0                       | 6 & 72 | Gen. Elec.    |
| Gun Train Indicator                 |        |               |
| Mk. 12 Mod. 2                       | 1 & 36 | Gen. Elec.    |
| Mount Train Indicator               |        |               |
| Mk. 1 Mods. 0, 1                    | 1 & 36 | Gen. Elec.    |
| Battle Order Indicator              |        |               |
| Mk. 15 Mod. 0                       |        | G. E. & Arma  |
| Rangefinder                         |        |               |
| Mk. 33 & Mods., Mk. 37 & Mods.      |        | B & L         |
| Fire Control Assy. List Sketch Nos. |        | 54954 (CA 24) |
|                                     |        | 54955 (CA 25) |

GUN AND AMMUNITION DATAGUNS

Two or Three 8-In. 55-Cal. Mk. 14 Mod. 0  
 Maximum Powder Pressure 17 Long Tons per Sq. In.  
 Weight of Gun (with solid breech) Appr. 66,850 Lbs.  
 Stepped Thread, Rotating and  
 Swinging Plug Type Breech Mechanism

BALLISTICS

Muzzle Velocity 2,800 Feet per Second  
 Maximum Range (A. P.) 31,700 Yards at 40° Elev.

AMMUNITION—BagTypical Projectiles

|        |                 |              |
|--------|-----------------|--------------|
| Common | Mods. of Mk. 17 | Wt. 260 Lbs. |
| H. C.  | Mods. of Mk. 24 | Wt. 260 Lbs. |
| A. P.  | Mods. of Mk. 19 | Wt. 260 Lbs. |

Service Powder Charge (2 Sections) Nominal Wt. 90 Lbs.  
 Primer Mk. 15 Mod. 1

OPERATING SELECTION

Manual Drive—Hand Control  
 (Modernization will add Automatic)

DRAWING NUMBERS

|                                  |          |           |
|----------------------------------|----------|-----------|
| Working Circle Drawing Nos.      | (Twin)   | 134380-81 |
|                                  | (Triple) | 141738    |
| General Arrangement Drawing Nos. | (Twin)   | 134475-77 |
|                                  | (Triple) | 133299    |
|                                  |          | 134377    |
|                                  |          | 134422    |
|                                  |          | 134901    |
|                                  |          | 142057-58 |

(All drawing numbers are BuOrd)

REMARKS

Elevation limits are minus 5° to plus 40°. The training limit is 300°.

Length of recoil is 29.65 inches.

Breech closing air supply is derived from the gas ejector system.

These turrets are used with gun directors Mk. 18 Mod. 1 (CA 24); Mk. 22 Mods. 1, 2 (CA 25). Both ships will ultimately have gun directors Mods. of Mk. 34.

**8-IN. 55-CAL., TRIPLE GUN MOUNT, CA 27, 28, 31, 33, 35**

| MOUNT NO. | ASSY. NO. | SKETCH NO.   |
|-----------|-----------|--------------|
| CA 27     |           | CHESTER      |
| I         | 112       | 108103       |
| II        | 113       | 108104       |
| III       | 114       | 108105       |
| CA 28     |           | LOUISVILLE   |
| I         | 115       | 94959        |
| II        | 116       |              |
| III       | 117       | 94961        |
| CA 31     |           | AUGUSTA      |
| I         | 124       | 108114       |
| II        | 125       | 108115       |
| III       | 126       | 108116       |
| CA 33     |           | PORTLAND     |
| I         | 130       | 58739        |
| II        | 131       | 58740        |
| III       | 132       | 58741        |
| CA 35     |           | INDIANAPOLIS |
| I         | 136       | 166802       |
| II        | 137       | 166803       |
| III       | 138       | 166804       |

Note: Assembly number of mount is required for precise information. Sketch numbers are subject to frequent changes.

GUNS—THREE 8"/55  
INSTALLATION FOR

TOTAL WEIGHT OF ASSEMBLY  
OSCILLATING WEIGHT, three guns  
RECOILING WEIGHT, three guns

BRAKE LOAD, three guns

TRUNNION PRESSURE 40° ELEV. FIRE, three guns

MK. 14 MODS. 0, 1  
CA 27, 28, 31, 33, 35

Weights below are approximate

559,000 LBS.

280,800 LBS.

230,000 LBS.

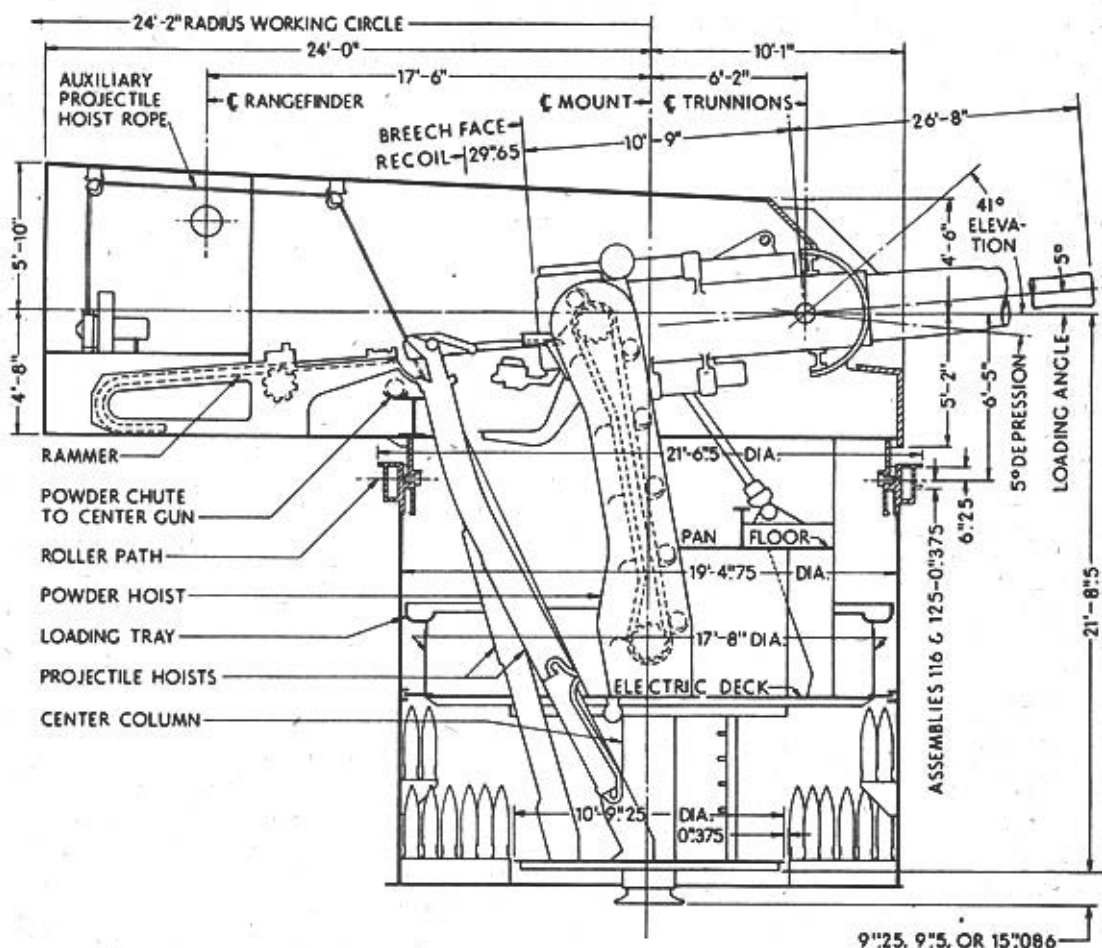
541,800 LBS.

753,700 LBS.

**8"/55 TRIPLE GUN MOUNT, CA 27, 28, 31, 33, 35**



# 8-IN. 55-CAL., TRIPLE GUN MOUNT, CA 27, 28, 31, 33, 35



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# OPERATION REQUIREMENTS

## ELECTRIC

|                                     |                 |              |
|-------------------------------------|-----------------|--------------|
| Elevating Gear, 1 motor             | 18. HP.         | 230 V. D. C. |
| Training Gear, 1 motor              | 30. HP.         |              |
| Rammers, 3 motors, each             | 7.5 HP.         |              |
| Projectile Hoists, 3 motors, each   | 7. HP.          |              |
| Aux. Proj. Hoists, 2 motors, each   | 2.5 HP.         |              |
| Lower Powder Hoists, 2 motors, each | 5. HP.          |              |
| Upper Powder Hoists, 2 motors, each | 3.5 HP.         |              |
| Ventilating, 2 motors, each         | 1.5 HP.         |              |
| Gun Firing Transformer              | 115 V. to 20 V. | 200 Watts    |
| Stand-by Firing—                    |                 |              |
| Four 6-V. Batteries                 | 24 V.           | 100 A. H.    |

## PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 11 Mod. 0                        |  |
| 6.5 Cu. Ft. Free Air per Sec. per Gun at 175 psi. |  |
| Counterrecoil Cylinder                            |  |
| Initial Air Pressure, 1,800 psi.                  |  |

## HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

|               |            |                      |
|---------------|------------|----------------------|
| Recoil Fluid  | O. D. 1914 | 13.58 Gals. per Gun  |
| Counterrecoil |            |                      |
| Liquid System | N. S. 2075 | Appr. 1 Gal. per Gun |

# POWER DRIVES

## Elevating Gear

|               |                   |               |
|---------------|-------------------|---------------|
| CA 27, 28, 31 | (1) Mk. 20 Mod. 0 | Arma-Northern |
| *CA 33, 35    | (1) Mk. 24 Mod. 0 | Arma-Northern |

## Training Gear

|                   |                       |               |
|-------------------|-----------------------|---------------|
| CA 27, 28, 31     | (1) Mk. 19 Mods. 0, 1 | Arma-Northern |
| *CA 33, 35        | (1) Mk. 23 Mods. 0, 1 | Arma-Northern |
| Projectile Hoists | (3) Mods. of Mk. 23   | Waterbury     |

\* CA 35, not yet modernized at time of publication, had Waterbury drives: elevating gear Mk. 16 Mod. 0, training gear Mk. 16 Mods. 0, 1.

# RECEIVER REGULATORS

|                                  | SPEEDS | MFR. |
|----------------------------------|--------|------|
| Gun Elevation Receiver Regulator |        |      |
| Mk. 8 Mods. 3, 4                 | 2 & 36 | Arma |
| Turret Train Receiver Regulator  |        |      |
| Mods. of Mk. 13                  | 1 & 36 | Arma |

Note: CA 35 not modernized at time of publication.

# FIRE CONTROL EQUIPMENT

|                                  | SPEEDS | MFR.       |
|----------------------------------|--------|------------|
| Auxiliary Computer               |        |            |
| Mk. 6 Mod. 8                     |        | Ford       |
| Gun Elevation Indicator          |        |            |
| Mk. 11 Mod. 1 (CA 27, 28, 31)    | 2 & 36 | Gen. Elec. |
| Mk. 15 Mod. 0 (CA 33, 35)        | 2 & 36 | Arma       |
| Gun Train Indicator              |        |            |
| Mk. 12 Mod. 3 (CA 27, 28, 35)    | 1 & 36 | Gen. Elec. |
| Mk. 16 Mod. 0 (CA 33, 35)        | 1 & 36 | Arma       |
| Mount Train Indicator            |        |            |
| Mk. 1 Mod. 2 or                  |        |            |
| Mk. 2 Mod. 0 (CA 27, 28, 31)     | 36     | Gen. Elec. |
| Mk. 8 Mod. 0 (CA 33, 35)         | 1 & 36 | Arma       |
| Range Finder                     |        |            |
| Mods. of Mk. 33, Mods. of Mk. 37 |        | B & L      |

Other instruments added during modernization include:  
Sight Angle Receiver Mk. 2 Mod. 0, Sight Deflection Receiver Mk. 2 Mod. 0, Synchro Exciter Assembly Mk. 28 Mod. 0, Sight Angle Adjuster, two Parallax Range Adjusters, Parallax Range Indicator.

|                                        |               |
|----------------------------------------|---------------|
| Fire Control Assembly List Sketch Nos. | 55961 (CA 27) |
|                                        | 55992 (CA 28) |
|                                        | 55993 (CA 31) |
|                                        | 56707 (CA 33) |
|                                        | 56708 (CA 35) |

## GUN AND AMMUNITION DATA

### GUNS

Three 8-In. 55-Cal. Mk. 14 Mods. 0, 1  
 Maximum Powder Pressure 17 Long Tons per Sq. In.  
 Weight of Gun (with solid breech) Appr. 66,850 Lbs.  
 Stepped Thread, Rotating and  
 Swinging Plug Type Breech Mechanism

### BALLISTICS

Muzzle Velocity 2,800 Feet per Second  
 Maximum Range (A. P.) Appr. 31,700 Yards at 40° Elev.

### AMMUNITION—Bag

Typical Projectiles  
 Common Mods. of Mk. 17 Wt. 260 Lbs.  
 H. C. Mods. of Mk. 24 Wt. 260 Lbs.  
 A. P. Mods. of Mk. 19 Wt. 260 Lbs.  
 Service Powder Charge (2 Sections) Nominal Wt. 90 Lbs.  
 Primer Mk. 15 Mod. 1

## OPERATING SELECTION

Manual Drive—Hand Control—Automatic—Load Control  
 (CA 35 will have Automatic when modernized)

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 1028  
 Working Circle Drawing Nos. 141739-40  
 General Arrangement Drawing Nos. 133299  
 134377  
 134422  
 134901  
 142057-58  
 (CA 27) 252433

(All drawing numbers are BuOrd)

## REMARKS

- Elevation limits are minus 5° to plus 40°. The training limit is 300°.
- Length of recoil is 29.65 inches.
- Breech closing air supply is derived from the gas ejector system.
- These turrets are used with gun directors Mods. of Mk. 34.

**8-IN. 55-CAL., TRIPLE GUN TURRET, CA 32, 36**

| TURRET<br>NO.     | ASSY.<br>NO. | SKETCH<br>NO. |
|-------------------|--------------|---------------|
| CA 32 NEW ORLEANS |              |               |
| I                 | 127          | 55761         |
| II                | 128          | 55762         |
| III               | 129          | 55763         |
| CA 36 MINNEAPOLIS |              |               |
| I                 | 139          | 107007        |
| II                | 140          | 55771         |
| III               | 141          | 55772         |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

PAGE 1 OF FOUR PAGES

GUNS—THREE 8"/55

INSTALLATION FOR

ROTATING WEIGHT, no projectiles

OSCILLATING WEIGHT, three guns

RECOILING WEIGHT, three guns

BRAKE LOAD, three guns

TRUNNION PRESSURE 40° ELEV. FIRE, three guns

MK. 14 MOD. 0

MK. 15 MOD. 1

CA 32, 36

Weights below are approximate

294 LONG TONS

280,800 LBS.

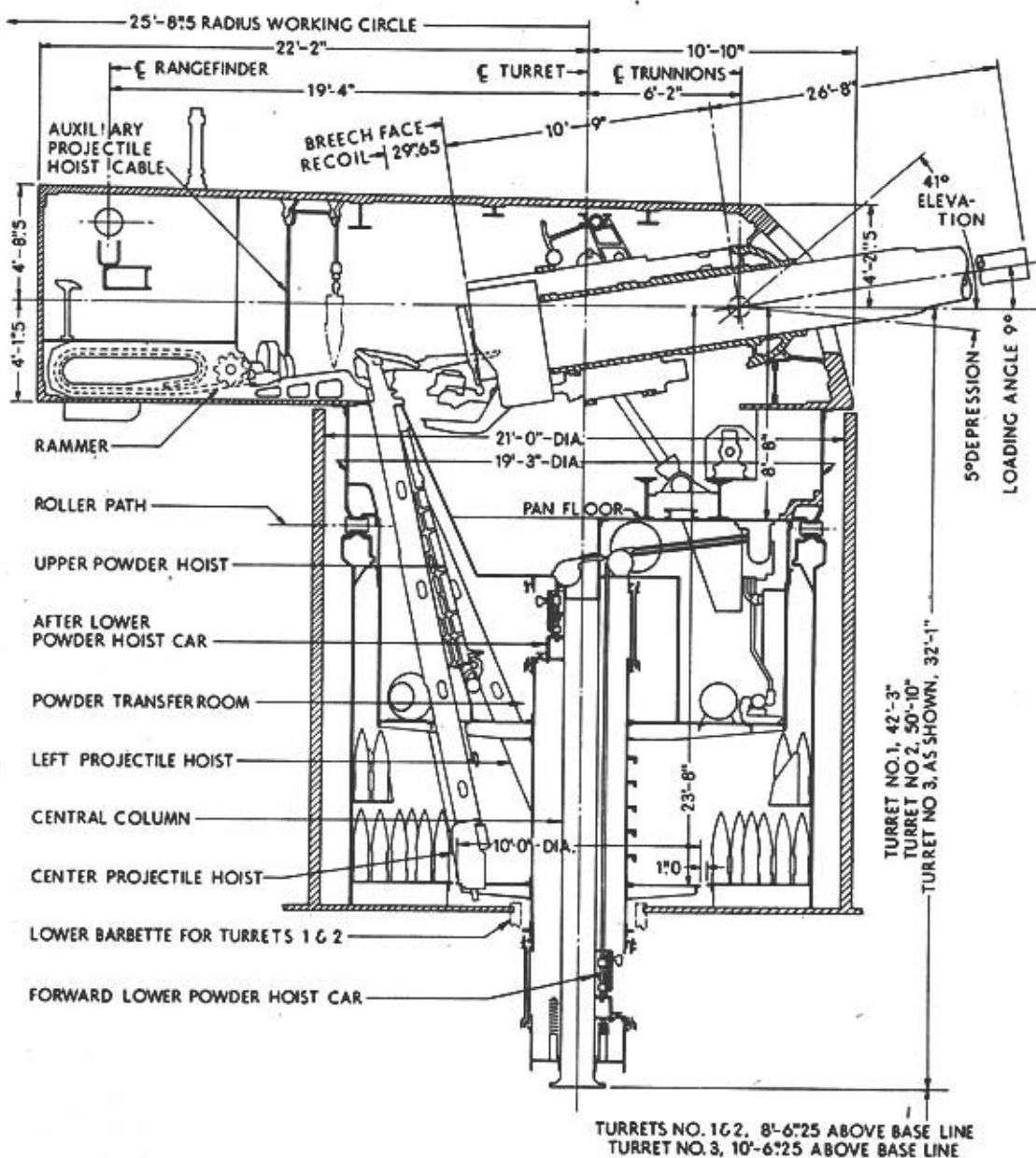
230,000 LBS.

541,800 LBS.

753,700 LBS.

**8"/55 TRIPLE GUN TURRET, CA 32, 36**

# 8-IN. 55-CAL., TRIPLE GUN TURRET, CA 32, 36



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## OPERATION REQUIREMENTS

## ELECTRIC

|                                   |                 |              |
|-----------------------------------|-----------------|--------------|
| Elevating Gear, 1 motor           | 18. HP.         |              |
| Training Gear, 1 motor            | 30. HP.         |              |
| Rammers, 3 motors, each           | 7.5 HP.         |              |
| Projectile Hoists, 3 motors, each | 7. HP.          |              |
| Aux. Proj. Hoists, 2 motors, each | 2.5 HP.         |              |
| (exc. CA 36, Turret I.)           | 3. HP.          | 230 V. D. C. |
| Lower Powder Hoists,              |                 |              |
| 2 motors, each                    | 15. HP.         |              |
| Upper Powder Hoists,              |                 |              |
| 6 motors, each                    | 1.5 HP.         |              |
| Ventilating, 2 motors, each       | 1.8 HP.         |              |
| Gun Firing Transformer            | 115 V. to 20 V. | 200 Watts    |
| Stand-by Firing—                  |                 |              |
| Four 6-V. Batteries               | 24 V.           | 100 A. H.    |

## PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 13 Mod. 0                        |  |
| 6.5 Cu. Ft. Free Air per Sec. per Gun at 175 psi. |  |
| Counterrecoil Cylinder                            |  |
| Initial Air Pressure, 1,800 psi.                  |  |

## HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

|               |            |                      |
|---------------|------------|----------------------|
| Recoil Fluid  | O. D. 1914 | 14 Gals. per Gun     |
| Counterrecoil |            |                      |
| Liquid System | N. S. 2075 | Appr. 1 Gal. per Gun |

## POWER DRIVES

|                      |                            |               |
|----------------------|----------------------------|---------------|
| Elevating Gear       | (1) Mk. 21 Mod. 0          | Arma-Northern |
| Exc. CA 36 Tur. I:   | (1) Mk. 21 Mod. 1          | Arma-Northern |
| Training Gear        | (1) Mk. 20 Mod. 0          | Arma-Northern |
| Exc. CA 36 Tur. I:   | (1) Mk. 20 Mod. 1          | Arma-Northern |
| Projectile Hoists    | (3) Mk. 24 Mods. 0, 1, 2   | Waterbury     |
| Lower Powder Hoists  | (2) Mk. 25 Mods. 0, 1 or 2 | Vickers       |
| Upper Powder Hoists  | (6) Mk. 24 Mods. 0-5       | Northern      |
| CA 36 Turret I only: |                            |               |
| Aux. Proj. Hoists    | (2) Mk. 8 Mod. 0           | Vickers       |

## RECEIVER REGULATORS

|                                  | SPEEDS | MFR. |
|----------------------------------|--------|------|
| Gun Elevation Receiver Regulator |        |      |
| Mk. 8 Mod. 4                     | 2 & 36 | Arma |
| Turret Train Receiver Regulator  |        |      |
| Mk. 13 Mods. 31-33, 60-62        | 1 & 36 | Arma |

## FIRE CONTROL EQUIPMENT

|                                     | SPEEDS                         | MFR.       |
|-------------------------------------|--------------------------------|------------|
| Auxiliary Computer                  |                                |            |
| Mk. 6 Mods. 8, 9                    |                                | Ford       |
| Gun Elevation Indicator             |                                |            |
| Mk. 16 Mod. 0                       |                                |            |
| Mk. 20 Mod. 3 (CA 36, Tur. I)       | 6 & 72                         | Gen. Elec. |
| Gun Train Indicator                 |                                |            |
| Mk. 17 Mod. 0                       |                                |            |
| Mk. 17 Mod. 3 (CA 36, Tur. I)       | 1 & 36                         | Gen. Elec. |
| Multiple Turret Train Indicator     |                                |            |
| Mk. 7 Mod. 0                        | 1 & 36                         | Gen. Elec. |
| Mk. 12 Mod. 7 (CA 36, Tur. I)       | 1 & 36                         | NYNY       |
| Battle Order Indicator              |                                |            |
| Mk. 18 Mod. 0                       |                                | Gen. Elec. |
| Mk. 26 Mod. 1 (CA 36, Tur. I)       |                                | NYPS       |
| Rangefinder                         |                                |            |
| Mk. 33 Mod. 2 or Mk. 37 & Mods.     |                                | B & L      |
| Fire Control Assy. List Sketch Nos. | 55987 (CA 32)<br>55989 (CA 36) |            |

GUN AND AMMUNITION DATAGUNS

Three 8-In. 55-Cal. (CA 32) Mk. 14 Mod. 0  
 (CA 36) Mk. 15 Mod. 1  
 Maximum Powder Pressure 17 Long Tons per Sq. In.  
 Weight of Gun (with solid breech) Appr. 66,850 Lbs.  
 Stepped Thread, Rotating and  
 Swinging Plug Type Breech Mechanism

BALLISTICS

Muzzle Velocity 2,800 Feet per Second  
 Maximum Range (A. P.) Appr. 31,700 Yards at 40° Elev.

AMMUNITION—Bag

Typical Projectiles  
 Common Mods. of Mk. 17 Wt. 260 Lbs.  
 H. C. Mods. of Mk. 24 Wt. 260 Lbs.  
 A. P. Mods. of Mk. 19 Wt. 260 Lbs.  
 Service Powder Charge (2 Sections) Nominal Wt. 90 Lbs.  
 Primer Mk. 15 Mod. 1

OPERATING SELECTION

Manual Drive—Hand Control—Automatic—Load Control

PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 569  
 Working Circle Drawing Nos. BuOrd 163994-96  
 General Arrangement Drawing Nos. BuOrd 164428-29  
 BuOrd 386416-18

REMARKS

Elevation limits are minus 5° to plus 40°. The training limit is 300° (Turrets I, III); 284° (Turret II).  
 Length of recoil is 29.65 inches.  
 Outside diameter of roller path is 18' 11".  
 Breech closing air supply is derived from the gas ejector system.  
 These turrets are used with gun directors Mk. 31 Mods. 0, 1; ultimately Mods. of Mk. 34.

**8-IN. 55-CAL., TRIPLE GUN TURRET, CA 37-38**

| TURRET<br>NO. | ASSY.<br>NO.  | SKETCH<br>NO. |
|---------------|---------------|---------------|
| CA 37         | TUSCALOOSA    |               |
| I             | 142           | 56665         |
| II            | 143           | 56666         |
| III           | 144           | 56667         |
| CA 38         | SAN FRANCISCO |               |
| I             | 145           | 56668         |
| II            | 146           | 56669         |
| III           | 147           | 56670         |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

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GUNS—THREE 8"/55  
INSTALLATION FOR

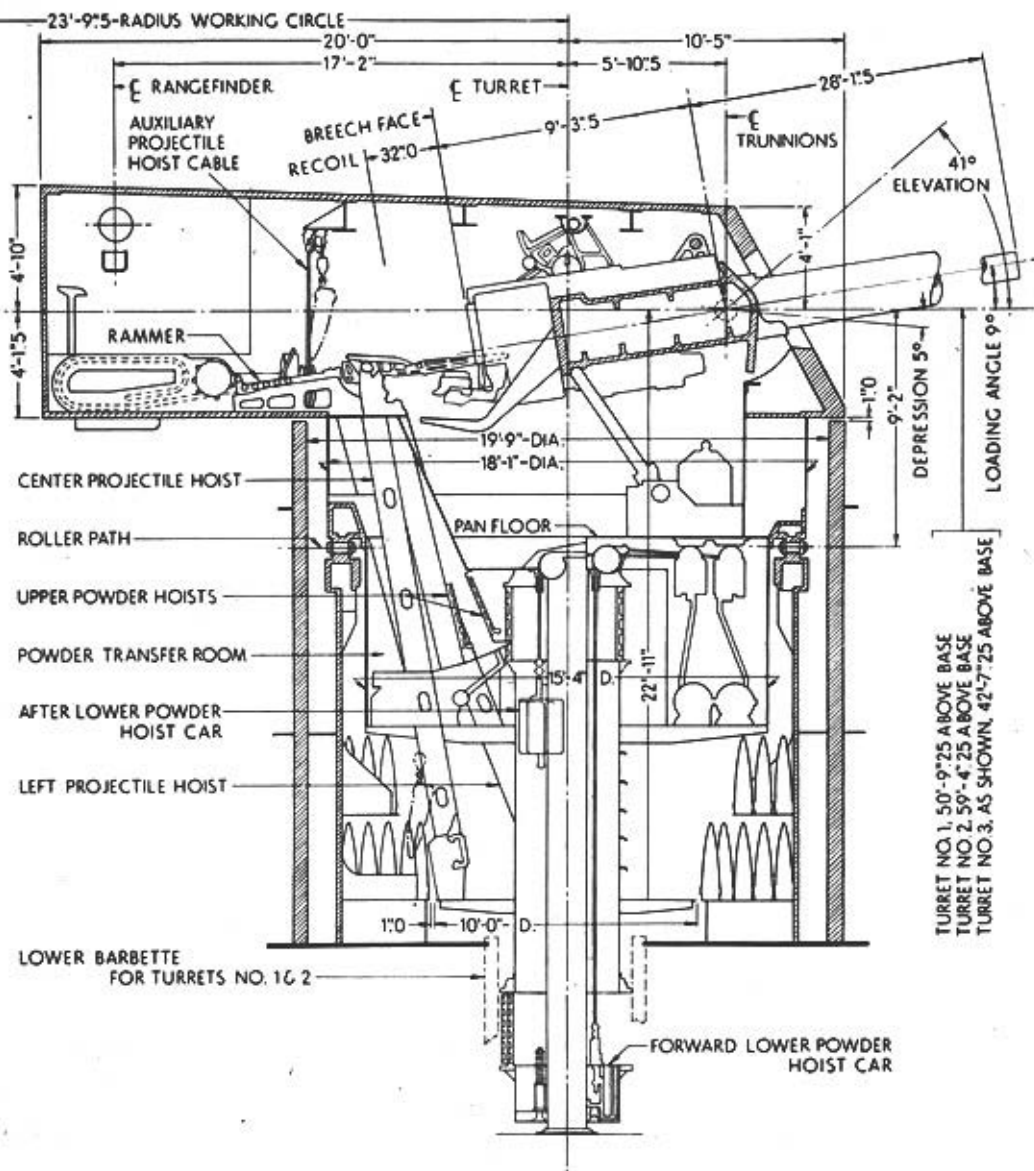
ROTATING WEIGHT, no projectiles  
OSCILLATING WEIGHT, three guns  
RECOILING WEIGHT, per gun  
BRAKE LOAD, per gun  
TRUNNION PRESSURE 40° ELEV. FIRE, three guns

MK. 12 MOD. 0  
CA 37-38

Weights below are approximate  
250 LONG TONS  
193,000 LBS.  
50,000 LBS.  
216,640 LBS.  
787,800 LBS.

**8"/55 TRIPLE GUN TURRET, CA 37-38**

# 8-IN. 55-CAL., TRIPLE GUN TURRET, CA 37-38



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## OPERATION REQUIREMENTS

## ELECTRIC

|                                         |                 |              |
|-----------------------------------------|-----------------|--------------|
| Elevating Gear, 1 motor                 | 18. HP.         |              |
| Training Gear, 1 motor                  | 30. HP.         |              |
| Rammers, 3 motors, each                 | 7.5 HP.         |              |
| Projectile Hoists, 3 motors, each       | 7. HP.          |              |
| Aux. Proj. Hoists, 2 motors, each       | 2.5 HP.         |              |
| Lower Powder Hoists,<br>2 motors, each  | 15. HP.         | 230 V. D. C. |
| Upper Powder Hoists,<br>6 motors, each  | 1.5 HP.         |              |
| Ventilating, 2 motors, each<br>(CA 37)  | 2.3 HP.         |              |
| (CA 38)                                 | 2.6 HP.         |              |
| Gun Firing Transformer                  | 115 V. to 20 V. | 200 Watts    |
| Stand-by Firing—<br>Four 6-V. Batteries | 24 V.           | 100 A. H.    |

## PNEUMATIC

Gas Ejector, Mk. 14 Mod. 0  
6.5 Cu. Ft. Free Air per Sec. per Gun at 175 psi.  
Counterrecoil Cylinder  
Initial Air Pressure, 1,200 psi.

## HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

|               |            |                      |
|---------------|------------|----------------------|
| Recoil Fluid  | O. D. 1914 | 15.5 Gals. per Gun   |
| Counterrecoil |            |                      |
| Liquid System | N. S. 2075 | Appr. 1 Gal. per Gun |

## POWER DRIVES

|                     |                               |               |
|---------------------|-------------------------------|---------------|
| Elevating Gear      |                               |               |
| CA 37               | (1) Mk. 22 Mod. 0             | Arma-Northern |
| CA 38               | (1) Mk. 22 Mod. 2             | Arma-Northern |
| Training Gear       |                               |               |
| CA 37               | (1) Mk. 21 Mod. 0             | Arma-Northern |
| CA 38               | (1) Mk. 21 Mod. 2             | Arma-Northern |
| Projectile Hoists   | (3) Mk. 25 Mods.<br>0, 1, 2   | Hele-Shaw     |
| Lower Powder Hoists | (2) Mk. 27 Mods.<br>0, 1 or 2 | Vickers       |
| Upper Powder Hoists | (6) Mk. 26 Mods. 0-5          | Northern      |

## RECEIVER REGULATORS

|                                                            | SPEEDS | MFR. |
|------------------------------------------------------------|--------|------|
| Gun Elevation Receiver Regulator<br>Mk. 8 Mod. 6           | 2 & 36 | Arma |
| Turret Train Receiver Regulator<br>Mk. 13 Mods. 37, 38, 39 | 1 & 36 | Arma |

## FIRE CONTROL EQUIPMENT

|                                                 | SPEEDS                         | MFR.       |
|-------------------------------------------------|--------------------------------|------------|
| Auxiliary Computer<br>Mk. 6 Mod. 9              |                                | Ford       |
| Gun Elevation Indicator<br>Mk. 20 Mod. 4        | 2 & 36                         | Gen. Elec. |
| Gun Train Indicator<br>Mk. 17 Mod. 3            | 1 & 36                         | Gen. Elec. |
| Rangefinder<br>Mods. of Mk. 33, Mods. of Mk. 37 |                                | B & L      |
| Fire Control Assy. List Sketch Nos.             | 56900 (CA 37)<br>56901 (CA 38) |            |

# 8-IN. 55-CAL., TRIPLE GUN TURRET, CA 37-38

## GUN AND AMMUNITION DATA

### GUNS

|                                     |                          |
|-------------------------------------|--------------------------|
| Three 8-In. 55-Cal.                 | Mk. 12 Mod. 0            |
| Maximum Powder Pressure             | 17 Long Tons per Sq. In. |
| Weight of Gun (with solid breech)   | 38,014 Lbs.              |
| Stepped Thread, Rotating and        |                          |
| Swinging Plug Type Breech Mechanism |                          |

### BALLISTICS

|                 |                                   |
|-----------------|-----------------------------------|
| Muzzle Velocity | 2,800 Feet per Second             |
| Maximum Range   | (A. P.) 31,700 Yards at 40° Elev. |

### AMMUNITION—Bag

#### Typical Projectiles

|                                    |               |              |
|------------------------------------|---------------|--------------|
| Common                             | Mk. 17        | Wt. 260 Lbs. |
| H. C.                              | Mk. 24        | Wt. 260 Lbs. |
| A. P.                              | Mk. 19        | Wt. 260 Lbs. |
| Service Powder Charge (2 Sections) | Nominal Wt.   | 90 Lbs.      |
| Primer                             | Mk. 15 Mod. 1 |              |

## OPERATING SELECTION

Manual Drive—Hand Control—Automatic—Load Control

## PAMPHLET AND DRAWING NUMBERS

|                                  |                           |
|----------------------------------|---------------------------|
| Ordnance Pamphlet No. 569        |                           |
| Working Circle Drawing Nos.      | BuOrd 163997-99           |
| General Arrangement Drawing Nos. |                           |
|                                  | (CA 37) BuShips 181843    |
|                                  | (CA 37) BuShips 183671-72 |
|                                  | (CA 38) BuShips 235585-86 |

## REMARKS

Elevation limits are minus 5° to plus 40°. The training limit is 300° (Turrets I, III); 284° (Turret II).

Length of recoil is 32 inches.

Outside diameter of roller path is 17' 8".

Breech closing air supply is derived from the gas ejector system.

These turrets are used with gun directors Mk. 31 Mods. 8, 9, 12, 13; ultimately Mods. of Mk. 34.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

## 8"/55 TRIPLE GUN TURRET, CA 37-38

## 8-IN. 55-CAL., 3-GUN TURRET, CA 45

| TURRET<br>NO. | ASSY.<br>NO. | SKETCH<br>NO. |
|---------------|--------------|---------------|
| CA 45         |              | WICHITA       |
| I             | 154          | 58747         |
| II            | 155          | 58748         |
| III           | 156          | 58749         |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

PAGE 1 OF FOUR PAGES

GUNS—THREE 8"/55  
INSTALLATION FOR

ROTATING WEIGHT, no projectiles  
OSCILLATING WEIGHT, per gun  
RECOILING WEIGHT, per gun  
BRAKE LOAD, per gun  
TRUNNION PRESSURE 40° ELEV FIRE, per gun

MK. 12 MOD. 1  
CA 45

Weights below are approximate  
314 LONG TONS  
65,000 LBS.  
49,500 LBS.  
189,000 LBS.  
262,600 LBS.

8" 55 3-GUN TURRET, CA 45

**PAGE 2 OF FOUR PAGES**





## OPERATION REQUIREMENTS

## ELECTRIC

|                                     |                 |           |                     |
|-------------------------------------|-----------------|-----------|---------------------|
| Elevating Gears, 3 motors, each     | 15.             | HP.       | 440 V. 3 $\phi$ 60~ |
| Training Gear, 1 motor              | 75.             | HP.       |                     |
| Rammers, 3 motors, each             | 15.             | HP.       |                     |
| Projectile Hoists, 3 motors, each   | 7.5             | HP.       |                     |
| Aux. Proj. Hoists, 3 motors, each   | 3.              | HP.       |                     |
| Lower Powder Hoists, 2 motors, each | 15.             | HP.       |                     |
| Upper Powder Hoists, 6 motors, each | 1.5             | HP.       |                     |
| Ventilating, 3 motors, each         | 2.15            | HP.       |                     |
| Gun Firing Transformer              | 115 V. to 20 V. | 200 Watts |                     |
| Stand-by Firing—                    |                 |           |                     |
| Four 6-V. Batteries                 | 24 V.           | 100 A. H. |                     |

## PNEUMATIC

Gas Ejector, Mk. 15 Mod. 0  
 6.5 Cu. Ft. Free Air per Sec. per Gun at 175 psi.  
 Counterrecoil Cylinder  
 Initial Air Pressure, 1,200 psi.

## HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

Recoil Fluid O. D. 1914 Appr. 15.5 Gals. per Gun  
 Counterrecoil  
 Liquid System N. S. 2075 Appr. 1. Gal. per Gun

## POWER DRIVES

|                     |                            |                |
|---------------------|----------------------------|----------------|
| Elevating Gears     | (3) Mk. 19 Mods. 9, 10, 11 | Ford-Waterbury |
| Training Gear       | (1) Mk. 18 Mod. 2          | Ford-Waterbury |
| Rammers             | (3) Mk. 17 Mods. 0, 1      | Waterbury      |
| Projectile Hoists   | (3) Mk. 27 Mods. 0, 1, 2   | Waterbury      |
| Aux. Proj. Hoists   | (3) Mk. 6 Mods. 0, 1, 2    | Vickers        |
| Lower Powder Hoists | (2) Mk. 29 Mods. 0, 1 or 2 | Waterbury      |
| Upper Powder Hoists | (6) Mk. 28 Mods. 0-5       | Northern       |

## RECEIVER REGULATORS

|                                                      | SPEEDS | MFR. |
|------------------------------------------------------|--------|------|
| Gun Elevation Receiver Regulator Mk. 12 Mod. 0       | 2 & 36 | Ford |
| Turret Train Receiver Regulator Mk. 17 Mods. 0, 3, 4 | 1 & 36 | Ford |

## FIRE CONTROL EQUIPMENT

|                                                   | SPEEDS  | MFR.         |
|---------------------------------------------------|---------|--------------|
| Auxiliary Computer Mk. 6 Mod. 8                   |         | Ford         |
| Gun Elevation Indicator Mk. 40 Mod. 0             | 2 & 36  | NYNY         |
| Train Indicator and Transmitter Mods. of Mk. 44   | 1 & 36  | NYNY         |
| Gun Elevation Transmitter Mk. 3 Mods. 0, 1, 2     | 2 & 36  | NYNY         |
| Multiple Turret Train Indicator Mk. 12 Mods. 1, 4 | 1 & 36  | NYNY         |
| Sight Setter's Indicator Mk. 2 Mod. 1             | 6 & 216 | Cont. Instr. |
| Rangefinder Mk. 33 Mods. 2, 4; Mk. 37 Mod. 3      |         | B & L        |
| Fire Control Assy. List Sketch No.                |         | 58765        |

# 8-IN. 55-CAL., 3-GUN TURRET, CA 45

## GUN AND AMMUNITION DATA

### GUNS

Three 8-In. 55-Cal. Mk. 12 Mod. 1  
Maximum Powder Pressure 17 Long Tons per Sq. In.  
Weight of Gun (with solid breech) 38,014 Lbs.  
Stepped Thread, Rotating and  
Swinging Plug Type Breech Mechanism

### BALLISTICS

Muzzle Velocity 2,800 Feet per Second  
Maximum Range (A. P.) 31,700 Yards at 40° Elev.

### AMMUNITION—Bag

#### Typical Projectiles

|        |        |              |
|--------|--------|--------------|
| Common | Mk. 17 | Wt. 260 Lbs. |
| H. C.  | Mk. 24 | Wt. 260 Lbs. |
| A. P.  | Mk. 19 | Wt. 260 Lbs. |

Service Powder Charge (2 Sections) Nominal Wt. 90 Lbs.  
Primer Mk. 15 Mod. 1

## OPERATING SELECTION

Manual Drive—Hand—Local—Automatic—Load Control

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 704  
Ordnal No. 1727  
General Arrangement Drawing Nos. BuShips 282601-02

## REMARKS

Elevation limits are minus 5° to plus 40°. The training limit is 300°

Maximum elevating gear rate is 10.13° per second.  
Maximum gear rate is 5.29° per second.

Length of recoil is 32 inches.

Outside diameter of roller path is 19' 9".

Breech closing air supply is derived from the gas ejector system.

These turrets are used with gun directors Mk. 34 Mods. 4 and 5.

## 8-IN. 55-CAL., 3-GUN TURRET, CA 68 &amp; CA 122 CLASSES

| TURRET NO. | ASSY. NO. | SKETCH NO. | TURRET NO. | ASSY. NO. | SKETCH NO.  | TURRET NO. | ASSY. NO. | SKETCH NO.  |
|------------|-----------|------------|------------|-----------|-------------|------------|-----------|-------------|
| CA 68      |           | BALTIMORE  | CA 122     |           | OREGON CITY | CA 130     |           | BREMERTON   |
| I          | 157       | 92475      | I          | 181       | 106650      | I          | 205       | 106674      |
| II         | 158       | 92476      | II         | 182       | 106651      | II         | 206       | 106675      |
| III        | 159       | 92477      | III        | 183       | 106652      | III        | 207       | 106676      |
| CA 69      |           | BOSTON     | CA 123     |           | ALBANY      | CA 131     |           | FALL RIVER  |
| I          | 160       | 92478      | I          | 184       | 106653      | I          | 208       | 106677      |
| II         | 161       | 92479      | II         | 185       | 106654      | II         | 209       | 106678      |
| III        | 162       | 92480      | III        | 186       | 106655      | III        | 210       | 106679      |
| CA 70      |           | CANBERRA   | CA 124     |           | ROCHESTER   | CA 132     |           | MACON       |
| I          | 163       | 92481      | I          | 187       | 106656      | I          | 211       | 106680      |
| II         | 164       | 92482      | II         | 188       | 106657      | II         | 212       | 106681      |
| III        | 165       | 92483      | III        | 189       | 106658      | III        | 213       | 106682      |
| CA 71      |           | QUINCY     | CA 125     |           | NORTHAMPTON | CA 133     |           | TOLEDO      |
| I          | 166       | 92484      | I          | 190       | 106659      | I          | 214       | 106683      |
| II         | 167       | 92485      | II         | 191       | 106660      | II         | 215       | 106684      |
| III        | 168       | 92486      | III        | 192       | 106661      | III        | 216       | 106685      |
| CA 72      |           | PITTSBURGH | CA 126     |           | CAMBRIDGE   | CA 135     |           | LOS ANGELES |
| I          | 169       | 93012      | I          | 193       | 106662      | I          | 220       | 106689      |
| II         | 170       | 93013      | II         | 194       | 106663      | II         | 221       | 106690      |
| III        | 171       | 93014      | III        | 195       | 106664      | III        | 222       | 106691      |
| CA 73      |           | ST. PAUL   | CA 127     |           | BRIDGEPORT  | CA 136     |           | CHICAGO     |
| I          | 172       | 93015      | I          | 196       | 106665      | I          | 223       | 106692      |
| II         | 173       | 93016      | II         | 197       | 106666      | II         | 224       | 106693      |
| III        | 174       | 93017      | III        | 198       | 106667      | III        | 225       | 106694      |
| CA 74      |           | COLUMBUS   | CA 128     |           | KANSAS CITY | CA 137     |           | NORFOLK     |
| I          | 175       | 93018      | I          | 199       | 106668      | I          | 226       | 106695      |
| II         | 176       | 93019      | II         | 200       | 106669      | II         | 227       | 106696      |
| III        | 177       | 93020      | III        | 201       | 106670      | III        | 228       | 106697      |
| CA 75      |           | DES MOINES | CA 129     |           |             | CA 138     |           | SCRANTON    |
| I          | 178       | 93021      | I          | 202       | 106671      | I          | 229       | 106698      |
| II         | 179       | 93022      | II         | 203       | 106672      | II         | 230       | 106699      |
| III        | 180       | 93023      | III        | 204       | 106673      | III        | 231       | 106700      |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

GUNS—THREE 8"/55  
INSTALLATION FOR

ROTATING WEIGHT, no projectiles

OSCILLATING WEIGHT, per gun

RECOILING WEIGHT, per gun

BRAKE LOAD, per gun

TRUNNION PRESSURE 40° ELEV. FIRE, per gun

MK. 12 MOD. 1 OR MK. 15 MOD. 0  
CA 68-75, 122-133, 135-138

Weights below are approximate  
297 TO 304 LONG TONS

65,000 LBS.

49,500 LBS.

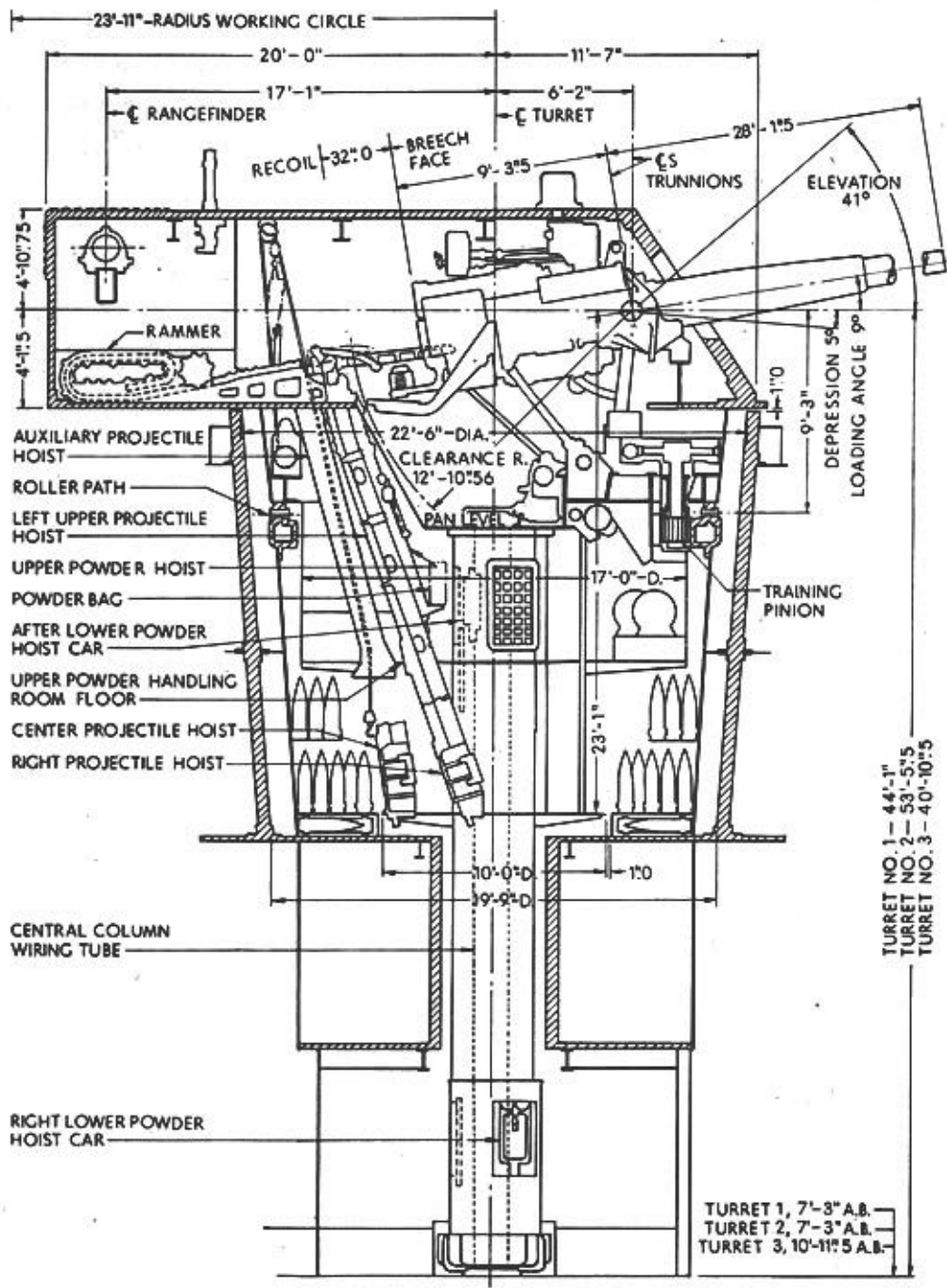
189,000 LBS.

262,600 LBS.

8"/55 3-GUN TURRET, CA 68 & CA 122 CLASSES



# 8-IN. 55-CAL., 3-GUN TURRET, CA 68 & CA 122 CLASSES



PAGE 2 OF FOUR PAGES

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

8" 55 3-GUN TURRET, CA 68 & CA 122 CLASSES



OPERATION REQUIREMENTSELECTRIC

|                                         |                 |           |             |
|-----------------------------------------|-----------------|-----------|-------------|
| Elevating Gears,<br>3 motors, each      | 15. HP.         |           |             |
| Training Gear, 1 motor                  | 75. HP.         |           |             |
| Rammers,<br>3 motors, each              | 15. HP.         |           |             |
| Projectile Hoists,<br>3 motors, each    | 10. HP.         | 440 V.    | 3 $\phi$ 60 |
| Aux. Proj. Hoists,<br>3 motors, each    | 3. HP.          |           |             |
| Lower Powder Hoists,<br>3 motors, each  | 25. HP.         |           |             |
| Upper Powder Hoists,<br>6 motors, each  | 2. HP.          |           |             |
| Gun Firing Transformer                  | 115 V. to 20 V. | 200 Watts |             |
| Stand-by Firing—<br>Four 6-V. Batteries | 24 V.           | 100 A. H. |             |

PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Gas Ejector, Mk. 15 Mod. 1 *                      |  |
| 6.5 Cu. Ft. Free Air per Sec. per Gun at 175 psi. |  |
| Counterrecoil Cylinder                            |  |
| Initial Air Pressure, 1,200 psi.                  |  |

HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

|               |            |                          |
|---------------|------------|--------------------------|
| Recoil Fluid  | O. D. 1914 | Appr. 15.5 Gals. per Gun |
| Counterrecoil |            |                          |
| Liquid System | N. S. 2075 | Appr. 1. Gal. per Gun    |

POWER DRIVES

|                     |                             |  |                |
|---------------------|-----------------------------|--|----------------|
| Elevating Gears     |                             |  |                |
| CA 68-75            | (3) Mk. 19 Mods. 3, 4, 5    |  | Ford-Waterbury |
| CA 122-133,         | (3) Mk. 19 Mods. 6, 135-138 |  | Ford-Waterbury |
| Training Gear       | (1) Mk. 18 Mod. 1           |  | Ford-Waterbury |
| Rammers             | (3) Mk. 17 Mods. 2, 3       |  | Waterbury      |
| Projectile Hoists * |                             |  |                |
| CA 68-75            | (3) Mk. 27 Mods. 3, 4, 5    |  | Waterbury      |
| CA 122-133,         | (3) Mk. 27 Mods. 6, 135-138 |  | Vickers        |
| Aux. Proj. Hoists   | (3) Mk. 6 Mods. 3, 4, 5     |  | Vickers        |
| Lower Powder Hoists | (3) Mods. of Mk. 30         |  | Waterbury      |
| Upper Powder Hoists | (6) Mk. 28 Mods. 6-11       |  | Northern       |

RECEIVER REGULATORS

|                                  | SPEEDS | MFR. |
|----------------------------------|--------|------|
| Gun Elevation Receiver Regulator |        |      |
| Mk. 12 Mod. 0                    | 2 & 36 | Ford |
| Turret Train Receiver Regulator  |        |      |
| Mods. of Mk. 17                  | 1 & 36 | Ford |

FIRE CONTROL EQUIPMENT

|                                        | SPEEDS           | MFR.         |
|----------------------------------------|------------------|--------------|
| Auxiliary Computer                     |                  |              |
| Mk. 6 Mod. 0                           |                  | Ford         |
| Gun Elevation Indicator                |                  |              |
| Mk. 40 Mod. 0                          | 2 & 36           | NYNY         |
| Turret Train Indicator and Transmitter |                  |              |
| Mk. 44 Mod. 0                          | 1 & 36           | NYNY         |
| Multiple Turret Train Indicator        |                  |              |
| Mk. 12 Mods. 7, 9                      | 1 & 36           | NYNY         |
| Sight Setter's Indicator               |                  |              |
| Mk. 2 Mod. 1                           | 6 & 216          | Cont. Instr. |
| Range Transmitter                      |                  |              |
| Mk. 1 Mod. 1                           |                  | Cont. Instr. |
| Rangefinder                            |                  |              |
| Mk. 33 & Mods., Mk. 37 & Mods.         |                  | B & L        |
| Fire Control Assy. List Sketch No.     | 93233 (CA 68-75) |              |

# 8-IN. 55-CAL., 3-GUN TURRET, CA 68 & CA 122 CLASSES

## GUN AND AMMUNITION DATA

### GUNS

Three 8-In. 55-Cal. Mk. 12 Mod. 1 or Mk. 15 Mod. 0  
Maximum Powder Pressure 18.2 Long Tons per Sq. In.  
Weight of Gun (with solid breech) 38,014 Lbs.  
Stepped Thread, Rotating and  
Swinging Plug Type Breech Mechanism

### BALLISTICS

Muzzle Velocity (A. P.) 2,500 Feet per Second  
(H. C.) 2,700 Feet per Second  
Maximum Range (A. P.) 30,000 Yards at 40° Elev.  
(H. C.) 29,800 Yards at 40° Elev.

### AMMUNITION—Bag

Typical Projectiles  
A. P. Mods. of Mk. 21 Wt. 335 Lbs.  
H. C. Mods. of Mk. 24 Wt. 260 Lbs.  
Service Powder Charge (2 sections) Nominal Wt. 86 Lbs.  
Primer Mk. 15 Mod. 1

## OPERATING SELECTION

Manual Drive—Hand—Local—Automatic—Load Control

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 834  
General Arrangement Drawing Nos. BuShips 411126-27

## REMARKS

Elevation limits are minus 5° to plus 40°. The training limit is 300°.

Maximum elevating gear rate is 10° 36' per second.  
Maximum training gear rate is 5° 18' per second.

Length of recoil is 32 inches.

Outside diameter of roller path is 19' 9".

Breech closing air supply is derived from the gas ejector system.

These turrets are used with gun directors Mods. of Mk. 34.

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# 8"/55 3-GUN TURRET, CA 68 & CA 122 CLASSES

**8-IN. 55-CAL., 3-GUN TURRET, CA 139 CLASS**

| TURRET NO.    | ASSY. NO. | SKETCH NO. |
|---------------|-----------|------------|
| <b>CA 134</b> |           |            |
| I             | 244       |            |
| II            | 245       |            |
| III           | 246       |            |
| <b>CA 139</b> |           |            |
| I             | 232       | 132182     |
| II            | 233       | 132183     |
| III           | 234       | 132184     |
| <b>CA 140</b> |           |            |
| I             | 235       |            |
| II            | 236       |            |
| III           | 237       |            |
| <b>CA 141</b> |           |            |
| I             | 238       |            |
| II            | 239       |            |
| III           | 240       |            |
| <b>CA 142</b> |           |            |
| I             | 241       |            |
| II            | 242       |            |
| III           | 243       |            |
| <b>CA 143</b> |           |            |
| I             |           |            |
| II            |           |            |
| III           |           |            |
| <b>CA 148</b> |           |            |
| I             |           |            |
| II            |           |            |
| III           |           |            |
| <b>CA 149</b> |           |            |
| I             |           |            |
| II            |           |            |
| III           |           |            |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

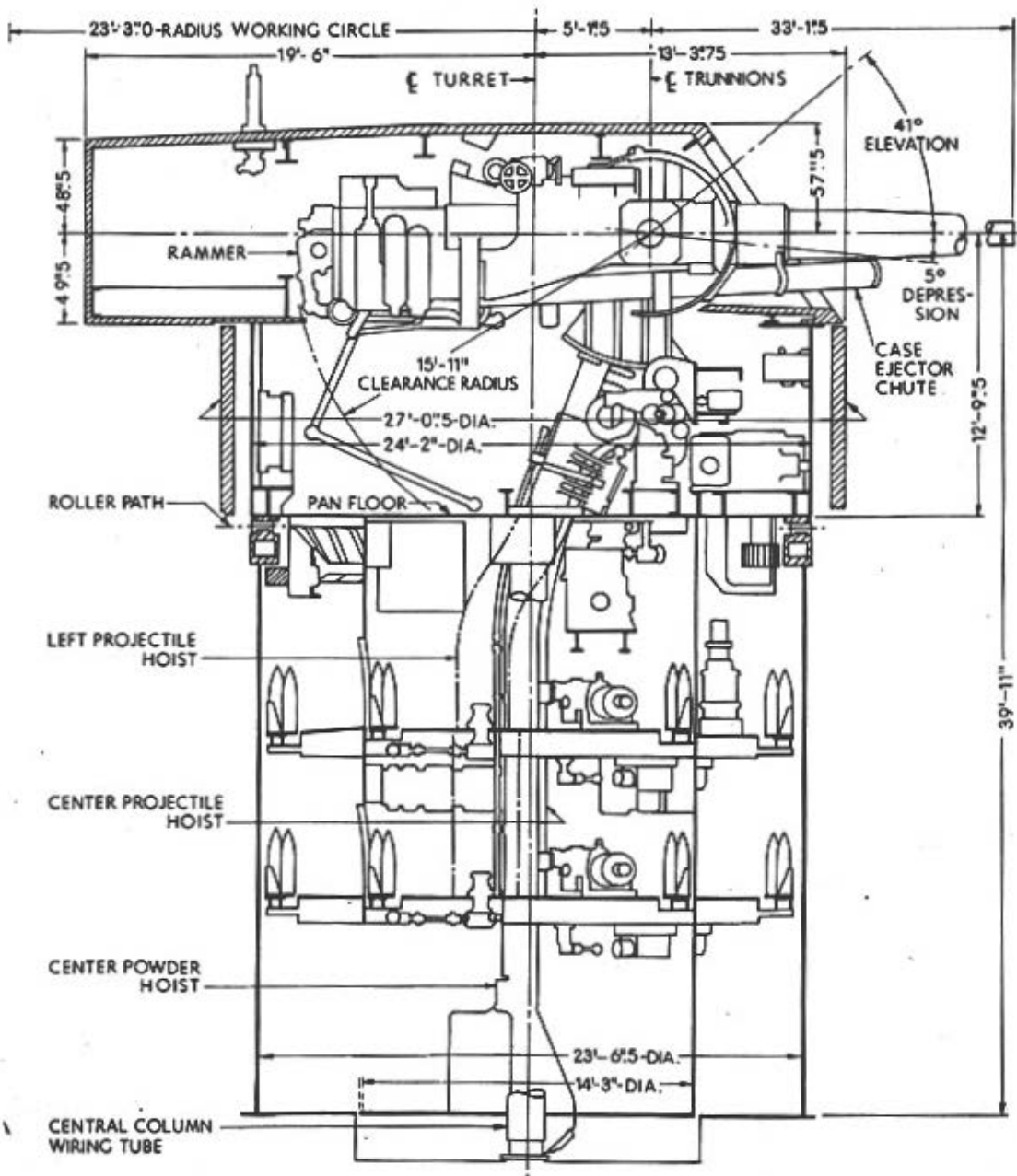
GUNS—THREE 8"/55  
INSTALLATION FOR

ROTATING WEIGHT, without projectiles  
OSCILLATING WEIGHT, per gun  
RECOILING WEIGHT, per gun  
BRAKE LOAD, per gun  
TRUNNION PRESSURE 41° ELEV. FIRE, per gun

MK. 16 MOD. 0  
CA 134, 139-143, 148-149  
Weights below are approximate  
451 LONG TONS  
115,500 LBS.  
52,100 LBS.  
215,000 LBS.  
308,000 LBS.

**8"/55 3-GUN TURRET, CA 139 CLASS**

# 8-IN. 55-CAL., 3-GUN TURRET, CA 139 CLASS



PAGE 2 OF FOUR PAGES



## OPERATION REQUIREMENTS

## ELECTRIC

|                                         |                 |             |                     |
|-----------------------------------------|-----------------|-------------|---------------------|
| Elevating Gears, 3 motors, each         | 25.             | HP.         |                     |
| Training Gear, 1 motor                  | 125.            | HP.         |                     |
| Slide, Housing & Rammer, 3 motors, each | 35.             | HP.         |                     |
| Projectile Hoists, 3 motors, each       | 20.             | HP.         |                     |
| Powder Hoists, 3 motors, each           | 15.             | HP.         | 440 V. 3 $\phi$ 60~ |
| Parbuckling Gear, 2 motors, each        | 7.5             | HP.         |                     |
| Projectile Ring, 4 motors, each         | 20.             | HP.         |                     |
| Training Gear, aux. motor               | 5.              | HP.         |                     |
| Aux. Elevating Gear, 3 motors, each     | 3.              | HP.         |                     |
| Gun Firing Transformer                  | 115 V. to 20 V. | 200 Watts   |                     |
| Stand-by Firing—                        |                 |             |                     |
| Four 6-V. Batteries                     | 24 V.           | * 100 A. H. |                     |

## PNEUMATIC

|                                                   |  |
|---------------------------------------------------|--|
| Accumulator                                       |  |
| Initial Air Pressure, 950 psi.                    |  |
| Gas Ejector, Mk. 16 Mods. 0, 1                    |  |
| 6.5 Cu. Ft. Free Air per Sec. per Gun at 175 psi. |  |
| Counterrecoil Cylinder                            |  |
| Initial Air Pressure, 1,300 psi.                  |  |

## HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

|               |            |                         |
|---------------|------------|-------------------------|
| Recoil Fluid  | O. D. 1914 | Appr. 13. Gals. per Gun |
| Counterrecoil |            |                         |
| Liquid System | N. S. 2075 | Appr. .6 Gal. per Gun   |

## POWER DRIVES

|                   |                          |                |
|-------------------|--------------------------|----------------|
| Elevating Gears   | (3) Mk. 23 Mods. 0, 1, 2 | Ford-Waterbury |
| Training Gear     | (1) Mk. 22 Mod. 0        | Ford-Waterbury |
| Projectile Hoists | (3) Mk. 31 Mods. 0, 1, 2 | Northern       |
| Powder Hoists     | (3) Mk. 36 Mods. 0, 1    | Northern       |
| Projectile Rings  | (4) Mk. 1 Mod. 0         | Vickers        |
| Slides            | { Mk. 20 Mods. 0, 1 }    |                |
| Housings          | { Mk. 1 Mods. 0, 1 }     | Vickers        |
| Rammers           | { Mk. 18 Mods. 0, 1 }    |                |

## REGULATORS

|                                   | SPEEDS | MFR. |
|-----------------------------------|--------|------|
| Gun Elevation Indicator Regulator |        |      |
| Mk. 47 Mod. 0                     | 2 & 36 | Ford |
| Turret Train Receiver Regulator   |        |      |
| Mods. of Mk. 25                   | 1 & 36 | Ford |

## FIRE CONTROL EQUIPMENT

|                                   | SPEEDS  | MFR.        |
|-----------------------------------|---------|-------------|
| Auxiliary Computer                |         |             |
| Mk. 3 Mod. 9                      |         | Ford        |
| Gun Elevation Indicator           |         |             |
| Mk. 45 Mod. 0                     | 2 & 36  | NYNY        |
| Gun Train Indicator               |         |             |
| Mk. 25 Mod. 7                     | 1 & 36  | NYNY        |
| Multiple Turret Train Indicator   |         |             |
| Mk. 12 Mods. 7, 9                 | 1 & 36  | NYNY        |
| Sight Setter's Indicator          |         |             |
| Mk. 8 Mod. 0                      | 6 & 216 | NYNY        |
| Gun Elevation Order Transmitter   |         |             |
| Mk. 4 Mod. 0                      | 2 & 36  | NYNY        |
| Radar Equipment (Turrets II, III) |         |             |
| Mk. 27 Mod. 0                     |         | West. Elec. |

# 8-IN. 55-CAL., 3-GUN TURRET, CA 139 CLASS

## GUN AND AMMUNITION DATA

### GUNS

Three 8-In. 55-Cal. Mks. 16 Mod. 0  
Maximum Powder Pressure 18.2 Long Tons per Sq. In.  
Weight of Gun Barrel 37,370 Lbs.  
Wedge-type Sliding Breechblock

### BALLISTICS

Muzzle Velocity (A. P.) 2,500 Feet per Second  
(H. C.) 2,700 Feet per Second  
Maximum Range (A. P.) 30,000 Yards at 41° Elev.  
(H. C.) 29,800 Yards at 41° Elev.

### AMMUNITION—Separate Case

Typical Projectiles  
A. P. Mods. of Mk. 21 Wt. 335 Lbs.  
H. C. Mods. of Mk. 24 Wt. 260 Lbs.  
Powder Charge Nominal Wt. 77 Lbs.

Information on case and primer not available at time of publication.

## FUZE SETTER

Mk. 20 & Mods.

## OPERATING SELECTION

Hand Control—Local Control—Automatic

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 1180  
General Arrangement Drawing No. BuOrd Sk. 123977

## REMARKS

Elevation limits are minus 5° to plus 41°. The training limit is 300°.

Maximum elevating gear rate is 8.2° per second. Maximum training gear rate is 5° per second.

Length of recoil is 28 inches.

Outside diameter of roller path is 24' 4".

These turrets are used with gun directors Mods. of Mk. 54.

**12-IN. 50-CAL., 3-GUN TURRET, CB 1-3**

| TURRET<br>NO. | ASSY.<br>NO. | SKETCH<br>NO. |
|---------------|--------------|---------------|
| CB 1          |              | ALASKA        |
| I             | 78           | 94190         |
| II            | 79           | 94191         |
| III           | 80           | 94192         |
| CB 2          |              | GUAM          |
| I             | 81           | 132307        |
| II            | 82           | 132308        |
| III           | 83           | 132309        |
| CB 3          |              | HAWAII        |
| I             | 84           | 132310        |
| II            | 85           | 132311        |
| III           | 86           | 132312        |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

PAGE 1 OF FOUR PAGES

GUNS—THREE 12"/50  
INSTALLATION FOR

ROTATING WEIGHT, without projectiles  
OSCILLATING WEIGHT, per gun  
RECOILING WEIGHT, per gun  
BRAKE LOAD, per gun  
TRUNNION PRESSURE 45° ELEV. FIRE, per gun

MK. 8 MOD. 0  
CB 1, 2, 3

Weights below are approximate  
922 TO 934 LONG TONS  
181,000 LBS.  
131,500 LBS.  
723,000 LBS.  
861,000 LBS.

**12"/50 3-GUN TURRET, CB 1-3**

**PAGE 2 OF FOUR PAGES**





# 12-IN. 50-CAL., 3-GUN TURRET, CB 1-3

## OPERATION REQUIREMENTS-PARTIAL

For full requirements see O. P. 835

### ELECTRIC (Various smaller motors omitted)

|                                         |                 |                     |
|-----------------------------------------|-----------------|---------------------|
| Elevating Gears, 3 motors, each         | 35. HP.         |                     |
| Training Gear, 1 motor                  | 150. HP.        |                     |
| Rammers, 3 motors, each                 | 40. HP.         |                     |
| Projectile Ring, 2 motors, each         | 40. HP.         |                     |
| Parbuckling Gear, 2 motors, each        | 15. HP.         |                     |
| Projectile Hoists, 3 motors, each       | 50. HP.         |                     |
| Upper Powder Hoists, 3 motors, each     | 25. HP.         | 440 V. 3 $\phi$ 60~ |
| Lower Powder Hoists, 3 motors, each     | 35. HP.         |                     |
| Projectile Transfer Ram, 2 motors, each | 5. HP.          |                     |
| Additional Motors in Turret II:         |                 |                     |
| Projectile Hoists, 2 motors, each       | 50. HP.         |                     |
| Projectile Ring, 1 motor                | 40. HP.         |                     |
| Parbuckling Gear, 1 motor               | 15. HP.         |                     |
| Gun Firing Transformer                  | 115 V. to 20 V. | 200 Watts           |
| Stand-by Firing—                        |                 |                     |
| Four 6-V. Batteries                     | 24 V.           | 100 A. H.           |

### PNEUMATIC

|                                                 |  |
|-------------------------------------------------|--|
| Gas Ejectors, Mk. 10 Mods. 0, 1                 |  |
| 8 Cu. Ft. Free Air per Sec. per Gun at 175 psi. |  |
| Counterrecoil Cylinders                         |  |
| Initial Air Pressure, 1,400 psi.                |  |

### HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

|               |            |                          |
|---------------|------------|--------------------------|
| Recoil Fluid  | O. D. 1914 | Appr. 41.5 Gals. per Gun |
| Counterrecoil |            |                          |
| Liquid System | N. S. 2075 | Appr. 1.5 Gals. per Gun  |

## POWER DRIVES

|                     |                          |                  |
|---------------------|--------------------------|------------------|
| Elevating Gears     | (3) Mk. 11 Mods. 0, 1, 2 | Ford-Waterbury   |
| Training Gear       | (1) Mk. 1 Mod. 0         | Ford-Waterbury   |
| Rammers             | (3) Mk. 11 Mods. 0, 1, 2 | Northern Vickers |
| Projectile Rings    | (2) Mk. 1 Mod. 0         |                  |
| Projectile Hoists   | (3) Mk. 16 Mods. 0, 1, 2 | Waterbury        |
| Upper Powder Hoists | (3) Mk. 16 Mods. 0, 1, 2 | Waterbury        |
| Lower Powder Hoists | (3) Mods. of Mk. 17      | Waterbury        |
| Proj. Transfer Rams |                          | Waterbury        |

## RECEIVER REGULATORS

|                                                      | SPEEDS | MFR. |
|------------------------------------------------------|--------|------|
| Gun Elevation Receiver Regulator Mk. 16 Mod. 0       | 2 & 36 | Ford |
| Turret Train Receiver Regulator Mk. 22 Mods. 0, 1, 2 | 1 & 36 | Ford |

## FIRE CONTROL EQUIPMENT

|                                                            | SPEEDS  | MFR.  |
|------------------------------------------------------------|---------|-------|
| Auxiliary Computer Mk. 3 Mod. 5                            |         | Ford  |
| Gun Elevation Indicator Mk. 40 Mod. 1, Mk. 41 Mods. 0, 1   | 2 & 36  | NYNY  |
| Multiple Turret Train Indicator Mk. 12 Mods. 7, 9          | 1 & 36  | NYNY  |
| Turret Train Indicator and Transmitter Mk. 45 Mods. 0 to 5 | 1 & 36  | NYNY  |
| Gun Elevation Order Transmitter Mk. 2 Mods. 0, 1           | 2 & 36  | NYNY  |
| Sight Setter's Indicator Mk. 6 Mods. 0, 1                  | 6 & 216 | NYNY  |
| Parallax Range Adjuster Mk. 7 Mods. 0, 1                   |         | NYNY  |
| Rangefinder Mk. 59 Mod. 0, Mk. 60 Mod. 0                   |         | B & L |
| Fire Control Assy. List Sketch No.                         |         | 94299 |

# 12-IN. 50-CAL., 3-GUN TURRET, CB 1-3

## GUN AND AMMUNITION DATA

### GUNS

Three 12-In. 50-Cal. Mk. 8 Mod. 0  
Maximum Powder Pressure 19 Long Tons per Sq. In.  
Weight of Gun and Screw Box Liner 109,396 Lbs.  
Stepped Thread, Rotating and  
Swinging Plug Type Breech Mechanism

### BALLISTICS

Muzzle Velocity  
(1,140 Lb. Proj.) 2,500 Feet per Second  
(940 Lb. Proj.) 2,650 Feet per Second  
Maximum Range  
(1,140 Lb. Proj.) 36,800 Yards at 45° Elev.  
(940 Lb. Proj.) 37,000 Yards at 45° Elev.

### AMMUNITION—Bag

Typical Projectiles  
A. P. Mk. 18 Mod. 1 Wt. 1,140 Lbs.  
H. C. Mk. 17 Mod. 1 Wt. 940 Lbs.  
Service Powder Charge (4 Sections) Nominal Wt. 270 Lbs.  
Primer Mk. 15 Mod. 1

## OPERATING SELECTION

Hand Control—Local Control—Automatic—Load Control

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 835  
General Arrangement Drawing Nos.  
BuOrd Sk. 86908-09  
BuShips CB1-S7200-476196-97  
BuShips 437329

## REMARKS

Elevation limits are minus 3° to plus 45°. The training limit is 300°.

Maximum elevating gear rate is 11.97° per second. Maximum training gear rate is 5° per second.

Length of recoil is 36 inches.

Outside diameter of roller path is 26' 10."984.

Breech closing air supply is derived from the gas ejector system.

Receiver-regulator control valves are positioned by selector control gear mechanisms which in turn are electrically operated from remote selector switches.

These turrets are used with gun directors Mk. 38 Mods. 8 and 9.

**12-IN. 50-CAL., 2-GUN TURRET, BB 33**

| TURRET<br>NO. | ASSY.<br>NO. | SKETCH<br>NO. |
|---------------|--------------|---------------|
| BB 33         | ARKANSAS     |               |
| I             | 72           | 166835        |
| II            | 73           | 166836        |
| III           | 74           | 166837        |
| IV            | 75           | 166838        |
| V             | 76           | 166839        |
| VI            | 77           | 166840        |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

PAGE 1 OF FOUR PAGES

GUNS—TWO 12"/50  
INSTALLATION FOR

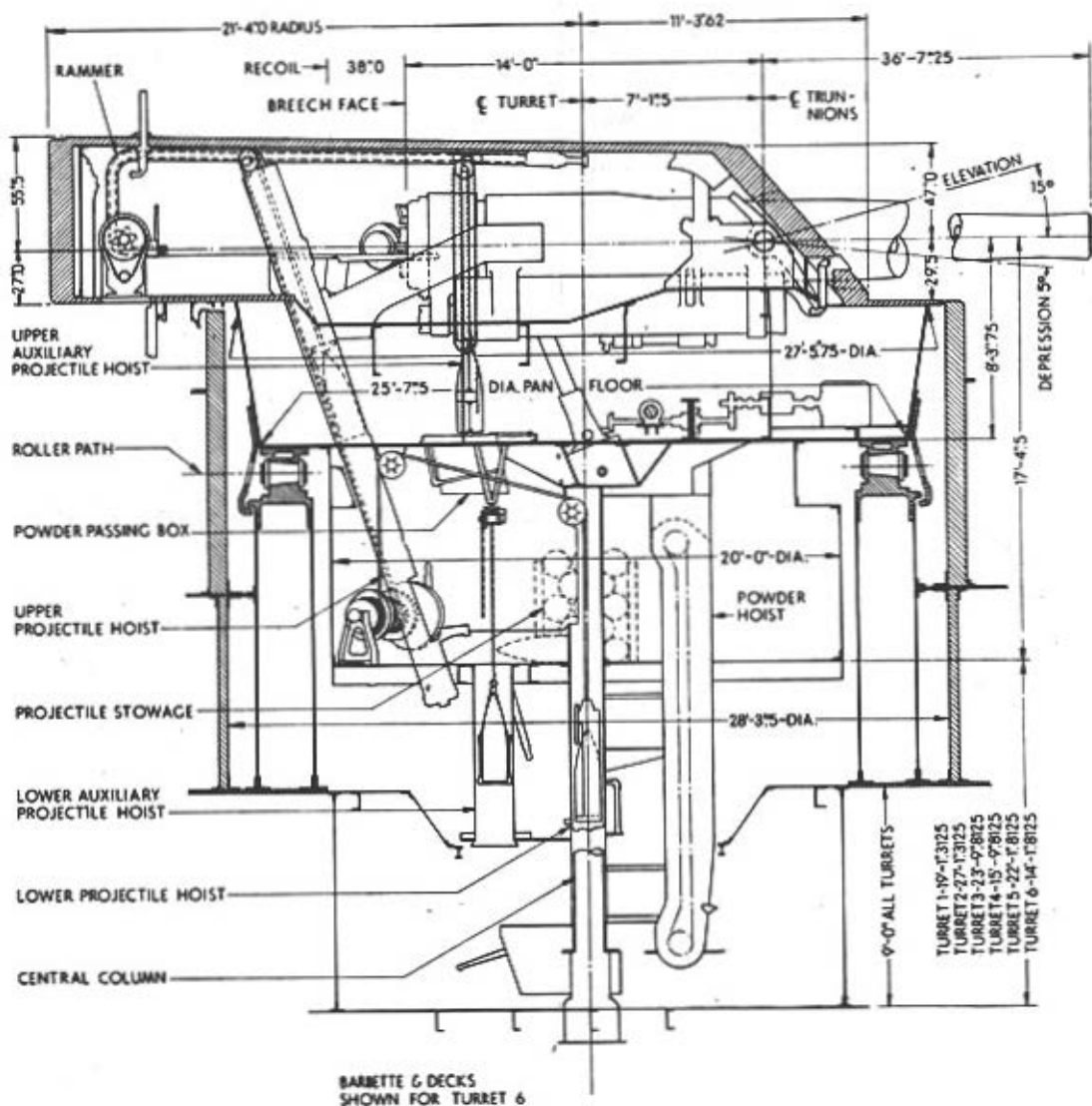
ROTATING WEIGHT, without projectiles  
OSCILLATING WEIGHT, per gun  
RECOILING WEIGHT, per gun  
BRAKE LOAD  
TRUNNION PRESSURE 15° ELEV. FIRE, per gun

MK. 7 MODS. 15-18  
BB 33

Weights below are approximate  
491 LONG TONS  
179,000 LBS.  
140,000 LBS.  
600,000 LBS.  
750,000 LBS.

**12"/50 2-GUN TURRET, BB 33**

# 12-IN. 50-CAL., 2-GUN TURRET, BB 33



PAGE 2 OF FOUR PAGES



OPERATION REQUIREMENTSELECTRIC

|                                   |                 |              |
|-----------------------------------|-----------------|--------------|
| Elevating Gears, 2 motors, each   | 15. HP.         | 120 V. D. C. |
| Training Gear, 1 motor            | 25. HP.         |              |
| Rammers, 2 motors, each           | 10. HP.         |              |
| Projectile Hoists, 2 motors, each | 40. HP.         |              |
| Powder Hoist, 1 motor             | 4. HP.          |              |
| Gun Firing Transformer            | 115 V. to 20 V. | 200 Watts    |
| Stand-by Firing—                  |                 |              |
| Four 6-V. Batteries               | 24 V.           | 100 A. H.    |

POWER DRIVES

|                |                  |           |
|----------------|------------------|-----------|
| Elevating Gear | (2) Mk. 9 Mod. 0 | Waterbury |
| Training Gear  | (1)              | Waterbury |

FIRE CONTROL EQUIPMENT

Information not available at time of publication.

Fire Control Assy. List Sketch No.

59941

PNEUMATIC

Gas Ejector, Mk. 4 Mod. 2  
8 Cu. Ft. Free Air per Sec. per Gun at 175 psi.

HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

Recoil Fluid O. D. 1914 45.75 Gals. per Gun

GUN AND AMMUNITION DATAGUNS

Two 12-In. 50-Cal. Mk. 7 Mods. 15-18  
 Maximum Powder Pressure 17.5 Long Tons per Sq. In.  
 Weight of Gun (inc. breech mechanism) 125,705 Lbs.  
 Stepped Thread, Rotating and  
 Swinging Plug Type Breech Mechanism

BALLISTICS

Muzzle Velocity (A. P.) 2,900 Feet per Second  
 (H. C.) 3,000 Feet per Second  
 Maximum Range (A. P.) 23,500 Yards at 15° Elev.  
 (H. C.) 23,900 Yards at 15° Elev.

AMMUNITION—Bag

Typical Projectiles  
 A. P. Mk. 15 Mod. 6 Wt. 870 Lbs.  
 H. C. Mk. 16 Mods. 1, 2 Wt. 740 Lbs.  
 Service Powder Charge (4 Sections) Nominal Wt. 337 Lbs.  
 Primer Mk. 15 Mod. 1

OPERATING SELECTION

Hand Control

DRAWING NUMBERS

General Arrangement Drawing Nos. BuOrd 33821-23  
 BuOrd 39816  
 BuOrd 40318-19

REMARKS

Elevation limits are minus 5° to plus 15°. The training limits are 298° (Turrets I, IV); 276° (Turret II); 302° (Turrets III, VI); 342° (Turret V).

Length of recoil is 38 inches.

Outside diameter of roller path is 24' 11"

Breech closing air supply is derived from the gas ejector system.

These turrets are used with gun directors Mk. 2 Mod. 4 and Mk. 4 Mod. 1

**14-IN. 45-CAL., 2-GUN TURRET, BB 34-35**

| TURRET<br>NO. | ASSY.<br>NO. | SKETCH<br>NO. |
|---------------|--------------|---------------|
| BB 34         |              | NEW YORK      |
| I             | 1            | 56460         |
| II            | 2            | 56461         |
| III           | 3            | 56462         |
| IV            | 4            | 56463         |
| V             | 5            | 56464         |
| BB 35         |              | TEXAS         |
| I             | 6            | 166830        |
| II            | 7            | 166831        |
| III           | 8            | 166832        |
| IV            | 9            | 166833        |
| V             | 10           | 166834        |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

GUNS—TWO 14"/45

INSTALLATION FOR

ROTATING WEIGHT, without projectiles

OSCILLATING WEIGHT, per gun

RECOILING WEIGHT, per gun

BRAKE LOAD, per gun

TRUNNION PRESSURE 15° ELEV. FIRE, per gun

MK. 8 MOD. 1

MK. 12 MODS. 0, 1

BB 34-35

Weights below are approximate

532 LONG TONS

203,000 LBS.

158,000 LBS.

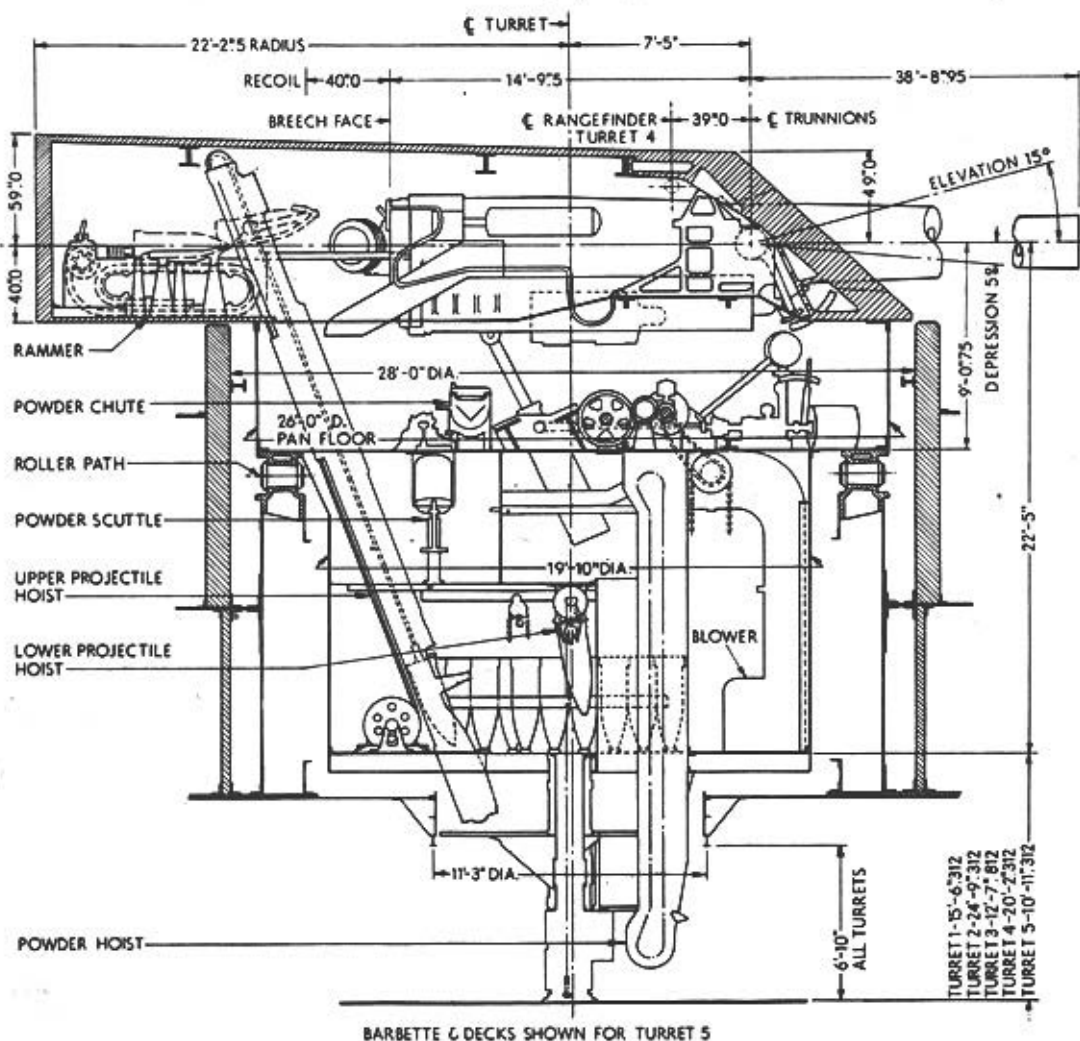
800,000 LBS.

930,000 LBS.

**14"/45 2-GUN TURRET, BB 34-35**

# 14-IN. 45-CAL., 2-GUN TURRET, BB 34-35

PAGE 2 OF FOUR PAGES





## OPERATION REQUIREMENTS

### ELECTRIC

|                                            |                 |              |
|--------------------------------------------|-----------------|--------------|
| Elevating Gears, 2 motors, each            | 15. HP.         | 120 V. D. C. |
| Training Gear, 1 motor                     | 25. HP.         |              |
| Rammers, 2 motors, each                    | 10. HP.         |              |
| Upper Projectile Hoists,<br>2 motors, each | 40. HP.         |              |
| Lower Projectile Hoists,<br>2 motors, each | 10. HP.         |              |
| Powder Hoists, 1 motor                     | 13. HP.         |              |
| Gun Firing Transformer                     | 115 V. to 20 V. | 200 Watts    |
| Stand-by Firing—<br>Four 6-V. Batteries    | 24 V.           | 100 A. H.    |

## POWER DRIVES

|                 |                        |           |
|-----------------|------------------------|-----------|
| Elevating Gears | (2) Mk. 1 Mods. 2 or 4 | Waterbury |
| Training Gear   | (1)                    | Waterbury |

## FIRE CONTROL EQUIPMENT

|                                         | SPEEDS | MFR.                          |
|-----------------------------------------|--------|-------------------------------|
| Auxiliary Computer                      |        |                               |
| Mk. 6 Mod. 4                            | *      | Ford                          |
| Gun Elevation Indicator                 |        |                               |
| Mk. 10 Mod. 0                           | 6 & 72 | Ford.                         |
| Gun Train Indicator                     |        |                               |
| Mk. 11 Mod. 0                           | 1 & 36 | Gen. Elec.                    |
| Double Turret Train Indicator           |        |                               |
| Mk. 3 Mods. 0, 1                        | 1 & 36 | Gen. Elec.                    |
| Triple Turret Train Indicator (Tur. IV) |        |                               |
| Mk. 2 Mod. 0                            | 1 & 36 | Gen. Elec.                    |
| Turret Train Transmitter                |        |                               |
| Mk. 4 Mod. 0                            | 1 & 36 | Gen. Elec.                    |
| Parallax Range Adjuster                 |        |                               |
| Mk. 3 Mod. 0                            |        | Gen. Elec.                    |
| Rangefinder                             |        |                               |
| Mods. of Mk. 10                         |        | B & L                         |
| Fire Control Assy. List Sketch Nos.     |        | 7071 (BB 34)<br>54751 (BB 35) |

### PNEUMATIC

Gas Ejector, Mk. 1 Mod. 6  
9 Cu. Ft. Free Air per Sec. per Gun at 175 psi.

### HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

Recoil Fluid O. D. 1914 63.25 Gals. per Gun

GUN AND AMMUNITION DATAGUNS

Two 14-In. 45-Cal. (BB 34) Mk. 8 Mod. 1  
 (BB 35) Mk. 12 Mods. 0, 1  
 Maximum Powder Pressure 18 Long Tons per Sq. In.  
 Weight of Gun (inc. breech mechanism) 142,490 Lbs.  
 Stepped Thread, Rotating and  
 Swinging Plug Type Breech Mechanism

BALLISTICS

Muzzle Velocity (A. P.) 2,600 Feet per Second  
 (H. C.) 2,735 Feet per Second  
 Maximum Range (A. P.) 23,000 Yards at 15° Elev.  
 (H. C.) 23,500 Yards at 15° Elev.

AMMUNITION—Bag

Typical Projectiles  
 H. C. Mk. 19 Mod. 1 Wt. 1,275 Lbs.  
 A. P. Mk. 20 Mod. 1 Wt. 1,500 Lbs.  
 Service Powder Charge (4 Sections) Nominal Wt. 420 Lbs.  
 Primer Mk. 15 Mod. 1

OPERATING SELECTION

Hand Control

DRAWING NUMBERS

General Arrangement Drawing Nos. BuOrd 41989  
 BuOrd 45125-27  
 BuShips 17954

REMARKS

Elevation limits are minus 5° to plus 15°. The training limit is 300° (Turrets I, II, V); 271.5° (Turret III); 332° (Turret IV). 14.25° on each side of the stowed position (180°) of Turret III are non-firing.

Maximum elevating gear rate is 4° per second. Maximum training gear rate is 100° per minute.

Maximum length of recoil is 40 inches.

Outside diameter of roller path is 25' 1" 25.

Breech closing air supply is derived from the gas ejector system.

These turrets are used with gun directors Mk. 4 Mod. 3 Mk. 20 Mods. 0 and 1, and Mk. 21 Mod. 0.

Restricted—BuOrd—O. P. 1112 (2nd Rev.)—Gun Mount and Turret Catalog—Sheet correct as of 15 January 1945

14"/45 2-GUN TURRET, BB 34-35

**14-IN. 45-CAL., 2-GUN & TRIPLE GUN TURRETS, BB 36**

| TURRET<br>NO. | ASSY.<br>NO. | SKETCH<br>NO.   |
|---------------|--------------|-----------------|
| BB 36         |              | NEVADA          |
| I             | 11           | 166849 (Triple) |
| II            | 12           | 166850 (2-Gun)  |
| III           | 13           | 166851 (2-Gun)  |
| IV            | 14           | 166852 (Triple) |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

PAGE 1 OF FOUR PAGES

GUNS—TWO OR THREE 14"/45  
INSTALLATION FOR

ROTATING WEIGHT, without projectiles, 2-gun turret  
triple turret

OSCILLATING WEIGHT, per gun, 2-gun turret  
three guns, triple turret

RECOILING WEIGHT, per gun

BRAKE LOAD, per gun

TRUNNION PRESSURE 30° ELEV. FIRE, per gun, 2-gun turret  
three guns, triple turret

MK. 12 MODS. 0, 2, 4, 7  
BB 36

Weights below are approximate

618 LONG TONS

748 LONG TONS

195,000 LBS.

621,000 LBS.

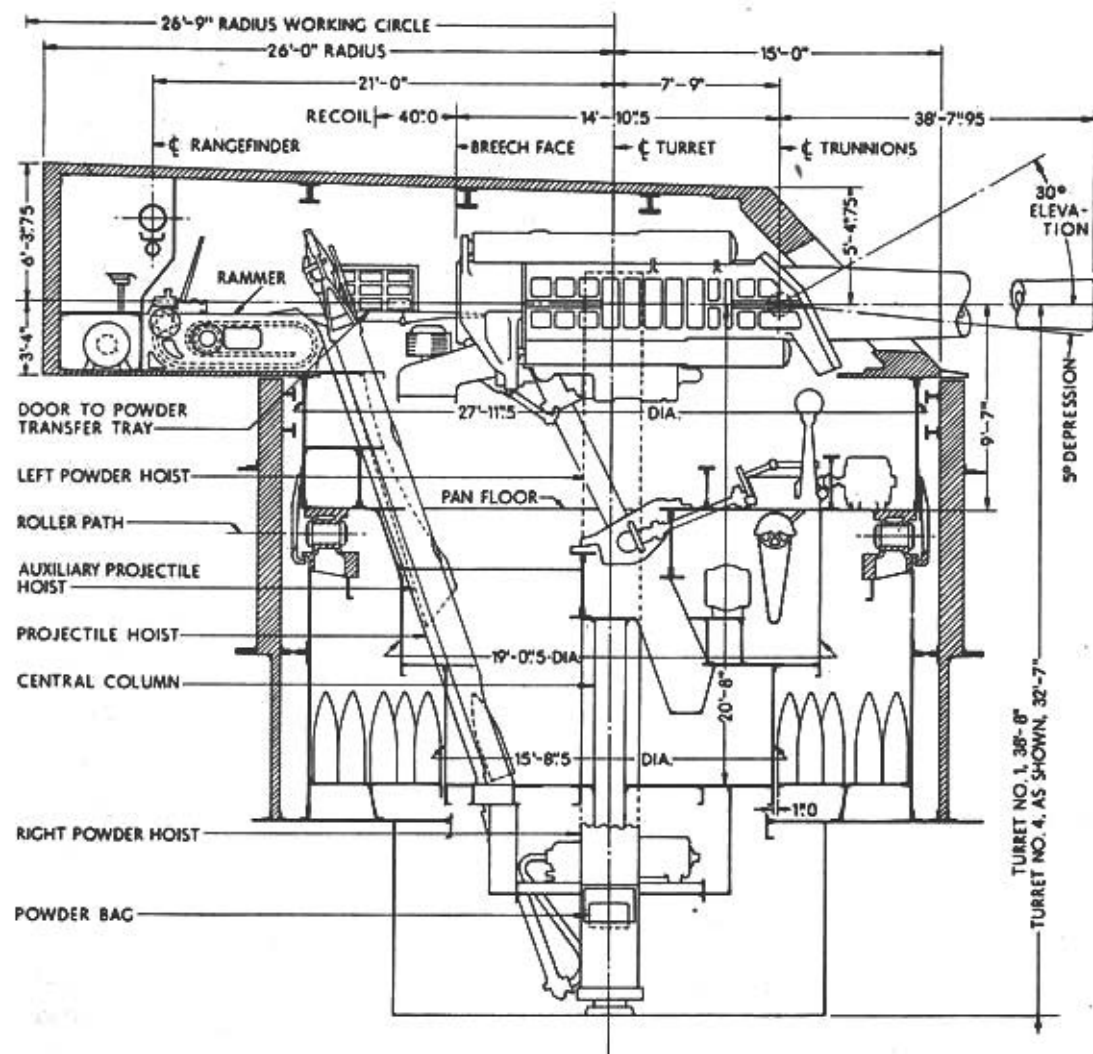
158,000 LBS.

800,000 LBS.

980,000 LBS.

2,470,000 LBS.

**14"/45 2-GUN & TRIPLE TURRETS, BB 36**





## OPERATION REQUIREMENTS

## ELECTRIC

|                                   |                 |              |
|-----------------------------------|-----------------|--------------|
| Elevating Gears,                  |                 |              |
| 2 motors, each, 2-gun             | 30. HP.         |              |
| 1 motor, triple                   | 40. HP.         |              |
| Training Gear, 1 motor            | 50. HP.         |              |
| Rammers,                          | 10. HP.         |              |
| 2 motors, each, 2-gun             | 10. HP.         |              |
| 2 motors, each, triple            | 30. HP.         |              |
| Projectile Hoists, 2 motors, each | 30. HP.         | 120 V. D. C. |
| Upper Powder Hoists,              |                 |              |
| 2 motors, each, 2-gun             | 7.5 HP.         |              |
| Lower Powder Hoist,               |                 |              |
| 1 motor, 2-gun                    | 10. HP.         |              |
| Powder Hoists,                    |                 |              |
| 2 motors, each, triple            | 10. HP.         |              |
| Aux. Proj. Hoists, 2 motors, each | 7.5 HP.         |              |
| Elevating Gear, auxiliary motor   | 9. HP.          | 80 V. D. C.  |
| Aux. Training Gear, 1 motor       | 5. HP.          |              |
| Gun Firing Transformer            | 115 V. to 20 V. | 200 Watts    |
| Stand-by Firing—                  |                 |              |
| Four 6-V. Batteries               | 24 V.           | 100 A. H.    |

## PNEUMATIC

|                                                          |  |
|----------------------------------------------------------|--|
| Gas Ejector, Mk. 1 Mod. 9 (2-gun), Mk. 3 Mod. 4 (triple) |  |
| 9 Cu. Ft. Free Air per Sec. per Gun at 175 psi.          |  |
| Counterrecoil Cylinder                                   |  |
| Initial Air Pressure, 1,600 psi.                         |  |

## HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

|               |                     |                     |
|---------------|---------------------|---------------------|
| Recoil Fluid  | O. D. 1914          | 63.25 Gals. per Gun |
| Counterrecoil |                     |                     |
| Liquid System | N. S. 2075          |                     |
|               | (2-gun) Appr. 1.    | Gal. per Gun        |
|               | (triple) Appr. 1.25 | Gals. per Gun       |

## POWER DRIVES

|                    |                       |           |
|--------------------|-----------------------|-----------|
| Elevating Gears    |                       |           |
| 2-Gun              | (2) Mk. 1 Mod. 5      | Waterbury |
| Triple             | (1) Mk. 2 Mod. 3      | Waterbury |
| Training Gear      | (1)                   | Waterbury |
| Projectile Hoists  |                       |           |
| 2-Gun              | (2) Mk. 17 Mods. 0, 1 | Waterbury |
| Triple             | (2) Mk. 16 Mods. 0, 1 | Waterbury |
| Aux. Training Gear | (1)                   | Waterbury |

## FIRE CONTROL EQUIPMENT

|                                    | SPEEDS | MFR.       |
|------------------------------------|--------|------------|
| Auxiliary Computer                 |        |            |
| Mk. 6 Mod. 4                       |        | Ford       |
| Gun Elevation Indicator            |        |            |
| Mk. 12 Mod. 0                      | 6 & 72 | Gen. Elec. |
| Gun Train Indicator                |        |            |
| Mk. 18 Mod. 1                      | 1 & 36 | Gen. Elec. |
| Double Turret Train Indicator      |        |            |
| Mk. 3 Mods. 2, 3                   | 1 & 36 | Gen. Elec. |
| Turret Train Transmitter           |        |            |
| Mk. 4 Mods. 2, 3                   | 1 & 36 | Gen. Elec. |
| Parallax Range Adjuster            |        |            |
| Mk. 3 Mod. 1                       |        | Gen. Elec. |
| Gun Elevation Order Transmitter    |        |            |
| (Tur. III), Mk. 3 Mod. 0           | 6 & 72 | NYNY       |
| Director Correction Transmitter    |        |            |
| (Tur. II, III)                     | 6 & 72 | Gen. Elec. |
| Rangefinder                        |        |            |
| Mk. 10 Mod. 5, Mk. 33 Mod. 0       |        |            |
| Mk. 37 Mod. 2                      |        | B & L      |
| Fire Control Assy. List Sketch No. |        | 55801      |

GUN AND AMMUNITION DATAGUNS

Two or Three 14-In. 45-Cal. Mk. 12 Mods. 0, 2, 4, 7  
 Maximum Powder Pressure 18 Long Tons per Sq. In.  
 Weight of Gun 135,863 Lbs.  
 Stepped Thread, Rotating and  
 Swinging Plug Type Breech Mechanism

BALLISTICSMuzzle Velocity

(1,400 Lb. Proj.) 2,700 Feet per Second  
 (1,500 Lb. Proj.) 2,600 Feet per Second  
 (1,275 Lb. Proj.) 2,735 Feet per Second

Maximum Range

(1,500 Lb. Proj.) 34,300 Yards at 30° Elev.  
 (1,275 Lb. Proj.) 34,700 Yards at 30° Elev.

AMMUNITION—BagTypical Projectiles

H. C. Mods. of Mk. 19 Wt. 1,275 Lbs.  
 A. P. Mk. 8 Mods. 3, 7, 8, 11 Wt. 1,402 Lbs.  
 A. P. Mods. of Mk. 16 Wt. 1,500 Lbs.

Service Powder Charge (4 Sections) Nominal Wt. 420 Lbs.  
 Primer Mk. 15 Mod. 1

OPERATING SELECTION

Hand Control

DRAWING NUMBERS

General Arrangement Drawing Nos. BuOrd 48389  
 BuOrd 48391-94  
 BuOrd 48405-07  
 BuOrd 48409-13  
 BuOrd 48415  
 BuShips 158820-21

REMARKS

Elevation limits are minus 5° to plus 30°. The training limit is 290° (Turret I), 280° (Turrets II, III, IV).

Maximum length of recoil is 40 inches.

Outside diameters of the roller paths are 25' 1".25 (2-gun turret); 27' 1".25 (triple turret).

Breech closing air supply is derived from the gas ejector system.

These turrets are used with gun directors Mk. 20 Mods. 2 and 3, Mk. 21 Mods. 1 and 2, and Mk. 23 Mod. 0.

**14-IN. 45-CAL., TRIPLE GUN TURRET, BB 38**

| TURRET<br>NO.      | ASSY.<br>NO. | SKETCH<br>NO. |
|--------------------|--------------|---------------|
| BB 38 PENNSYLVANIA |              |               |
| I                  | 19           | 61895         |
| II                 | 20           | 61896         |
| III                | 21           | 61897         |
| IV                 | 22           | 61898         |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

PAGE 1 OF FOUR PAGES

GUNS—THREE 14"/45  
INSTALLATION FOR

ROTATING WEIGHT, without projectiles

OSCILLATING WEIGHT, three guns

RECOILING WEIGHT, per gun

BRAKE LOAD, per gun

TRUNNION PRESSURE 30° ELEV. FIRE, three guns

MK. 8 MODS. 4, 6

BB 38

Weights below are approximate

714 TO 724 LONG TONS

614,000 LBS.

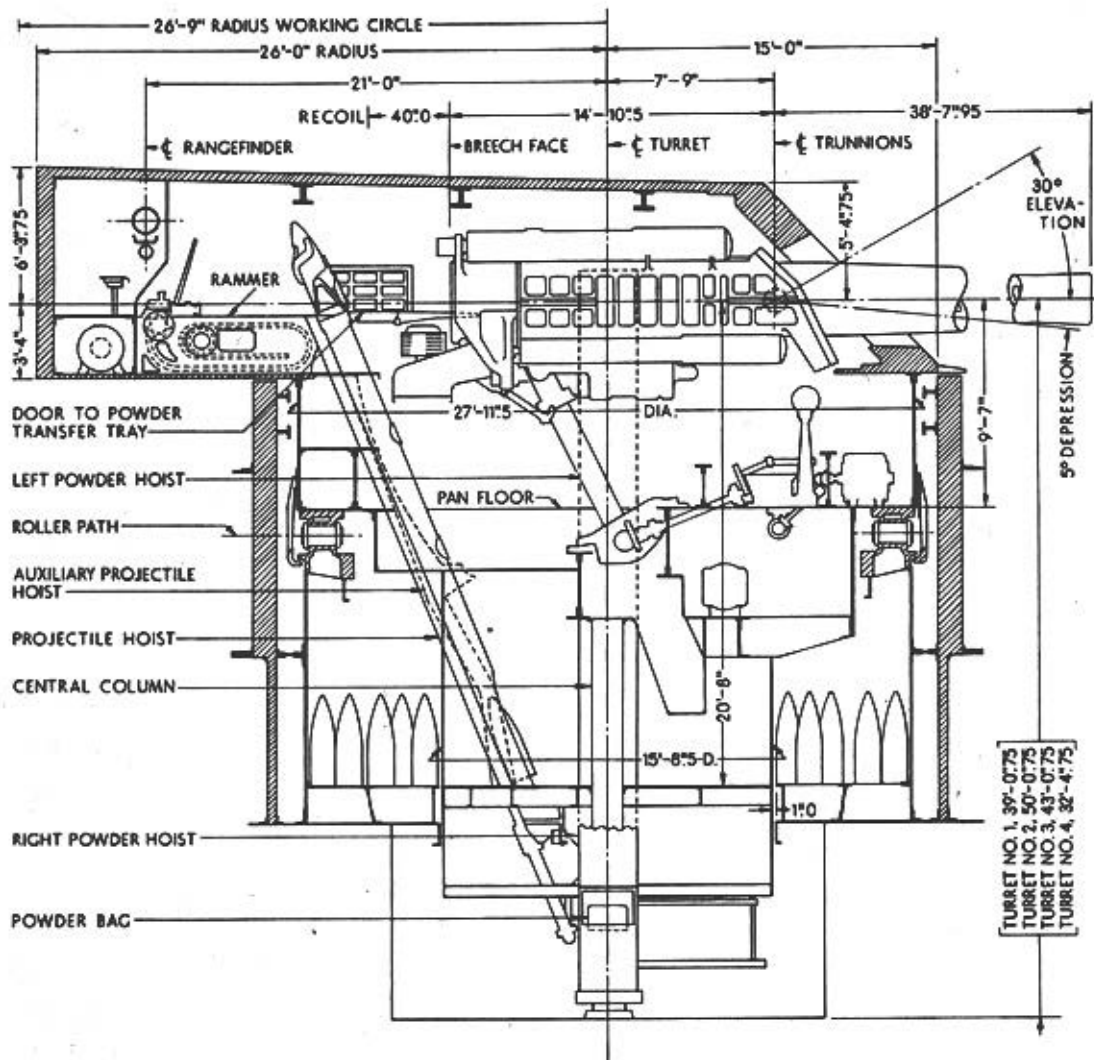
152,400 LBS.

800,000 LBS.

2,470,000 LBS.

**14"/45 TRIPLE GUN TURRET, BB 38**

# 14-IN. 45-CAL., TRIPLE GUN TURRET, BB 38



PAGE 2 OF FOUR PAGES



OPERATION REQUIREMENTSELECTRIC

|                                   |                 |              |
|-----------------------------------|-----------------|--------------|
| Elevating Gear, 1 motor           | 40. HP.         | 120 V. D. C. |
| Training Gear, 1 motor            | 50. HP.         |              |
| Rammers, 2 motors, each           | 30. HP.         |              |
| Projectile Hoists, 1 motor        | 60. HP.         |              |
| Powder Hoists, 2 motors, each     | 10. HP.         |              |
| Aux. Proj. Hoists, 2 motors, each | 7.5 HP.         | 80 V. D. C.  |
| Elevating Gear, aux. motor        | 9. HP.          |              |
| Aux. Training Gear, 1 motor       | 3. HP.          |              |
| Gun Firing Transformer            | 115 V. to 20 V. | 200 Watts    |
| Stand-by Firing—                  |                 |              |
| Four 6-V. Batteries               | 24 V.           | 100 A. H.    |

PNEUMATIC

Gas Ejector, Mk. 3 Mod. 4  
 9 Cu. Ft. Free Air per Sec. per Gun at 175 psi.  
 Counterrecoil Cylinder  
 Initial Air Pressure, 1,600 psi.

HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

Recoil Fluid O. D. 1914 63.25 Gals. per Gun  
 Counterrecoil  
 Liquid System N. S. 2075 Appr. 1.25 Gals. per Gun

POWER DRIVES

|                    |                  |           |
|--------------------|------------------|-----------|
| Elevating Gear     | (1) Mk. 2 Mod. 4 | Waterbury |
| Training Gear      | (1)              | Waterbury |
| Projectile Hoists  | (2) Mk. 8 Mod. 0 | Waterbury |
| Aux. Training Gear | (1)              | Waterbury |

FIRE CONTROL EQUIPMENT

|                                    | SPEEDS | MFR.  |
|------------------------------------|--------|-------|
| Auxiliary Computer                 |        |       |
| Mk. 6 Mod. 4                       |        | Ford  |
| Gun Elevation Indicator            |        |       |
| Mk. 13 Mod. 0                      | 6 & 72 | Arma  |
| Gun Train Indicator                |        |       |
| Mk. 14 Mod. 0                      | 1 & 36 | Arma  |
| Double Turret Train Indicator      |        |       |
| Mk. 4 Mods. 0, 1                   | 1 & 36 | Arma  |
| Turret Train Transmitter           |        |       |
| Mk. 5 Mod. 1                       | 1 & 36 | Arma  |
| Parallax Range Adjuster            |        |       |
| Mk. 4 Mod. 0                       |        | Arma  |
| Rangefinder                        |        |       |
| Mk. 33 Mod. 1, Mk. 37 Mod. 2       |        | B & L |
| Fire Control Assy. List Sketch No. |        | 55953 |

GUN AND AMMUNITION DATAGUNS

Two 14-In. 45-Cal. Mk. 8 Mods. 4, 6  
 Maximum Powder Pressure 17.8 Long Tons per Sq. In.  
 Weight of Gun (inc. breech mechanism) Appr. 141,000 Lbs.  
 Stepped Thread, Rotating and  
 Swinging Plug Type Breech Mechanism

BALLISTICSMuzzle Velocity

(1,400 Lb. Proj.) 2,700 Feet per Second  
 (1,500 Lb. Proj.) 2,600 Feet per Second  
 (1,275 Lb. Proj.) 2,735 Feet per Second

Maximum Range

(1,500 Lb. Proj.) 34,300 Yards at 30° Elev.  
 (1,275 Lb. Proj.) 34,700 Yards at 30° Elev.

AMMUNITION—BagTypical Projectiles

|       |                         |                |
|-------|-------------------------|----------------|
| H. C. | Mods. of Mk. 19         | Wt. 1,275 Lbs. |
| A. P. | Mk. 8 Mods. 3, 7, 8, 11 | Wt. 1,402 Lbs. |
| A. P. | Mods. of Mk. 16         | Wt. 1,500 Lbs. |

Service Powder Charge (4 Sections) Nominal Wt. 420 Lbs.

Primer Mk. 15 Mod. 1

OPERATING SELECTION

Hand Control

DRAWING NUMBERS

General Arrangement Drawing Nos. BuOrd 142361-64

REMARKS

Elevation limits are minus 5° to plus 30°. Approximate training limits are 290° (Turret I), 270° (Turret II), 298° (Turrets III, IV).

Maximum length of recoil is 40 inches.

Outside diameter of roller path is 27' 1".25.

Breech closing air supply is derived from the gas ejector system.

These turrets are used with gun directors Mk. 20 Mods. 4 and 5, Mk. 21 Mod. 2, and Mk. 23 Mod. 1.

**14-IN. 50-CAL., 3-GUN TURRET, BB 40-42**

| TURRET NO. | ASSY. NO.   | SKETCH NO. |
|------------|-------------|------------|
| BB 40      | NEW MEXICO  |            |
| I          | 27          | 166809     |
| II         | 28          | 166810     |
| III        | 29          | 166811     |
| IV         | 30          | 166812     |
| BB 41      | MISSISSIPPI |            |
| I          | 31          | 166845     |
| II         | 32          | 166846     |
| III        | 33          | 166847     |
| IV         | 34          | 166848     |
| BB 42      | IDAHO       |            |
| I          | 35          | 62503      |
| II         | 36          | 62504      |
| III        | 37          | 62505      |
| IV         | 38          | 62506      |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

PAGE 1 OF FOUR PAGES

GUNS—THREE 14"/50  
INSTALLATION FOR

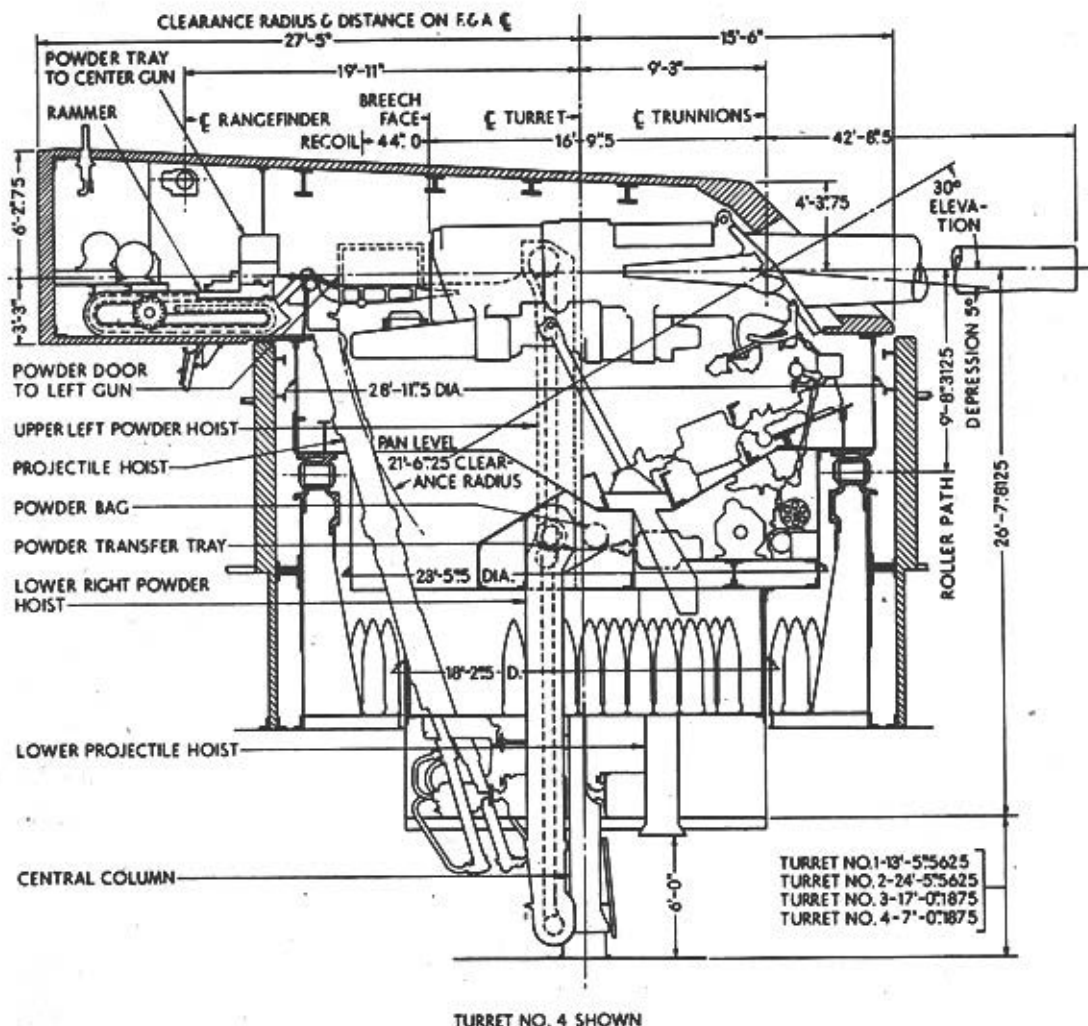
ROTATING WEIGHT, without projectiles  
OSCILLATING WEIGHT, per gun  
RECOILING WEIGHT, per gun  
BRAKE LOAD, per gun  
TRUNNION PRESSURE 30° ELEV. FIRE, per gun

MK. 11 & MODS.  
BB 40-42

Weights below are approximate  
897 LONG TONS  
244,000 LBS.  
200,000 LBS.  
780,000 LBS.  
825,000 LBS.

**14"/50 3-GUN TURRET, BB 40-42**

# 14-IN. 50-CAL., 3-GUN TURRET, BB 40-42



PAGE 2 OF FOUR PAGES



## OPERATION REQUIREMENTS

## ELECTRIC

|                                         |                 |              |
|-----------------------------------------|-----------------|--------------|
| Elevating Gears, 3 motors, each         | 50. HP.         | 230 V. D. C. |
| Training Gear, 1 motor                  | 50. HP.         |              |
| Rammers, 2 motors, each                 | 90. HP.         |              |
| Projectile Hoists, 3 motors, each       | 35. HP.         |              |
| Upper Powder Hoists,<br>2 motors, each  | 7.5 HP.         |              |
| Lower Powder Hoists,<br>2 motors, each  | 10. HP.         | 80 V. D. C.  |
| Aux. Proj. Hoists, 3 motors, each       | 7.5 HP.         |              |
| Elev. Gears,<br>3 aux. motors, each     | 3. or 3.5 HP.   |              |
| Aux. Training Gear, 1 motor             | 3. HP.          |              |
| Gun Firing Transformer                  | 115 V. to 20 V. | 200 Watts    |
| Stand-by Firing—<br>Four 6-V. Batteries | 24 V.           | 100 A. H.    |

## PNEUMATIC

Gas Ejector, Mk. 4 Mod. 4  
 9 Cu. Ft. Free Air per Sec. per Gun at 175 psi.  
 Counterecoil Cylinder  
 Initial Air Pressure, 1,500 psi.

## HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

Recoil Fluid O. D. 1914 64.1 Gals. per Gun  
 Counterecoil  
 Liquid System N. S. 2075 Appr. 1.5 Gals. per Gun

## POWER DRIVES

|                    |                                         |           |
|--------------------|-----------------------------------------|-----------|
| Elevating Gears    | (3) Mk. 3 Mod. 1                        | Waterbury |
| Training Gear      | (1)                                     | Waterbury |
| Rammers            | (3) Mk. 3 Mod. 1                        | Waterbury |
| Projectile Hoists  | (3) Mk. 18 Mod. 0,<br>Mk. 21 Mods. 0, 1 | Waterbury |
| Aux. Training Gear | (1)                                     | Waterbury |

Note: Modernization will substitute Arma-Northem elevating and training power drives.

## FIRE CONTROL EQUIPMENT

|                                                          | SPEEDS                                          | MFR.       |
|----------------------------------------------------------|-------------------------------------------------|------------|
| Auxiliary Computer<br>Mk. 6 Mods. 5, 14                  |                                                 | Ford       |
| Gun Elevation Indicator<br>Mk. 17 Mod. 0                 | 6 & 72                                          | Gen. Elec. |
| Gun Train Indicator<br>Mk. 18 Mod. 0                     | 1 & 36                                          | Gen. Elec. |
| Multiple Turret Train Indicator<br>Mk. 12 Mods. 7, 8     | 1 & 36                                          | NYNY       |
| Gun Elevation Transmitter (Tur. II, III)<br>Mk. 2 Mod. 0 | 6 & 72                                          | Gen. Elec. |
| Turret Train Transmitter<br>Mk. 6 Mod. 0                 | 1 & 36                                          | Gen. Elec. |
| Parallax Range Adjuster<br>Mk. 5 Mod. 0                  |                                                 | Gen. Elec. |
| Rangefinder<br>Mk. 16 Mods. 0, 1                         |                                                 | B & L      |
| Fire Control Assy. List Sketch Nos.                      | 56594 (BB 40)<br>56595 (BB 41)<br>56596 (BB 42) |            |

GUN AND AMMUNITION DATAGUNS

Three 14-In. 50-Cal. Mk. 11 & Mods.  
 Maximum Powder Pressure 18 Long Tons per Sq. In.  
 Weight of Gun (inc. breech mechanism) 180,499 Lbs.  
 Stepped Thread, Rotating and  
 Swinging Plug Type Breech Mechanism

BALLISTICS

Muzzle Velocity (A. P.) 2,700 Feet per Second  
 (H. C.) 2,825 Feet per Second  
 Maximum Range (A. P.) 36,300 Yards at 30° Elev.  
 (H. C.) 36,600 Yards at 30° Elev.

AMMUNITION—BagTypical Projectiles

A. P. Mods. of Mk. 16 Wt. 1,500 Lbs.  
 H. C. Mods. of Mk. 19 Wt. 1,275 Lbs.

Service Powder Charge (4 Sections) Nominal Wt. 420 Lbs.  
 Primer Mk. 15 Mod. 1

OPERATING SELECTION

Hand Control

DRAWING NUMBERS

General Arrangement Drawing Nos. BuShips 49756-63  
 BuShips 161044-46  
 BuShips 161659-64  
 BuShips 201197-203

REMARKS

Elevation limits are minus 5° to plus 30°. The training limit is 290° (Turrets I, II, IV), 300° (Turret III).

Maximum length of recoil is 44 inches.

Outside diameter of roller path is 28' 1".25.

Breech closing air supply is derived from the gas ejector system.

These turrets are used with gun directors Mk. 21 Mod. 3 and Mk. 31 Mods. 2 and 7; ultimately Mods. of Mk. 34.

**14-IN. 50-CAL., 3-GUN TURRET, BB 43-44**

| TURRET NO. | ASSY. NO.  | SKETCH NO. |
|------------|------------|------------|
| BB 43      | TENNESSEE  |            |
| I          | 39         | 108130     |
| II         | 40         | 108131     |
| III        | 41         | 108132     |
| IV         | 42         | 108133     |
| BB 44      | CALIFORNIA |            |
| I          | 43         | 108107     |
| II         | 44         | 108108     |
| III        | 45         | 108109     |
| IV         | 46         | 108110     |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

PAGE 1 OF FOUR PAGES

GUNS—THREE 14"/50

INSTALLATION FOR

ROTATING WEIGHT, without projectiles

OSCILLATING WEIGHT, per gun

RECOILING WEIGHT, per gun

BRAKE LOAD, per gun

TRUNNION PRESSURE 30° ELEV. FIRE

MK. 7 MOD. 1 OR

MK. 11 MODS. 0, 1

BB 43-44

Weights below are approximate

958 LONG TONS

244,000 LBS.

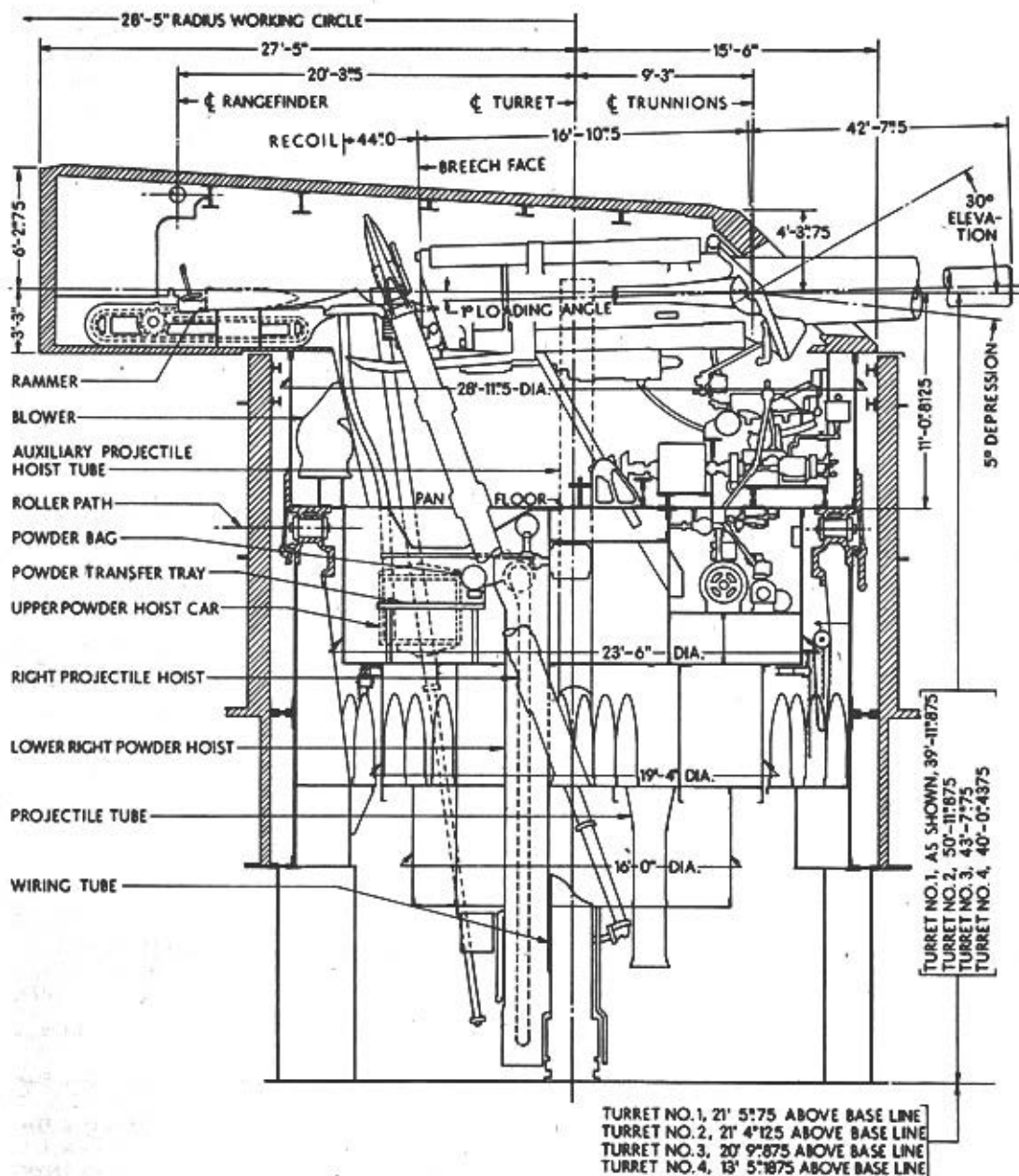
201,000 LBS.

780,000 LBS.

825,000 LBS.

**14"/50 3-GUN TURRET, BB 43-44**

# 14-IN. 50-CAL., 3-GUN TURRET, BB 43-44



PAGE 2 OF FOUR PAGES



OPERATION REQUIREMENTSELECTRIC

|                                                                           |                 |                    |
|---------------------------------------------------------------------------|-----------------|--------------------|
| Elevating Gears,<br>3 motors, each                                        | 50. HP.         |                    |
| Training Gear, 1 motor                                                    | 50. HP.         |                    |
| Rammers, Upper Powder<br>Hoists, and Aux. Proj.<br>Hoists, 2 motors, each | 90. HP.         | 230 V. D. C.       |
| Projectile Hoists,<br>2 motors, each                                      | 35. HP.         |                    |
| Lower Powder Hoists,<br>2 motors, each                                    | 7.5 HP.         |                    |
| Elevating Gears,<br>3 aux. motors, each                                   | 7.5 HP.         |                    |
| Training Gear, aux. motor                                                 | 15. HP.         | 440 V. 3 $\phi$ 60 |
| Lower Powder Hoists,<br>3 aux. motors, each                               | 7.5 HP.         |                    |
| Gun Firing Transformer                                                    | 115 V. to 20 V. | 200 Watts          |
| Stand-by Firing—<br>Four 6-V. Batteries                                   | 24 V.           | 100 A. H.          |

POWER DRIVES

|                     |                            |               |
|---------------------|----------------------------|---------------|
| Elevating Gears     | (3) Mk. 7 Mods. 0,<br>1, 2 | Arma-Northern |
| Training Gear       | (1) Mk. 1 Mod. 0           | Arma-Northern |
| Rammers             | (3) Mk. 4 Mod. 0           | Waterbury     |
| Projectile Hoists   | (2) Mk. 13 Mod. 0          | Waterbury     |
| Upper Powder Hoists | (3) Mk. 8 Mod. 0           | Waterbury     |

RECEIVER REGULATORS

|                                                       | SPEEDS | MFR. |
|-------------------------------------------------------|--------|------|
| Gun Elevation Receiver Regulator<br>Mk. 8 Mod. 2      | 2 & 36 | Arma |
| Turret Train Receiver Regulator<br>Mk. 13 Mods. 11-14 | 1 & 36 | Arma |

PNEUMATIC

Gas Ejector, Mk. 4 Mods. 1 or 3  
9 Cu. Ft. Free Air per Sec. per Gun at 175 psi.

HYDRAULIC (Speed gear oil, lubrication and  
buffers omitted)

Recoil Fluid O. D. 1914 64.1 Gals. per Gun

HYDRAULIC (Speed gear oil, lubrication and  
buffers omitted)

Recoil Fluid O. D. 1914 64.1 Gals. per Gun

FIRE CONTROL EQUIPMENT

|                                                                 | SPEEDS                         | MFR.       |
|-----------------------------------------------------------------|--------------------------------|------------|
| Auxiliary Computer<br>Mk. 6 Mods. 5 or 14                       |                                | Ford       |
| Gun Elevation Indicator<br>Mk. 20 Mod. 1                        | 2 & 36                         | Gen. Elec. |
| Gun Train Indicator<br>Mk. 17 Mod. 4                            | 1 & 36                         | Gen. Elec. |
| Battle Order Indicator<br>Mk. 26 Mod. 1                         |                                | NYP&S      |
| Gun Elevation Order Transmitter<br>Mk. 2 Mod. 1 (Tur. III only) |                                | NYNY       |
| Rangefinder, Mk. 22 Mod. 0                                      |                                | B & L      |
| Fire Control Assy. List Sketch Nos.                             | 14067 (BB 43)<br>14071 (BB 44) |            |

14"/50 3-GUN TURRET, BB 43-44

GUN AND AMMUNITION DATAGUNS

Three 14-In. 50-Cal. (BB 43) Mk. 11 Mods. 0, 1  
 (BB 44) Mk. 7 Mod. 1  
 Maximum Powder Pressure 18 Long Tons per Sq. In.  
 Weight of Gun (inc. breech mechanism) 180,499 Lbs.  
 Stepped Thread, Rotating and  
 Swinging Plug Type Breech Mechanism

BALLISTICS

Muzzle Velocity (A. P.) 2,700 Feet per Second  
 (H. C.) 2,685 Feet per Second  
 Maximum Range (A. P.) 36,300 Yards at 30° Elev.  
 (H. C.) 36,600 Yards at 30° Elev.

AMMUNITION—Bag

Typical Projectiles  
 A. P. Mods. of Mk. 16 Wt. 1,500 Lbs.  
 H. C. Mods. of Mk. 19 Wt. 1,275 Lbs.  
 Service Powder Charge (4 Sections) Nominal Wt. 420 Lbs.  
 Primer Mk. 15 Mod. 1

OPERATING SELECTION

Hand Control—Automatic—Load Control  
 (Local Control, planned in original designs, omitted  
 from installations)

PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 966  
 General Arrangement Drawing Nos. BuShips.118820-21

REMARKS

Elevation limits are minus 5° to plus 30°. The training  
 limit is 290° (Turrets I, IV), 280° (Turrets II, III).

Maximum length of recoil is 44 inches.

Outside diameter of roller path is 28' 1".25.

Breech closing air supply is derived from the gas ejector  
 system.

These turrets are used with gun directors Mk. 34 Mods.  
 14, 15.

**16-IN. 45-CAL., 2-GUN TURRET, BB 45, 46, 48**

| TURRET NO. | ASSY. NO.     | SKETCH NO. |
|------------|---------------|------------|
| BB 45      | COLORADO      |            |
| I          | 1             | 166841     |
| II         | 2             | 166842     |
| III        | 3             | 166843     |
| IV         | 4             | 166844     |
| BB 46      | MARYLAND      |            |
| I          | 5             | 93350      |
| II         | 6             | 93351      |
| III        | 7             | 93352      |
| IV         | 8             | 93353      |
| BB 48      | WEST VIRGINIA |            |
| I          | 13            | 62520      |
| II         | 14            | 62521      |
| III        | 15            | 62522      |
| IV         | 16            | 62523      |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

PAGE 1 OF FOUR PAGES

GUNS—TWO 16"/45

INSTALLATION FOR

ROTATING WEIGHT, without projectiles

OSCILLATING WEIGHT, per gun

RECOILING WEIGHT, per gun

BRAKE LOAD, per gun

TRUNNION PRESSURE 30° ELEV. FIRE, per gun

MK. 5 MOD. 1

MK. 8 MOD. 0

BB 45, 46, 48

Weights below are approximate

880 TO 920 LONG TONS

322,000 LBS.

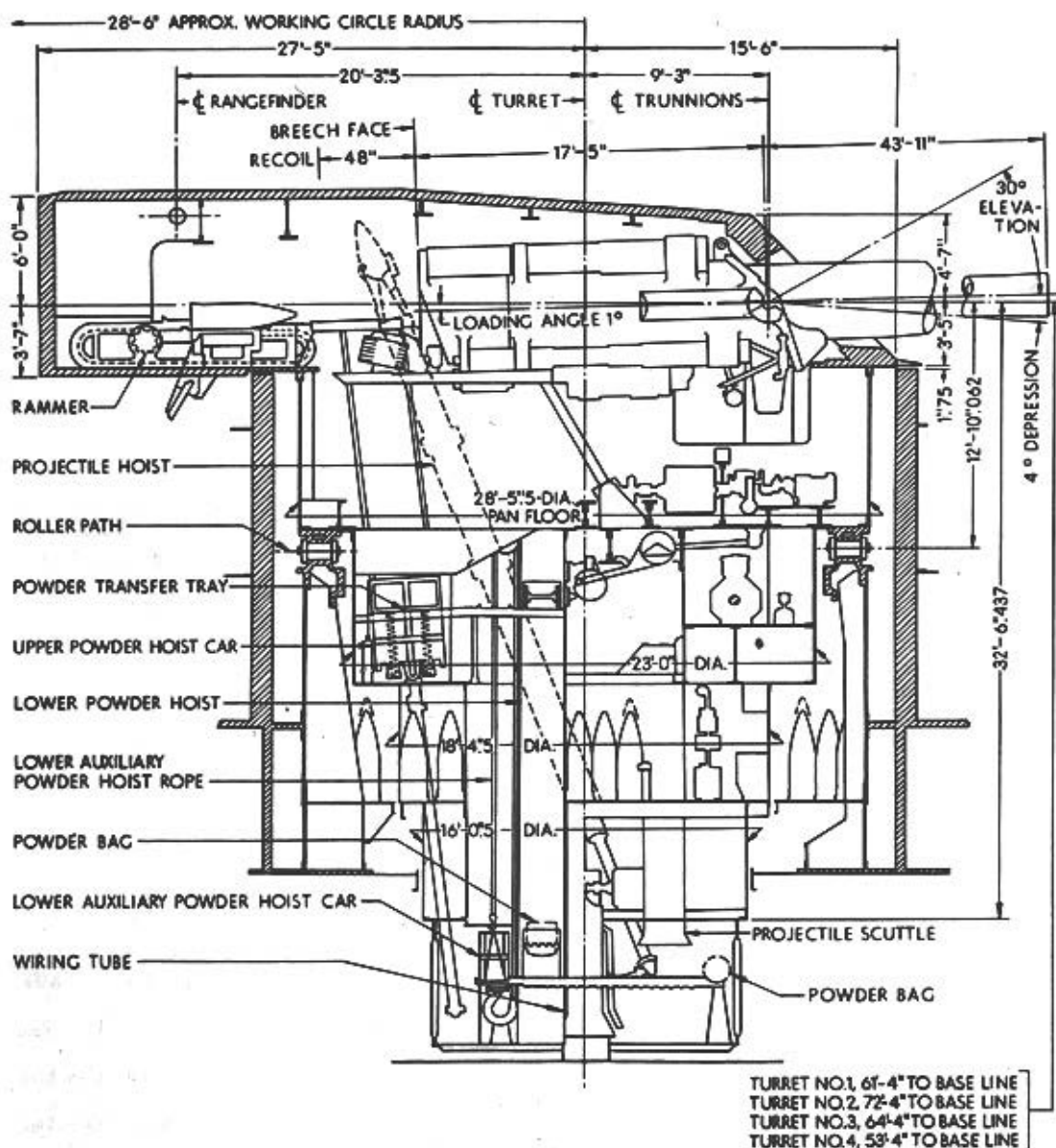
261,500 LBS.

1,030,000 LBS.

1,500,000 LBS.

**16"/45 2-GUN TURRET, BB 45, 46, 48**

# 16-IN. 45-CAL., 2-GUN TURRET, BB 45, 46, 48



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## OPERATION REQUIREMENTS

## ELECTRIC

|                                                       |                 |              |
|-------------------------------------------------------|-----------------|--------------|
| Elevating Gears, 2 motors, each                       | 50. HP.         | 230 V. D. C. |
| Training Gear, 1 motor                                | 50. HP.         |              |
| Rammers & Upper Powder Hoists,<br>2 motors, each      | 90. HP.         |              |
| Projectile Hoists, 2 motors, each                     | 35. HP.         |              |
| Aux. Proj. Hoists, 2 motors, each                     | 7.5 HP.         | 80 V. D. C.  |
| Lower Powder Hoists,<br>2 motors, each                | 7.5 HP.         |              |
| Elev. Gears, 2 aux. motors, each                      | 3. HP.          |              |
| Training Gear, aux. motor<br>(7.5 HP. A. C. on BB 48) | 3. HP.          |              |
| Gun Firing Transformer                                | 115 V. to 20 V. | 200 Watts    |
| Stand-by Firing—<br>Four 6-V. Batteries               | 24 V.           | 100 A. H.    |

## PNEUMATIC

|                                                    |  |
|----------------------------------------------------|--|
| Gas Ejectors, Mk. 1 Mod. 0                         |  |
| 14.5 Cu. Ft. Free Air per Sec. per Gun at 175 psi. |  |
| Counterrecoil Cylinders                            |  |
| Initial Air Pressure, 1,500 psi.                   |  |

## HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

|               |            |                         |
|---------------|------------|-------------------------|
| Recoil Fluid  | O. D. 1914 | 73.25 Gals. per Gun     |
| Counterrecoil |            |                         |
| Liquid System | N. S. 2075 | Appr. 1.5 Gals. per Gun |

## POWER DRIVES

|                     |                      |               |
|---------------------|----------------------|---------------|
| Elevating Gears     |                      |               |
| BB 45, 46           | (2) Mk. 1 Mod. 0     | Waterbury     |
| BB 48               | (2) Mk. 6 Mods. 0, 1 | Arma-Northern |
| Training Gear       |                      |               |
| BB 45, 46           | (1)                  | Waterbury     |
| BB 48               | (1) Mk. 3 Mod. 0     | Arma-Northern |
| Rammers             | (2) Mk. 1 Mod. 0     | Waterbury     |
| Projectile Hoists   | (2) Mk. 1 Mod. 0     | Waterbury     |
| Upper Powder Hoists | (2) Mk. 2 Mod. 0     | Waterbury     |
| Aux. Training Gear  |                      |               |
| BB 45, 46 only      | (1)                  | Waterbury     |

## RECEIVER REGULATORS (BB 48 ONLY)

|                                  | SPEEDS | MFR. |
|----------------------------------|--------|------|
| Gun Elevation Receiver Regulator |        |      |
| Mk. 8 Mod. 1                     | 2 & 36 | Arma |
| Turret Train Receiver Regulator  |        |      |
| Mk. 13 Mods. 11-13               | 1 & 36 | Arma |

## FIRE CONTROL EQUIPMENT

|                                     | SPEEDS | MFR.                                            |
|-------------------------------------|--------|-------------------------------------------------|
| Auxiliary Computer                  |        |                                                 |
| Mk. 6 Mod. 6                        |        | Ford                                            |
| Gun Elevation Indicator             |        |                                                 |
| Mk. 20 Mod. 1                       | 2 & 36 | Gen. Elec.                                      |
| Gun Train Indicator                 |        |                                                 |
| Mods. of Mk. 17                     | 1 & 36 | Gen. Elec.                                      |
| Multiple Turret Train Indicator     |        |                                                 |
| Mk. 12 Mods. 7, 8                   | 1 & 36 | NYNY                                            |
| Gun Elevation Order Transmitter     |        |                                                 |
| Mk. 2 Mod. 1 (Tur. III only)        | 2 & 36 | NYNY                                            |
| Rangefinder                         |        |                                                 |
| Mk. 22 Mod. 2                       |        | B & L                                           |
| Fire Control Assy. List Sketch Nos. |        | 59935 (BB 45)<br>59936 (BB 46)<br>59937 (BB 48) |

GUN AND AMMUNITION DATAGUNS

Two 16-In. 45-Cal. Mk. 5 Mod. 1  
 Mk. 8 Mod. 0  
 Maximum Powder Pressure 18 Long Tons per Sq. In.  
 Weight of Gun (inc. breech mechanism) 235,796 Lbs.

BALLISTICSMuzzle Velocity

(2,100 Lb. Proj.) 2,600 Feet per Second  
 (2,240 Lb. Proj.) 2,520 Feet per Second  
 (1,900 Lb. Proj.) 2,635 Feet per Second

Maximum Range

(2,240 Lb. Proj.) 35,000 Yards at 30° Elev.  
 (1,900 Lb. Proj.) 35,000 Yards at 30° Elev.

AMMUNITION—BagTypical Projectiles

|       |                   |                |
|-------|-------------------|----------------|
| A. P. | Mk. 3             | Wt. 2,110 Lbs. |
| A. P. | Mk. 5             | Wt. 2,240 Lbs. |
| H. C. | Mk. 13 Mods. 1, 2 | Wt. 1,900 Lbs. |

Service Powder Charge (5 Sections) Nominal Wt. 540 Lbs.  
 Primer Mk. 15 Mod. 1

OPERATING SELECTION

BB 45, 46: Hand Control  
 BB 48: Hand—Local—Automatic—Load Control

DRAWING NUMBERS

General Arrangement Drawing Nos. BuShips 85159-63  
 BuShips 118978-79

REMARKS

Elevation limits are minus 4° to plus 30°. Approximate limits of train are: BB 45—296° (Tur. I, II, IV), 306° (Tur. III); BB 46—294° (Tur. I), 296° (Tur. II), 299° (Tur. III), 295° (Tur. IV); BB 48—292° (Tur. I), 279° (Tur. II), 292° (Tur. III), 296° (Tur. IV).

Length of recoil is 48 inches.

Outside diameter of roller path is 27' 7".25.

Breech closing air supply is derived from the gas ejector system.

BB 45 and 46 turrets are used with gun directors Mk. 11 Mod. 0, Mk. 12 Mod. 0, Mk. 14 Mod. 0, Mk. 15 Mod. 2; ultimately Mods. of Mk. 34. BB 48 turrets are used with gun directors Mk. 14 Mod. 1, Mk. 34 Mods. 14, 15.

**16-IN. 45-CAL., 3-GUN TURRET, BB 55 CLASS**

| TURRET NO.                 | ASSY. NO. | SKETCH NO. |
|----------------------------|-----------|------------|
| <b>BB 55 NO. CAROLINA</b>  |           |            |
| I                          | 66        | 59616      |
| II                         | 67        | 59617      |
| III                        | 68        | 59618      |
| <b>BB 56 WASHINGTON</b>    |           |            |
| I                          | 69        | 59619      |
| II                         | 70        | 59620      |
| III                        | 71        | 59621      |
| <b>BB 57 SOUTH DAKOTA</b>  |           |            |
| I                          | 72        | 61857      |
| II                         | 73        | 61858      |
| III                        | 74        | 61859      |
| <b>BB 58 INDIANA</b>       |           |            |
| I                          | 75        | 61860      |
| II                         | 76        | 61861      |
| III                        | 77        | 61862      |
| <b>BB 59 MASSACHUSETTS</b> |           |            |
| I                          | 78        | 61863      |
| II                         | 79        | 61864      |
| III                        | 80        | 61865      |
| <b>BB 60 ALABAMA</b>       |           |            |
| I                          | 81        | 61866      |
| II                         | 82        | 61867      |
| III                        | 83        | 61868      |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

PAGE 1 OF FOUR PAGES

GUNS—THREE 16"/45  
INSTALLATION FOR

ROTATING WEIGHT, without projectiles

OSCILLATING WEIGHT, per gun

RECOILING WEIGHT, per gun

BRAKE LOAD, per gun

TRUNNION PRESSURE 45° ELEV. FIRE, per gun

MK. 6 MOD. 1  
BB 55-60

Weights below are approximate  
1,403 TO 1,437 LONG TONS

307,000 LBS.

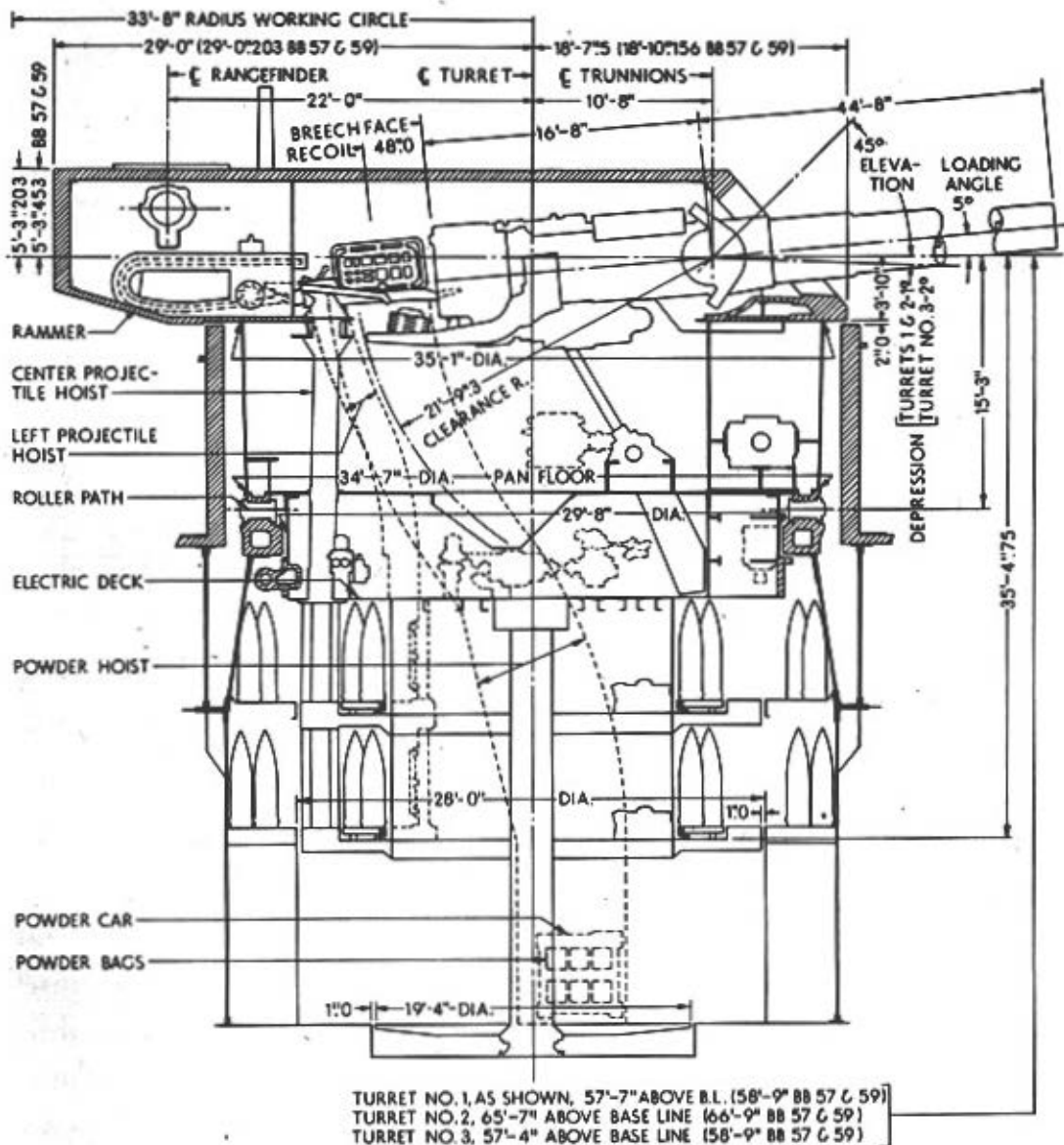
227,500 LBS.

1,037,500 LBS.

1,610,000 LBS.

**16"/45 3-GUN TURRET, BB 55 CLASS**

# 16-IN. 45-CAL., 3-GUN TURRET, BB 55 CLASS



PAGE 2 OF FOUR PAGES



## OPERATION REQUIREMENTS-PARTIAL

For full requirements see O. P. 755

### ELECTRIC (Various smaller motors omitted)

|                                         |                 |           |             |
|-----------------------------------------|-----------------|-----------|-------------|
| Elevating Gears,<br>3 motors, each      | 60. HP.         |           |             |
| Training Gear, 1 motor                  | 300. HP.        |           |             |
| Rammers, 3 motors, each                 | 60. HP.         |           |             |
| Projectile Rings<br>2 motors, each      | 40. HP.         | 440 V.    | 3 $\phi$ 60 |
| Projectile Hoists,<br>3 motors, each    | 60. HP.         |           |             |
| Cradles, 3 motors, each                 | 10. HP.         |           |             |
| Powder Hoists,<br>3 motors, each        | 75. HP.         |           |             |
| Gun Firing Transformer                  | 115 V. to 20 V. | 200 Watts |             |
| Stand-by Firing—<br>Four 6-V. Batteries | 24 V.           | 100 A. H. |             |

### PNEUMATIC

|                                                    |  |
|----------------------------------------------------|--|
| Gas Ejectors, Mk. 4 Mods. 0 or 1                   |  |
| 14.5 Cu. Ft. Free Air per Sec. per Gun at 175 psi. |  |
| Counterrecoil Cylinders                            |  |
| Initial Air Pressure, 1,600 psi.                   |  |

### HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

|               |            |                         |
|---------------|------------|-------------------------|
| Recoil Fluid  | O. D. 1914 | 91.3 Gals. per Gun      |
| Counterrecoil |            |                         |
| Liquid System | N. S. 2075 | Appr. 1.5 Gals. per Gun |

## POWER DRIVES

|                                                        |                            |                      |
|--------------------------------------------------------|----------------------------|----------------------|
| Elevating Gears<br>BB 55, 56, 58 &<br>Tur. II of BB 59 | (3) Mk. 4 Mods. 0,<br>1, 2 | G. E.-Northern       |
| BB 57, 60 &<br>Tur. I & III of<br>BB 59                | (3) Mk. 4 Mods. 3,<br>4, 5 | G. E.-Waterbury      |
| Training Gear<br>BB 55-58                              | (1) Mk. 1 Mod. 1           | G. E.-Waterbury      |
| BB 59, 60                                              | (1) Mk. 1 Mod. 0           | G. E.-Northern       |
| Rammers                                                | (3) Mk. 4 Mods. 0,<br>1, 2 | Northern<br>Vickers  |
| Projectile Rings                                       | (2) Mk. 1 Mod. 0           |                      |
| Projectile Hoists                                      | (3) Mk. 7 Mods. 0,<br>1, 2 | Waterbury<br>Vickers |
| Powder Hoists                                          | (3) Mods. of Mk. 8         |                      |

Note: All ships in class will ultimately have Gen. Elec.-Northern elevating gears.

## RECEIVER REGULATORS

|                                                                                                             | SPEEDS | MFR.  |
|-------------------------------------------------------------------------------------------------------------|--------|-------|
| Gun Elevation Receiver Regulator<br>Mk. 10 Mod. 0 (Nor. speed gears)<br>Mk. 14 Mod. 0 (Wat. speed gears)    | 2 & 36 | G. E. |
| Turret Train Receiver Regulator<br>Mods. of Mk. 15 (Nor. speed gears)<br>Mods. of Mk. 18 (Wat. speed gears) | 1 & 36 | G. E. |

## FIRE CONTROL EQUIPMENT

|                                                            | SPEEDS                                                | MFR.  |
|------------------------------------------------------------|-------------------------------------------------------|-------|
| Auxiliary Computer<br>Mk. 3 Mod. 1                         |                                                       | Ford  |
| Gun Elevation Indicator<br>Mk. 33 and Mods.                | 2 & 36                                                | NYNY  |
| Turret Train Indicator and Transmitter<br>Mk. 37 and Mods. | 1 & 36                                                | NYNY  |
| Multiple Turret Train Indicator<br>Mk. 12 Mods. 5 or 6     | 1 & 36                                                | NYNY  |
| Battle Order Indicator<br>Mk. 28 Mod. 0                    |                                                       | NYNY  |
| Sight Setter's Indicator<br>Mk. 3 Mods. 0, 1               | 6 & 216                                               | NYNY  |
| Gun Elevation Order Transmitter<br>Mk. 2 Mods. 0, 1        | 2 & 36                                                | NYNY  |
| Rangefinder<br>Mk. 46 & Mods., Mk. 47 & Mods.              |                                                       | B & L |
| Fire Control Assy. List Sketch Nos.                        | 61803 (BB 55-56)<br>62421 (BB 57)<br>62422 (BB 58-60) |       |

## GUN AND AMMUNITION DATA

### GUNS

Three 16-In. 45-Cal. Mk. 6 Mod. 1  
 Maximum Powder Pressure 18 Long Tons per Sq. In.  
 Weight of Gun (with solid breech) 192,310 Lbs.  
 Stepped Thread, Rotating and  
 Swinging Plug Type Breech Mechanism

### BALLISTICS

Muzzle Velocity (A. P.) 2,300 Feet per Second  
 (H. C.) 2,525 Feet per Second  
 Maximum Range (A. P.) 36,900 Yards at 45° Elev.  
 (H. C.) 37,100 Yards at 45° Elev.

### AMMUNITION—Bag

Typical Projectiles  
 A. P. Mods. of Mk. 8 Wt. 2,700 Lbs.  
 H. C. Mods. of Mk. 13 Wt. 1,900 Lbs.  
 Service Powder Charge (6 Sections) Nominal Wt. 540 Lbs.  
 Primer Mk. 15 Mod. 1

## OPERATING SELECTION

Hand Control—Local Control—Automatic—Load Control

## PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 755

General Arrangement Drawing Nos.

|             |         |           |
|-------------|---------|-----------|
| (BB 56)     | BuShips | 293009    |
|             | BuShips | 274937-38 |
| (BB 57, 59) | BuShips | 319039-40 |
| (BB 58-60)  | BuShips | 330030    |
|             | BuShips | 330033-34 |
| (BB 60)     | BuShips | 329201    |
|             | BuShips | 329216    |

## REMARKS

Elevation limits are minus 2° (ex. Tur. II, peacetime—0°) to plus 45°. The training limit is 300° (Turret I), 295° (Turrets II, III).

Maximum elevating gear rate is 12° per second. Maximum training gear rate is 4° per second.

Length of recoil is 48 inches.

Outside diameter of roller path is 34' 5".

Breech closing air supply is derived from the gas ejector system.

These turrets are used with gun directors Mk. 38 Mods. 0 to 7, and Mk. 40 Mod. 0.

**16-IN. 50-CAL., 3-GUN TURRET, BB 61 CLASS**

| TURRET NO. | ASSY. NO. | SKETCH NO. |
|------------|-----------|------------|
| BB 61      |           | IOWA       |
| I          | 84        | 62268      |
| II         | 85        | 62269      |
| III        | 86        | 62270      |
| BB 62      |           | NEW JERSEY |
| I          | 87        | 62271      |
| II         | 88        | 62272      |
| III        | 89        | 62273      |
| BB 63      |           | MISSOURI   |
| I          | 90        | 92469      |
| II         | 91        | 92470      |
| III        | 92        | 92471      |
| BB 64      |           | WISCONSIN  |
| I          | 93        | 92472      |
| II         | 94        | 92473      |
| III        | 95        | 92474      |
| BB 65      |           | ILLINOIS   |
| I          | 96        | 92637      |
| II         | 97        | 92638      |
| III        | 98        | 92639      |
| BB 66      |           | KENTUCKY   |
| I          | 99        | 92640      |
| II         | 100       | 92641      |
| III        | 101       | 92642      |

Note: Assembly number of turret is required for precise information. Sketch numbers are subject to frequent changes.

GUNS—THREE 16"/50  
INSTALLATION FOR

ROTATING WEIGHT, without projectiles

OSCILLATING WEIGHT, per gun

RECOILING WEIGHT, per gun

BRAKE LOAD, per gun

TRUNNION PRESSURE 45° ELEV. FIRE, per gun

MK. 7 MOD. 0

BB 61-66

Weights below are approximate  
1,701 TO 1,708 LONG TONS

387,900 LBS.

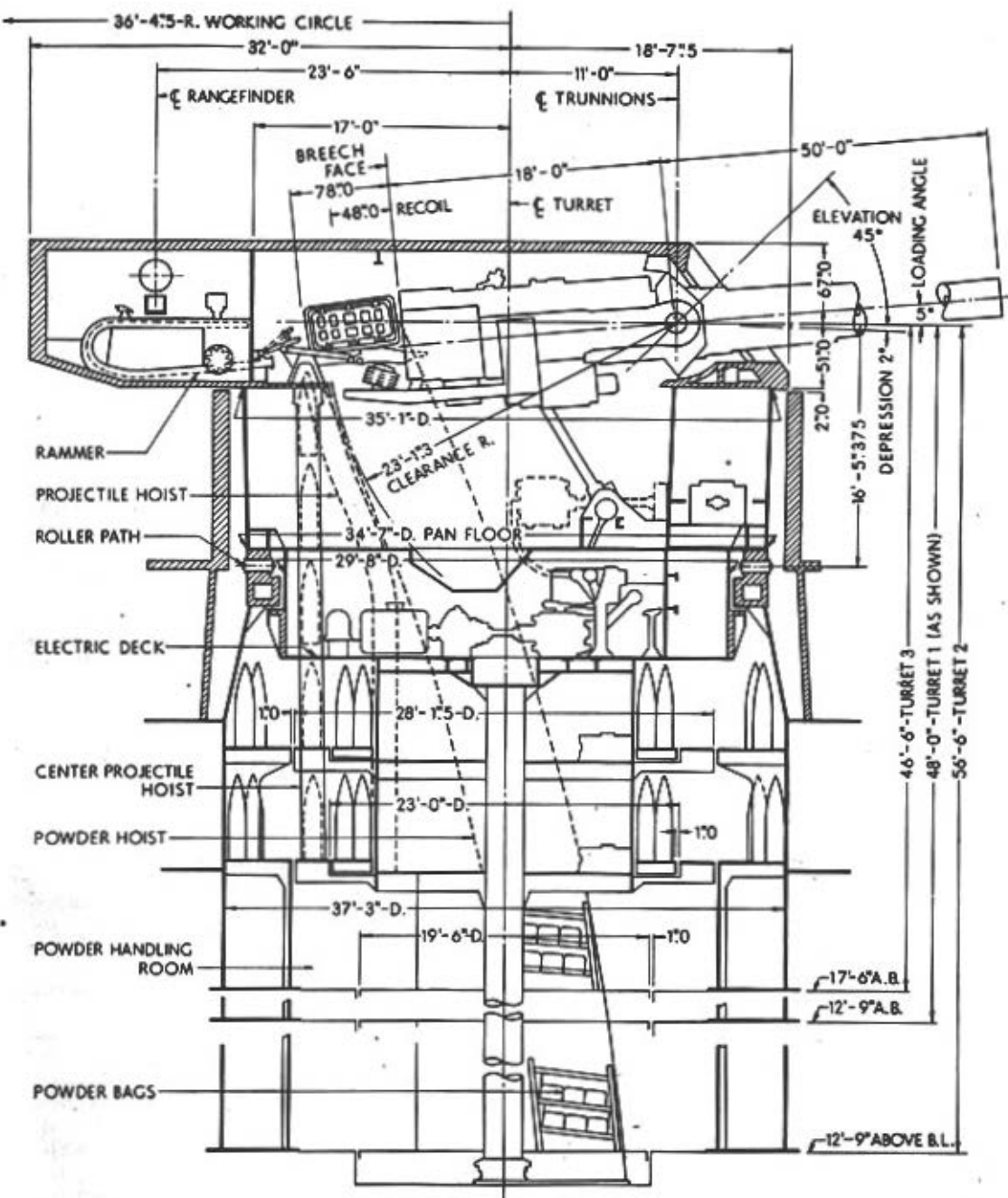
292,000 LBS.

1,381,000 LBS.

1,678,000 LBS.

**16"/50 3-GUN TURRET, BB 61 CLASS**

# 16-IN. 50-CAL., 3-GUN TURRET, BB 61 CLASS



PAGE 2 OF FOUR PAGES



# OPERATION REQUIREMENTS-PARTIAL

For full requirements see O. P. 769

## ELECTRIC (Various smaller motors omitted)

|                                         |                 |                    |
|-----------------------------------------|-----------------|--------------------|
| Elevating Gears,<br>3 motors, each      | 60. HP.         |                    |
| Training Gear, 1 motor                  | 300. HP.        |                    |
| Rammers, 3 motors, each                 | 60. HP.         |                    |
| Projectile Rings,<br>2 motors, each     | 40. HP.         | 440 V. 3 $\phi$ 60 |
| Parbuckling Gears,<br>2 motors, each    | 15. HP.         |                    |
| Projectile Hoists,<br>3 motors, each    | 75. HP.         |                    |
| Powder Hoists,<br>3 motors, each        | 100. HP.        |                    |
| Gun Firing Transformer                  | 115 V. to 20 V. | 200 Watts          |
| Stand-by Firing—<br>Four 6-V. Batteries | 24 V.           | 100 A. H.          |

## PNEUMATIC

Gas Ejectors, Mk. 5 Mod. 0  
14.5 Cu. Ft. Free Air per Sec. per Gun at 175 psi.  
Counterrecoil Cylinders  
Initial Air Pressure, 1,550 psi.

## HYDRAULIC (Speed gear oil, lubrication and buffers omitted)

Recoil Fluid O. D. 1914 95.1 Gals. per Gun  
Counterrecoil  
Liquid System N. S. 2075 Apr. 1.5 Gals. per Gun

# POWER DRIVES

|                   |                            |                     |
|-------------------|----------------------------|---------------------|
| Elevating Gears   |                            |                     |
| BB 61-64          | (3) Mk. 5 Mods. 0,<br>1, 2 | G. E.-Northern      |
| BB 65-66          | (3) Mk. 5 Mods. 3,<br>4, 5 | G. E.-Northern      |
| Training Gear     | (1) Mk. 2 Mod. 0           | G. E.-Waterbury     |
| Rammers           | (3) Mk. 5 Mods. 0,<br>1, 2 | Northern<br>Vickers |
| Projectile Rings  | (2) Mk. 2 Mod. 0           |                     |
| Projectile Hoists | (3) Mk. 8 Mods. 0,<br>1, 2 | Northern<br>Vickers |
| Powder Hoists     | (3) Mods. of Mk. 9         |                     |

# RECEIVER REGULATORS

|                                                         | SPEEDS | MFR.       |
|---------------------------------------------------------|--------|------------|
| Gun Elevation Receiver Regulator<br>Mk. 10 Mod. 0       | 2 & 36 | Gen. Elec. |
| Turret Train Receiver Regulator<br>Mk. 18 Mods. 5, 6, 7 | 1 & 36 | Gen. Elec. |

# FIRE CONTROL EQUIPMENT

|                                                                        | SPEEDS           | MFR.         |
|------------------------------------------------------------------------|------------------|--------------|
| Auxiliary Computer<br>Mk. 3 Mod. 2                                     |                  | Ford         |
| Gun Elevation Indicator<br>Mk. 33 Mods. 3, 4                           | 2 & 36           | NYNY         |
| Turret Train Indicator and Transmitter<br>Mk. 37 Mods. 4, 5, 6         | 1 & 36           | NYNY         |
| Multiple Turret Train Indicator<br>Mk. 11 Mod. 2 or<br>Mods. of Mk. 12 | 1 & 36           | NYNY         |
| Gun Elevation Order Transmitter<br>Mk. 2 and Mods.                     | 2 & 36           | NYNY         |
| Sight Setter's Indicator<br>Mods. of Mk. 3                             | 6 & 216          | Cont. Instr. |
| Range Finder<br>Mk. 52 Mod. 0 or Mk. 53 Mod. 0                         |                  | B & L        |
| Fire Control Assy. List Sketch No.                                     | 62560 (BB 61-66) |              |

GUN AND AMMUNITION DATAGUNS

Three 16-In. 50-Cal. Mk. 7 Mod. 0  
 Maximum Powder Pressure 18.5 Long Tons per Sq. In.  
 Weight of Gun and Screw Box Liner 239,156 Lbs.  
 Stepped Thread, Rotating and  
 Swinging Plug Type Breech Mechanism

BALLISTICS

Muzzle Velocity (A. P.) 2,500 Feet per Second  
 (H. C.) 2,690 Feet per Second  
 Maximum Range (A. P.) 42,300 Yards at 45° Elev.  
 (H. C.) 41,600 Yards at 45° Elev.

AMMUNITION—Bag

## Typical Projectiles

|       |                 |                |
|-------|-----------------|----------------|
| A. P. | Mods. of Mk. 8  | Wt. 2,700 Lbs. |
| H. C. | Mods. of Mk. 13 | Wt. 1,900 Lbs. |

Service Powder Charge (6 Sections) Nominal Wt. 655 Lbs.  
 Primer Mk. 15 Mod. 1

OPERATING SELECTION

Hand Control—Local Control—Automatic—Load Control

PAMPHLET AND DRAWING NUMBERS

Ordnance Pamphlet No. 769  
 General Arrangement Drawing Nos.

BuOrd Sk. 83750-52  
 BuShips 359555

REMARKS

Elevation limits are minus 2° (Turrets I, III) or 0° (Turret II) to plus 45°. The training limit is 300°.

Maximum elevating gear rate is 12° per second. Maximum training gear rate is 4° per second.

Maximum length of recoil is 48 inches.

Outside diameter of roller path is 34' 5".

Breech closing air supply is derived from the gas ejector system.

These turrets are used with gun directors Mk. 38 Mods. 0 to 7, and Mk. 40 Mods. 0 or 1.

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