

# PBR Model

50 Caliber Machine Gun Mount  
Mark 56 Mod 0

# Background 1

- We are building a 1:6 scale model of a Vietnam War river patrol boat for the Military History Society of Rochester (New York)
- The actual boat is 31' long, which results in a model 62" long
- The scale reflects the availability of commercially available materials for the model
- PBR Mark I design was selected because of availability of plans from the Maryland Silver Co. and BuShips Drawing Series PBR 31
- Photos of MK I, PBR 105 were obtained from the Patriot's Point Naval & Maritime Museum, Charleston, SC

# Background 2

- Early decision was to use basswood as the primary wood for the entire model
- Required basswood thicknesses varied from  $1/64''$  to  $1/4''$ , with increments of  $1/32''$  in between
- Where wood wasn't appropriate, other materials used include brass sheet/rods and tubing, some polystyrene sheets and anything else that fits the bill.

# PBR located at Patriot's Point Naval & Maritime Museum, Charleston, SC



# The 50 cal. Machine gun unit

- Customer wanted model to reflect most common 50 caliber machine gun configuration
- This turned out to be the 50 Caliber Machine Gun Mount Mark 56 Mod 0
- No drawings, with dimensions, are available from which to model this unit
- Where do we find details of this machine gun configuration in order to create a realistic model?

# Solution - NAVORD OP 3741

- Our model build is published in the forum of the Model Ship World website by Joe Lorenzo
- Al Ross in Waldo County, Maine saw our problem and provided us with
  - NAVORD OP 3741 Description, Operation And Maintenance with Illustrated Parts Breakdown of 50 Caliber Machine Gun 56 Mod 0
  - Specified paint color for the boat: Marine Corps #23 Green, FSN 34052 (Flat)

# The Real McCoy

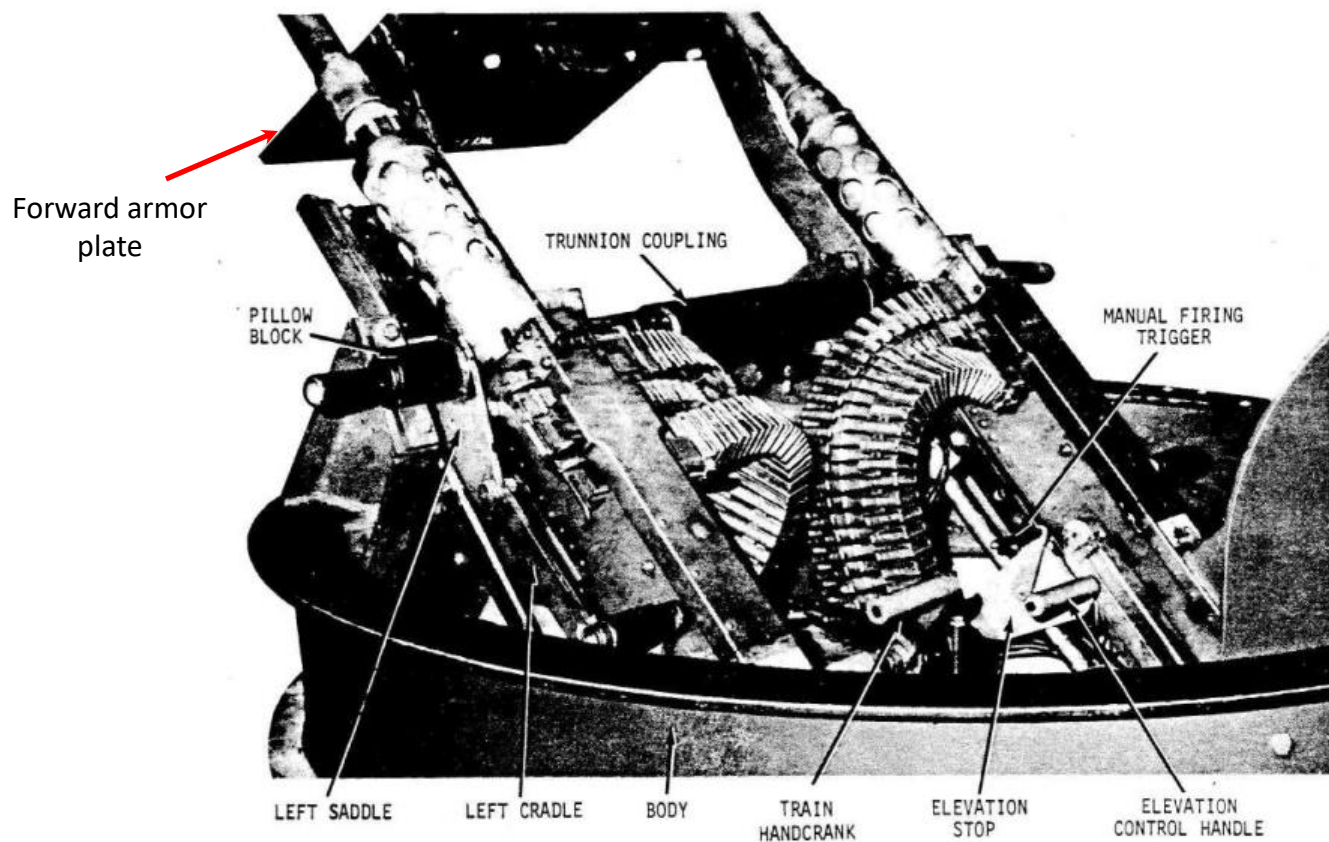
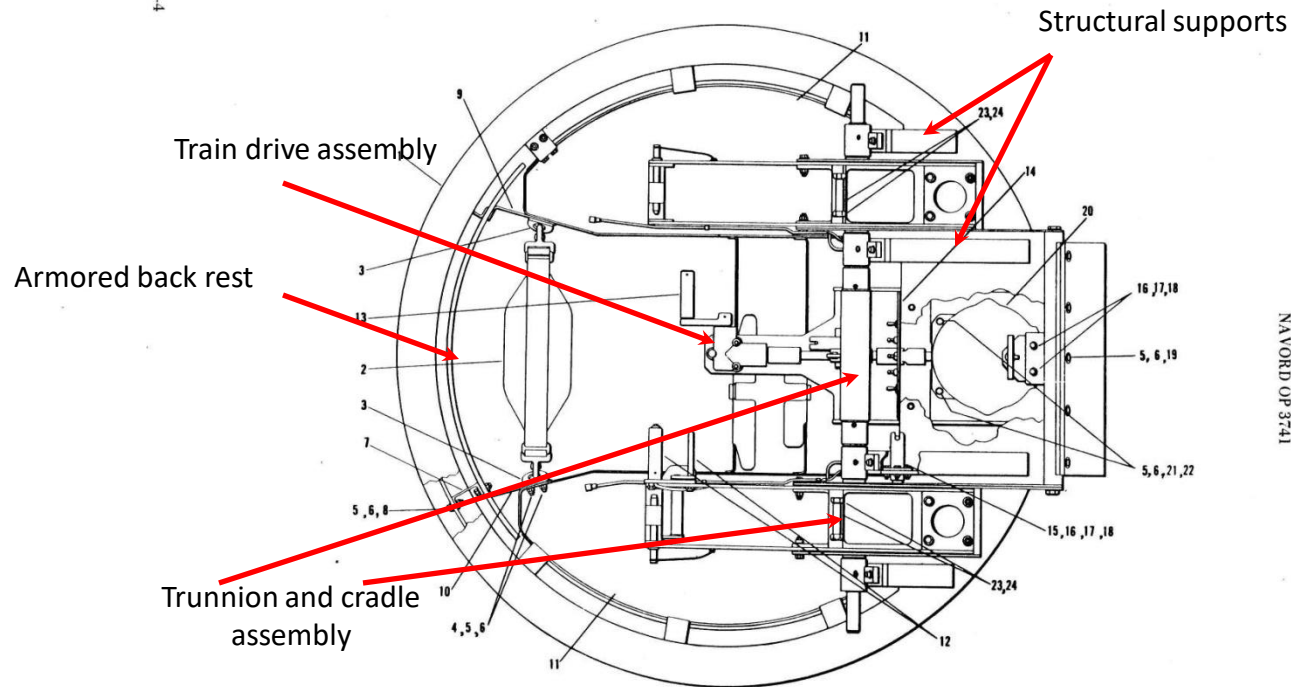


Figure 2-2. Gun Mount Mk 56 Mod 0 Top View of Gun Mount

# Major Elements of the MG Mount

- Body
- Train drive assembly
- Trunnion and cradle assembly
- Ammunition container assembly
- Armor
- Electrical system
- Manual firing system
- Charger adapter

# Body – Plan View



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Figure 5-2. Mount, .50 Caliber Mk 56 Mod 0, Plan View

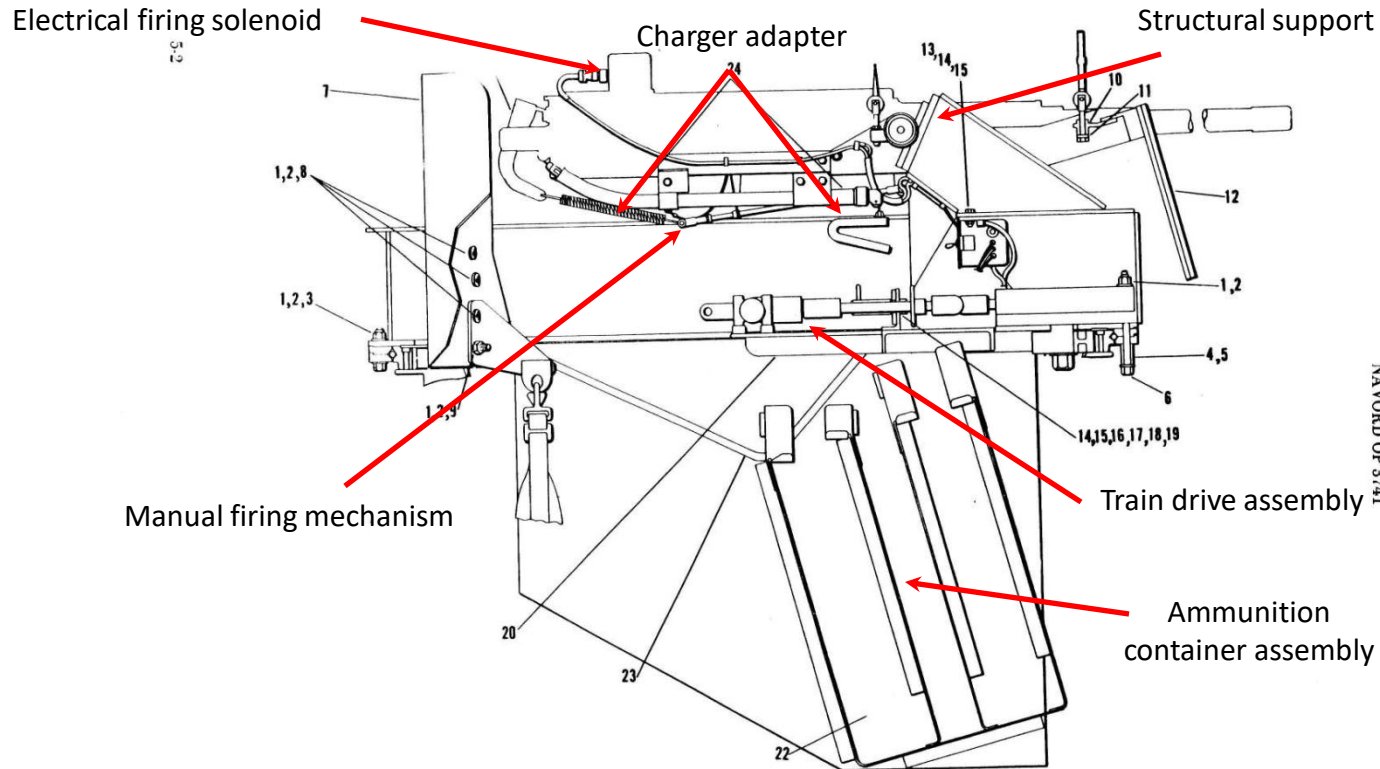
# Main Body - Model



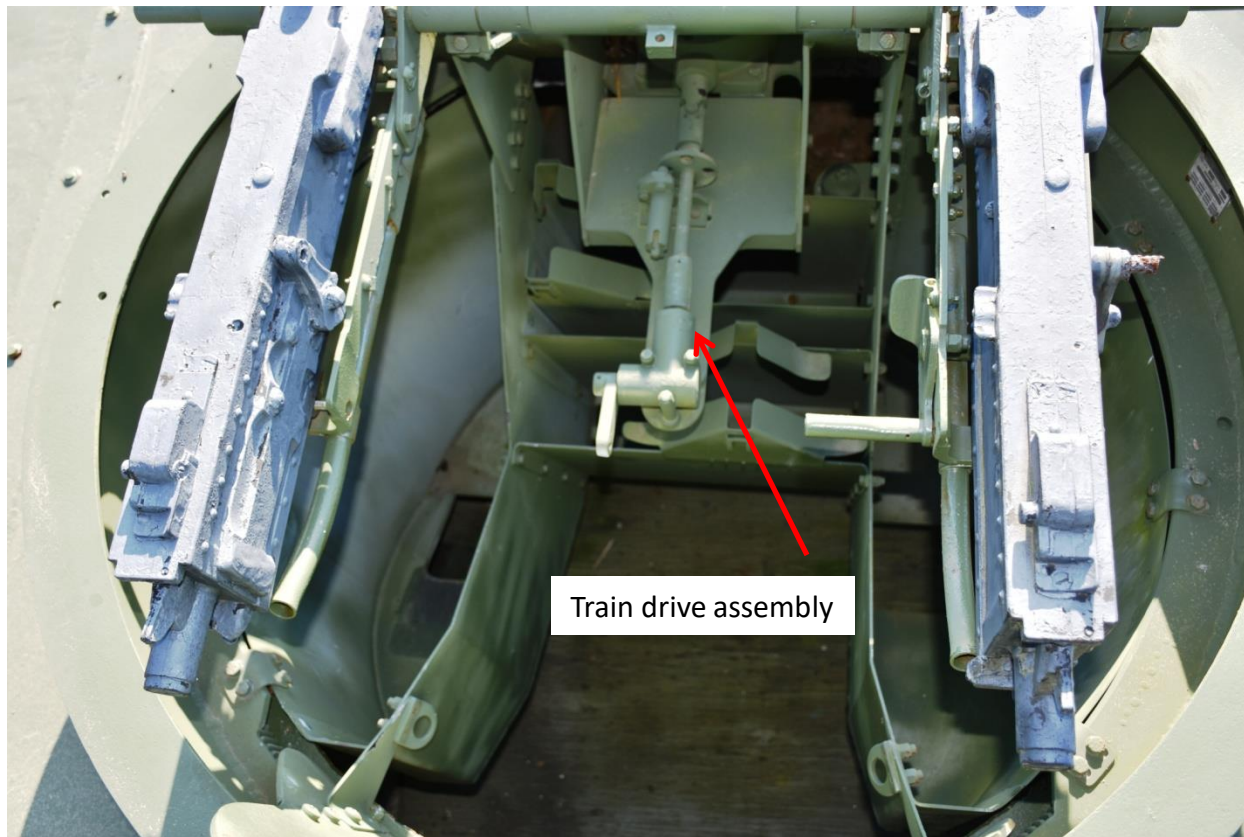
# Finished Body –Model



# Body – Side View



# Internal mount layout



# Train Drive Assembly

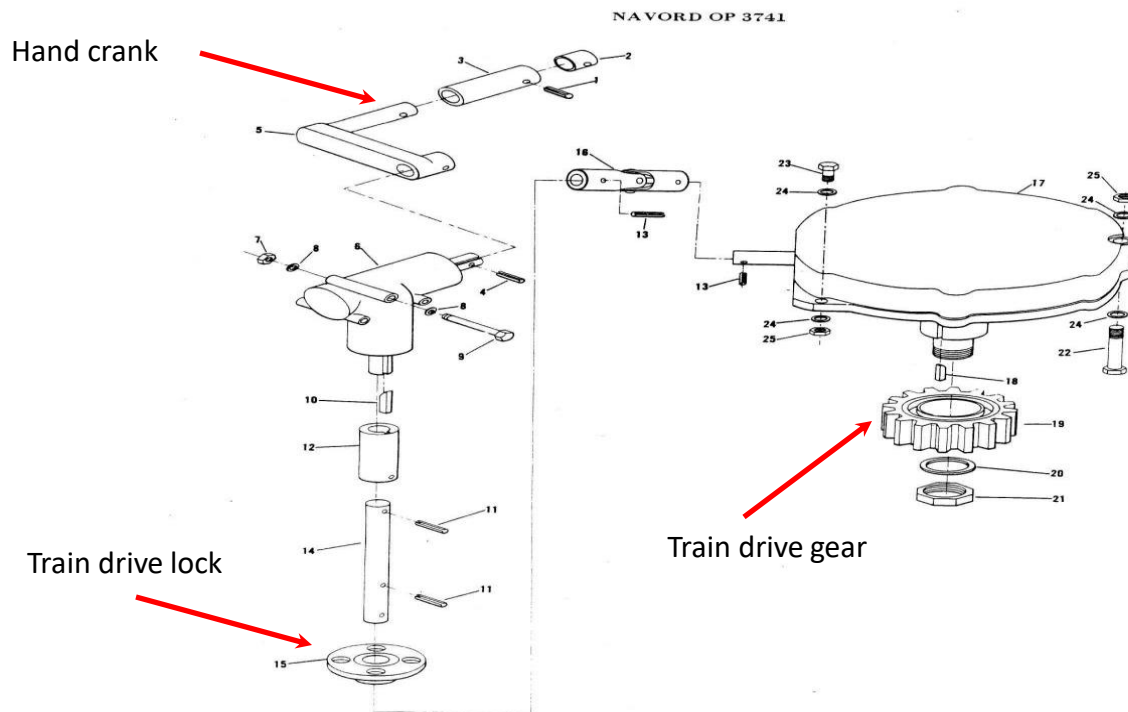
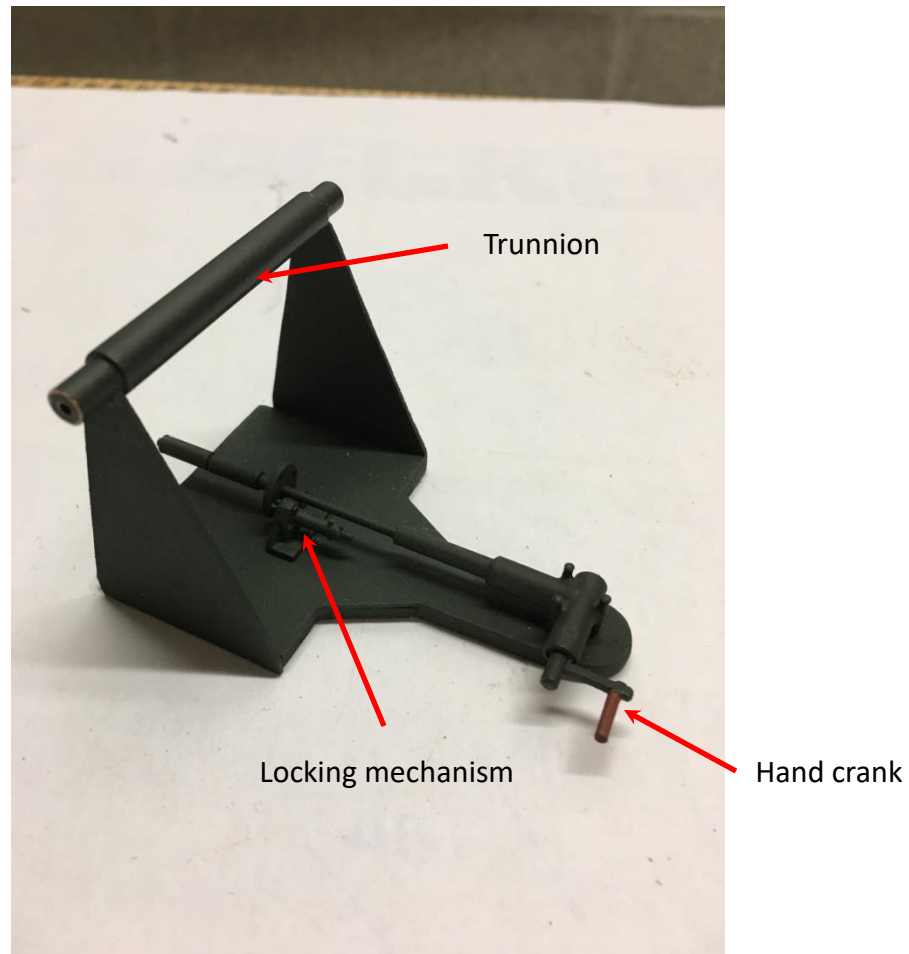


Figure 5-11. Train Drive Assembly

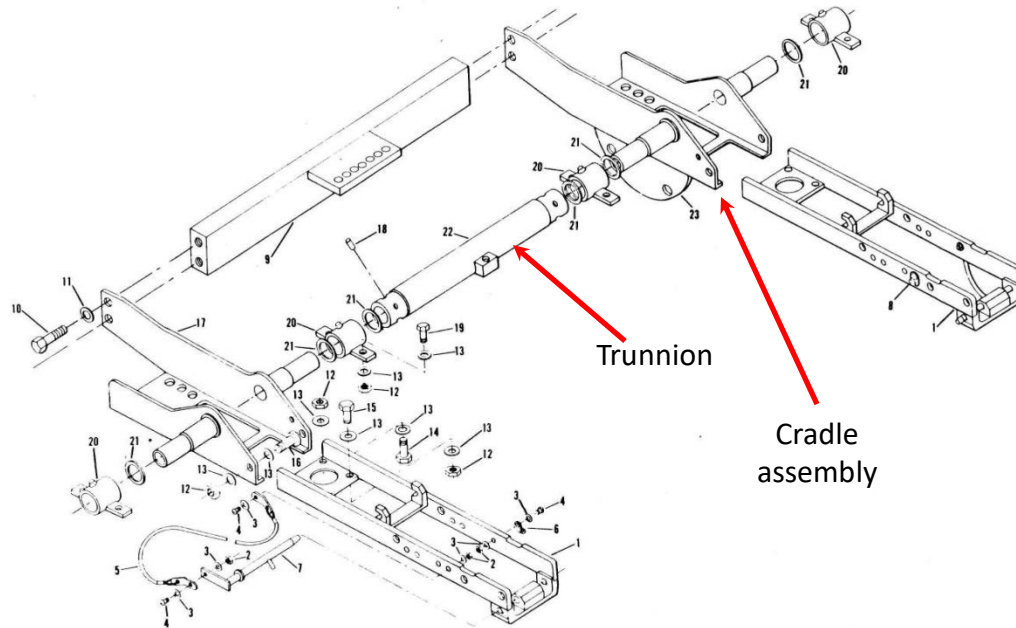
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# Train Drive - Model



# Trunnion & Cradle Assembly

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Figure 5-9, Trunnion and Cradle Assembly

# Trunnion and Cradles - Model



# Ammunition Container Assembly

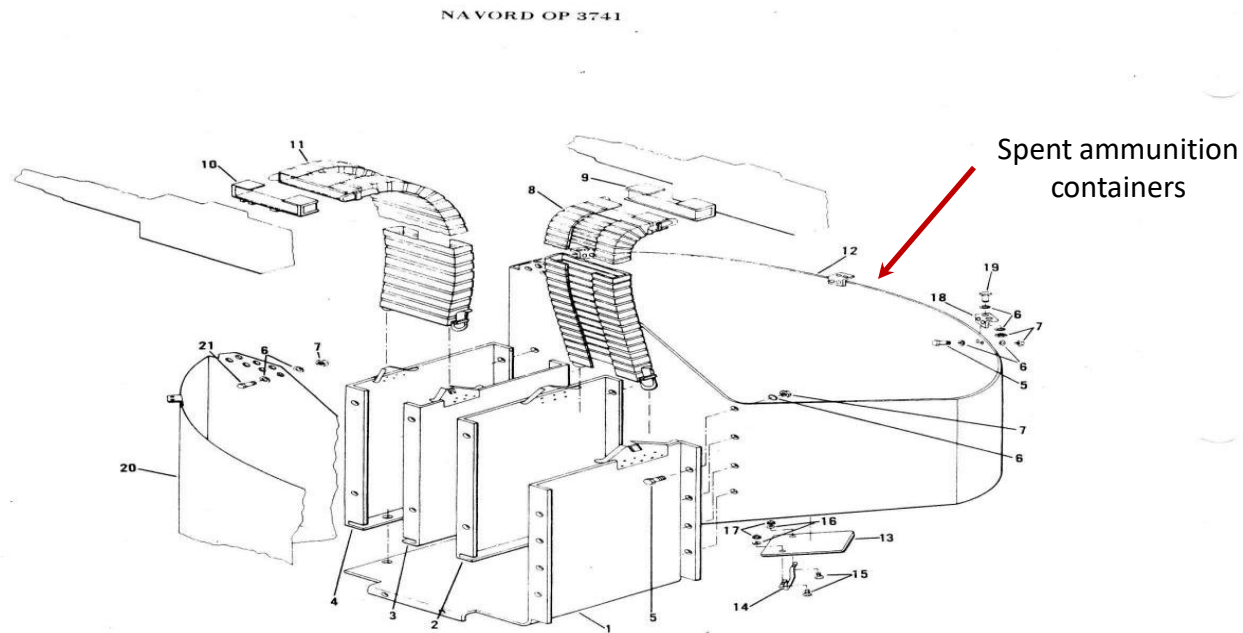


Figure 5-10. Ammunition Container Assembly

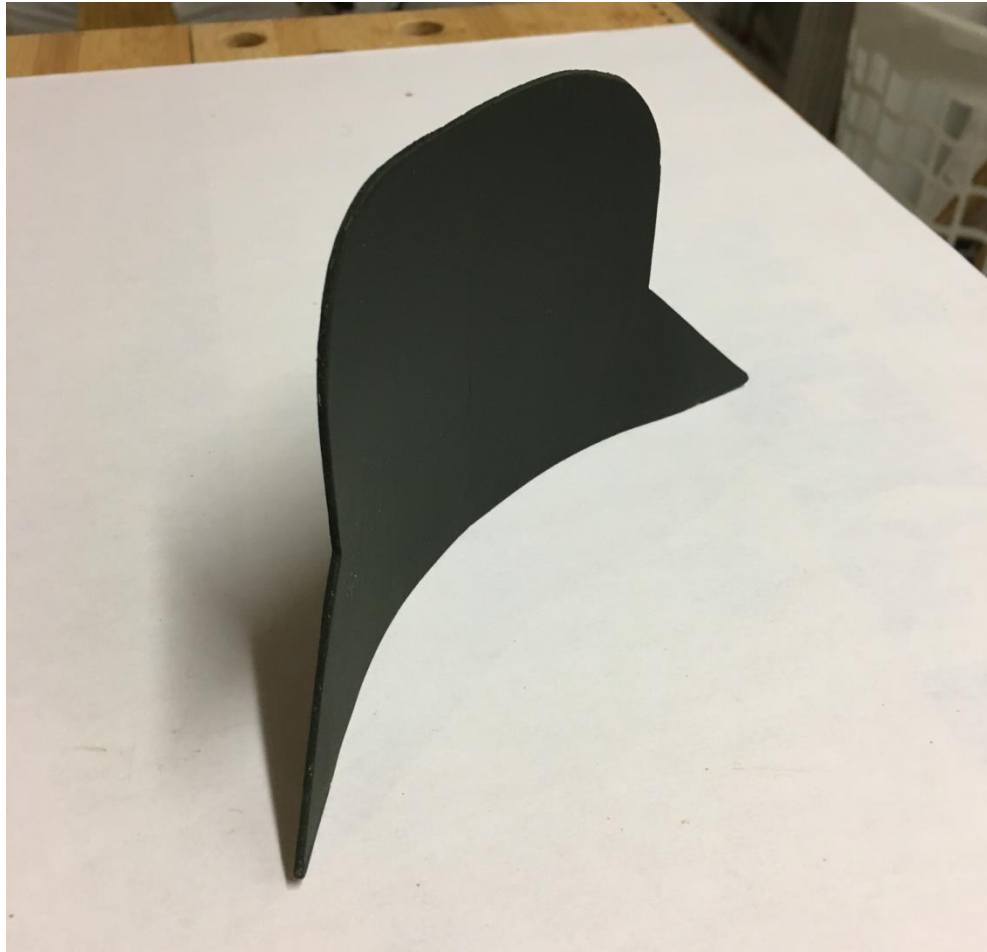
# Ammunition Containers - Model



# Armor

- Front and rear armor of 5/16-inch dual-hardness armor plate provide a degree of protection for the operator.
- Front armor plate is located between the gun barrels and is supported by a bracket attached to the right and left cradles. This armor trains and elevates with the guns and balances the trunnion assembly.
- The curved rear armor plate is bolted to the body at the rear of the operator's position and serves as a backrest.

# Backrest armor - Model



# Electrical System

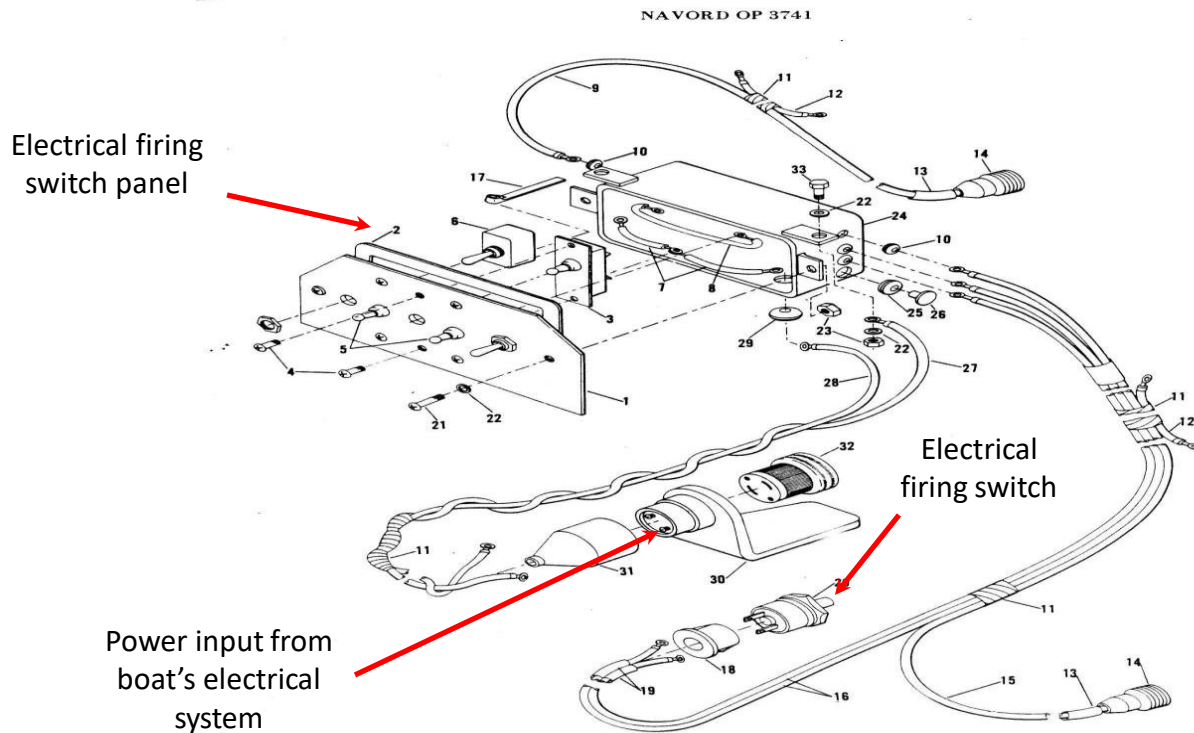


Figure 5-3. Switch Panel Assembly

# Switch Panel - Model



# Manual Firing System

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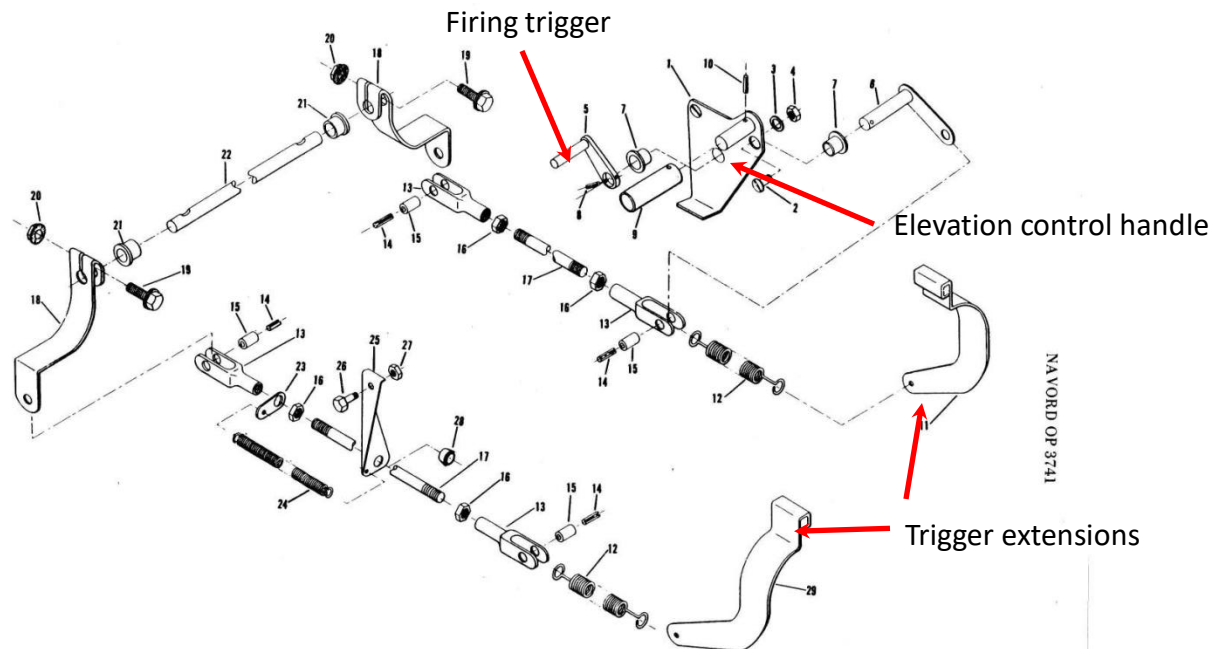


Figure 5-6. Manual Firing System

# Manual Firing Linkage

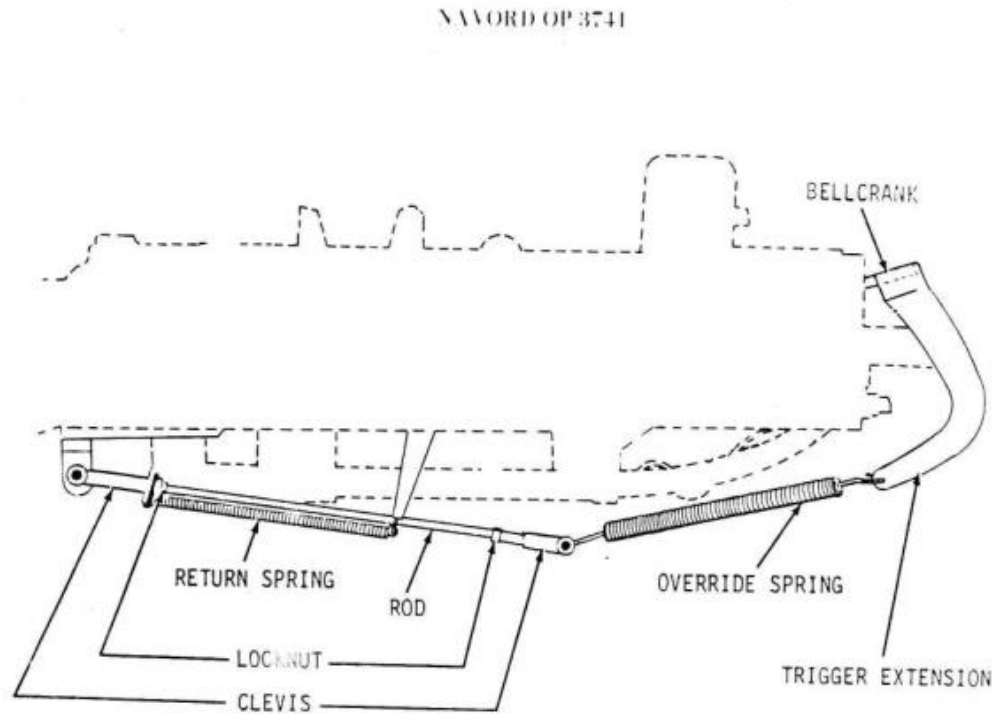


Figure 4-6. Left Firing Linkage

# Charging Adapter

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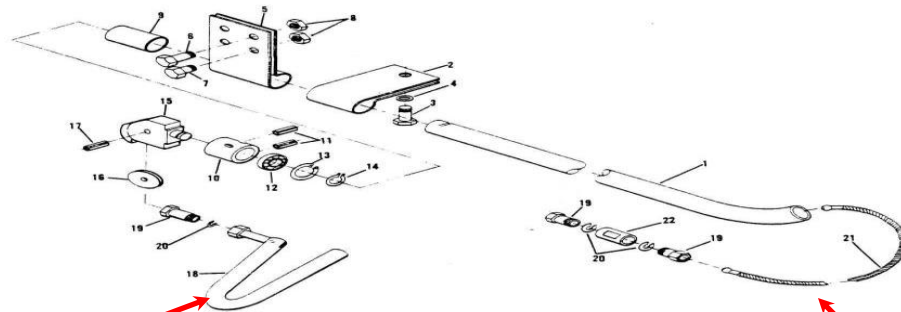


Figure 5-4. Charging Adapter (Right)

Cable to Mk 10 Charger

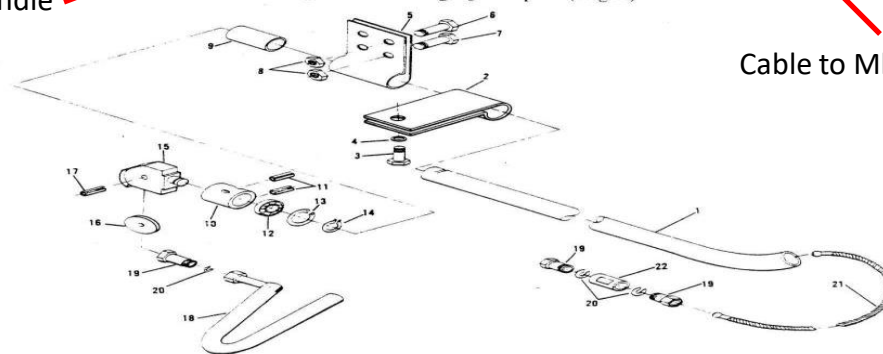


Figure 5-5. Charging Adapter (Left)

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# Assembled Model - 1



# Assembled Model - 2



# Assembled Model - 3



# Assembled Model - 4

