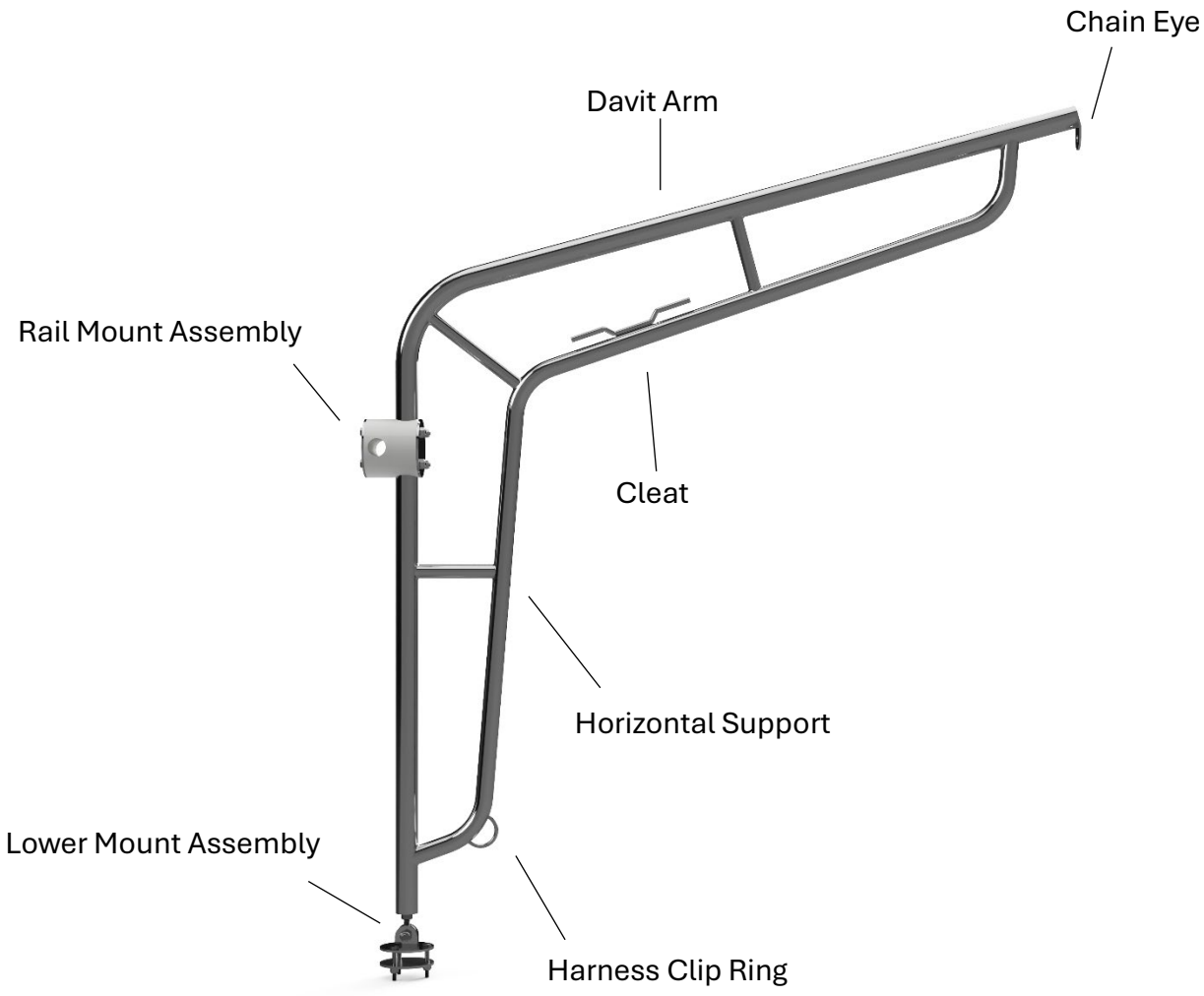
MD Series Installation Instructions



Required Materials (not included)

- Safety glasses and rubber gloves
- Electric Drill, ¼ and 5/16 drill bits
- 7/16 socket and ratchet
- 7/16 wrench
- Level
- Measuring tape
- Masking tape
- Pencil
- Marine adhesive/sealant
- Clean rags

1. **Load Carrying Capacity**
   The maximum load includes the combined weight of the dinghy, outboard motor, fuel tank, and all gear.
   - **MD-370 Davit Set**: 370 lbs total capacity (**185 lbs** max per arm).
   - **MD-600(EXT) Davit Set**: 600 lbs total capacity (**300 lbs** max per arm).

2. Davit Arm Placement

- **Alignment:** Mount davit arms within +/- **6 inches** of the dinghy's bow and stern lift points.
- **Orientation:** Ensure arms are as close to **vertical** as possible in all directions (fore, aft, and side-to-side) to minimize horizontal stress.

3. Rail Mounts (Upper Support)

- **Positioning:** Secure the rail mount to the **upper half** of the davit arm, above the uppermost horizontal support brace.
- **Tension:** Tighten only until the davit is held firmly against the stern rail. **Do not over-tighten**, as this can damage the rail blocks.
- **Stability:** If your stern rail flexes under the weight of the dinghy, you must install additional rail support.

4. Lower Mounts (Base Support)

- **Versatility:** The base can be installed on horizontal, vertical, or angled surfaces (e.g., transom, deck, cap, or toe rail).
- **Access:** Before drilling, ensure you have clear access to the underside/backside of the mounting surface to install backing plates.

5. Backing Plates & Fasteners

- **Included Hardware:** Use only the provided backing plates, hex-head bolts, and nylon-insert locknuts.
- ⚠ **CRITICAL SAFETY WARNING: Never use screws** in place of the provided bolts. Screws cannot support the load and **will lead to system failure**.

6. Dinghy Lifting Points

- **Critical Lifting Points:** Proper placement of lifting points is essential for the safety and structural integrity of your inflatable. All points must be positioned low and on the inside of the boat.
- **STERN:** You have two rigging options. For a traditional sling setup, use the existing lift points or install new ones low on the transom's interior. Alternatively, you can use the Martek Davits Lifting Yoke to eliminate the need for slings and eyebolts; this is the recommended method.
- **BOW:** Lifting points must be located inside the boat, approximately 3 feet back from the bow where the tube begins to curve. You can use the Martek Davits Strongback as an alternative to a sling.
- ⚠CRITICAL SAFETY **WARNING:** Never lift the boat using removable floorboards or the exterior "D" rings.

7. ⚠ CRITICAL SAFETY WARNING: Restraining your Dinghy

The dinghy must not be allowed to move around while underway. The dinghy should be restrained so it cannot swing or move on its own. Excessive dinghy movement can cause excessive pressure at the attachment points, **leading to failure.**

- When lifted, the dinghy must contact both Davit Arms. The dinghy should be level.
- The dinghy must be restrained; it cannot be allowed to swing free.
    - **Use the lifting lines:**
        - Stern - Loop around the inflatable tube at the stern, pull tight, and secure it to a cleat. Do this several times to form a belt.
        - Bow – Run a loop through the towing ring on the outside of the hull, pull tight, and secure it to a cleat.
    - **Use ratcheting straps:**
        - Stern – Clip onto the eyebolt on the outside of the dinghy transom, and the other end clips onto the stern rail mount eye nut, tighten using the ratchet.
        - Bow – Clip to the towing ring on the outside of the hull, and the other end clips onto the stern rail mount eye nut, tighten using the ratchet.
- The stabilizer strut prevents the davit arms from rotating; it does not prevent the dinghy from swinging or moving.

8. ⚠ CRITICAL SAFETY WARNING: When Crossing a Large Body of Water

Before crossing open water in conditions exceeding calm seas (waves >0.5 ft), the dinghy and outboard motor must be removed from the davits and secured on deck or towed. The pitching and rolling in active seas will create excessive dynamic loads that **can cause structural failure of the davit system or the vessel's transom.**

9. ⚠ CRITICAL SAFETY WARNING: Remove the Drain Plug

Remove the drain plug as soon as you lift the dinghy out of the water, always! Water weighs approximately 7 lbs. per gallon, and there are 7.5 gallons per cubic foot. A typical dinghy will hold approximately 26 cubic feet of water. That is an additional 1,345 lbs., **leading to failure.**

10. Bonding

It is recommended that the davits be connected to the boat's bonding system.

- Safety (Grounding): Reduces shock hazard by connecting metal parts, allowing breakers to trip during a fault.
- Lightning Protection: Offers a path for high-voltage lightning strikes to enter the water.

Installation:

1. Determine a suitable mounting location for the rail mount on the stern rail and the lower mount on the toe or cap rail, the deck, or the transom. Consider proximity to stanchions and other interferences.
2. Temporarily secure the lower mount to the Davit arm with masking tape. Remove the backing plate and fasteners.
3. Install the rail mount on the davit arm (upper half) and the stern rail. Do not tighten fasteners so the davit arm can slide on the stern rail.
4. Check that the davit arm is vertical, fore, aft, and side to side.
5. Where the lower mount base plate intersects the cap or toe rail, transom, or deck, cover the surface with masking tape and mark the hole positions
6. Drill the mounting holes. To ensure the backing plate fits, drill holes as perpendicular as possible. Seal any exposed core to prevent water absorption. Test-fit to ensure the base plate, backing plate, and fasteners align.
7. Remove all masking tape and prepare surfaces per the selected sealant instructions.
8. Bed the entire base plate mounting surface so a small amount of sealant is squeezed from all sides as fasteners are tightened. Install the backing plate and tighten all fasteners. Clean any excess sealant to leave a smooth joint between the base plate and the mounting surface.
9. Insert the Davit arm onto the lower mount.
10. Tighten the rail mount fasteners; do not overtighten.
11. **Stabilizer Strut -** Temporarily place the stabilizer strut across the davit arms. Mark the hole positions top and bottom. Remove the stabilizer strut and drill through the marked positions. Install the stabilizer strut and tighten all fasteners.
12. Wipe down metal surfaces using a stainless-steel polish/protectant.

Care and Maintenance

- With proper care, your davits will last and look new for a lifetime. Polished stainless steel will develop surface rust if neglected, especially in a marine environment. Periodically clean with soap and water and dry with a soft cloth. After cleaning, polish with a product like Flitz Metal Polish to remove oxidation, rust, and water stains, and provide a protective film.
- Check lifting lines, blocks, slings, etc., for fraying and wear. Replace as necessary.