

MARINE ELEVATOR INSTALLATION GUIDE

MODELS: 4000 8000 12000 14000 16000 20000

IMPORTANT: Read this manual carefully before installing the Davit Master Marine Elevator system, REFER TO LOCAL BUILDING CODES FOR EXACT REQUIREMENTS. The following instructions indicate the minimum requirements for installing a Davit Master Marine Elevator onto a seawall, bulkhead, dock or piling foundation. Each application must be evaluated based upon existing conditions. Davit Master is not responsible for the installation nor the integrity of the seawall, bulkhead, dock or pilings.

TRACK LOCATION: Track location is based off the length of the vessel to be lifted. Minimum spacing is 8 feet. Maximum is 12 feet. Normal is 10-12 feet.

TYPES OF FOUNDATIONS FOR INSTALLING THE TRACK

- **Seawall Installations**

A concrete foundation should be poured per local requirements, with 5/8's mounting bolts cast into the foundation.

- **Dock Installation**

The mounting plate should be bolted through the decking and tied into the stringers with treated 4" x 4" lumber.

- **Piling Installations**

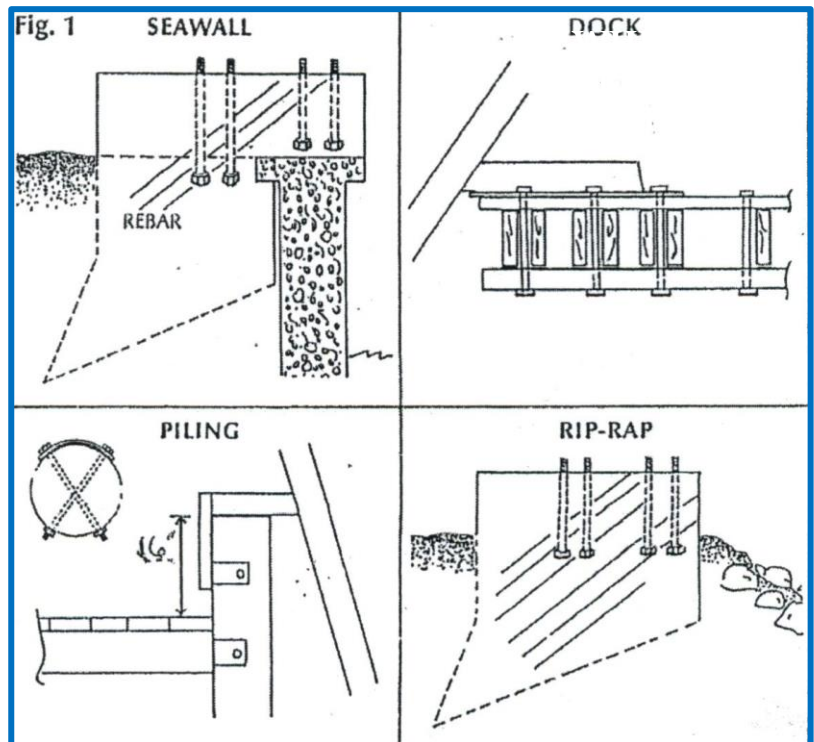
Installing onto pilings requires the mounting base to be located over the top of the piling and cross bolted through the piling.

- **Concrete pile mounted systems**

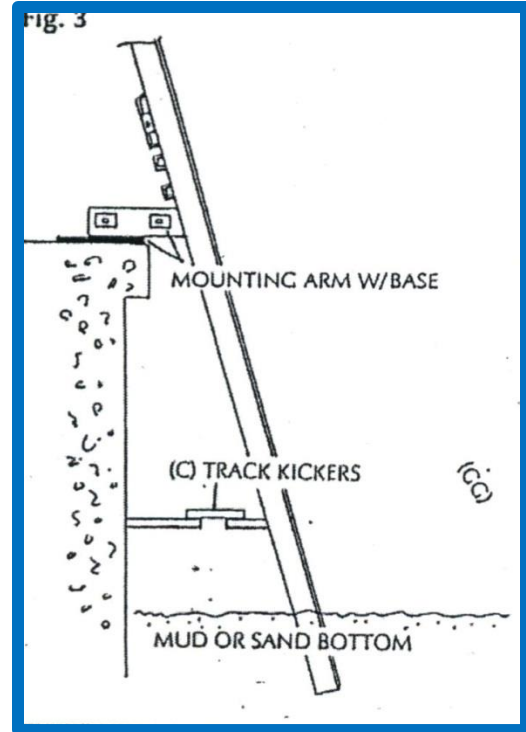
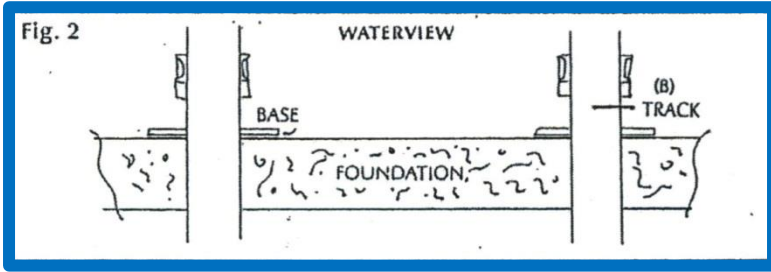
specify the size of the piling for custom brackets

- **Rock Rip-Rap Installations**

When installing over grassy or rocky inclines without established seawall or bulkheads, a concrete foundation with rebar should be poured, with the 5/8" mounting bolts cast into the foundation.



MOUNTING THE TRACK SYSTEM



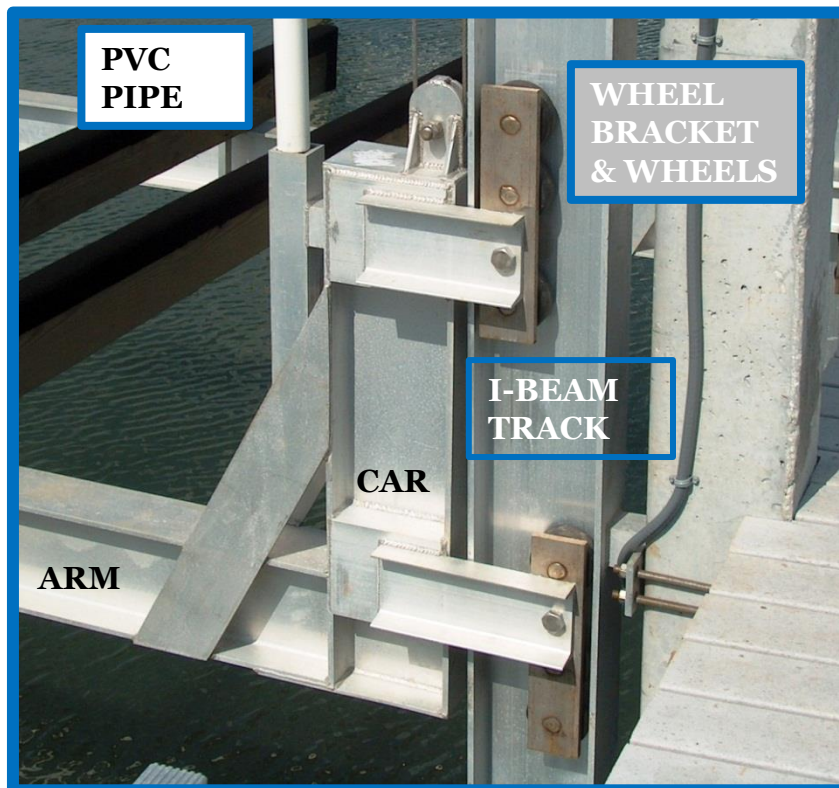
1. (fig. 2) The Marine Elevator mounting arm with base (A) should be positioned on its foundation so that the tracks will be square with each other. (See back page for base hole pattern)
2. Bolt the mounting base with the track (B) positioned at the specified angle.
3. Track angles of vertical to 45 degrees require penetration into the sea bed (fig. 3). The end of the track should be jetted into the sea bed. Care must be taken that the track penetrates the sea bed at the same spacing that the track attaches to its foundation (Fig. 2). This insures that the tracks are parallel. This is critical to the proper operation of the elevator system.
4. Track kickers or stand-offs (C) are attached to the track once the tracks are properly located. They should be seated firmly against the seawall or support pilings.

ELEVATOR CAR INSTALLATION

1. Install the elevator car and arm assembly onto the track and suspend in place.
2. Slide the elevator wheels into the wheel brackets.
3. Slide each wheel bracket between the flange of the track and the attachment channels extending down from the car. Bolt in place with the stainless steel bolts provided.

PVC Pipe guide Installation

1. Slide the PVC pipe onto the vertical pipe guide.



E-DRIVE MOTOR DRIVEN WINCH INSTALLATION

THE E-DRIVE MOTOR/WINCH unit is delivered fully assembled. It is bolted to the top of the track through the six factory drilled mounting holes with the (6) bolts provided.

There are two styles of the E-DRIVE WINCH UNIT. A single drive unit with (1) cable winder is used on the 4000 and 8000 model units. A double drive unit with (2) cable winders is used on the 12000 units and larger.

INSTALLING THE CABLES – SINGLE DRIVE UNIT (4000 & 8000 MODELS)

Layout the cables and make sure that the cables are the same length.

Dead end eyebolts should extend well below the mounting holes to allow for future cable adjustments.

Shackle the cable eye to the dead end eyebolt on the winch frame. Weave the other end of cable through the sheave mounted on top of the car and up through the pipe drive/cable winder hole. Install cable stop on the end of the cable and smash with hammer.

Turn on the motor in the up position and feed the cable onto the cable winder.

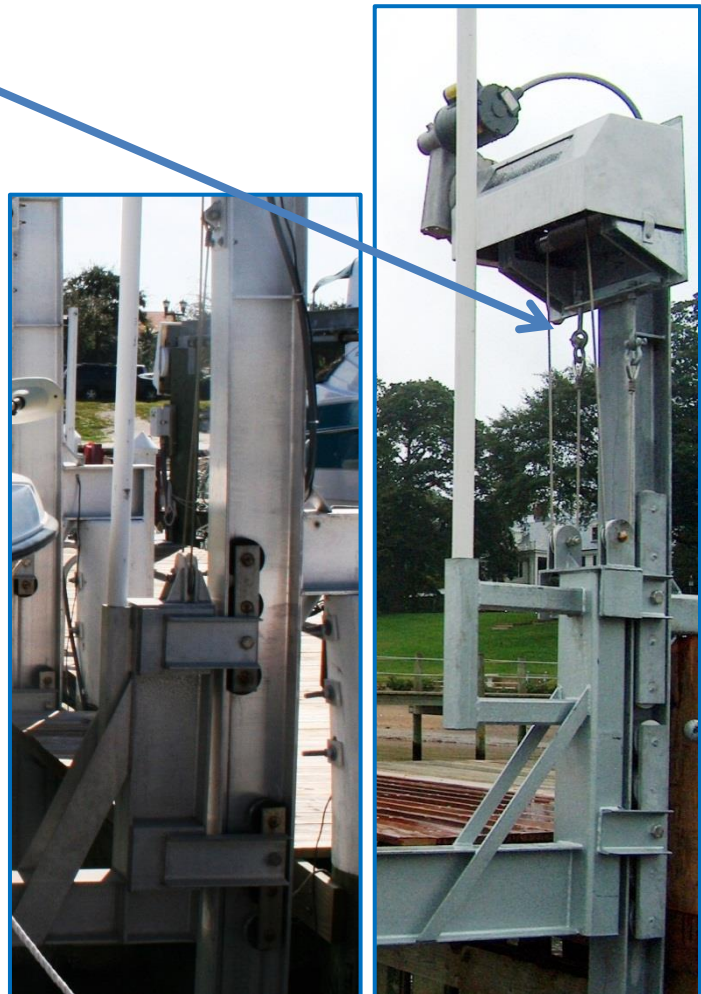
INSTALLING THE CABLES – DOUBLE DRIVE UNIT (12000 AND LARGER)

Layout the cables and make sure that the cables are the same length.

TOP WINDER: Shackle the cable eye to the dead end eyebolt on the RIGHT side of winch frame. Weave the other end of cable through the sheave (RIGHT side) mounted on top of the car and up through the pipe drive/cable winder hole. Install cable stop on the end of the cable and smash with hammer.

LOWER WINDER: Shackle the cable eye to the dead end eyebolt on the LEFT side of winch frame. Weave the other end of cable through the sheave (LEFT side) mounted on top of the car and up through the pipe drive/cable winder hole. Install cable stop on the end of the cable and smash with hammer.

Turn on the motors in the up position and feed the cables onto the cable winders.



SINGLE

DOUBLE

INSTALLING X-BRACING

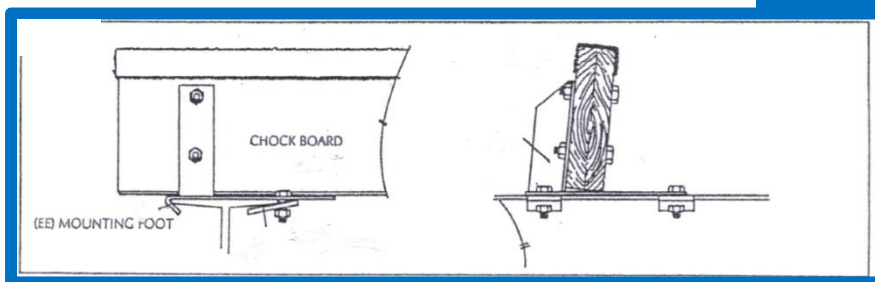
- (FIG. 4) Bolt the x-brace angle into place spanning the elevator arms.
- The x-braces will need to be trimmed to length and second hole drilled for proper fit and final bolting. Proper fit is achieved when the elevator cars sit square to the tracks without any outward lean.



INSTALLING THE CHOCK SYSTEM

GALVANIZED: Refer to (Fig.8) For chock brackets with hardware are provided. Hook the bent side of the mounting foot over the flange of the beam with flat side of the bracket facing the center of the system. Next pick the set of holes closest to the flange edge and use two of the 1/2" bolts provided. Place bar clip with the slot over the bolts from underside and hand tighten. Slide the chock bracket into position before tightening nuts. Repeat for all brackets. Bolt lumber to the flat side of the bracket. Brackets must be on the outside of boards leaving the center between the boards clear for the boat.

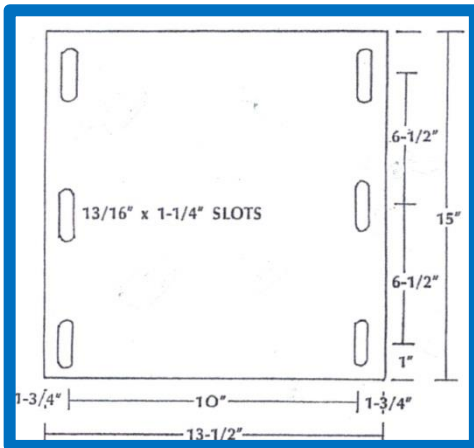
Fig. 8



ALUMINUM: Two aluminum chock angles are provided for each corner of the support arms. The chock angles bolt around the arm beam and through the chock board as shown in (Fig. 9). It is very important that the chock boards are secured tightly against the arm beam to insure proper support of the boat hull.



ELEVATOR HOLE PATTERN



TRACKS 45 DEGREES – CUSTOM CONCRETE SUPPORTS



ELEVATOR INSTALLED ON CONCRETE PILES



- CONCRETE PILE INSTALLATION
- CUSTOM INSTALLATION
- WOOD PILE INSTALLATION
- HINGE OPTION FOR WINTERIZATION

ELEVATOR WITH HINGE OPTION

ELEVATOR INSTALLED ON PILES

