



3900 DIGHT AVE. S.
MINNEAPOLIS, MN 55406
PHONE: (612) 724-9361
FAX: (612) 724-9362

WWW.DAVIT.COM
EMAIL: STCROIX@DAVIT.COM

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400/488 Rotating Davit Installation Instructions

These instructions were written with the owner in mind. If you are the installer make sure these instructions are passed along to the owner of the boat. Please read through the entire instructions before beginning the installation.

TERMINOLOGY

DAVIT ARM (400/488) – One pair of davit arms will carry an inflatable that weighs no more than 350/488 lbs. gross weight, respectively. That includes the boat, motor, gas tank and miscellaneous items you will leave in the inflatable.

HEAD OF THE ARM – The end of the davit with the white plastic wheels.

BALL JOINT – Lower mount.

CLAM SHELL – Upper mount

CLEAT – Found on the top of the davit arm. Used to secure lifting lines.

PULLEY (BLOCK) – The lower pulley is a four-sheave pulley.

BECKET – A horseshoe shaped piece of metal attached to the pulley (block). Used to attach a lifting sling or a hook when using the St. Croix Lifting Yoke.

TOOLS REQUIRED FOR INSTALLATION:

- 7/16" Wrench
- 7/16" Socket
- 3/8 Electric Drill (slow or variable speed)
- 1/4" Drill Bit and 5/32 Drill Bit
- 5/32" Drill Bit (not a cheap one)
- Hand operated Rivet Gun (you should have one, this is a neat tool, don't buy the cheap one).
- Level
- Tape Measure
- Fresh Coffee & Soft Music

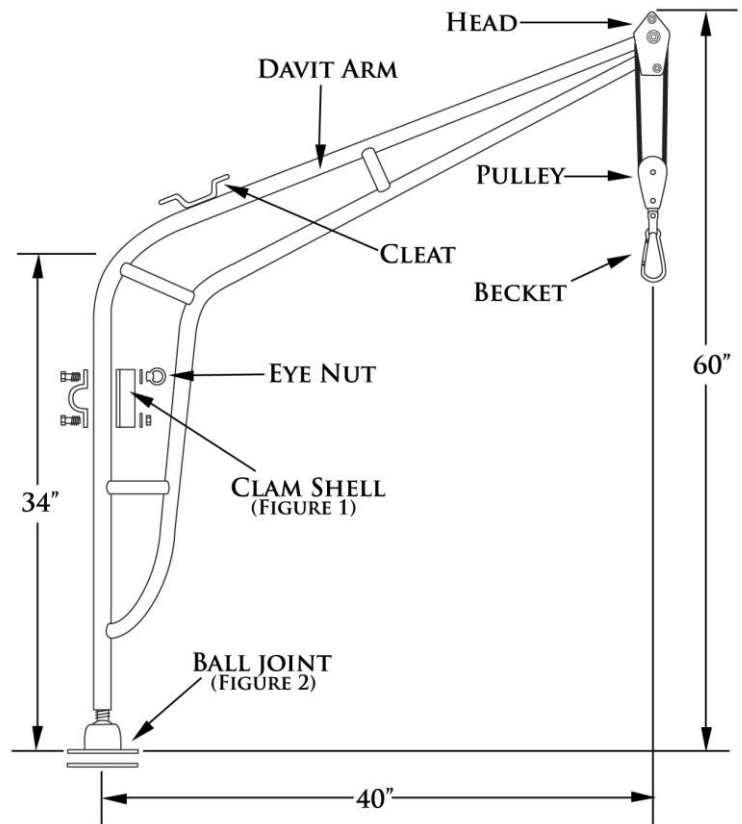
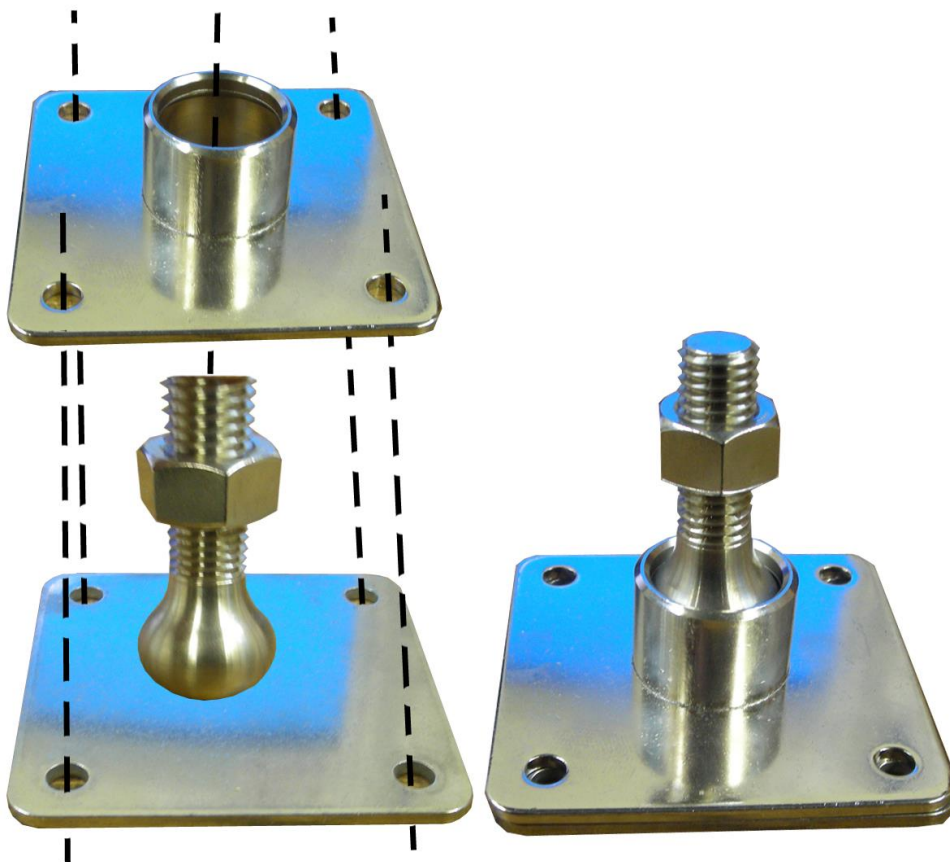


FIGURE 1 (CLAM SHELL)



FIGURE 2 (BALL JOINT)



GETTING STARTED

There are 8 rules that apply to the installation of these davits to your boat. These are **Bill's Rules**. Please adhere to them.

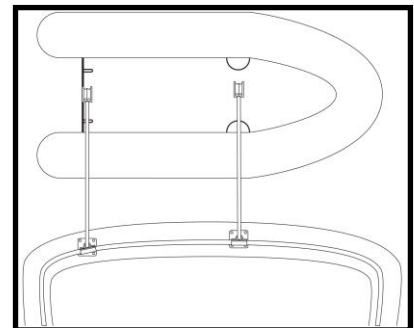
Rule violations are dealt with quickly. One violation mandates one week in Minnesota, in January. Two violations require two weeks in January. Three or more violations and you will have to sell your boat and buy a motor home.

- 1.) The stern rails of your boat may flex under pressure of davits. You may need to add supplemental supports. Every boat is different.
- 2.) Proper Layout is key; trial fit everything before you drill any holes. Get a 3/4" sheet of plywood and make a template of your swim platform and do your design of placement of your davits, if you make a mistake you can throw it away. Careful planning eliminates the need for extra work on your boat.
- 3.) Use only nuts and bolts to attach any load bearing device to a boat. Screws are **NOT** allowed.
- 4.) Connect the davits to the boats bonding system. Don't forget about lightning and that sort of thing.
- 5.) When lifting, the inflatable must come into contact with the davit arms. This helps stabilize the load.
- 6.) The boat must be restrained. It cannot be allowed to swing free. Use St. Croix Tie-Down Restraints or the lifting lines to secure the inflatable.
- 7.) **PULL THE DRAIN PLUG OUT OF THE INFLATABLE AS SOON AS YOU LIFT IT OUT OF THE WATER! ALWAYS!** Water weighs about 7 lbs. per gallon. There are 7.5 gallons per cubic foot, and the average inflatable will hold about 26 cubic feet of water. That potentially an **extra 1,345 lbs!** That is a lot of weight, so please pull the plug out!
- 8.) Photographs- Send a photograph of your installation and the davits in use to the factory. We use them as part of our boat shows displays. Some will even get into the new catalog!

LAYOUT, DRILLING, AND LIFTING

STEP 1 – Installing the davits is very straightforward. Clamp the primary davit tube to the top rail of your stern. Position the ball joint on the boat and mark the location. Drill the holes and install the bolts.

When you assemble the ball joint, Insert that through the upper ball joint mounting plate, then thread on the 1/2" nut, then thread into the bottom of the davit arm. The bottom ball joint plate is support for the ball. It is used directly under the ball joint not as an internal backing plate. When you have bolted down the top unit, then tighten the nut to the bottom of the davit, so it does not come lose and rattle around



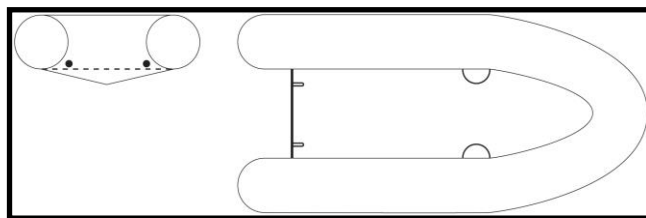
The upper mount consists of two identical pieces called clamshells. They are divided by a piece of round plastic (bearings). The plastic is to prevent a burr from occurring when the davits are rotated. If

the stern rail that the davits are attached to is not straight, then the plastic divider will need to be sanded. Use a disc sander and sand a 1" wide path on one side of the plastic disc. Place the sanded side to the davit arm. This will allow clearance and prevent burrs. If a burr occurs, it must be sanded out.

The clamshell that mounts on the stern rail has two small holes in it. When you have determined the exact mounting locations, drill two 5/32" holes in the stern rail, drill very slow speed so as not to heat up the S/S. Using your rivet gun, install the rivets. Use your level to make sure the davits are perpendicular prior to drilling. The upper clamp must be tight prior to drilling. Use the 3" Set-back Block (Model #413) if you're mid-rail is in the way. When mounting the upper mount to a bulkhead, use only the outer half and the setback block then bolt through. There are two eye nuts. Use one on each mount instead of a nut. See Step 5, and you will see why.

STEP 2 – The lifting points in your inflatable are very important and critical to properly lifting and securing the boat. They must be low and inside the boat.

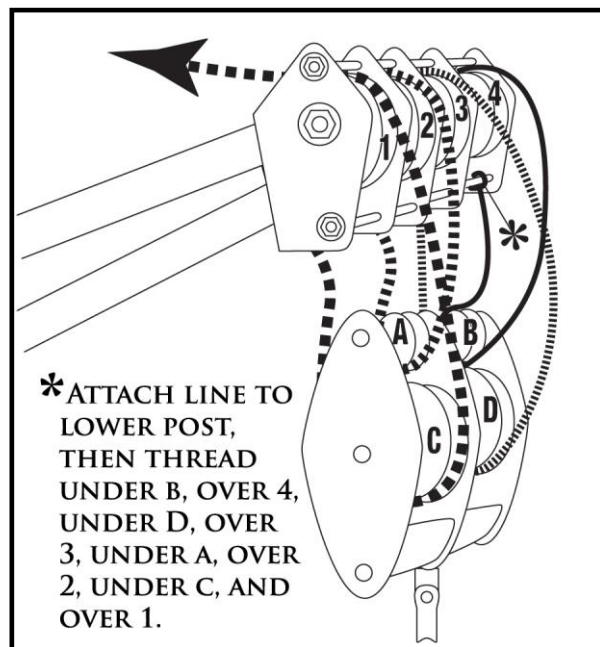
STERN – The stern can be rigged in one of 2 ways. If you want to use a sling at the stern, the lift points must be low and on the inside of the transom. Another option is to use the St. Croix Lifting Yoke #220 (see drawing) and eliminate the sling and eye bolts. This is the best choice.



BOW – The bow lifting points must be inside the boat. They should be located back from the bow about 3 feet, in the area where the tube starts to form the bow (See drawing). Never lift from the removable floor boards or from the "D" ring on the outside of the hull.

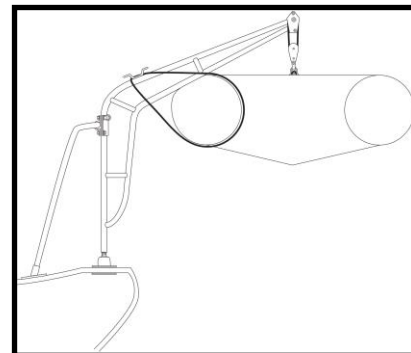
STEP 3 – Lace the head of the davit as shown in the diagram.

STEP 4 – The big lift. Before you lift the inflatable, pull down on the head of the davit arm to test for deflection in the fiberglass of your big boat and the stern rail. If you are lifting alone, first lift the bow of the inflatable a couple of feet and tie off the line to the cleat on davit arm. Next, lift the stern a couple of feet and tie off the line to the cleat on that arm. Alternate lifting the bow and lifting the stern in this manner until the inflatable tubes come into contact with both davit arms and the inflatable is level. Stop and re-read rule #7 of **Bill's Rules** and please comply now.



STEP 5 – Restrain the inflatable so it does not move around when underway. There are two methods available to you. The first option is to use the lifting lines. Throw a loop around the tube of the inflatable at the stern and then put that line around the cleat on that davit arm. Pull the boat in tight. Do this several times to form a rope belt. Now go to the bow of the inflatable and using the lifting line, run a loop through the towing ring on the outside of the hull, then back to the cleat. Again, pull the boat in tight. The boat should not swing and move on its own.

The second option is to use the St. Croix ratchet tie-down restraints to the eye bolt loop on the outside of the transom of the inflatable and the other end to the eye nut on the upper mount. Tighten with the ratchet. At the bow, attach one end of the tie-down restraint to the towing ring on the



outside of the hull or the bow eye if the boat is a rib and the other end to the other eye nut. Again, tighten using the ratchet. Stabilizer bars will not prevent the load (boat) from swinging or moving. They will only prevent the davits from rotating. They will also damage the davit arms by exerting great pressure at the attachment point. Do not try to control the davit arms. Control the load by tying the boat off as necessary.

When properly restrained, the lower tube of the davit arm will be in contact with the inflatable. To prevent the davit arm from making a mark on the inflatable, get two 12-16" pieces of 1" clear plastic tubing. Slit them lengthwise and place on the lower davit tube where it contacts the inflatable. Secure plastic tubing to the davit with plastic ties.

STEP 6 – Congratulate yourself on a job well done! Find your camera and take some pictures of your installation of your inflatable secured on your new St. Croix Rotating Davits. Please send us your pictures; we use our customer photos in our displays at the boat shows we attend. We will also use some pictures in our new product brochures.

CARE AND FEEDING

Stainless steel will rust if you neglect it. Periodically wipe with metal polish and a little wax. Check the lines and slings periodically for wear and/or fraying. Replace as necessary. Re-read **Bills Rules**, especially rule #7. I want you to enjoy your davits for years to come, and may they cater to all your inflatable lifting needs. We look forward to seeing your photos.

