

# INSTALLATION INSTRUCTIONS ST. CROIX REMOVABLE DAVITS

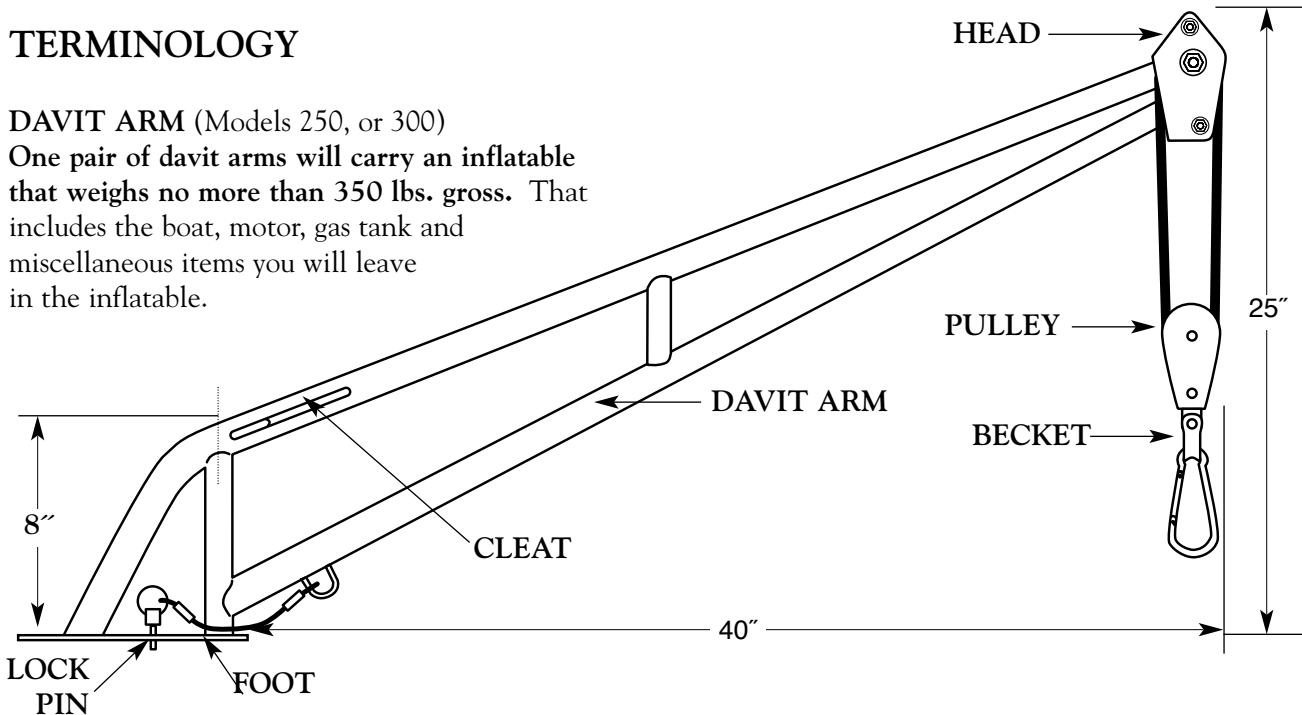
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These instructions were written with the owner in mind. If you are the installer, make sure these instructions are passed along to the owner of the boat. There are specific rules that pertain to the installation of davits.

## TERMINOLOGY

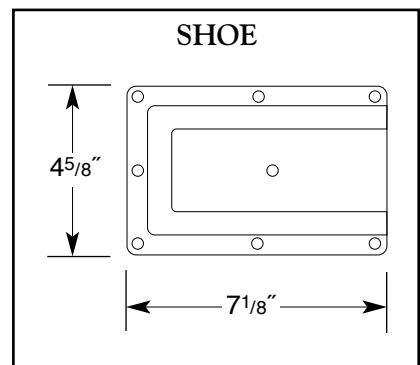
**DAVIT ARM** (Models 250, or 300)  
One pair of davit arms will carry an inflatable that weighs no more than 350 lbs. gross. That includes the boat, motor, gas tank and miscellaneous items you will leave in the inflatable.



**HEAD** of the davit arm - The end with 2, 3, or 4 white plastic wheels on it.

**FOOT** of the davit arm - The end without the plastic wheels.

**SHOE** - Large plate that bolts to a horizontal surface on your boat. The foot of the davit slides into the shoe. The open end of the shoe always faces the stern.



**CLEAT** - Found on the side of the davit arm.

**LOCK PIN** - Pin with lanyard which locks the davit arm into the shoe.

**PULLEY** - Black pulley with plastic wheels and a becket (horseshoe shaped ring) attached.

# GETTING STARTED

There are 10 rules that apply to the installation of davits on your boat. These are Bill's Rules. Please adhere to them.

1. Reinforce your boat. Davits are a tremendous lever and will exert great forces on your boat. No production boat is strong enough. It is your boat, make it stronger — a lot stronger.

2. Proper layout. Take your time and measure everything several times before you drill hole number one. Careful planning eliminates the need to explain to your friends, dock neighbors and the higher authority on your boat what all the extra holes are for.

3. The distance between the davit arm heads shall be equal to or no more than 3" (inches) less than the distance between the lifting points in the inflatable. Side pressure on the davit arms is not allowed.

4. Use only nuts and bolts. Screws are not allowed under any circumstances. All load bearing devices must be through bolted.

5. Backing plates will prevent nuts, bolts and washers from pulling into the fiberglass. They are required. Use at least 1/4" aluminum and make it as big as possible.

6. Connect the davits to the boat's bonding system. Don't forget about lightening and that sort of thing.

7. When the inflatable is fully lifted, the tubes of the inflatable must come into contact with the davit arms. The inflatable becomes the third leg of a truss, making a stronger system.

8. The inflatable shall not move while underway. Use St. Croix SS tie down restraints or the lifting lines to secure the inflatable.

9. 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 gallons per cubic foot and the average inflatable will hold about 26 cubic feet of water. Do the math. That is a lot of weight. Please pull the drain plug.

10. Photographs. Send a photograph of your installation and the davits in use to the factory. We use them as part of our boat show displays. Some will even get into the new catalog!

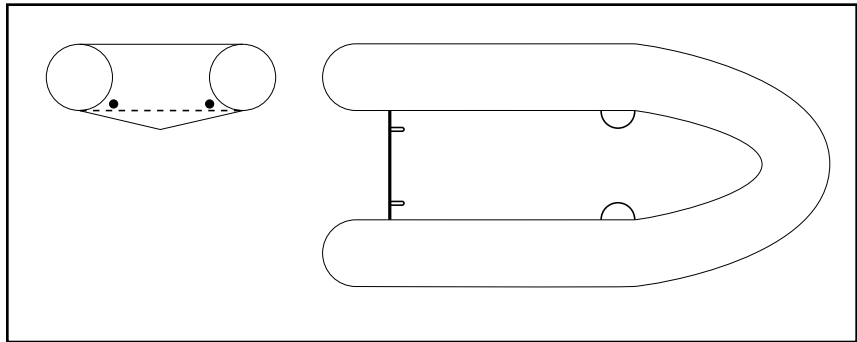
Rule violations are dealt with quickly. Violate one rule and you will have to spend one week here in Minneapolis in the winter. Two violations gets you two weeks. Three violations and your higher authority will send you for the entire winter.

# SUPPORTS, LAYOUT, DRILLING AND LIFTING

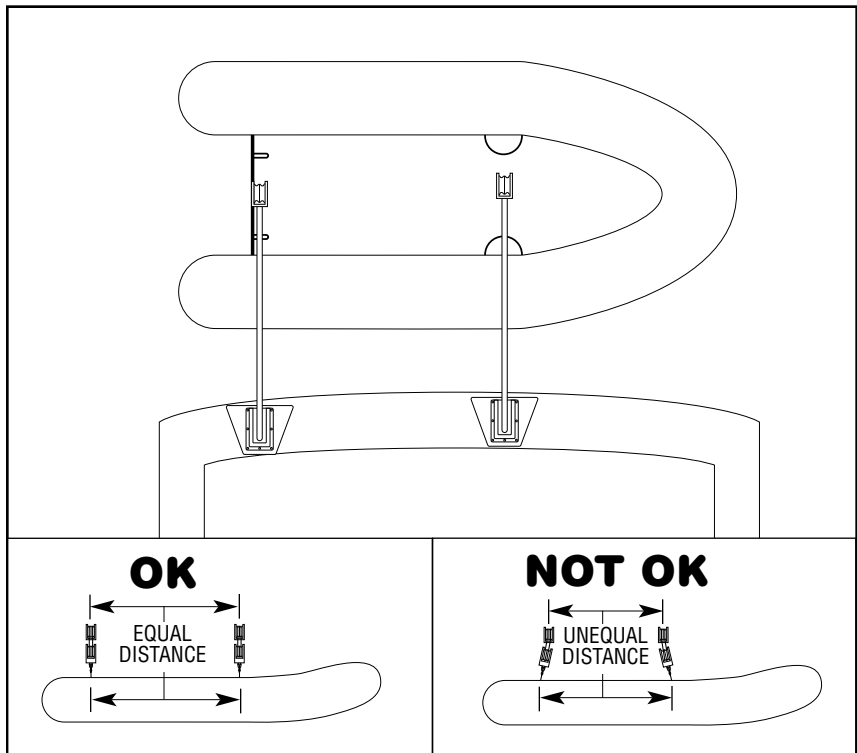
At this point, it's time to go to work. Get comfortable, there is a lot of information to cover. Read through the entire instructions before you begin.

**STEP 1.** Lifting points in the inflatable. The stern lifting points should be as low as possible on the inside of the transom and in the corners. The bow lifting points should be in the area where the tube of the inflatable starts to form the bow of the boat. That's also where you want the arm of the davit to cross the inflatable.

**If you have wood or metal floor boards, glue "D" rings to the tube of the inflatable on the inside of the boat and as low as possible.** Never lift from the removable floor boards. Never lift from the rings on the outside of the tube. Having the lifting points in the proper place is critical to a good installation.

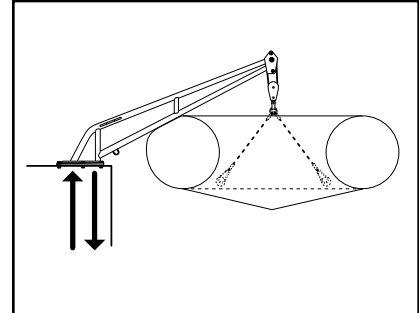
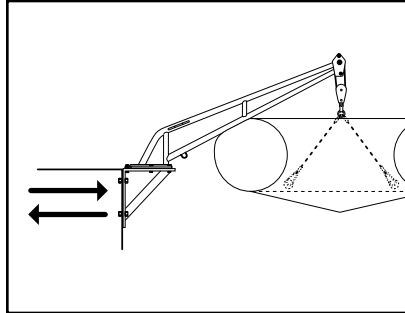


**STEP 2.** Lay-out. Take your tape measure and measure the beam of your big boat at the stern. Your inflatable should be shorter than the beam of the big boat at the stern. Measure the distance between the lifting points in your inflatable. That tells you how far apart the heads of the davit arms should be. The shoe plates might not be that distance apart because of the radius of the stern of the big boat. Compensate for the radius. A general rule of thumb is you will be able to balance the inflatable to the stern of the big boat but the davit arms will not be balanced. This is just the nature of the beast. (See drawing) If you have a transom door or boarding ladder on one side of the boat, that is the side of the boat that the bow of the inflatable



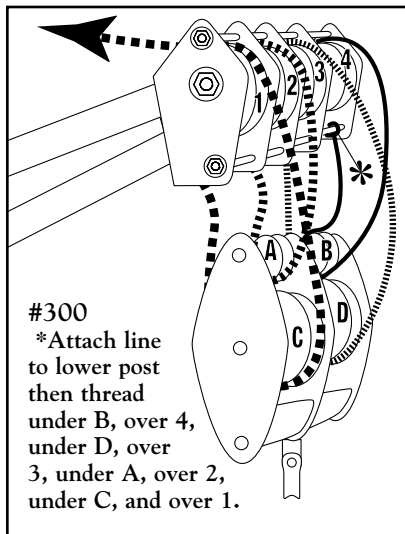
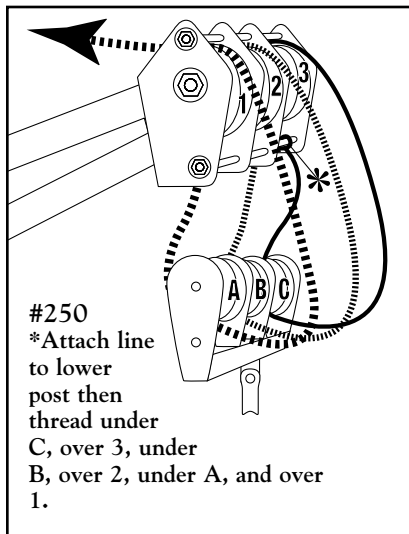
should point to so you can still use the door or steps. Take your time. Measure everything several times. Before drilling, make sure you have read step 1 and reinforced your boat properly.

**STEP 3.** Reinforce your big boat. Your boat as constructed by the factory is not strong enough to just bolt the davits to it and go for a cruise. There are two forces that exert tremendous force on your boat. They are tension and compression. The arrows in the drawings illustrate the direction the forces are trying to move. You must reinforce your boat so there is no movement in these areas of tension and compression. Reinforcement materials should be wood, fiberglass, metal or a combination of the three. Make your reinforcements big and strong.

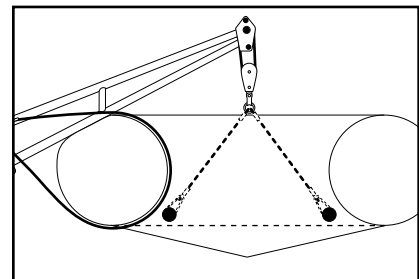


**STEP 4.** If you have reinforced your boat properly and measured everything several times, you are now ready to drill the holes and bolt the shoe and/or mounting accessories to your boat. Remember to use bolts, nuts, washers and a big backing plate.

**STEP 5.** Lacing the lifting lines to the davit arms. Attach the line to the bottom bolt at the head of the davit arm using a tight bowline knot. Now, lace the line according to the davit model that you purchased.

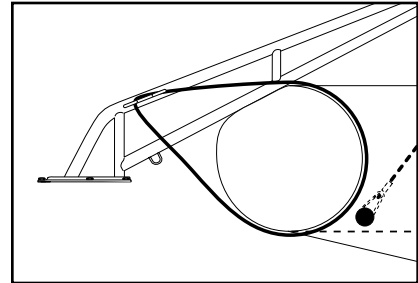


**STEP 6.** Fitting the slings. If you are using St. Croix Lifting Slings, attach the center ring of the bow sling to the becket (horseshoe shaped ring) of the lower black pulley of the davit arm. Attach the bow sling to the lifting rings in the bow of the inflatable. Attach the stern sling to the becket on the other davit arm and then attach the sling to the stern lifting rings in the inflatable. The middle of the stern sling should be a little above the large clamp bolts of the outboard motor. Put a lock bar on the clamp bolts and the sling will rest on it and not on the face of the motor.



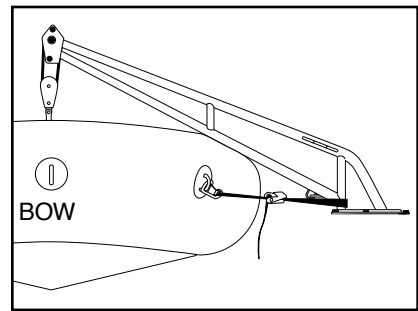
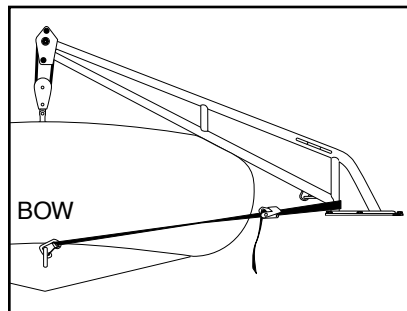
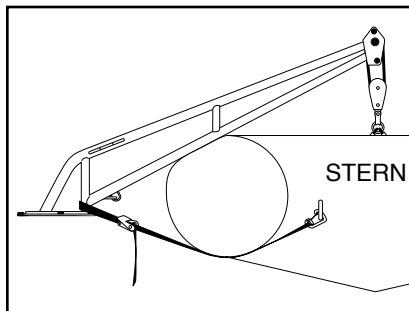
**STEP 7.** The big lift. Before you lift the inflatable, pull down on the head of the davit arm to test for deflection in the fiberglass of your big boat. If there is no deflection, begin lifting the inflatable. If there is deflection, stop and reinforce your big boat more. If you are lifting alone, first lift the bow of the inflatable a couple of feet and tie off the line to the cleat on the 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 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 #9 of Bill's Rules and please comply now.

**STEP 8.** 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 SS ratchet tie-down restraints (Model 242). Attach one end of the tie down restraint to the eye bolt on the outside of the transom of the inflatable and the other end to the ring at the base of the davit arm. 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 and the other end to the ring at the base of the davit arm. Again, tighten using the ratchet.

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 wire ties.



**STEP 9.** Congratulate yourself on a job well done! Find your camera and take some pictures of your installation and your inflatable in your new St. Croix Removable Davits. Send them to us. 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 Bill's Rules, especially rule #9. Bill wants you to. Enjoy using your new davits. We look forward to seeing your photos.