

ARM LIFT ASSEMBLY INSTRUCTIONS **3,000 lb. through 27,000 lb.**

Advance Information Required

Well width- Measure inside to inside of substructure on slip, less banding board or anything else attached to substructure. (See figure 1.)

Hull Dimensions- If not available from previous installation, measure between chines on boat or bunks on trailer, if available. Step hulls measure length and depth of step, most common 1 ½" depth x 3' or 4' in length. Use 2" x 6" CCA lumber cut to desired length, carpet and screw to existing bunks in correct location.

Non-Standard Installations- Certain boats and customer specific conditions dictate non-standard installations (i.e.: pontoon, extra narrow slips, backing in, shallow water, etc.). Reference specific lift drawings through out assembly process.

Layout/Preparation

Layout drawing for lift to be assembled and pull all parts from material list on drawing.

L-ARMS

- ♦ Open (widen) the pitman attachment with a hammer to allow insertion of stainless steel bushing.
- ♦ Close split tube end until a stop ring can pass over.
- ♦ Inspect split tube for slag and burrs, remove for insertion of torsion bar.
- ♦ Insert UHMW bushing in L-arm eyelet.

TANKS

- ♦ Inspect for any damage that might of occurred from shipment.
- ♦ Position tanks with hose nipple(s) facing forward and on the upside (exhaust holes are on the underside and at the rear of the lift).
 1. Separate the tanks to 2'6" less than slip width.(outside/outside of cross channels).
- ♦ Position and attach tank bands and insert 1" PVC elbow on polyethylene tanks (tank bands require a #2 hardware bag).

DOCK BRACKETS

- ♦ Install all thread, dock bracket clips and nuts see figure #1.

STEP 1 Channel Support:

1. Install universal cross channels on tank brackets and universal cross-angles as required per drawing. Check drawing making sure channels and angles are facing the correct direction.
2. Re-measure tank width for 2'6" or 3'6" under slip width (outside/outside of cross channels). Position center channel in the middle of cross channels bolt in place. (See slip width chart for correct size and length of center channels.)
3. Check for square by measuring diagonally from right to left cross channel and comparing with opposite diagonal. If lower structure is required attach per drawing before tightening any bolts. (Tighten all of lower structure, and upper cross channel to tank brackets bolts at this time.)
4. Bolt L-arm rings in place, and (tube stretchers if required) position per drawing. Set arm rings straight when tightening. (When tightening bolts use center punch to align holes for further assembly.) (Step 1 requires #1, 3, 34 hardware bag or box, these #s all have the same type hardware.)

STEP 2 Bunk Riser Assembly

1. Attach bunk riser plates per drawing, spacing to be determined by hull dimensions of boat.
2. Attach bunk riser angles and clips per drawing. Normally with 2 holes of riser angle showing above bunk riser plate. Angle can be adjusted up based on draft of boat. (Requires #19 and #3 hardware bag.) (Leave bolts loose at this time.)

STEP 3 Bunk Attachment

1. Install bunks with tabs outward, per drawing.
2. Attach bunk brace angles, per drawing. (Requires #12 hardware bag.)
3. Tighten all bolts not previously tightened. Use center punch to properly align holes.

STEP 4 Install L-Arms

1. Slide L-arms through outside L-arm ring, stop add 2-stop rings. Continue sliding arm through 2nd L-arm ring. Per drawing.
2. Place a support (i.e.: bunk, channel, 2" x 4" etc.) across tanks to support L-arms at same level.
3. Inspect torsion bars for slag and burrs, then insert through the L-arms. Center torsion bars inside L-arms. (See slip width chart for correct size and length of torsion bars.)
4. Install torsion bar clamp sets on each L-arm, per figure #3. (Requires #38 or #13 hardware bag or box.)
5. Measure from outside of right L-arm eyelet to left L-arm eyelet and adjust until dimension is 3 ½" less than slip width. Then, making sure not to move adjustment, tighten T-Bar clamps equally, and as tight as possible. Insert square hole bushings in L-arm rings, per drawing. Center L-arm assembly on lift measuring from outside L-arm ring to end of L-arm, then set stop rings

firmly against bushing flanges and tighten. Complete this step for all L-arms on lift.

STEP 5 Torsion Bar Stiffeners

(See slip width chart for correct size and quantity of torsion bar clamps and angle stiffeners.)

1. Attach angles and clamps per figure #4.

STEP 6 Install Pitmans

1. Insert UHMW bushing and stainless steel bushing in pitman ends, set in place on L-arms and attach per drawing. (Requires #5 hardware bag.)

STEP 7 Lower structure lifts only center channel supports. See slip width chart for correct quantity.

1. Attach center channel supports between upper and lower channel assemblies per drawing. (Requires #19 and #3 hardware bags.)

STEP 8 Safety Chain Attachment

1. Attach 1- chain to each L-arm per drawing. (Requires #7 hardware bag.)

STEP 9 Hose Installation

See slip width chart for approx. hose lengths.

For 3,000 lb. and 4,000 lb.

1. Cut a length of hose long enough to connect between 2 tank nipples without kinking.
2. Cut this hose in half. Connect to tank nipples and insert 1" PVC tee between both hoses.
3. Attach hose to reach from 1" tee to where the control unit is going to be mounted on dock, attach to 1" tee and plug other end. (See figure #5 for hose layout.)

For 6,000 lb. – 27,000 lb.

1. Attach 1" tank nipple caps to upper tank nipples except 6,000 lb.
2. Attach full length of hose to lower tank nipples. Do not cut at this time, it eliminates need to plug hose.
3. When more than two tanks, use same method. (Hoses from all tanks should be same length.) (See figure #5 for hose layout.)

STEP 10 Preparation for Trailering

1. Raise L-arms to complete up-right position and secure to pitman with small rope. Remove supports which were placed across tanks to support L-arms.
2. Cover exhaust hole on underside of each tank with exhaust plugs and secure tightly with chain boomers.
3. Attach tow straps to back of lift.

Lift is now ready to be loaded on trailer and transported to launch ramp along with the following:

- Control Unit
- Dock Brackets (R) and (L)
- Remainder of Parts Box

ARM LIFT INSTALLATION INSTRUCTIONS

STEP 1 Dock Bracket Installation

1. Determine and mark where the front dock brackets will be located based on length of boat and relationship of transom to the back of the bunks.
2. Measure back from front bracket mark a distance equal to the length of pitman (hole center to hole center 4-L-arm, 6-L-arm, 8-L-arm). This will be the location of the back dock brackets. (Check all dock bracket locations for any obstructions, columns, brace legs etc. that might interfere with mounting of brackets.) Also, check for any underwater obstruction that will interfere with the lift going down.
3. Remove or cut banding board as required and attach the dock brackets to dock substructure as reflected in figure #1. Leave brackets semi loose for final hole alignment and adjustment.

STEP 2 Lift Attachment

1. L-arms should be a snug fit between dock brackets, use a small pry bar to assist in attaching per figure #1 (some docks may vary in height, measure from water up to L-arm bolt hole to assure all L-arms are mounted same height, typically 8"-10"). (Requires #15 or #10 hardware bag.)
2. Secure the dock brackets to the top of the dock with appropriate fasteners. Make sure that all thread on brackets are tight including double nuts.
3. Attach safety chains loosely to dock making sure they are forward of where they attach to lift. Chains need to be adjusted to hold weight of lift.

STEP 3 Control Unit

1. Remove cover and secure control unit to the top of dock just forward of front dock bracket or where power outlet is located.
2. Connect tank hose(s) to control unit and clamp tight. (See figure #5.)
3. Remove tank exhaust plugs.

STEP 4 Testing

1. Open black valve handle(s) and turn switch on, make sure all tanks bubble out, this is to equal the tanks out. Then, resume normal lift operation. Open all valve handles, leave motor off. Watch lift making sure that both sides go down evenly.
2. When lift is all the way down and tanks are filled shut red handle (exhaust valve) turn motor on, allow lift to raise a few inches, then adjust chains to

catch lift before it bottoms out, or you may adjust chains to stop lift just under the boat.

3. Position boat over lift and raise per instructions in lid of control unit.
4. Check to be sure lift is level during operation, adjust if required.
5. Record serial numbers for warranty purposes, record proper information in handbook, and leave for customer.
6. Set guide ropes, guide ropes should be set on every lift installation (except PWS), this will insure proper loading each time for the customer.
7. Always make sure that watercraft is tied to dock before leaving.