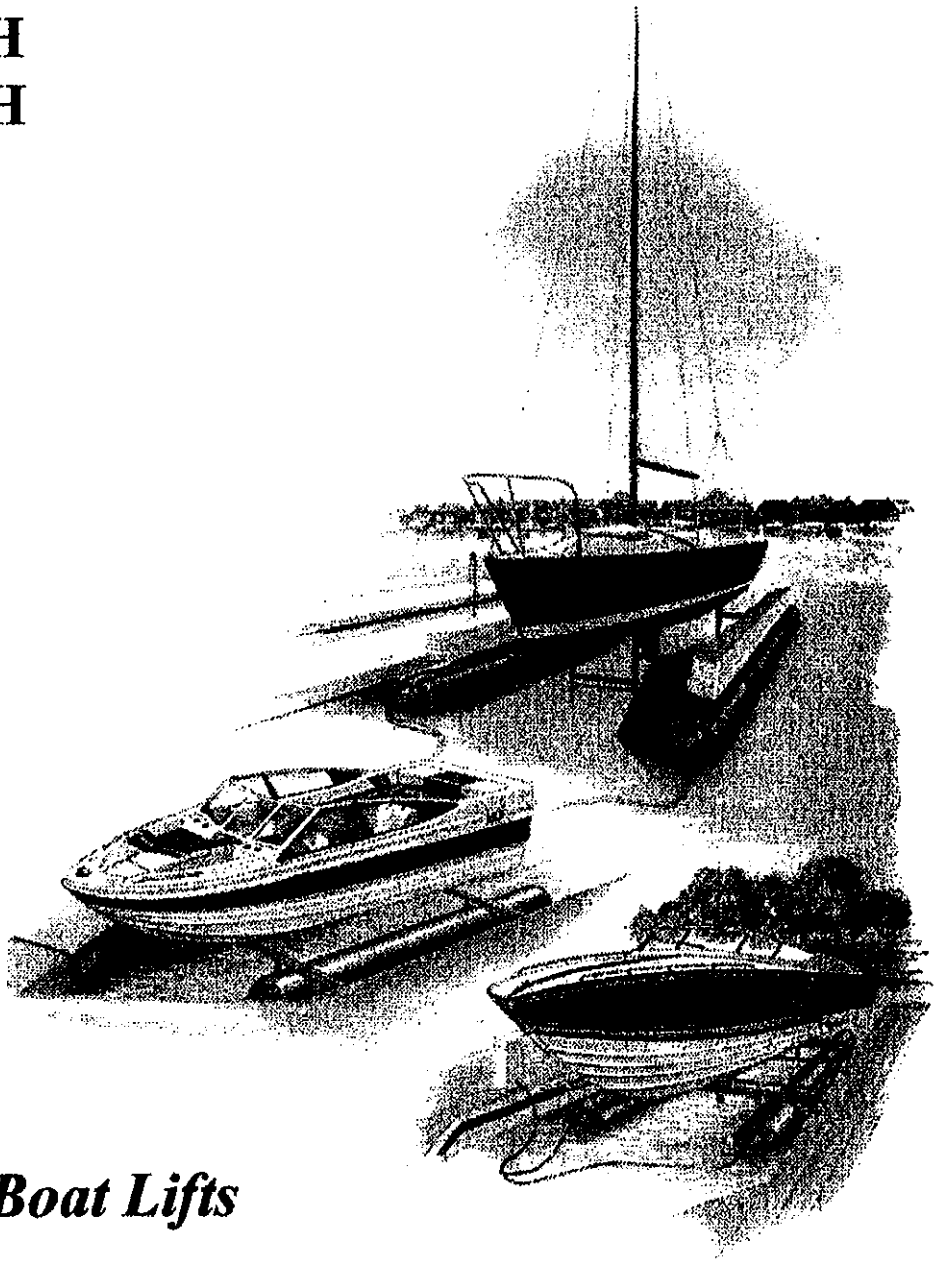
INSTALLATION MANUAL

MODEL 4000H
6000H



HydroHoist Boat Lifts

P.O. Box 1286 / Claremore, OK 74018
Phone (918) 341-6811

3/89

IMPORTANT SAFETY NOTICE

To ensure consumer safety , HydroHoist International Inc. has included Ground Fault Circuit Interupters (GFCI) with all new lifts. This GFCI is designed to protect the user. Its removal is in direct conflict with the recomendation of the Consumer Products Safety Commision and could result in a severe elecrical shock, hazard or death.

CAUTION

PLEASE READ AND UNDERSTAND ALL INSTRUCTIONS INCLUDED IN THIS MANUAL BEFORE ASSEMBLNG LIFT.

Assembly, installation, or repair of HydroHoist boat lifts should only be performed by an authorized HydroHoist technician. Assembly, installation, or repair performed by any others could result in personal injury, or in property damage to the lift, boat, or dock.

DISCLAIMER

IN THE EVENT THAT ANY UNAUTHORIZED PERSON ATTEMPTS TO ASSEMBLE, INSTALL, OR REPAIR A HYDROHOIST BOAT LIFT, HYDROHOIST INTERNATIONAL INC. HEREBY DISCLAIMS ANY AND ALL WARRANTIES EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO HYDROHOISTS NORMAL LIFT WARRANTY, AND THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IF YOU HAVE ANY QUESTIONS ABOUT THE ASSEMBLY OF THE LIFT PLEASE CONTACT:

HYDROHOIST INTERNATIONL, INC.
CUSTOMER SERVICE
1-800-825-3379

INTRODUCTION

This manual contains the assembly, installation, adjustment, and operating instructions for Models 4000H and 6000H HydroLift.

All paragraphs that apply to a specific model are identified at the beginning of that paragraph. All paragraphs identified apply to both models.

All references to left and right are considered to be looking forward from the rear of the hoist.

All numbers in parentheses () after part names refer to the item numbers on the exploded view illustration of that model.

The manual is divided into four sections as follows:

Section I -- Assembly
Section II -- Installation
Section III -- Operation
Section IV -- Do's and Don'ts

Assembly should be done on a trailer. A flatbed is preferred but a boat trailer with planks across the frame will work. Make certain the trailer assembly surface is flat and level.

SECTION I

ASSEMBLY

1. (ALL) Inspect the slip in which the hoist will be installed.

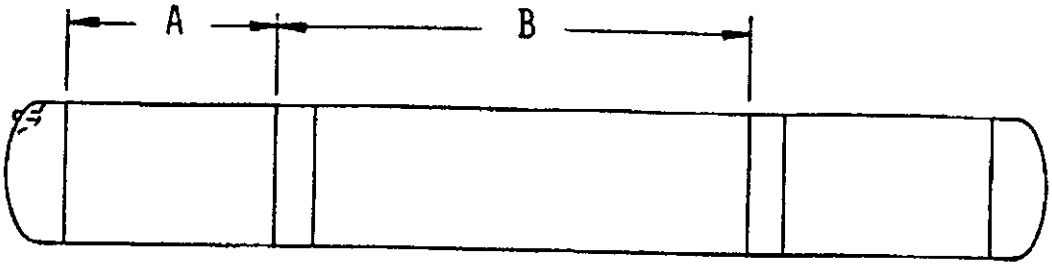
   a. The slip should have good, sturdy structure, either wood or steel, on each side.

   b. The dock brackets, which will be mounted two on each side of the slip, have a minimum gripping distance of four inches and a maximum of 20 inches.

2. (ALL) Measure the width of the slip. Measure at front and rear to determine that slip fingers are parallel. Make note of the width. It will be used during assembly.

3. (ALL) Install upper (1) and lower (2) tank brackets (two of each on each tank) and attach with 3/8 x 1 1/2 in. bolts, nuts, and lockwashers. With the air injection nipple (in the front end cap) UP the upper tank brackets must be level and parallel. Locate tank brackets front to rear as per tank band setting chart.

4. (4000H & 6000H) Align the two tanks approximately two feet apart and parallel.



Model Number	No. Tanks	Tank Dimensions	Tank Style	"A" Dim.	"B" Dim.
4000HSB	2	24" x 16'	H	12"	145½"
4000H	2	24" x 16'	H	12"	123"
6000H	2	24" x 23'	H	51"	145½"
6000H3T	2	24" x 16'	H	2"	145½"
	1	24" x 16'	H	19½"	145½"
7500H	2	24" x 23'	H	51"	145½"
	1	24" x 16'	H	19½"	145½"
7500HSB	2	32" x 16'	H	2"	145½"
10000H	2	32" x 23'	B	26"	192"
12000H	2	32" x 32'	B	78"	192"

TANK BAND LOCATIONS

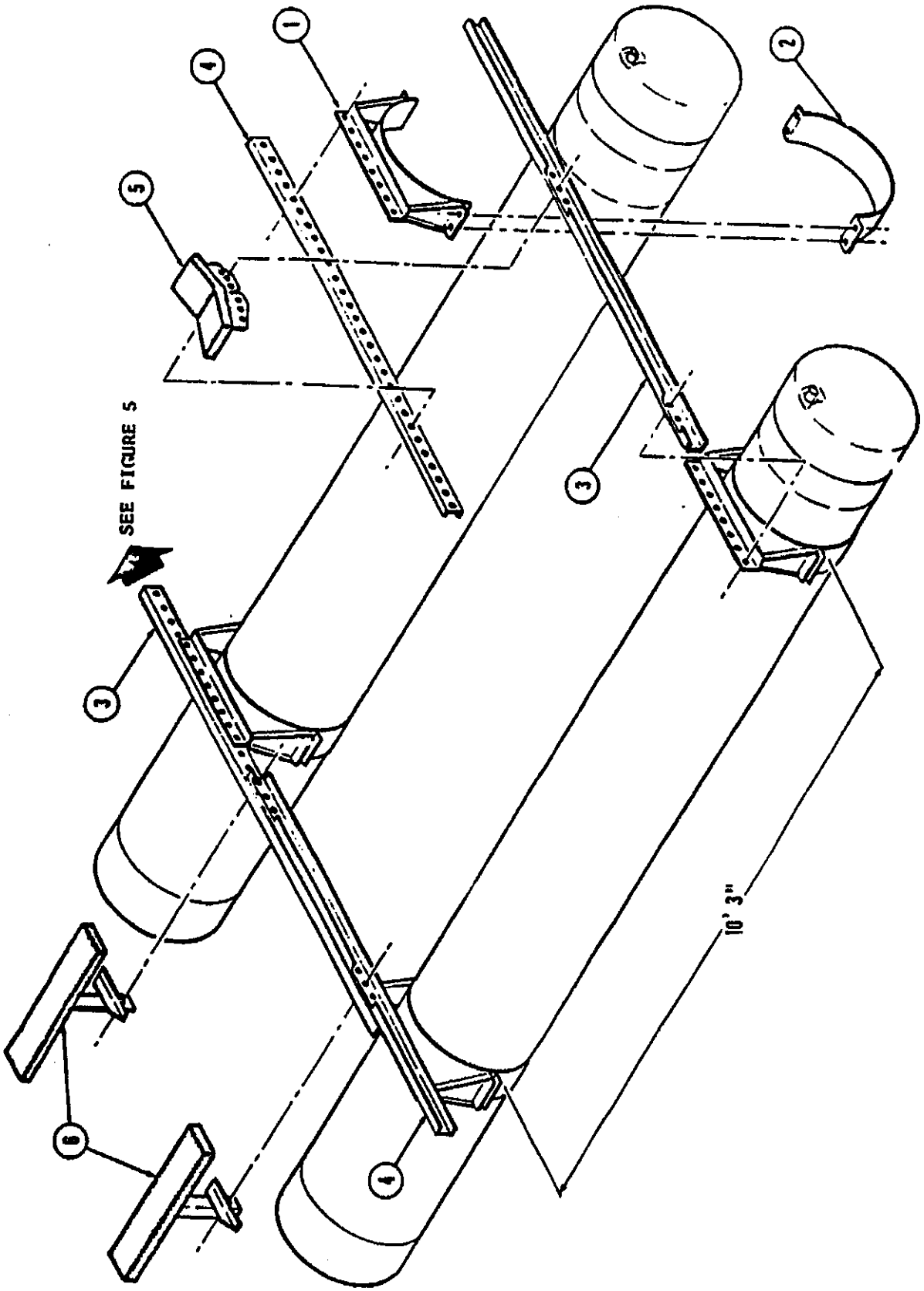


FIGURE 2. EXPLODED VIEW - 4000H

5. (4000H & 6000H) Place a long (6'8") channel (3) on the left rear tank bracket (1) with the flanges to the rear. Leave four holes exposed outboard of the tank bracket. Attach with two 1/2 x 1 1/2 in. bolts, nuts, and lockwashers. Do not tighten.

6. (4000H & 6000H) Place the shortest (4'11") channel, for example, (4) on the right rear tank bracket (1) with the flanges forward. Leave four holes exposed outboard of the tank bracket. Attach with two 1/2 x 1 1/2 in. bolts, nuts, and lockwashers. Do not tighten.

7. (4000H & 6000H) Move the tanks in or out until the channels (3) and (4), end-to-end, are 12 in. narrower than the slip. Install a 1/2 x 1 1/2 bolt, nut, and lockwasher in each end of the channel overlap.

8. (4000H & 6000H) Repeat steps 5 - 7 at the front except, place the long (6'8") channel (3) on the right with flanges forward and the shortest (4'11") channel, for example, (4) on the left with flanges to the rear.

9. (4000H & 6000H) Attach the Vee bracket (5) to the center of the front channel assembly using two 1/2 x 1 1/2 in bolts, nuts, and lockwashers. Do not tighten.

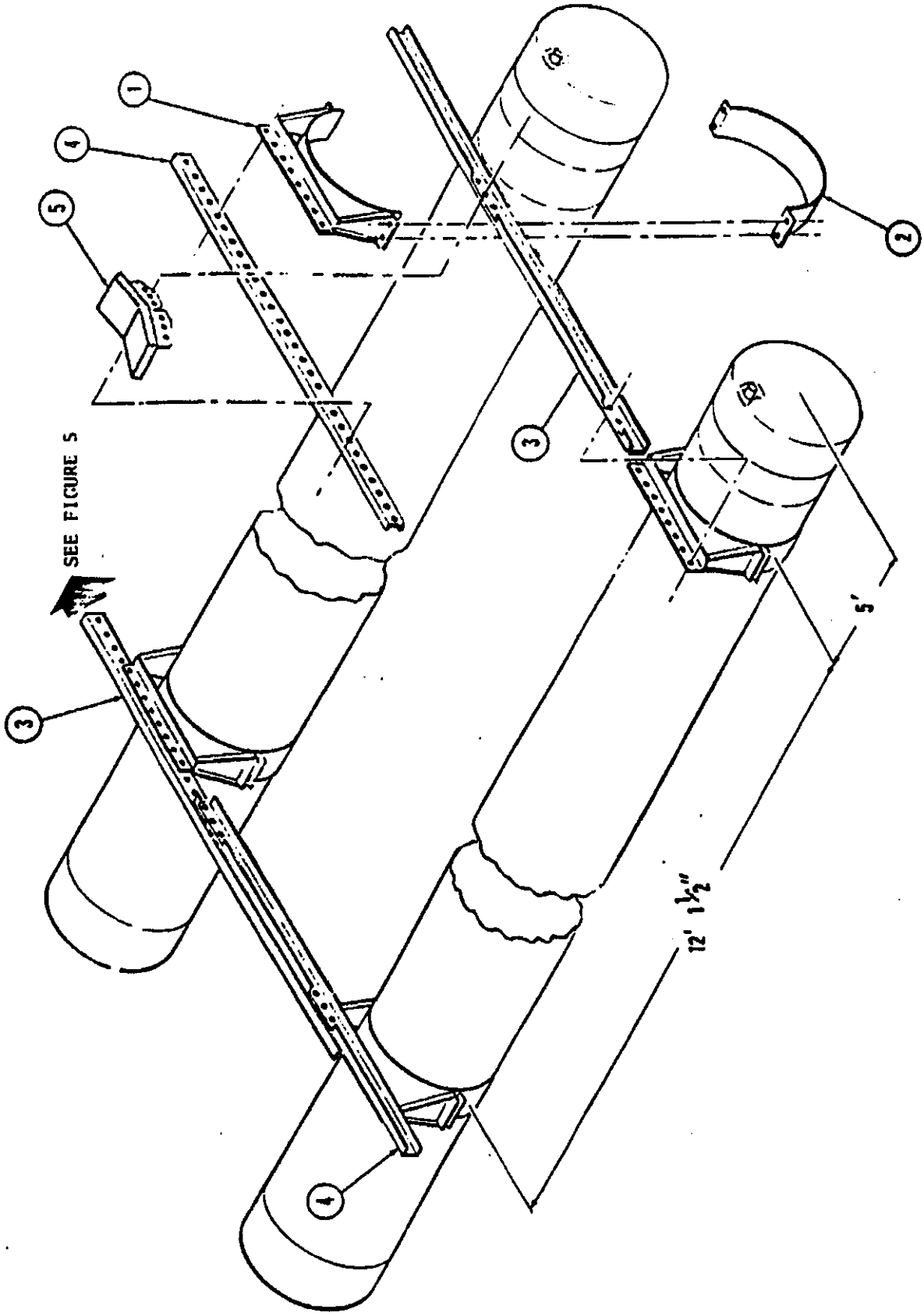


FIGURE 3. EXPLODED VIEW - 6000H

10. (4000H & 6000H) While standing at the rear of the hoist, sight across the rear end channels to the front ones to make sure the front and rear are parallel and that there is no twist or warp in the hoist. If one corner appears to be low, block up that tank to align the hoist.

11. (6000H) Install four hull support columns (12) as shown in Figure 4, using eight 1/2 x 1 1/2 bolts, nuts, and lockwashers. Make certain the flat side of the columns is facing forward.

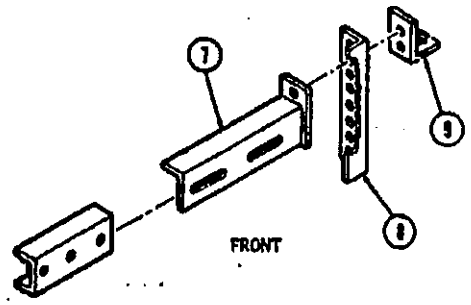
12. (6000H) Install the hull support pads (13), to the tops of the columns, with the long ends to the rear and the long angles toward the center of the hoist. Attach each with two 1/2 x 5 1/2 bolts, nuts, and lockwashers. Tighten snug.

13. (6000H) Install a brace (14) between the rear of each pad (13) and hull support column (12). Attach to column (12) with 1/2 x 1 1/2 bolts, nuts, and lockwasher, and to pad (13) with 1/2 x 5 1/2 bolt, nut, and lockwasher. Tighten 1/2 x 5 1/2 snug.

14. (4000H & 6000H) Tighten all 1/2 x 1 1/2 in. bolts, nuts, and lockwashers to approximately 75 ft. lb. torque.

15. (4000H) Install transom pads (6) to the rear side of the rear end channels (3 & 4). Pads should be installed with the long brace leg toward the outside of the hoist. Position pads approximately 33 to 39 inches apart, but they may have to be moved later. Attach the pads with 1/2 x 3 bolts, nuts, flat washers, and lockwashers. Tighten to approximately 75 ft. lb. torque.

16. (ALL) Install an end adjustment bracket (7) on the end of each end channel (3 & 4). (See Figure 5.) Attach each with two 1/2 x 1 1/2 bolts, nuts, lockwashers, and flatwashers. Install so that the angle of the adjustment bracket (7) overlaps the end channel. Install the bolts in the first and third holes of the end channel with the flat washers on the slots of the adjustment bracket. Tighten finger tight.



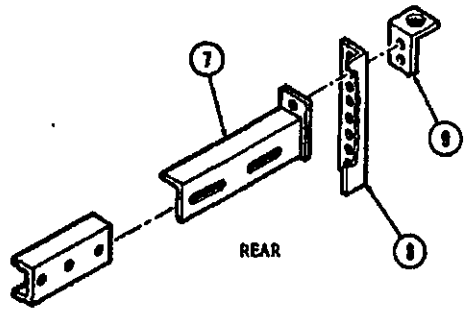


FIGURE 5. END ADJUSTMENT BRACKET

17. (ALL) Install a vertical adapter angle (8) to each end adjustment bracket (7). (See Figure 5.) The vertical location of the adapter angle is dependent on the height of the dock and may therefore have to be moved during installation.

18. (ALL) Install a guide rod retainer angle (9) to each vertical adapter angle (8). (See Figure 5.) Notice that the front retainer angles (9) are installed opposite to the rear. These parts also may need to be moved during installation.

19. (ALL) Connect the hose set to the nipples in the front of the tanks. Install hose clamps and tighten.

20. (ALL) Connect the blower assembly to the open end of the hose. Install hose clamp and tighten.

21. (ALL) Wrap the hoses loosely around the Vee bracket (5) and place the blower assembly on the Vee bracket. Secure blower with a short line.

CAUTION

Make certain both valves are closed.

22. (ALL) Attach a tether line to the hoist.

23. (ALL) Slowly back the trailer into the water to float the hoist. Do this SLOWLY so the front of the tanks will not pivot hard into the trailer.

24. (ALL) Slowly tow the hoist to the installation location. The hoist should be towed from the rear.

SECTION II

INSTALLATION

1. (ALL) Move the boat into the slip and position it with the bow about 12 inches back from the front of the slip. Hold the boat in this position.

2. (ALL) Locate and mark, on the dock, the approximate dock bracket positions by referring to Figure 6. Also, mark the location of the stern of the boat.

3. (ALL) Move the boat out of the slip.

4. (ALL) Assemble the four dock brackets as shown in Figure 7.

5. (ALL) Install the four dock brackets as shown in Figure 7 at the locations determined in Step 2. Tighten the 5/8 in. hex nuts on the allthread rods fairly tight. (One or more brackets may need to be moved slightly later.)

6. (ALL) Move the hoist into the slip and remove the control assembly and hoses from the Vee bracket.

7. (ALL) Mount the control assembly about chest high on a post or bulkhead near the bow of the boat. Make certain there are no twists or kinks in the hoses and that they do not rub on any sharp edges.

8. (ALL) Connect the control assembly power cord to a 110 volt AC source. Momentarily actuate the in-line power switch to make certain power is available.

9. (ALL) Blow the hoist completely up. This is indicated by air bubbling from the rear of the tanks.

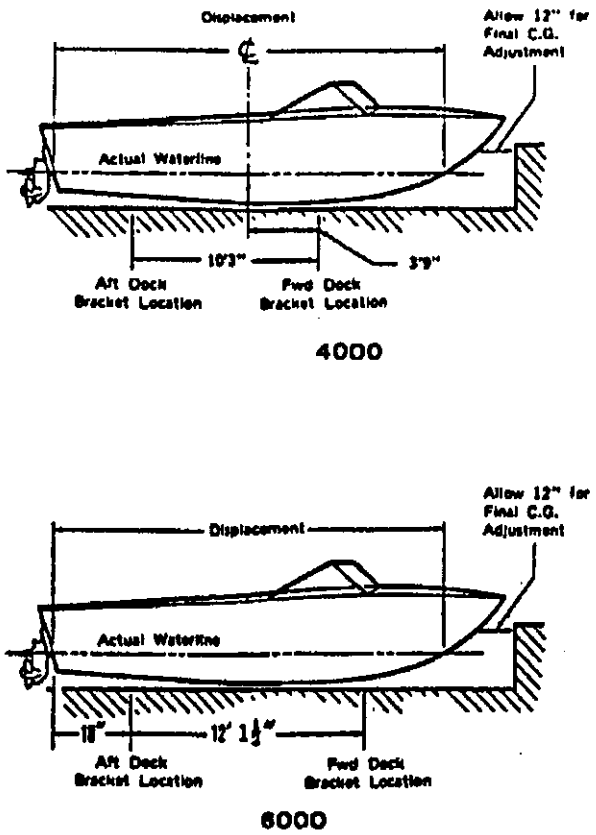


FIGURE 6. DOCK BRACKET LOCATIONS

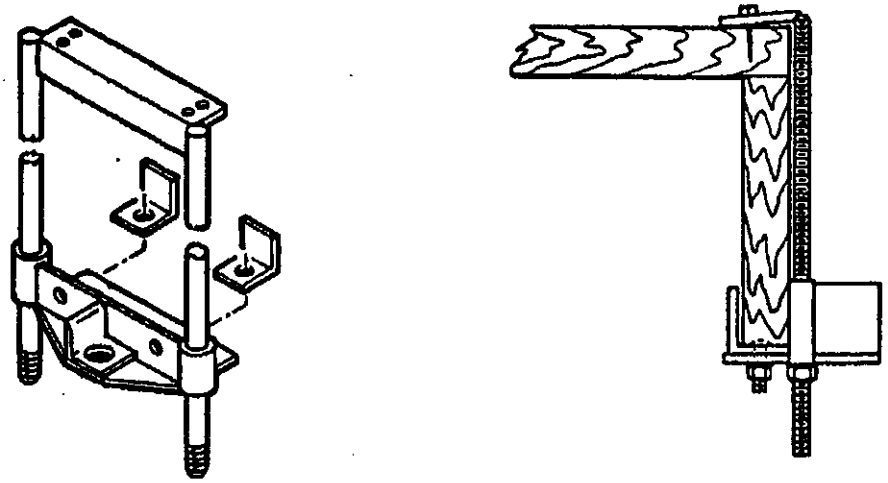


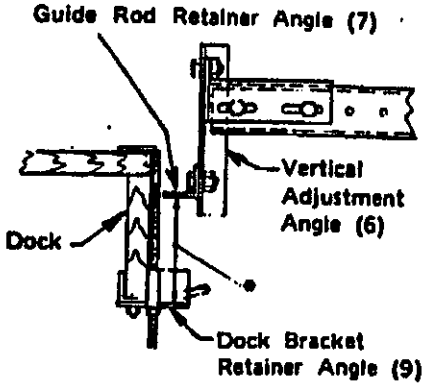
FIGURE 7. DOCK BRACKET ASSEMBLY & INSTALLATION

10. (ALL) Refer to Table II-I and relocate the guide rod retainer angles at the approximately correct location.

TABLE II-I

DISTANCE ABOVE DOCK BRACKETS*

BOAT WEIGHT	4000H FRONT	4000H REAR	6000H FRONT	6000H REAR
1000	9 1/2"	12 1/2"	-	-
2000	12 1/2"	15 1/2"	-	-
3000	15 1/2"	18 1/2"	-	-
4000	18 1/2"	21 1/2"	12 1/2"	15 1/2"
5000	-	-	15 1/2"	18 1/2"
6000	-	-	18 1/2"	21 1/2"



11. (ALL) Open the exhaust valve (see Figure 9) and then stand on the rear of the hoist.

12. (ALL) When the rear of the hoist is low enough for the guide rod retainer angles to go under the dock brackets close the valve.

13. (ALL) Place the guide rod retainer angles under the dock brackets and install the 36 in. rods up through the angles and the dock brackets (See Figure 8.) Install the castellated nuts.

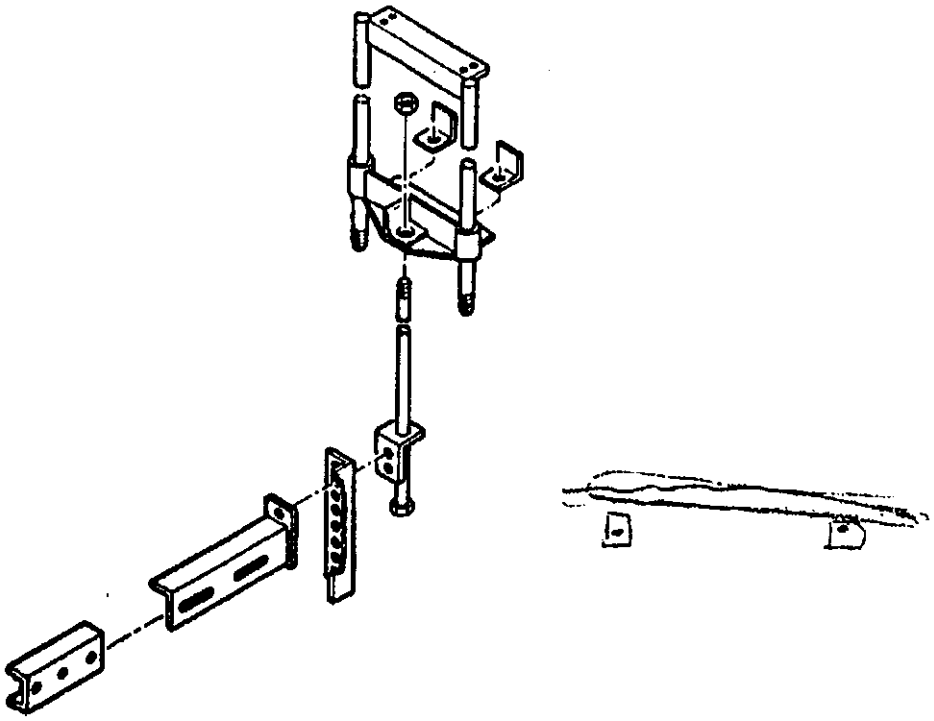


FIGURE 8. GUIDE ROD INSTALLATION

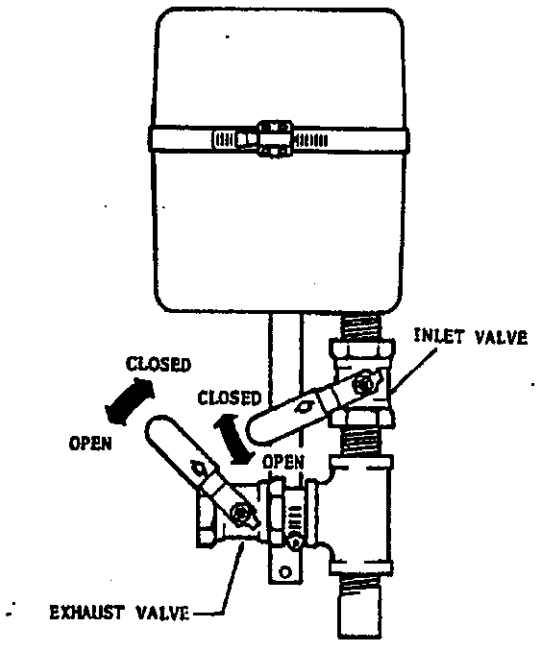


FIGURE 9. BLOWER AND VALVE ASSEMBLY

14. (ALL) Open the exhaust valve and allow the rear of the hoist to go completely down. Continue letting air out until the front of the hoist is low enough for the front guide rod retainer angles to go under the dock brackets. Close the exhaust valve.

15. (ALL) Install the 32 in. guide rods up through the retainer angles and the dock brackets. (See Figure 8.) Install the castellated nuts.

16. (ALL) Open the exhaust valve and let the hoist go completely down. Close the exhaust valve.

17. (ALL) Open the inlet valve (See Figure 9.) and start the blower.

18. (ALL) Raise the hoist until all four guide rod retainer angles are up against the dock brackets. Stop the blower and close the inlet valve.

19. (ALL) Adjust all four dock brackets and/or end adjustment brackets until the four guide rods are hanging straight down and will slide up and down completely free. No binding at all.

20. (ALL) Tighten the 5/8 in. nuts on the dock brackets until the allthread rods start to bend.

21. (ALL) Tighten all 1/2 in. nuts on the hoist to approximately 75 ft. lb. torque.

22. (ALL) Tie one end of each guide rope to each end of the front channels, just outboard of the tank brackets.

23. (ALL) Open the exhaust valve and lower the hoist. It may be necessary to stand on the rear to force the rear end down first.

24. (ALL) When the hoist is completely down, bring the boat back into the slip.

25. (ALL) Position the boat with the stern at the mark made in Step 2.

26. (ALL) With the boat in this position and centered in the slip, tie a guide rope to the rear cleat on each side.

27. (ALL) While gently pushing back on the bow of the boat to tighten the guide ropes, open the inlet valve and start the blower. Keep the guide ropes snug until the Vee bracket contacts the bottom of the boat, then turn loose.

28. (ALL) When the front of the hoist is fully up and the rear has come up to contact the rear of the boat, stop the blower and close the inlet valve.

29. (ALL) Step on the hoist near each front dock bracket. It should take 150 to 200 lbs., or more, to force the guide rod retainer angle away from the dock bracket.

30. (ALL) If it takes less than 150 to 200 lbs. lower the hoist (open exhaust valve) enough to permit moving both front guide rod retainer angles up one hole.

31. (ALL) Repeat steps 30, 31, and 32 until sufficient pressure is obtained.

32. (ALL) Open the inlet valve and start the blower. Raise the hois until the tanks bubble at the rear. Then stop the blower and close the inlet valve.

33. (ALL) Examine the boat on the hoist. Make certain the keel is in the Vee bracket. Also make certain the transom pads do not interfere with transducers or speedometer pickups.

34. (ALL) Check the pressure at each dock bracket again. It should now be about 100 lbs. at each dock bracket.

35. (ALL) Up-pressure (lift against the dock) can now be adjusted to approximately 100 lbs. by moving the guide rod retainer angles up or down.

36. (ALL) Adjust the rear angles first and always keep the rear ones 3 in. higher than the front. (So the front of the hoist will be 3 in. farther out of the water than the rear.)

NOTE

It will be necessary to let air out of the hoist, before each adjustment, to relieve the pressure.

37. (ALL) Remove the guide ropes installed in Step 22

38. (ALL) Form a loop about 4 in. in diameter in one end of each guide rope.

39. (ALL) Place the loops over the rear cleats of the boat. Pull the ropes TIGHT and wrap and tie them around the front end channel just outboard of the tank brackets.

40. (ALL) Lift each guide rod and cotter-pin the castellated nuts. If the guide rods are not completely free, readjust the doc brackets and/or the end adjustment brackets.

41. (ALL) If the dock has a wooden floor install two ¼ x 1½ in. lag bolts in each upper dock bracket.

SECTION III
OPERATION
(ALL MODELS)

NOTE

Operation of the hoist is very simple and easy. Just follow the steps below.

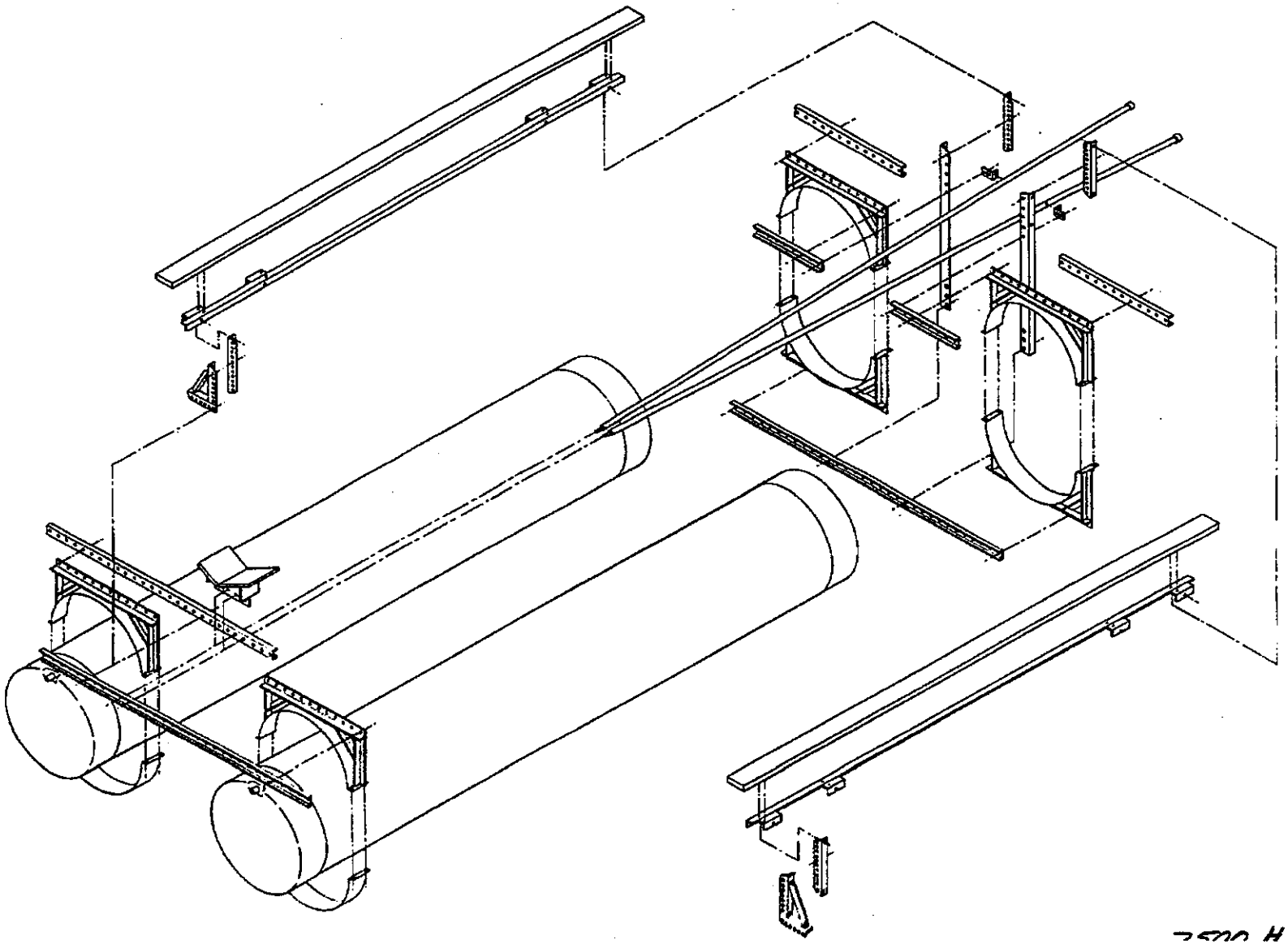
TO LAUNCH THE BOAT

1. Open the exhaust valve. The exhaust valve is the one that is horizontal and open at one end.
2. When the hoist is completely down (no more air escaping from the exhaust valve) close the exhaust valve.
3. Remove the guide ropes from the rear cleats and lay them on the dock.
4. The boat is now free in the slip and you are ready to go boating.

TO LIFT THE BOAT

1. When you return from boating bring the boat back into the slip.
2. Place the loops in the guide ropes over the rear cleats on the boat.
3. Make certain the exhaust valve is closed and then open the inlet valve. The inlet valve is the vertical valve that has a pipe connector in each end.
4. Gently push back on the bow of the boat until the guide ropes are taut. This will properly locate the boat over the hoist.

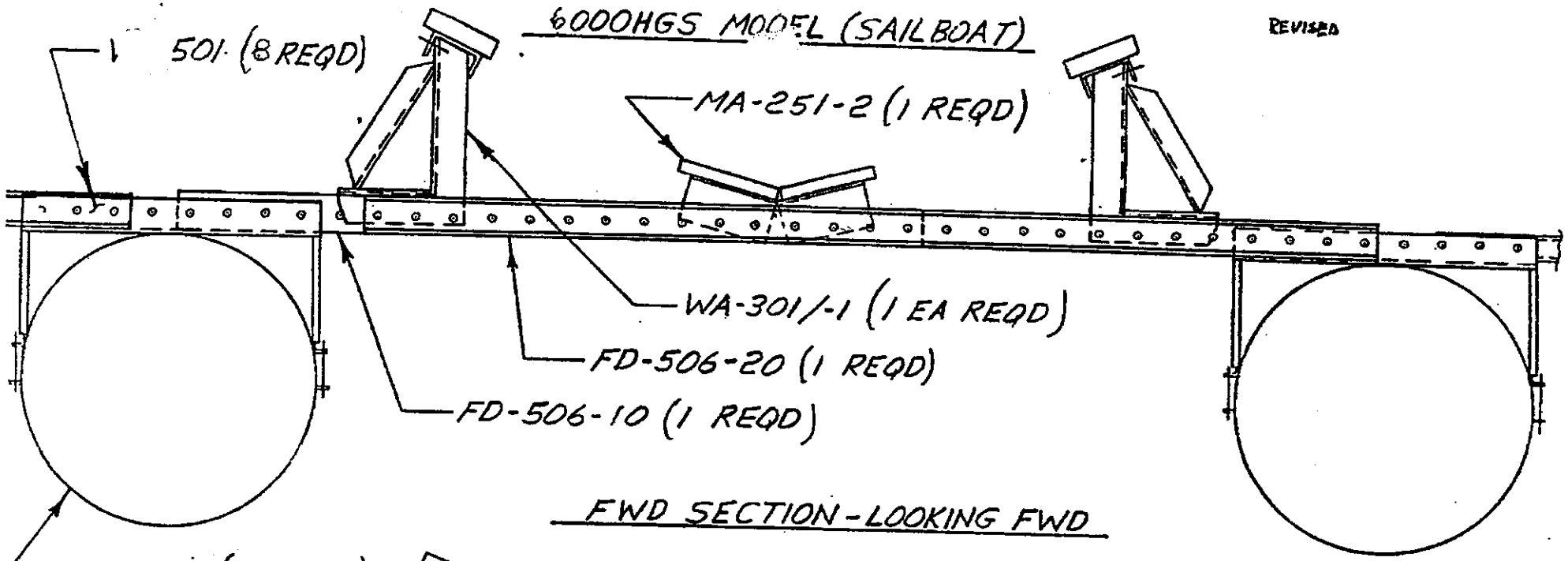
5. While pressing back on the boat, start the blower by placing the in-line switch to ON.
6. When the front of the hoist contacts the boat turn loose of the boat.
7. When the hoist is fully up, indicated by air bubbling from the rear of the tanks, turn off the blower and close the inlet valve.
8. The boat is now in a "dry dock" condition.



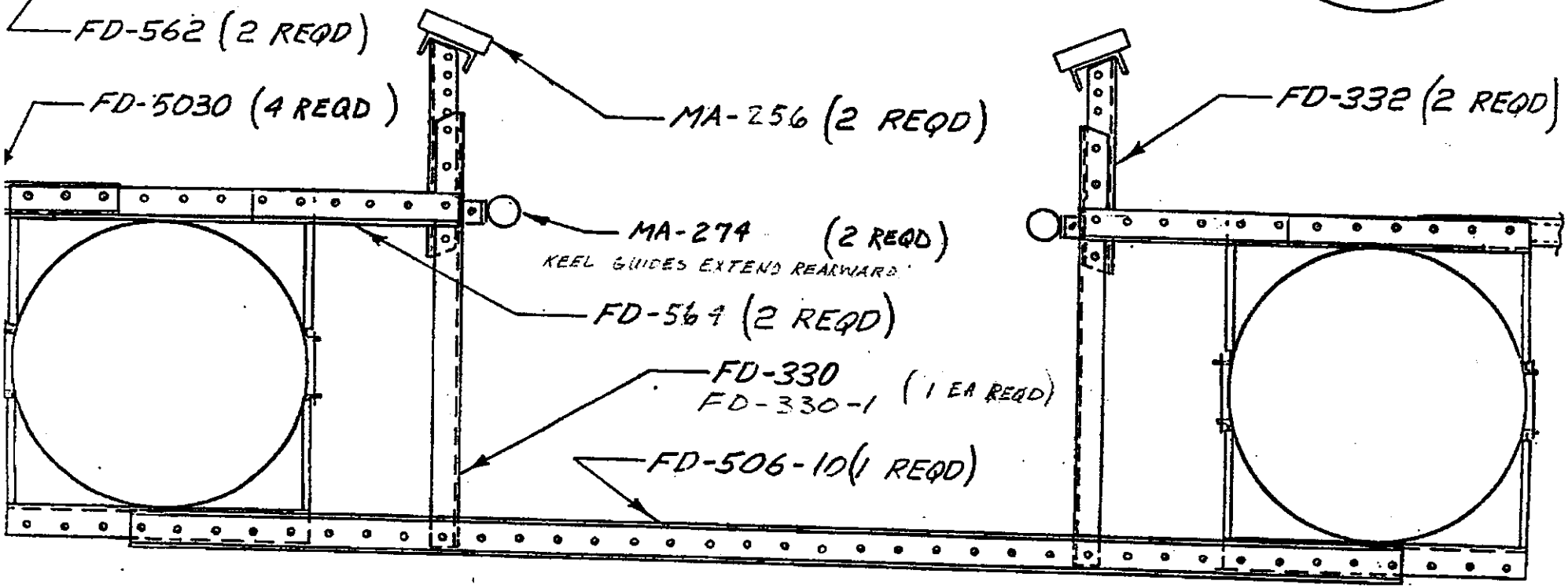
JOHN H SAILHART

6000HGS MODEL (SAILBOAT)

REVISED



FWD SECTION - LOOKING FWD



AFT SECTION - LOOKING FWD