



BOATHOUSE BH9004E INSTRUCTIONS

SAFETY PRECAUTIONS

Please read and thoroughly understand the following safety precautions and instruction manuals before using your **RGC Boathouse Lift**. If you have any questions, contact the dealer who sold you the lift.

- 1) Before allowing anyone to operate the lift, be certain they fully understand the proper operating procedures.
- 2) Be certain to install the lift as specified in instruction manual. Not doing so can cause equipment damage and or personal injury.
- 3) Always wear leather gloves when handling wire rope.
- 4) All electrical equipment must be inspected and installed by a certified electrician in accordance with local electrical codes.
- 5) Have your electrician ensure that a Ground Fault Circuit Interrupter (G.F.C.I.) is installed and working properly.
- 6) Tighten all nuts and bolts securely before using the lift.
- 7) Keep people and pets away from lift during its operation. Do not allow swimming or playing around or on the lift.
- 8) Do not exceed the maximum weight capacity of the lift that can lead to serious personal injury and/or equipment failure.
- 9) Completely remove all loads from the lift before performing any type of maintenance or repair on it.
- 10) Do not work on or in the boat when it is attached to the lift.
- 11) Periodically inspect the wire rope for wear or damage. Check the wire rope ends to ensure that they are securely fastened. Immediately replace any worn or damaged wire rope.
- 12) Inspect the pulleys and bearings to be certain that they spin freely. Lubricate or replace them immediately.
- 13) A boat with water in it from a rain storm may exceed the weight capacity of the lift. Be certain to drain the boat before lifting it all the way up to its resting place. Make sure you replace the plug before launching your boat.

INSTALLATION AND SETUP

PRE-INSTALLATION CHECKS

1. Insure you have received all specified parts as listed in supplied parts list.
2. Consult licensed professional engineer to inspect and approve boathouse structure for this type of application and loading capacity.



WARNING:

INSURE BOATHOUSE STRUCTURE HAS BEEN DESIGNED FOR THIS TYPE OF APPLICATION AND CONSTRUCTED IN ACCORDANCE WITH LOCAL BUILDING AND ELECTRICAL CODES TO PREVENT PERSONAL INJURY AND / OR EQUIPMENT DAMAGE.

3. Do not install or use the lift if it shows any signs of damage.
4. Do not weld or otherwise modify any part of the lift or power drive. Such alterations may damage the lift and / or power drive and void the associated warranties.
5. Two people will be needed to mount the power drive into the boathouse. The following precautions must be observed when lifting any part of this equipment:
 - a. Be sure of your footing.
 - b. Bend your knees and lift with your legs.
 - c. Hold the equipment section close to your body when lifting.



WARNING:

USE A MINIMUM OF TWO PERSONS TO INSTALL THE POWER DRIVE INTO THE BOATHOUSE TO PREVENT PERSONAL INJURY AND/OR EQUIPMENT DAMAGE.

LIFT ASSEMBLY

Supporting beams must be installed to the spacing required by the boat to be lifted. The hangers will fit beams 6" wide by 6" to 9" deep.

1. Assemble #37X and #38X hangers and clamps to each corner of the boathouse beams about 6" wider than the beam of the boat.
2. Using 2 x 6 or 2 x 8 pressure treated wood planks, construct two mounting bases for the power drives. Center them on the fore and aft beams between the hangers.
3. Temporarily clamp the power drive to the wood mounting base and position it so that the centerlines of the speed reducers are askew to the centerlines of the two boathouse beams. Ensure that the power drive is positioned to that the winch spools are at right angles to the wire rope line pull. Refer to the reeving diagram.
4. When the power drive is positioned properly, drill two 1/2" holes through the wood mounting base using the power drive frame as a template. Fasten the frame in place with the supplied 1/2" hardware, reference part # 8, 9 and 10.
5. Remove pipe plugs on sides of the reducers closest to the ceiling of boathouse and install supplied vent plugs.



CAUTION:

FAILURE TO INSTALL THE VENT PLUG CAN CAUSE PREMATURE FAILURE OF THE REDUCER SEALS AFTER EXTENDED USE AND VOID YOUR WARRANTY.

- 6. Mount the reversing switches in a suitable location protected from water and near enough to each other to allow for easy operation.
- 7. Assemble safety latches to ends of hooks. Attach hooks to plain double blocks with shackles.
- 8. Attach pulley blocks to all hangers as shown in diagram.
- 9. Reeve the wire rope through the blocks and spools as shown. Be careful to wind the rope in tight, even layers on the spools. If the wire rope is wound properly from the beginning it will not kink or break the wire strands. Secure cable ends with wire rope clamps.
- 10. Attach the slings or I-beam cradles to the lifting blocks per their instruction.
- 11. Refer to Power Supply Connections Section Before Proceeding.**
- 12. Pull the boat into the lift and raise it up slowly. If one corner tightens before the others, lower the boat.
- 13. Slide some wire rope through the loop in the spool from the loose corner toward the tight one to level the boat. If the blocks twist on themselves when unhooked, loosen the cable clamps at the block and unwind the wire rope until the block hangs straight. Retighten the clamps.

POWER SUPPLY CONNECTIONS

- 1. Insure power supply is compatible with motor nameplate ratings. The motor must be connected to a properly rated branch circuit to help minimize voltage drops during operation.



WARNING:

THE POWER DRIVE AND SUPPLY LINE MUST BE INSTALLED AND INSPECTED BY A CERTIFIED ELECTRICIAN IN ACCORDANCE WITH LOCAL ELECTRICAL CODES. BECAUSE WATER AND ELECTRICITY ARE POTENTIAL SAFETY HAZARDS, THIS INSTALLATION MUST INCLUDE A PROPERLY WORKING GROUND FAULT CIRCUIT INTERRUPTER. (G.F.C.I.)

Use the following wire sizing guide in wiring the power drive.

**WIRE SIZING GUIDE
FOR REFERENCE ONLY**

Distance → Motor amps ↓	50 feet	100 feet	150 feet	200 feet	250 feet	300 feet	350 feet	400 feet
5 amp	#12 awg	#12 awg	#10 awg	#10 awg	#8 awg	#8 awg	#6 awg	#6 awg
7.5 amp	#12 awg	#12 awg	#10 awg	#10 awg	#8 awg	#8 awg	#6 awg	#6 awg
10 amp	#12 awg	#10 awg	#10 awg	#8 awg	#8 awg	#6 awg	#6 awg	#4 awg
12.5 amp	#12 awg	#10 awg	#10 awg	#8 awg	#8 awg	#6 awg	#6 awg	#4 awg
15 amp	#10 awg	#10 awg	#8 awg	#8 awg	#6 awg	#6 awg	#4 awg	#4 awg
17.5 amp	#10 awg	#10 awg	#8 awg	#8 awg	#6 awg	#6 awg	#4 awg	#4 awg
20 amp	#10 awg	#8 awg	#8 awg	#6 awg	#6 awg	#4 awg	#4 awg	#2 awg
22.5 amp	#10 awg	#8 awg	#8 awg	#6 awg	#6 awg	#4 awg	#4 awg	#2 awg
25 amp	#8 awg	#8 awg	#6 awg	#6 awg	#4 awg	#4 awg	#2 awg	#2 awg

Awg. - American Wire Gauge **Amp.** - Motor Full Load Current **Feet** - Distance From MAIN Breaker Box to Ctrl Panel



CAUTION:

THE ABOVE CHART IS ONLY A REFERENCE FOR WIRE SIZING. DO NOT USE THIS INFORMATION TO ACTUALLY SIZE THE WIRE TO YOUR POWER DRIVE. YOU MUST CONSULT A LICENSED ELECTRICAL CONTRACTOR WHO WILL DETERMINE THE ACTUAL WIRE SIZE REQUIRED TO SUIT YOUR PARTICULAR APPLICATION.

- 2. Use plastic zip ties and any other supplies needed to tie off the electrical cords. This protects the cords from abrasion, sharp objects, water contact and other harm.

WIRING PROCEDURES

Salzer Reversing Switch - 110VAC (3/4 HP Motors)

<u>INCOMING POWER</u>	to	<u>SALZER SWITCH</u>	to	<u>MOTOR FEED</u>	to	<u>MOTOR JUNC. BOX</u>
BLACK		3 (3,7,11 jumpered)		na		na
WHITE		1 (1,5,9 jumpered)		na		na
GREEN		GROUND BAR		GREEN / BARE		GROUND
		2		YELLOW or WHITE		T1 & T3
		4		ORANGE		T2 & T4
		8 (6,8 jumpered)		BLACK		T8
		12 (10,12 jumpered)		RED		T5

Note: To reverse motor direction operation, reverse wiring of Black (T8) & Red (T5) at motor junction box. For motors greater than 3/4 hp, a higher rated switch must be used. Contact RGC for additional information.

Remote Control - 110 VAC (3/4 HP Motors)

<u>RC MOTOR FEED</u>	to	<u>MOTOR JUNC. BOX</u>
GREEN / BARE		GROUND
YELLOW or WHITE		T1 & T3
ORANGE		T2 & T4
BLACK		T8
RED		T5

Note: To reverse motor direction operation, reverse wiring of Black (T8) & Red (T5) at motor junction box.

Motor Specifications

RGC PN: 6500684
HP: 3/4
RPM: 1725
VOLTAGE: 115 / 208-230
AMPS: 8.2 / 4.5-4.1

**BOATHOUSE – 9000 LB.
PARTS LIST**

Each reference number in the following parts lists can be matched with the reference number referred to in both the text and illustrations.

3103042 – BH9004E BOAT LIFT

3103040 – BH9004 COP 1 OF 2

REF #	PART #	QTY	DESCRIPTION
1	3106098	4	BH #37X HANGER
2	3106099	8	BH #38X HANGER
4	7303112	4	BLK HOOK SGL W / LATCH
5	7303115	4	BLK HOOK DBL W/ LATCH
6	7303116	4	BLK PLAIN DBL

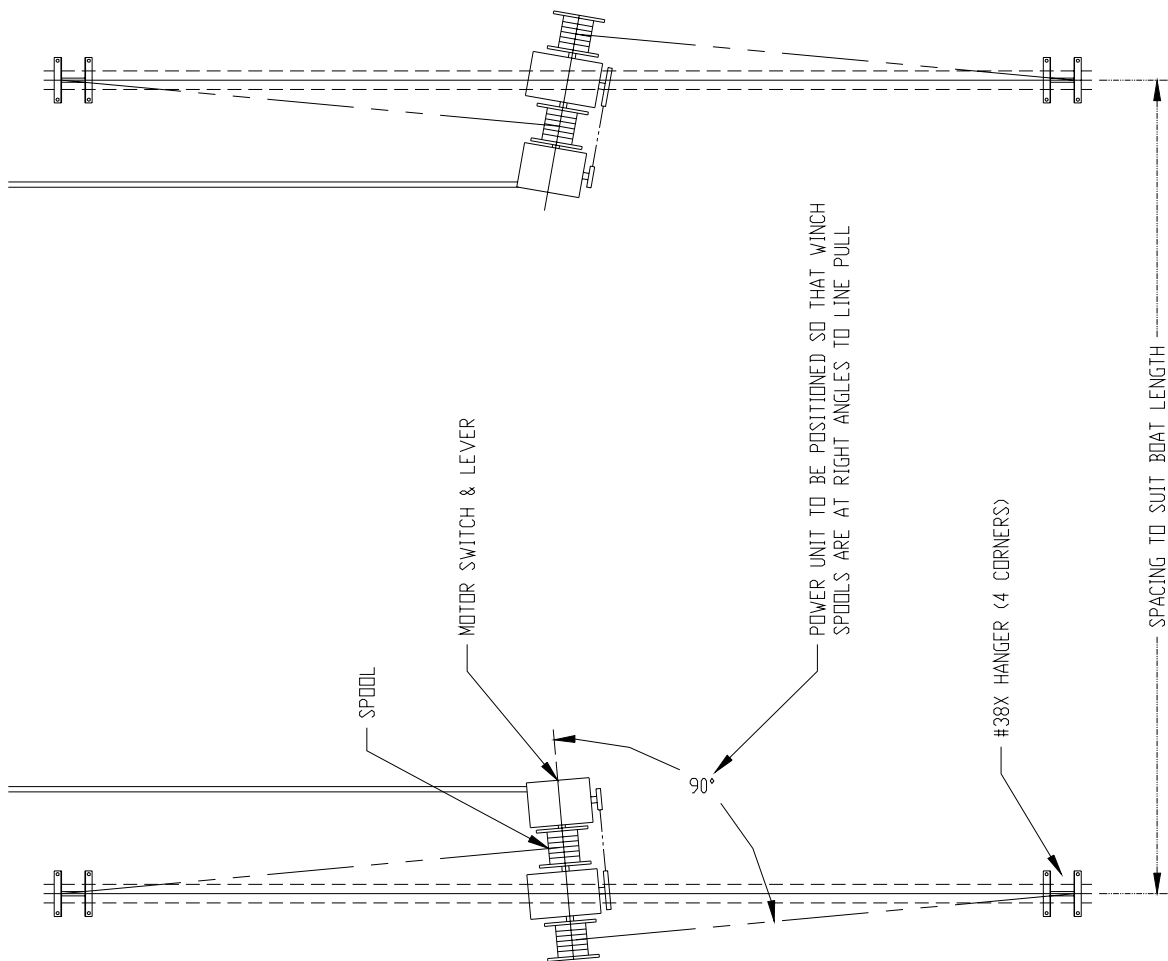
3103041 – BH9004 COP 2 OF 2

REF #	PART #	QTY	DESCRIPTION
7	3102204	4	BH9004 CA 3/16 x 60' - TINNED
	5806314	16	5/8-11 X 10" HHCS
	3106510	1	BH9004 BOB
			consisting of:
	7306460	12	3/16" WIRE ROPE CLAMP
8	5806286	4	1/2-13 X 2-1/2" HHCS
9	5806400	4	1/2" WASHER FLAT SAE
10	5806379	4	1/2-13 NUT HEX
	5806380	12	5/8-11 NUT HEX
	7300151	4	HOOK G320CN 1-1/2T
	7300154	4	LATCH 1-1/2T G320
	7301152	4	SHACKLE 7/16 SCREW

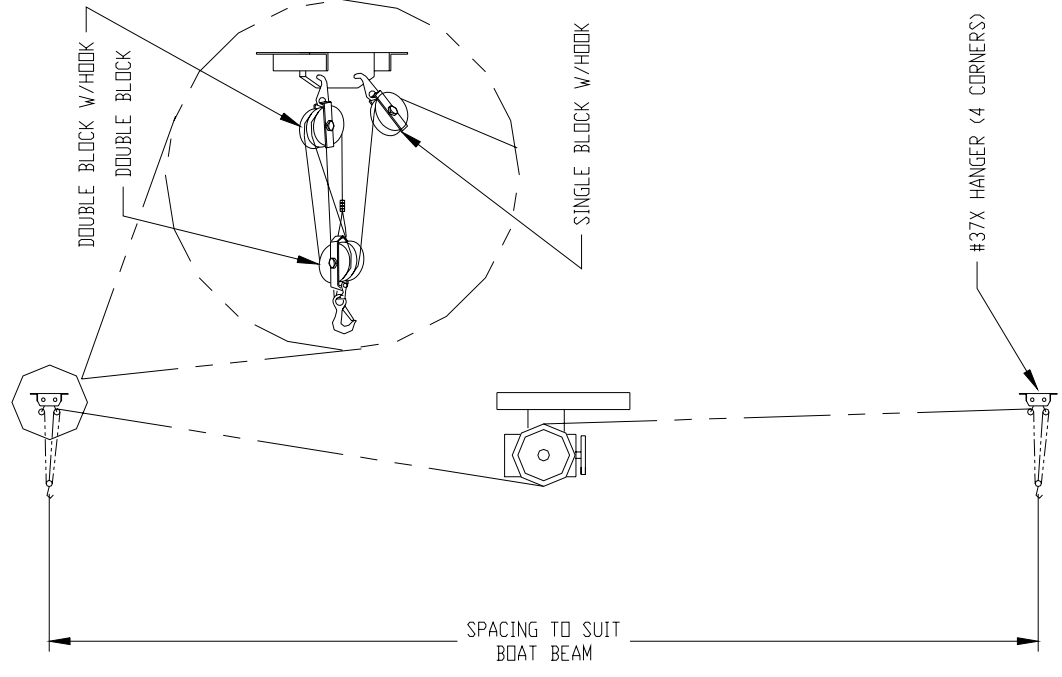
3103069 - PD BH 2500/4500 PWR ASSY - 2 UNITS SHIPPED

REF #	PART #	QTY	DESCRIPTION
12	6500684	1	MOTOR BALDOR 3/4HP 115/230V
13	6703127	1	REDUCER 50:1 DBL SHAFT
14	3103126	2	BH WINCH SPOOL
15	7300602	1	SHEAVE LARGE
16	7300614	1	SHEAVE SMALL
17	3103065	1	BH FRAME
18	6703111	1	BELT - V
19	5403261	1	SWITCH REVERSING 15A
20	5405001	15 FT.	CORD 14/5 PVC BLACK
21	5003189	1	DRUM SWITCH MTG PLATE
22	5406966	1	GFCI 15A IN LINE W/CORD & PLUG

BH9004E REEVING



VIEW LOOKING UP



END VIEW

BH9004 Power Drive

