

LSC36108/LSC46108

LSC36120/LSC46120

Cantilever Boatlifts

By Lakeshore Products, Inc.

Instruction Sheet.

Read carefully. Failure to follow the instructions and safety rules could result in severe injury or death!!!

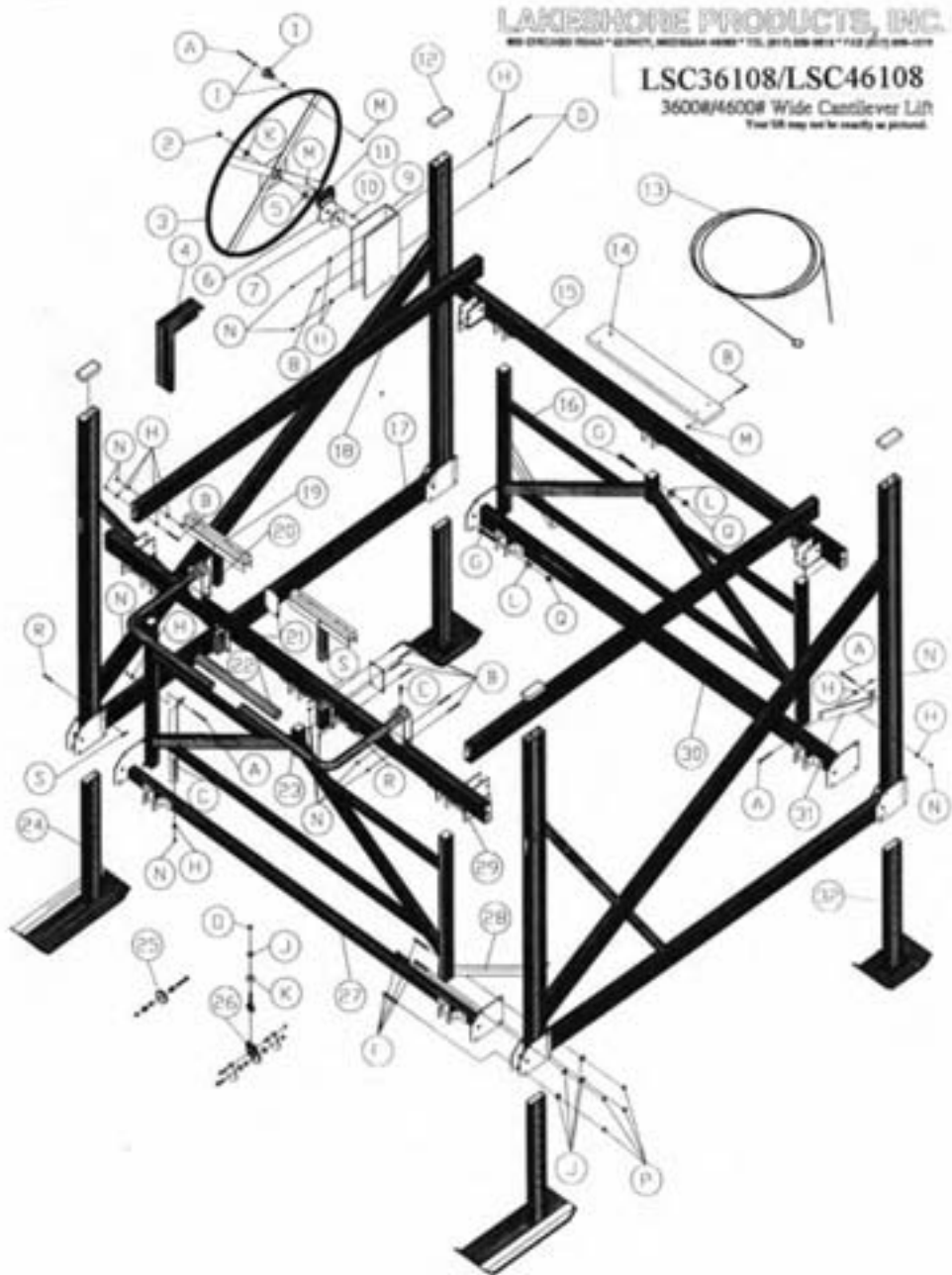
LAKESHORE PRODUCTS, INC.

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LSC36108/LSC46108

3600#/4600# Wide Castlebar Lift

Your lift may not be exactly as pictured.



LSC36108 Parts List

Ref.	Part No.	Part Name	Qty	Ref.	Part No.	Part Name	Qty
1	KNOB	Spinner Knob	1	17	36MF	Mainframe	2
2	Y756	5/8 Jam Nut	1	18	BCST3	Cradle Spreader Tube	2
3	41W	41" Wheel	1	19	20003	18" Wood Bunk	2
4	WC1	#1 Winch Cover	1	20	MSB	Motor Stop Bracket	2
5	W952	Bronze Thrust Washer	1	21	20119	Bunk Socket Assembly	2
6	WLS	Winch Locking Sprocket	1	22	MSPVC	Motor Stop PVC Tube	1
7	WINCHBP1	Winch Brake Pad	1	23	MSTUBE	Motor Stop L Tube	2
8	20039	Winch Wedge	1	24	20019	Cant. Large Leg	2
9	W1	Large Winch (#1)	1	25	20152	Cant. Internal Pulley Assy	4
10	20147	Large Winch Spring	1	26	PUL3	Cant. External Pulley Assy	4
11	WSC1	Large Winch Stop Cover	1	27	20015	Rear MF Spreader Tube	1
12	DEM25	2 x 5 Plastisol Cap	4	28	BMFAB2L	Cant. Mainframe Brace #1	2
13	36C	Cable	1	29	20041	Rear Cradle	1
14	BU35	35" Carpeted Wood Bunk	1	30	20014	Front MF Spreader Tube	1
15	20016	Front Cradle	1	31	BMFAB2R	Cant. Mainframe Brace #2	2
16	20017	H Unit	2	32	20018	Cant. Small Leg	2

LSC36108 Bolts List

* Available locally

A	Y410	* 3/8 x 2 1/2 Hex Bolt	7
B	Y412	* 3/8 x 3 Hex Bolt	22
C	Y414	* 3/8 x 3 1/2 Hex Bolt	2
D	Y424	* 3/8 x 6 Hex Bolt	2
E	Y507	* 1/2 x 1 3/4 Hex Bolt	2
F	Y514	* 1/2 x 3 1/2 Hex Bolt	16
G	Y618	* 3/4 x 4 1/2 Hex Bolt	10
H	Y452	* 3/8 Flat Washer	28
I	X452	* 3/8 Stainless Flat Washer	2
J	Y552	* 1/2 Flat Washer	20
K	Y752	* 5/8 Flat Washer	5
L	Y652	* 3/4 Flat Washer	10
M	Y450	* 3/8 Hex Nut	4
N	Y451	* 3/8 Lock Nut	30
O	G550	1/2 Galvanized Hex Nut	4
P	Y551	* 1/2 Lock Nut	16
Q	Y651	* 3/4 Lock Nut	10
R	CP	3/8 x 2 1/2 Clevis Pin	6
S	HPC	Halfpin Cotter	6

LSC46108 Parts List

Ref.	Part No.	Part Name	Qty	Ref.	Part No.	Part Name	Qty
1	KNOB	Spinner Knob	1	17	46MF	Mainframe	2
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3	41W	41" Wheel	1	19	20003	18" Wood Bunk	2
4	WC1	#1 Winch Cover	1	20	MSB	Motor Stop Bracket	2
5	W952	Bronze Thrust Washer	1	21	20119	Bunk Socket Assembly	2
6	WLS	Winch Locking Sprocket	1	22	MSPVC	Motor Stop PVC Tube	1
7	WINCHBP1	Winch Brake Pad	1	23	MSTUBE	Motor Stop L Tube	2
8	20039	Winch Wedge	1	24	20019	Cont. Large Leg	2
9	W1	Large Winch (#1)	1	25	20152	Cont. Internal Pulley Ass'y	4
10	20147	Large Winch Spring	1	26	PUL3	Cont. External Pulley Ass'y	4
11	WSC1	Large Winch Stop Cover	1	27	46ST1R	Rear Mf Spreader Tube	1
12	DEM25	2 x 5 Plastisol Cap	4	28	20153	Cont. Mainframe Brace #1	2
13	36C	Cable	1	29	20118	Rear Cradle	1
14	BU35	35" Carpeted Wood Bunk	1	30	46ST1F	Front Mf Spreader Tube	1
15	20117	Front Cradle	1	31	20154	Cont. Mainframe Brace #2	2
16	20250	H Unit	2	32	20018	Cont. Small Leg	2

LSC46108 Bolts List

* Available locally

A	Y410	* 3/8 x 2 1/2 Hex Bolt	7
B	Y412	* 3/8 x 3 Hex Bolt	22
C	Y414	* 3/8 x 3 1/2 Hex Bolt	2
D	Y424	* 3/8 x 6 Hex Bolt	2
E	Y507	* 1/2 x 1 3/4 Hex Bolt	2
F	Y514	* 1/2 x 3 1/2 Hex Bolt	16
G	Y618	* 3/4 x 4 1/2 Hex Bolt	10
H	Y452	* 3/8 Flat Washer	28
I	X452	* 3/8 Stainless Flat Washer	2
J	Y552	* 1/2 Flat Washer	20
K	Y752	* 5/8 Flat Washer	5
L	Y652	* 3/4 Flat Washer	10
M	Y450	* 3/8 Hex Nut	4
N	Y451	* 3/8 Lock Nut	30
O	G550	1/2 Galvanized Hex Nut	4
P	Y551	* 1/2 Lock Nut	16
Q	Y651	* 3/4 Lock Nut	10
R	CP	3/8 x 2 1/2 Clevis Pin	6
S	HPC	Hairpin Cotter	6

BCL36S120 Parts List

Ref	Part No.	Part Name	Qty	Ref	Part No.	Part Name	Qty
1	KNOB	Spinner Knob	1	17	36MF	Mainframe	2
2	Y756	5/8 Jam Nut	1	18	BCST4	Cradle Spreader Tube	2
3	41W	41" Wheel	1	19	20003	18" Wood Bunk	2
4	WC1	#1 Winch Cover	1	20	20268	Motor Stop Bracket	2
5	W952	Bronze Thrust Washer	1	21	20122	Bunk Socket Assembly	2
6	WLS	Winch Locking Sprocket	1	22	MSPVC	Motor Stop PVC Tube	1
7	WINCHBP1	Winch Brake Pad	1	23	MSTUBE	Motor Stop I. Tube	2
8	20039	Winch Wedge	1	24	20019	Cant. Large Leg	2
9	W1	Large Winch (#1)	1	25	20152	Cant. Internal Pulley Ass'y	4
10	20147	Large Winch Spring	1	26	PULJ	Cant. External Pulley Ass'y	4
11	WSC1	Large Winch Stop Cover	1	27	20040	Rear Mf Spreader Tube	1
12	DEM25	2 x 5 Plastisol Cap	4	28	20153	Cant. Mainframe Brace #1	2
13	36SC	Cable	1	29	20030	Rear Cradle	1
14	20221	35" Carpeted Wood Bunk	1	30	20031	Front Mf Spreader Tube	1
15	20029	Front Cradle	1	31	20154	Cant. Mainframe Brace #2	2
16	20049	H Unit	2	32	20018	Cant. Small Leg	2

LSC36120 Bolts List

* Available locally

A	Y410	* 3/8 x 2 1/2 Hex Bolt	7
B	Y412	* 3/8 x 3 Hex Bolt	8
C	Y414	* 3/8 x 3 1/2 Hex Bolt	2
D	Y420	* 3/8 x 5 Hex Bolt	14
E	Y424	* 3/8 x 6 Hex Bolt	2
F	Y507	* 1/2 x 1 3/4 Hex Bolt	2
G	Y514	* 1/2 x 3 1/2 Hex Bolt	16
H	Y618	* 3/4 x 4 1/2 Hex Bolt	10
I	Y452	* 3/8 Flat Washer	28
J	X452	* 3/8 Stainless Flat Washer	2
K	Y552	* 1/2 Flat Washer	20
L	Y752	* 5/8 Flat Washer	5
M	Y652	* 3/4 Flat Washer	10
N	Y450	* 3/8 Hex Nut	4
O	Y451	* 3/8 Lock Nut	30
P	G550	1/2 Galvanized Hex Nut	4
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S	CP	3/8 x 2 1/2 Clevis Pin	6
T	HPC	Hairpin Cotter	6

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8	20029	Winch Wedge	1	24	20019	Cant. Large Leg	2
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10	20147	Large Winch Spring	1	26	PUL3	Cant. External Pulley Assy	4
11	WSC1	Large Winch Stop Cover	1	27	246ST2R	Rear Mf Spreader Tube	1
12	DEM25	2 x 5 Plastisol Cap	4	28	20153	Cant. Mainframe Brace #1	2
13	36SC	Cable	1	29	46CR	Rear Cradle	1
14	20221	35" Carpeted Wood Bunk	1	30	46ST2F	Front Mf Spreader Tube	1
15	46CF	Front Cradle	1	31	20154	Cant. Mainframe Brace #2	2
16	20251	H Unit	2	32	20018	Cant. Small Leg	2

LSC46120 Bolts List

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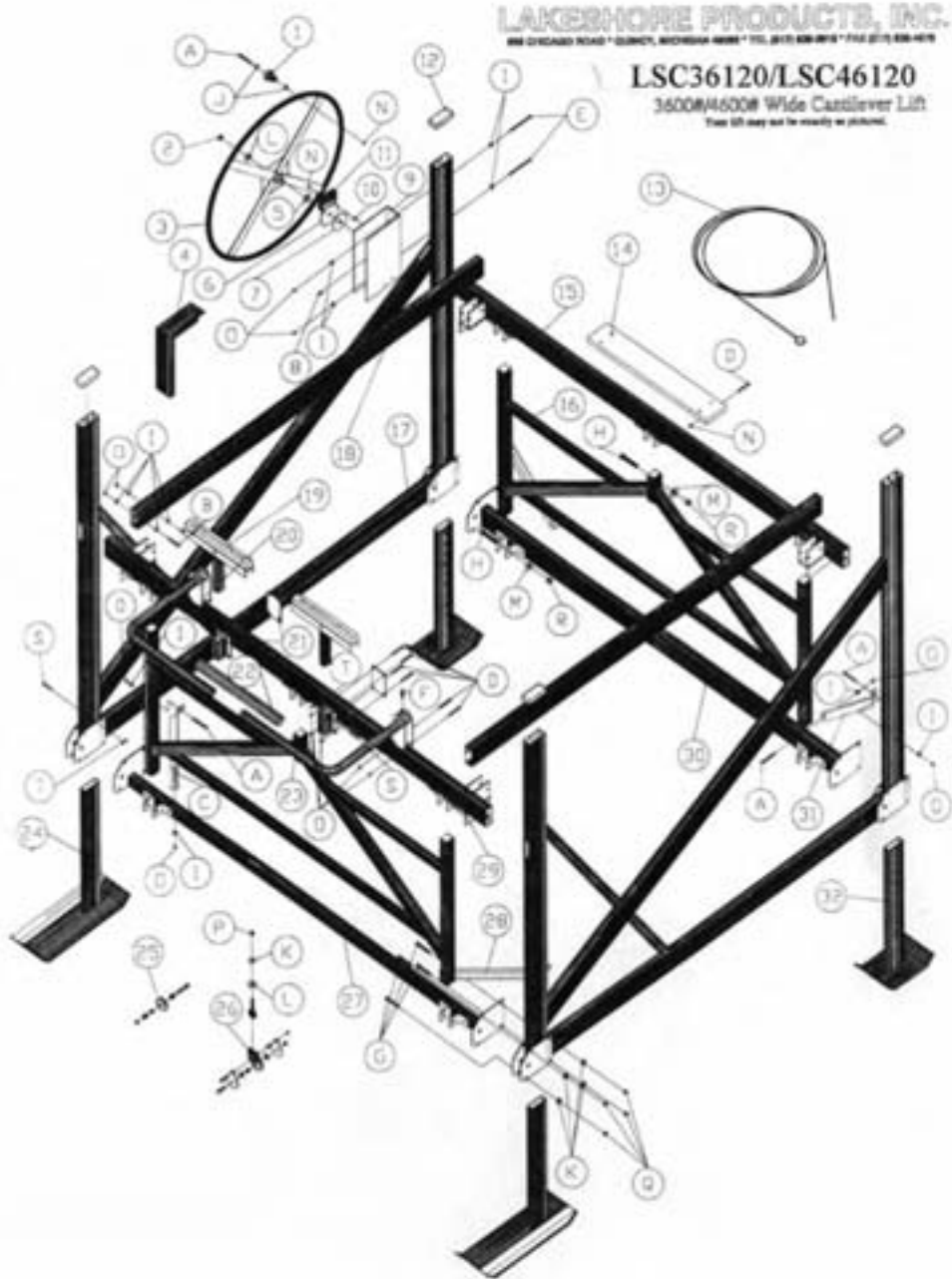
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C	Y414	* 3/8 x 3 1/2 Hex Bolt	2
D	Y420	* 3/8 x 5 Hex Bolt	14
E	Y424	* 3/8 x 6 Hex Bolt	2
F	Y507	* 1/2 x 1 3/4 Hex Bolt	2
G	Y514	* 1/2 x 2 1/2 Hex Bolt	16
H	Y618	* 3/4 x 4 1/2 Hex Bolt	10
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S	CP	3/8 x 2 1/2 Clevis Pin	6
T	HPC	Hairpin Cotter	6

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LSC36120/LSC46120

3600#/4600# Wide Castlebar Lift

Your lift may not be exactly as pictured.



Thank you for purchasing a Lakeshore Lift. With proper care, this lift will provide you with years of trouble-free use. Please read all instructions before beginning assembly, and if you have any problems do not hesitate to call us.

CAUTION!!!

Do not overtighten nuts and bolts on your lift. This may severely damage the structural integrity of your lift. When tightening a regular nut against an aluminum tube, tighten until the surface of the tube dimples slightly (1/8"). All lock nuts should be tightened until at least one to one and a half threads of the bolt are showing through the nut. If you crush the tube, it can crack and fail under pressure.

IMPORTANT NOTES:

1. Ideally your lift should be operated in about 24" to 36" of water. If you are dealing with a shallow water situation, it is possible to adjust the lift to work in as little as 10" plus the draft of the boat (i.e. if your boat has an 8" draft, the lift will work in 18" of water).
2. This lift is designed so that the wheel can be placed on either side of the lift. The lift is shipped for wheel setup on the left side. If you desire your wheel to be on the right side, follow these instructions before assembling your lift.
 - a) Reverse the winch by removing the 4 carriage bolts from the mounting channel, rotating the body of the winch 180 degrees so that the side farthest from the mounting plate now fits into it, and replacing the mounting channel. Make sure the winch drum stays opposite the slot in the mounting channel.
 - b) If you decide after the lift is assembled that the winch should be on the opposite side, you don't need to disassemble the whole lift. Simply exchange the internal pulleys and bolts in the two Mainframes. **DO NOT DROP ANY OF THESE PARTS INTO THE TUBE!** Stuff a rag in the tube or tape over the top of it to keep any parts that may be dropped from falling into the tube.
3. Always be sure that all pulleys are turning freely and inspect the cable to be sure it has no worn or frayed ends. Replace the cable at once if either of these conditions are present.

Find a level area on which to work. Lay out the parts and identify them using the exploded view and parts list. Sort the nuts and bolts by size and identify them using the bolts list. Only hand tighten nuts until instructed to do so.

Bits
List

6	3/8 x 2 1/2 Hex Bolt
8	3/8 x 3 Hex Bolt
2	3/8 x 3 1/2 Hex Bolt
2	3/8 x 6 Hex Bolt
16	1/2 x 3 1/2 Hex Bolt
10	3/4 x 4 1/2 Hex Bolt
18	3/8 Hex Nut
16	1/2 Hex Nut
10	3/4 Lock Nut
28	3/8 Flat Washer
16	1/2 Flat Washer
10	3/4 Flat Washer

You will need the following tools to assemble your Lakeshore Lift:

- 2 - 9/16 Wrenches (for 3/8 bolts)
- 2 - 3/4 Wrenches (for 1/2 bolts)
- 2 - 1 1/16 Wrench (for 3/4 bolts)
- 1 - Tape Measure
- 1 - Tin snips (for cutting metal banding)
- 1 - Step Ladder
- A small amount of grease

1) The Legs are shipped installed in the Mainframes. These will be held in place by (1) $3/8 \times 2\ 1/2$ clevis pin and a hairpin cotter. You will need to turn the large legs around so that the foot pad extends away from the Mainframe as shown in Figure #1.

2) Decide on which side of the lift you desire your winch. One Mainframe has three pulleys in it and the other only has one. The one with only (1) pulley is your winch side Mainframe. Stand the Mainframes up as shown in Figure #1, and hold these so that they will not fall over and injure someone during step 3).

3) Bolt the Main frames together using the Front and Rear Mainframe Spreader Tubes. Each corner will need (4) $1/2 \times 3\ 1/2$ hex bolts with (4) $1/2$ washers and (4) $1/2$ hex nuts. See Figure #1. Put the bolt heads on the inside of the lift and the washer underneath the nut on the outside of the lift.

4) Now install (2) Mainframe Braces on the front of the lift between the Front Spreader Tube and the Mainframe upright as shown in Figure #1. Use (2) $3/8 \times 2\ 1/2$ bolts on each angle with the heads of the bolts on the inside of the lift. Use (4) $3/8$ flat washers and (4) $3/8$ hex nuts with the washers against the tube.

5) At the rear of the lift the braces are installed horizontally between the top of the Rear Mainframe Spreader Tube with (1) $3/8 \times 3\ 1/2$ hex bolt and the bottom tube of the Mainframe with (1) $3/8 \times 2\ 1/2$ hex bolt. Put the heads of the bolts on the inside of the lift. Use (4) $3/8$ flat washers and (4) $3/8$ hex nuts with the washers against the tube.

6) Measure diagonally across the lift and see to it that your measurements are equal to within $1/4"$. Make sure to measure from the same points on both diagonals. If you find one diagonal longer than the other, gently push the lift at this corner until the measurements are equal.

7) Tighten the bolts that you have installed. Recheck your diagonals to be certain that your mainframe has remained square.

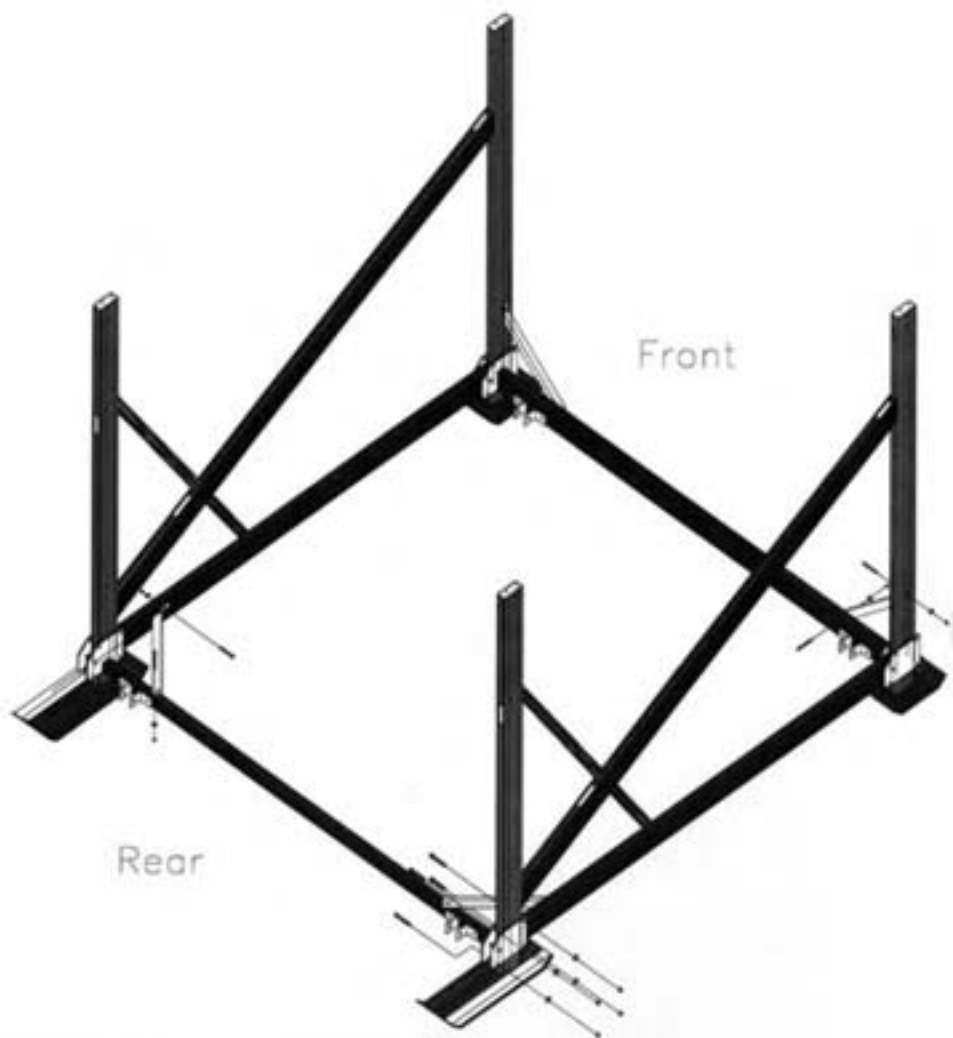


Figure #1.

8) Install the H Units as shown in Figure #2. Use the (4) 3/4 x 4 1/2 bolts, (4) 3/4 flat washers, and (4) 3/4 lock nuts, with the washers under the nuts. Tighten the nuts only until the bolt is snug against the angles. Overtightening these bolts will prevent the H Units from pivoting correctly.

9) Install the Front Cradle with the angles facing the inside of the lift as shown in Figure #2. Use (3) 3/4 x 4 1/2 hex bolts with (3) 3/4 flat washers and (3) 3/4 lock nuts, with the washers under the nuts. Tighten the nuts only until the bolt is snug against the angles. Overtightening these bolts will prevent the H Units from pivoting correctly.

HINT: If you install the two outside bolts first, it will be easier to install the center bolt.

10) Install the Rear Cradle with the angles facing the inside of the lift as shown in Figure #2. Use (3) 3/4 x 4 1/2 hex bolts with (3) 3/4 flat washers and (3) 3/4 lock nuts, with the washers under the nuts. Tighten the nuts only until the bolt is snug against the angles. Overtightening these bolts will prevent the H Units from pivoting correctly.

HINT: If you install the two outside bolts first, it will be easier to install the center bolt.

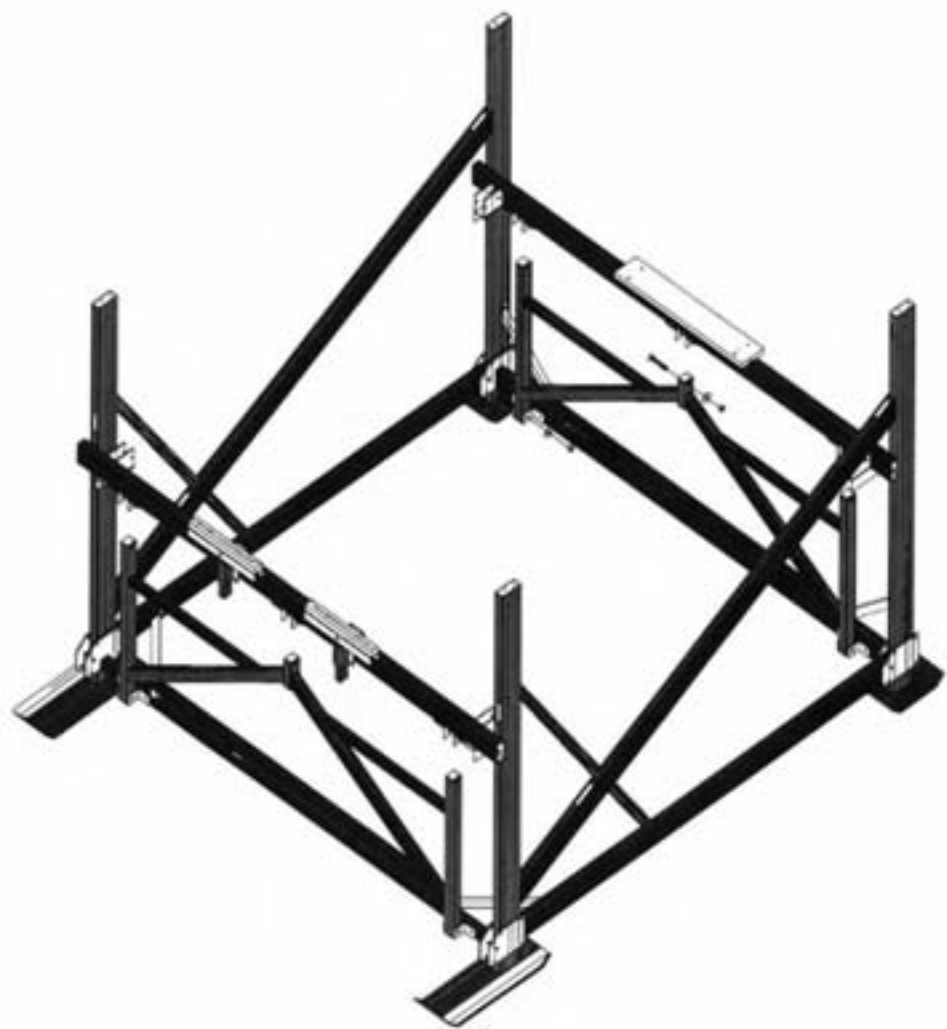


Figure #2.

11) Install the (2) Cradle Spreader Tubes as shown in Figure #3 and secure with the (8) 3/8 x 3 bolts, (16) 3/8 flat washers and (8) 3/8 hex nuts. Tighten these bolts.

12) Mount the winch using (2) 3/8 x 6 bolts, (4) 3/8 flat washers, and (2) 3/8 lock nuts to the inside of the Mainframe upright with the decal stickers on it. The nuts should be inside the winch. The drum on which the cable winds should be on the bottom of the winch.

13) Install the wheel, being careful not to cross-thread the wheel on the winch. Secure with the 5/8 flat washer and 5/8 Jam Lock Nut. **DO NOT OVERTIGHTEN THIS NUT!** Tighten only until the shaft is even with the outside of the lock nut. Overtightening this nut may cause the winch braking mechanism to not work properly.

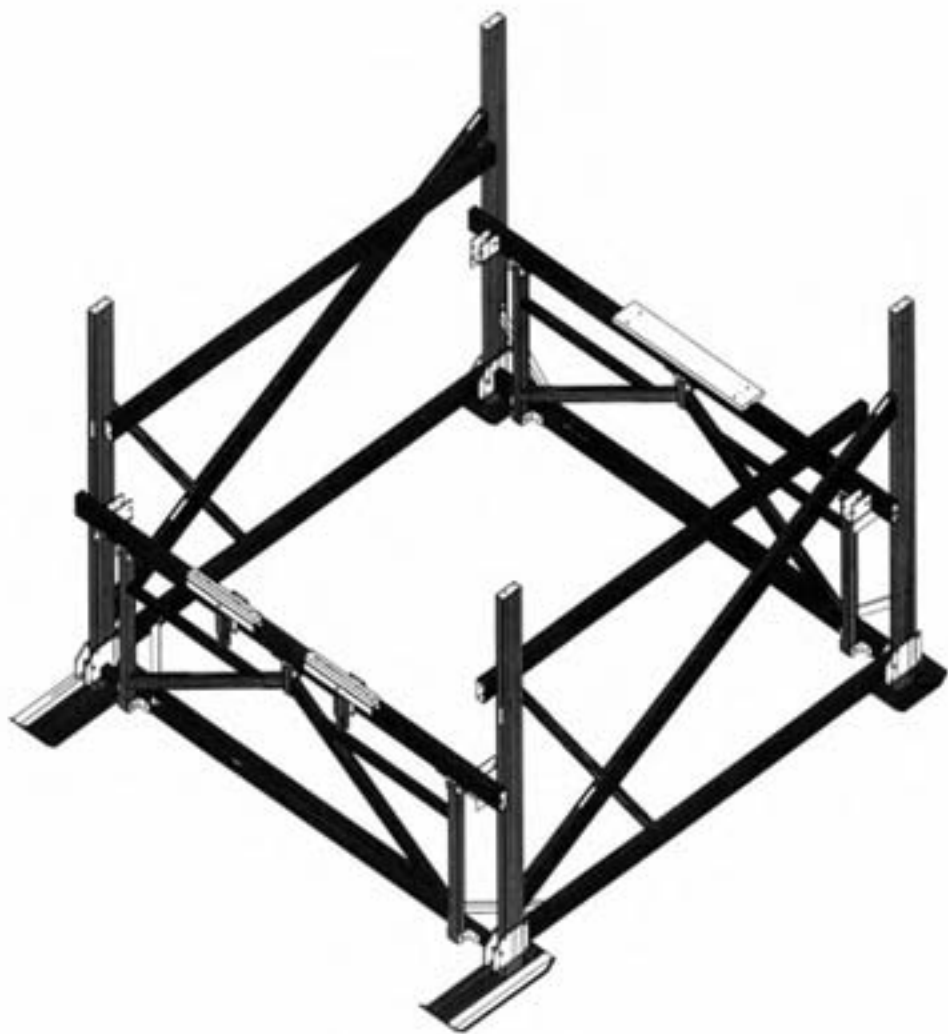


Figure #3.

14) The following steps explain stringing the cable as shown in Figure #4:

a) Start by laying the cable out in a straight line.

b) Install the looped end into the hole in the rear upright of the Mainframe with the winch with the 1/2 x 2 1/2 hex bolt and 1/2 lock nut that are already in the Mainframe. BE SURE NOT TO OVERTIGHTEN THIS BOLT! Only tighten the nut until one to one and a half threads of the bolt show. The cable should exit the rear of the lift.

c) Run the cable through the closest external pulley on the rear cradle and across to the other rear cradle pulley.

d) Now string the cable OVER the internal pulley in the Mainframe rear upright opposite of where you started.

HINT: Slide a box end wrench up through the hole in the back of the frame until it's behind the top of the pulley. Stick the end of the cable over the pulley and through the end of the wrench. Now use the wrench to pull the cable down behind the pulley and out of the frame.

e) Now string UNDER the pulley on the diagonal brace and gently push the cable up through the diagonal tube to the internal pulley at the front of the lift. The cable must go OVER this pulley and exit through the bottom of the tube.

f) String the cable through the nearest external pulley on the Front Cradle and across the lift to the opposite Front Cradle pulley.

g) The cable should run in front of the internal pulley just below the winch, and then attach to the winch.

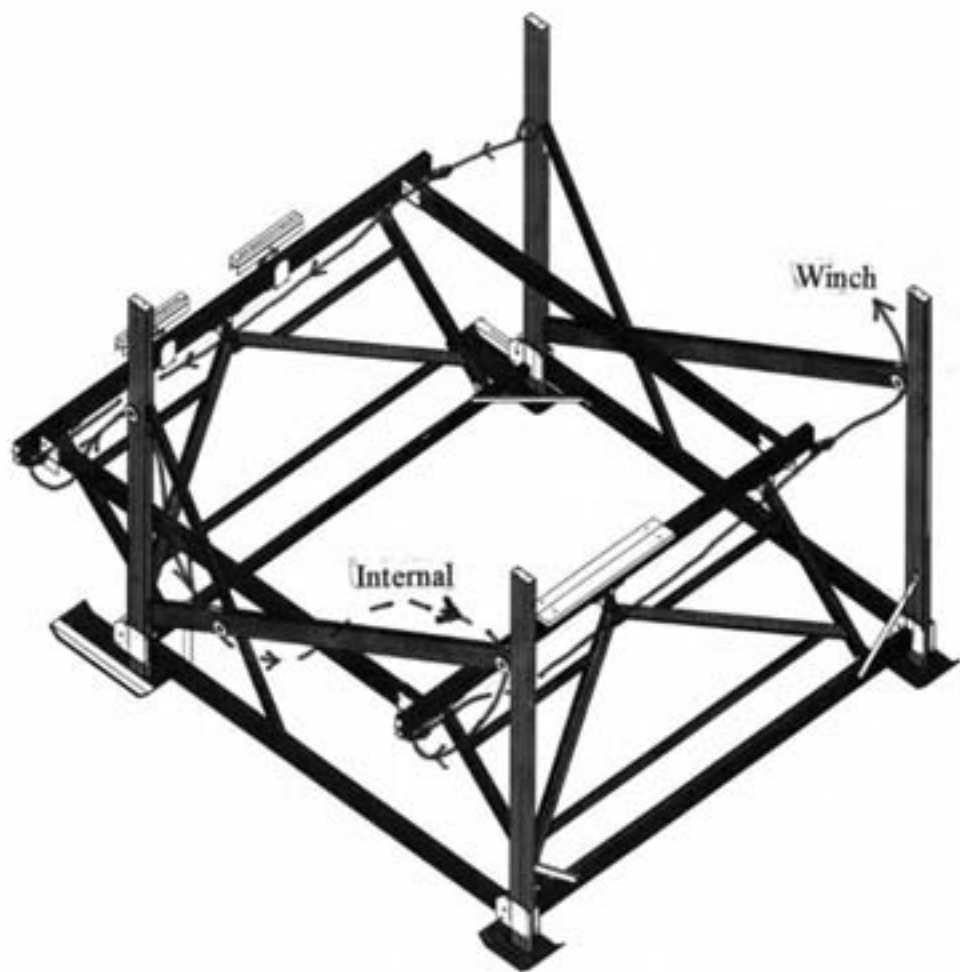


Figure #4.

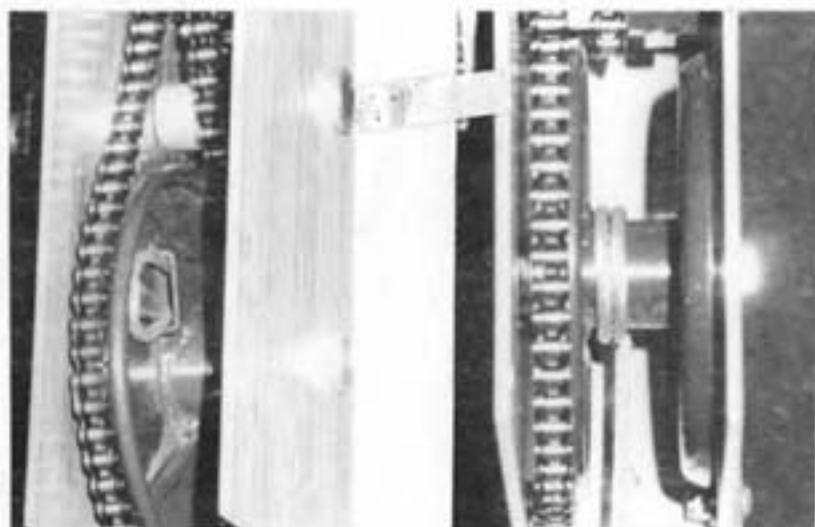


Figure #5.

Figure #6.

h) Grease the last two feet of the end of the cable. Find the wedge attached to the winch. Wrap the cable around the winch drum clockwise from the outside of the lift, and insert the end through the small end of one of the welded channels on the side of the drum, make a loop and push the end back through the welded channel. Insert the steel wedge into the center of the loop you just made with cable. Now pull the main cable down to draw the loop and the wedge into the welded channel. This will secure the cable to the drum. See Figure #5. Take up the slack in the cable by turning the wheel clockwise. Make sure the cable winds evenly as in Figure #6.

15) Place the Red Plastisol Caps on the tops of the posts and the Winch cover on the winch, and your lift is complete.

IMPORTANT NOTES:

1. A second safety decal is provided in the accessories box. If, when you assemble the lift, the decal is not easily seen, install this extra decal so that anyone using the lift can read the VERY IMPORTANT safety rules!
2. After moving the lift into the water, be sure to LEVEL the lift. This is accomplished by using the adjustable legs and is critical to the lift's operation. Notice it is necessary to remove the top bolt from the front diagonal brace in order to adjust the leg. After adjusting the front legs, replace this bolt.



LAKESHORE PRODUCTS

TEN YEAR LIMITED WARRANTY

Lakeshore Products, Inc. (Seller) warrants the aluminum structure on docks and lifts of its manufacture to be free from defects caused by faulty material or poor workmanship. Seller will at its option, repair or replace any such goods found on examination by Seller, to be defective under normal use and service within ten years from date of purchase. Upon discovery of any such defect, Buyer must notify Seller in writing of defect and provide proof of purchase. Seller warrants cast aluminum parts, mechanical components and hardware for one year.

Seller shall not be held responsible for repairs or modifications to its docks or lifts unless authorization has been obtained from Seller. This warranty does not cover damage caused by incorrect assembly or adjustments, overloading, improper use, neglected maintenance, alterations or damage caused by accident, ice, saltwater or acts of God.

Components obtained from other manufacturers and used in Sellers products will be covered under the manufacturers warranty and shall not be the responsibility of the Seller.

Sellers responsibility under this warranty shall be the repair or replacement of defective items. Seller is not liable for incidental or consequential damages of any kind.

Lakeshore Products, Inc.

"Your Waterfront Specialists"

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