Quincy 'MI '49082 ' tel 517.639.381

Instruction Manual

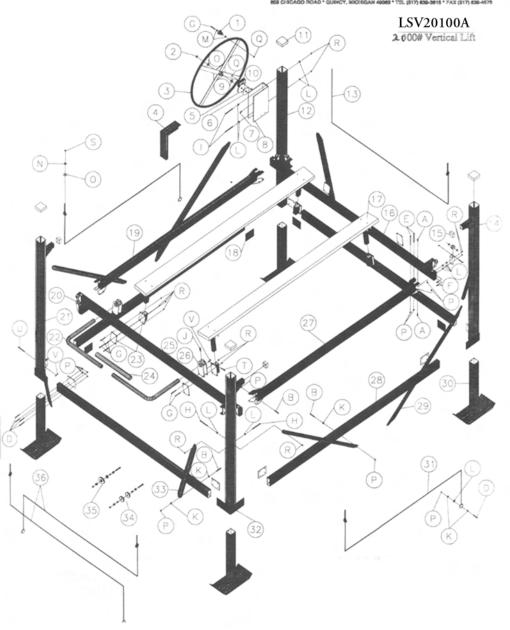
Read carefully.
Failure to follow the instructions and safety rules could result in severe injury or death!

LS1501A LS1502A LS1503 LS1504 LS1505A LS2005

LSV20100A Parts List

Ref.	Part No.	Part Name	Qty	
1	KNOB	Spinner Knob		
2	Y756	5/8 Jam Nut		
3	41W	41" Wheel		
4	WC2	Small Winch Cover		
5	WLS	Winch Locking Sprocket		
6	WINCHBP1	Winch Brake Pad		
7	20039	Winch Wedge		
8	W2	Small Winch (#2)		
9	W952	Bronze Thrust Washer		
10	WSC	Small Winch Sprocket Cover		
11	DEM33	3 x 3 Plastisol Ĉap		
12	20179	Mainframe Post #1		
13	20196	Front Cable		
14	20180	Mainframe Post #2	1	
15	DEM12	1-1/2 x 2 Plastisol Cap		
16	20201	Front Cradle Assembly		
17	BUNK1500	Carpeted Wood Bunk Ass'y	2	
18	20190	Mainframe Backer Plate		
19	20197	Cradle Spreader Tube-Left	1	
20	CRA	Cradle Roller Assembly	8	
21	20182	Mainframe Post #4	1	
22	MSTUBE	Motor Stop L Tube		
23	20222	Bunk Post Socket Ass'y	4	
24	MSPVC	Motor Stop PVC Tube		
25	20202	Rear Cradle Assembly		
26	20236	Motor Stop Bracket	2	
27	20198	Cradle Spreader Tube-Right	1	
28	20191	Mainframe Spreader Tube	4	
29	20193	Side Angle Brace56"	4	
30	20208	Leg	4	
31	20195	Side Cable	2	
32	20181	Mainframe Post #3	1	
33	20192	F/R Angle Brace 40"	4	
34	15DP	Double Pulley Assembly	2	
35	15SP	Single Pulley Assembly	6	
36	20194	Rear Cable	2	

LAKESHORE PRODUCTS, INC.



LSV20100A

lakeshore Products, Inc. 2000#, 100" Beam Vertical Lift

Thank you for purchasing a Lakeshore Vertical Lift. With proper care and maintenance, this lift will provide you with years of trouble free service. Please follow these instructions carefully.

Accessory Package List:

- (1)bolt package
- (4) 3 x 3 red plastisol caps
- 1-1/2 x 4-1/2 red plastisol caps (3)
- (1)chain-driven, aluminum winch
- (4)bunk socket
- (4)bunk socket plates 4 x 6-1/2"
- (8)mainframe plates 4-1/2 x 3-1/2"
- (8)2" white, round cradle rollers

Fasteners List:

(8)	5/	16	v 3//	Hov	Bolts
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- (24)5/16 x 2-1/2 Hex Bolts
- (2)5/16 x 3 Hex Bolts
- (8) 5/16 x 5-1/2 Hex Bolts
- (8)3/8 x 2 Hex Bolts
- (16)3/8 x 2-1/2 Hex Bolts
- (8) 3/8 x 3-3/4 Hex Bolts
- (2)3/8 x 4-1/2 Hex Bolts
- (5)1/2 x 2-1/2 Hex Bolts
- (42)
- 5/16 Hex Lock Nuts (34)3/8 Hex Lock Nuts
- 1/2 Hex Lock Nuts
- (5)(14)5/16 Flat Washers
- (16)3/8 Flat Washers
- (8)1/8 Hairpin Cotter
- (4) 3/8 x 3-1/2 Clevis Pin
- (4) 3/8 x 2-1/2 Clevis Pin

You will require the following tools:

- (2)1/2 wrenches
- (2)9/16 wrenches
- 15/16 or adjustable (1) wrench

a tape measure a step ladder grease

CAUTION

Do not over tighten the nuts and bolts on your lift.

Doing so may cause the lift to fail. When tightening against a tube, tighten until the aluminum just dimples. Lock nuts should be tightened until at least one thread of the bolt is showing through the nut. If you crush the tube, it may crack and fail under normal use

Do not tighten any bolts until instructed to do so.

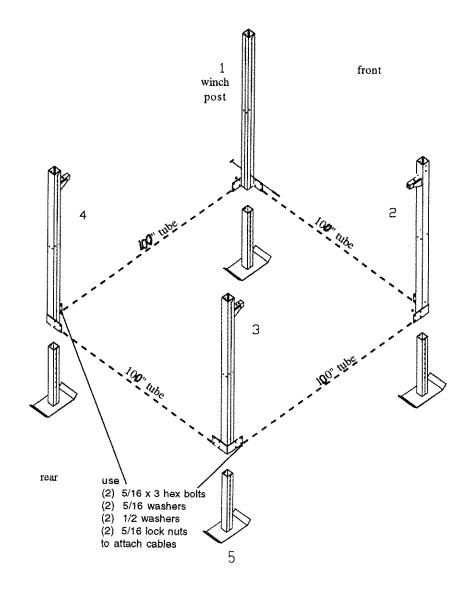
1) Legs to Mainframes Insert the legs into the posts using:

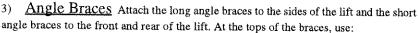
- (4) $3/8 \times 3-1/2$ clevis pins
- (4) hairpin cotters

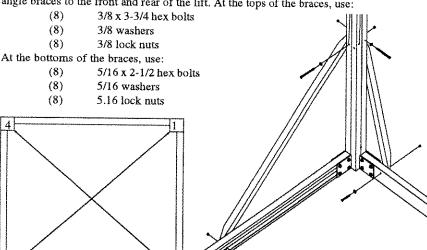
2) Mainframe Spreaders Bolt the mainframe spreader tubes between the

posts using:

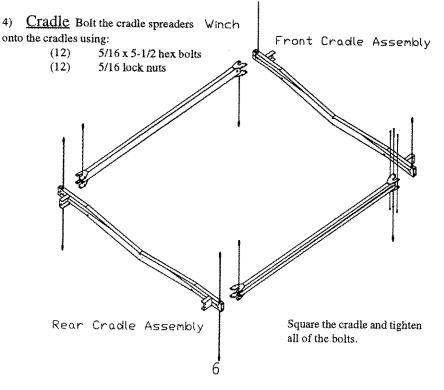
- (14) 5/16 x 2-1/2 hex bolts
- (14) 5/16 lock nuts
- (8) mainframe plates





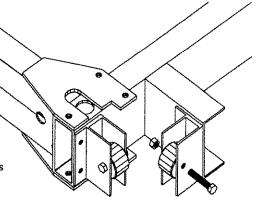


Square the mainframe by measuring its diagonals. The diagonals must be equal. If they are not, adjust the mainframe until they are. Once this is accomplished, tighten all of the bolts except the $5/16 \times 3$ hex bolts. The cables in the rear cradle will attach to these.



5) Rollers Install (8) cradle rollers using:

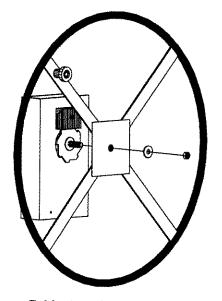
- (8) 3/8 x 2 hex bolts
- (8) 3/8 lock nuts
- 6) Winch With a ladder, attach the winch using:
 - (2) $3/8 \times 4-1/2$ hex bolts
 - (4) 3/8 washers
 - (2) large aluminum washers
 - (2) 3/8 lock nuts



One washer belongs under the head of each bolt,

The aluminum washer and the other washer go under the nut on the outside of the lift.

Make certain that the large drum inside the winch is on the bottom of the winch.



Tighten these bolts.

Carefully thread the wheel onto the winch shaft and then place the washer and jam nut onto the winch shaft. Tighten the jam nut until the threads of the shaft just show through. Further tightening may keep the winch from working properly.

7) <u>Cable Attachment</u> Find the loops that hang out the bottom of the rear cradle. These attach to the two bolts that you left loose on the mainframe. Put the cable loop against the backer plate, followed by the 3/8 washer, the 5/16 washer, and then the 5/16 lock nut.

Find the loops that hang out the front end of the cradle. These attach using:

- (2) $5/16 \times 2-1/2 \text{ hex bolts}$
- (4) 5/16 washers
- (2) 3/8 washers
- (2) 5/16 lock nuts

through the remaining free bottom hole in the mainframe spreader tube.

Find the loops that come out of the top of the cradle. These are raised through the tubes that are welded to the posts and held in place using:

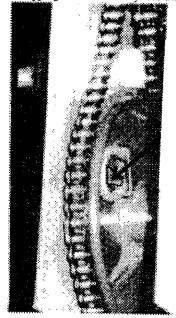
- (5) $1/2 \times 2 1/2 \text{ hex bolts}$
- (5) 1/2 lock nuts

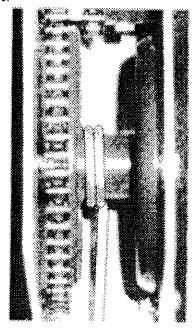
The loops that come out of the bent cradle tubes fasten closest to the post. The two cables closest to posts #3 and #4 will be loose. These are leveling cables and will cause the lift to work improperly if they are tight. Do not be concerned by their looseness.

Tighten all nine of these bolts.

Find the one remaining loose end of cable and grease the last two feet of it. Find the wedge taped 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 the welded channel on the inside 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 the cable and pull the cable tight.

Wrapping the cable evenly will help prolong its life.





Check your Lift

Raise and lower the cradle several times while looking for any problems. Now is a much better time to fix these than after the lift is in the water. Here are some general guidelines:

The cradle should move smoothly up and down.

All cables should ride in pulleys.

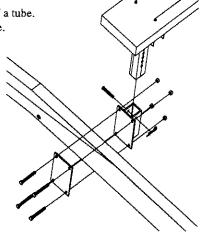
No two cables should cross outside of a tube.

No cable should ride directly on a tube.

- 8) <u>Bunks</u> Attach the Bunk Sockets directly to the Front and Rear Cradle Assemblies using the Bunk Plates and
 - (16) $3/8 \times 2-1/2$ hex bolts
 - (16) 3/8 hex lock nuts

The Sockets should be on the outside of the cradle. Do not tighten these now as they will need to be adjusted to fit your boat.

- 23) Slide the Carpeted Wood Bunks down into these sockets and fasten in place with:
 - (4) 3/8 x 2-1/2 clevis pins
 - (4) hairpin cotters



Final Touches

Place the Winch Cover on the winch.

Place the 3 1/2 x 3 1/2 Red Plastisol Caps on the tops of the Posts

Place the 1-1/2 x 4-1/2 Red Plastisol Caps on the welded stubs that the cables bolt to.

Water Positioning

Move the lift to where it is to be used.

Adjust the leg height so that the lift is level. Do this by removing the clevis pin of the lowest leg, lifting that corner of the lift to level and replacing the clevis pin. Don't forget the hairpin cotter.

Adjust the positions of the Carpeted Wood Bunks to fit your boat.

IMPORTANT

Occasionally check the cables for fraying and make certain that all cables are riding properly. This will guarantee years of trouble-free operation.

When transporting the lift assembled, tie the cradle unit to the lower mainframe and use the winch to put tension on the cables. Once you've reached your destination, check that all of the cables are still riding in their pulleys.

At the beginning of each season, you should check your lift before entrusting your boat to it:

- -Check that your winch turns easily without any weight on it.
- -Check that the braking mechanism works with weight on the lift.
- -Check your cables for fraying.
- -Check that your pulleys turn freely.
- -Check that the cables are riding in pulleys and not against aluminum.

LAKESHORE PRODUCTS, INC

Your waterfront specialist!

We offer a complete line of Quality accessories for your 2000# Vertical Lift.

Canopies
Walk-On Side Guides
Electric Power Assist
Front Bow Stop
Adjustable Leg Extensions

Ask your dealer for details.

Lakeshore Products. Inc.

Ten/Two 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 two years.

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, salt water, or acts of God.

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

Seller's 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.

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