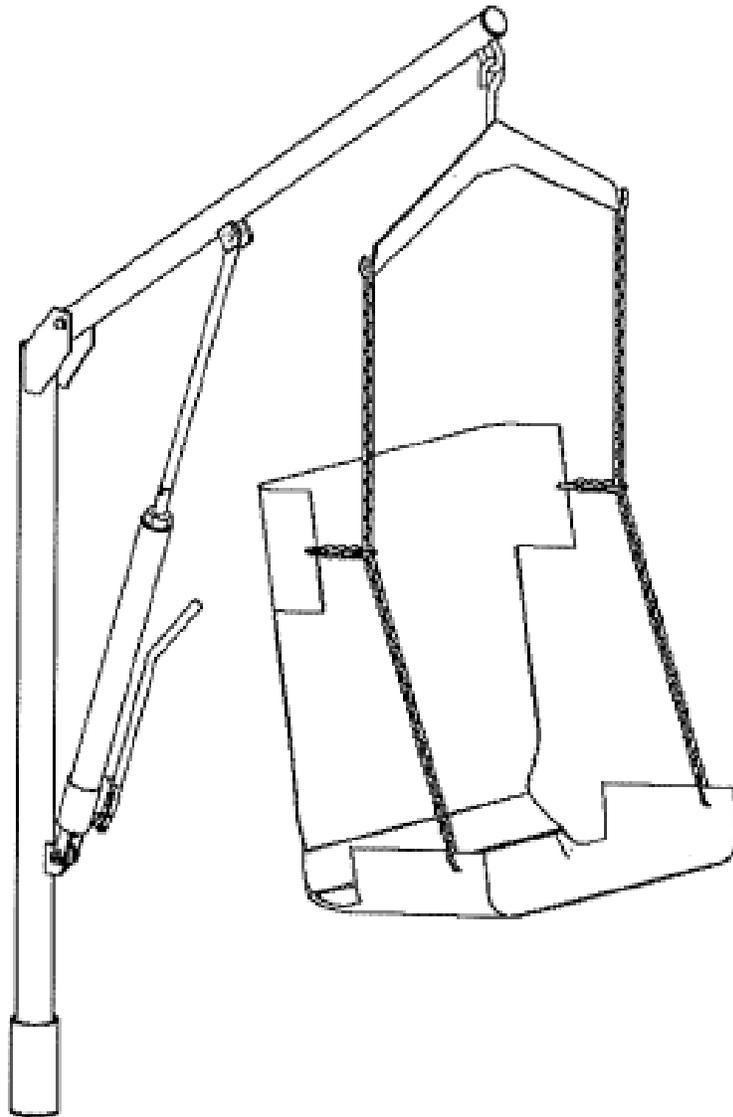


Swim-Lift® Elkhorn MP400



Owners Manual
Assembly, Installation and Operation

SPECTRUM
Products®

7100 Spectrum Lane
Missoula, Montana
406.542.9781
Fax: 406.542.1158

Thank you for purchasing the Swim- Lift®, Elkhorn, from Spectrum Products we appreciate your business. To assure trouble free installation and operation of your Swim-Lift® it is recommended that you read the entire Installation and Users Guide before attempting to install or operate the device.

Step 1

Unpacking and Inspection

Reminder: It is your responsibility to inspect product shipments, checking for the following:

- Check the number of cartons/boxes/crates against the shipping bill of lading.
- Check the cartons/boxes/crates for freight damage.

Please refer to our published freight policy in our General Catalog for further details.

Spectrum employs heavy duty shipping materials i.e., cartons/boxes/crates to protect products from freight and handling damage. Our quality control department guarantees that the proper quantities of items/components are packaged in each individual shipment, having a two-counter sign off policy, assuring that all shipments are complete.

If freight and/or handling damage, or shortage of cartons/boxes/crates, should occur, it is your responsibility to file a claim with the freight carrier. You must note the damaged or shortage on the freight carrier's bill of lading before accepting the shipment.

It is Spectrum's desire to provide you with superior products and services. Unfortunately we cannot control circumstance related to the shipment of products beyond our freight docks. However if you have any questions or problems related to your shipment please feel free to contact us as 800.791.8056 we will make every effort to assist you with freight problems. Ask to speak with our Customer Service Support Department (extension 203).

Each Elkhorn will arrive partially assembled in two boxes. If you ordered your Elkhorn with an anchor, it will be included separately from the two boxes. Before accepting the shipment from the carrier, inspect for visible damage and/or match the contents with those listed below and shown in Figures 1 and 2.

Box A: (1) Mast Tube/ Boom Arm Assembly
(1) Hydraulic Ram
(1) Sling Seat with Chain
(1) Hardware Package

Box B: (1) Sling hanger Assembly

Box C: (1) Socket Anchor: (if ordered)

Figure 1

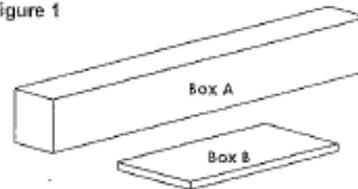
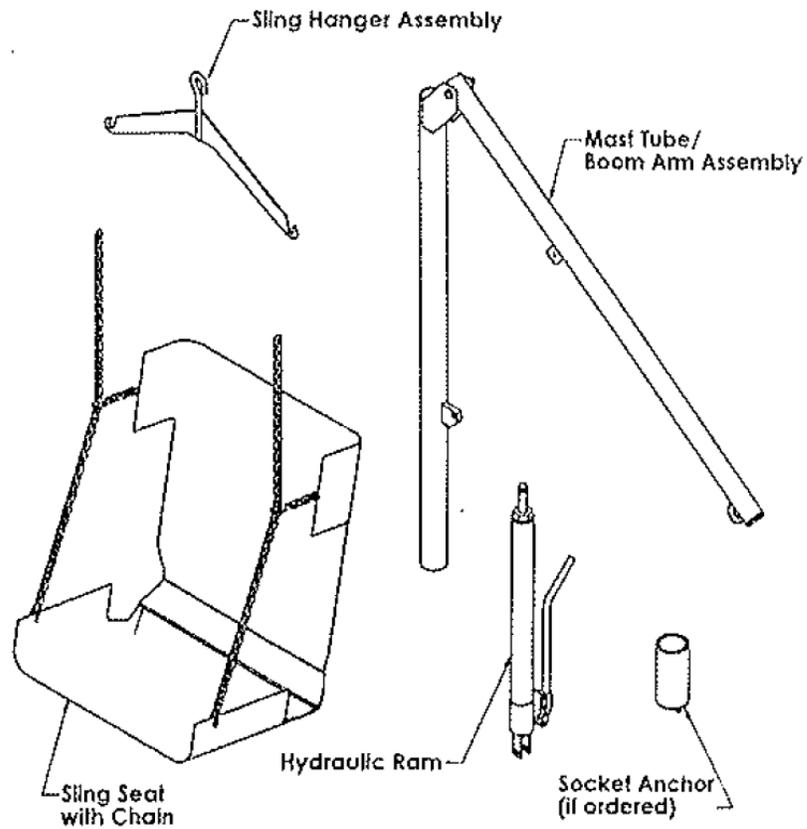


Figure 2



Step 2

Material and Tool Requirements

The following materials and tools will be required to complete the assembly and installation:

- Concrete cutting saw (optional, retrofit anchor installations)
- Non-expanding concrete
- 3" diameter concrete core drill (optional, see anchor installation)
- Epoxy or hydraulic cement (optional, see anchor installation)
- 9/16" wrench
- 9/16" socket
- Torque wrench
- 1/4" hex key (Allen) wrench
- Marking pen or chalk
- Carpenters level

Step 3

Lift Assembly

- a) Locate each of the lift parts to be assembled and lay them out on the pool deck.
- b) Attach the hydraulic ram to the lift mast tube on the lower ram attachment tab as shown in figure 3. Use the 1/2" x 1-1/4" long shoulder bolt, two 1/2" plastic washers, and 3/8" flat washers, and 3/8" - 16 Nylock nut from the included hardware package. Tighten the 3/8"-16 Nylock nut on the shoulder bolt to 15 foot-pounds of torque.
- c) Attach the hydraulic ram to the lift boom arm between the upper ram attachment tabs as shown in figure 4. Use the 3/8"-16 x 1-3/4" long hex head bolt, 3/8" lock washer, and 3/8"-16 hex nut from the included hardware package. Tighten the 3/8"-16 hex nut on the 3/8"-16 x 1-3/4" hex head bolt to 15 foot-pounds of torque.

Figure 3

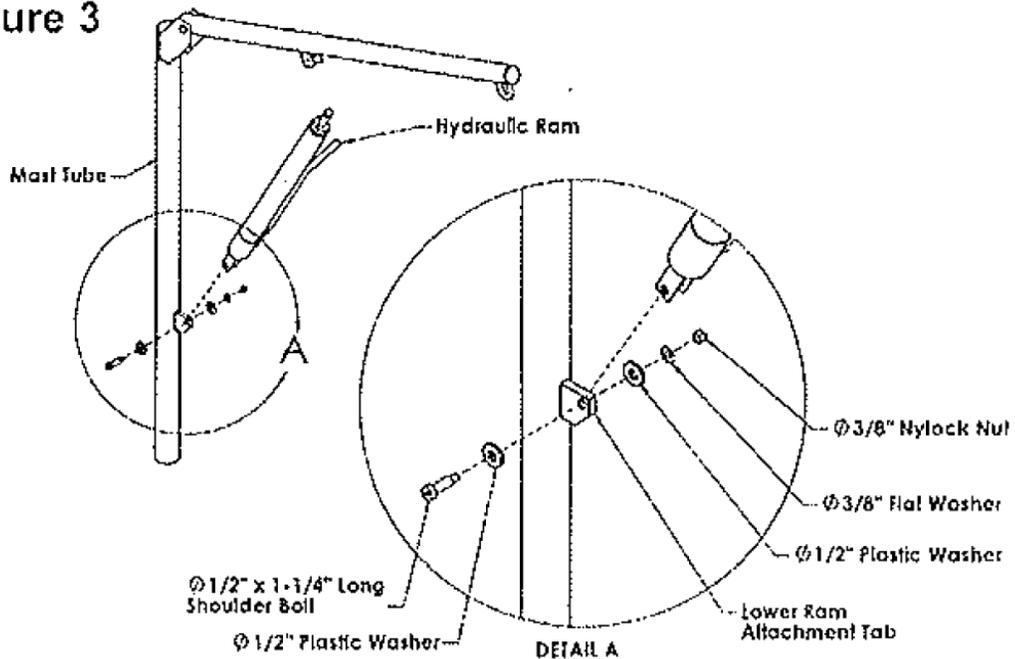
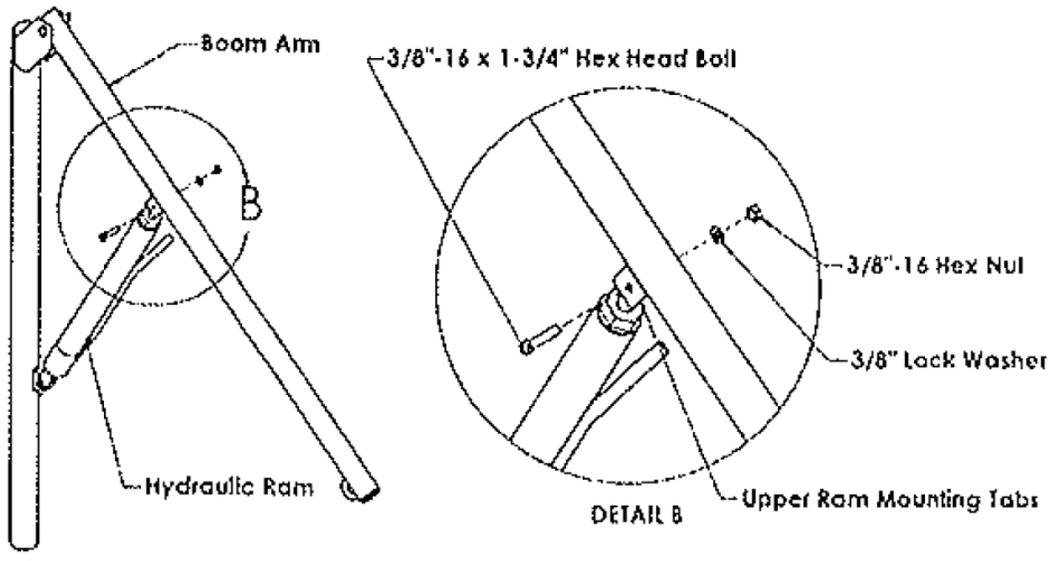
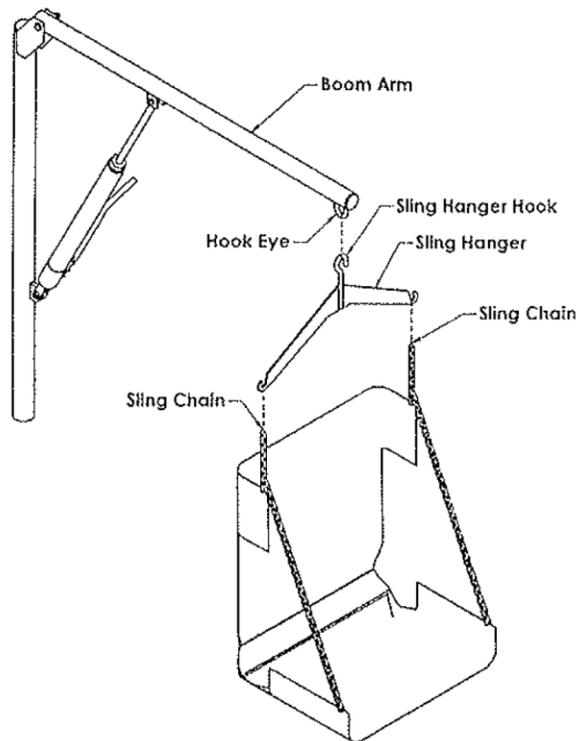


Figure 4



- d) Attach the sling to the sling hanger assembly by slipping each end of the sling chain over one of the hanger end hooks. Hang the sling hanger assembly from the bottom arm as shown in figure 5.

Figure 5



Step 4

Anchor Installation

If you purchased and installed an Elkhorn anchor previously, please proceed to the Operator's Guide section for instructions on safely operating your Elkhorn.

- a) Determine a suitable location for the lift. It is recommended that the lift be installed near the shallow end of the pool in an area with a minimum pool deck to pool floor dimension of 42 inches. The Elkhorn can be installed between 12 and 24 inches from the edge of the pool wall. Keep in mind that the Elkhorn can rotate 360 degrees and has a maximum rotation radius of 4 feet – 0 inches.

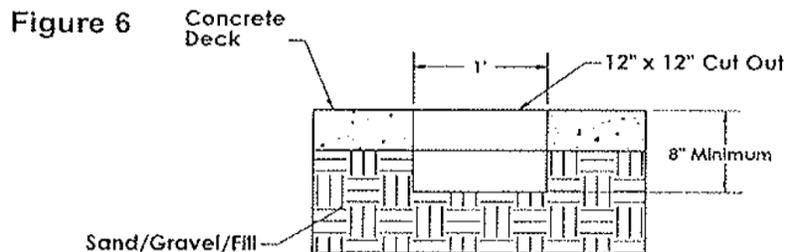
Note: The Elkhorn can be mounted along a curved pool wall as long as there is sufficient clear space for the boom arm and sling to rotate and lower into the pool. Do not locate the lift directly adjacent to stair rails, ladders, or similar structures that could interfere with the rotation of the lift. Do not place the lift where it may be cumbersome or hazardous to any pool users.

To meet Seismic Zone 4 requirements, the minimum anchor footing must be 27" wide, 54" long, 12" deep. Please consult a qualified contractor in your area to determine an appropriate installation.

- b) Mark out a 12" x 12" area, centered on the anchor location marked in the previous step. This will be the concrete to be removed. It is recommended that the anchor be located at least 6" from any expansion joint, crack, drain, or similar structure in the concrete.

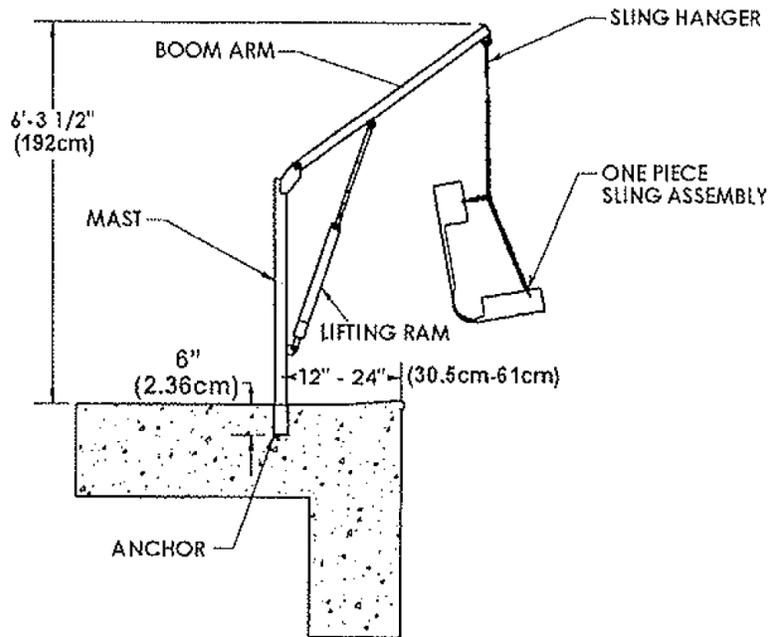
Note: If your concrete deck is 8" thick or more, an alternative anchor installation method is to be used. Use a concrete core saw to cut a 4" diameter hole at the anchor installation location. Epoxy or hydraulic cement can be used to secure the anchor in place. Make sure the anchor is properly bonded.

- c) Use a concrete cutting saw to cut out the 12" x 12" area in the deck. Use a heavy hammer or sledge to break out the cut out area of the concrete.



- d) If the concrete deck is less than 6" thick, dig out the bottom of the hole to about 8" below the deck surface, see figure 6.
- e) Locate a bonding source to bond (ground) the anchor. The steel rebar-bonding grid in your deck is the best choice for bonding the anchor. Attach a NO. 8 or larger solid copper wire (NEC Section 680-22) from the bonding bolt on the base of the anchor to the bonding grid.

Figure 7



- f) Remove the hanger and sling assemblies from the lift boom arm and insert the mast tube into the anchor socket as shown in figure 7.
- g) Fill the hole in the deck around the anchor with non-expanding concrete. Set the anchor so that the finished top is 1/8" to 1/4" below finished deck level.
- h) Use a carpenter's level to make sure the Elkhorn mast tube is vertically straight up and down (perpendicular to the deck) in all directions. It is important that the mast tube is vertically straight so that the lift is not difficult to rotate with weight in the sling seat.
- i) Carefully remove the lift from the anchor socket. It may be necessary to hold the top of the anchor in place while gently pulling up and turning the mast tube.
- j) Allow the concrete to completely cure before re-inserting the mast tube or using the lift.

The installation and assembly of your Elkhorn is now complete. Please read the Operator's Guide section completely before using the lift.

Operator's Guide

The Swim-Lift®, Elkhorn is designed for a maximum 400 lb load. Do not exceed the maximum rated load at any time.

Lift Setup:

- a) Set the mast tube into the anchor at the bottom of the socket.
- b) Hook the hanger through the hook eye on the boom arm.
- c) Attach the sling to the sling hanger assembly by slipping each end of the sling chain over one of the hanger end hooks. The height of the sling can be adjusted at the hanger by using less chain between the hanger and the sling seat. You can hook any of the sling upper chain links to the hanger.
- d) You may need to try multiple sling chain configurations to determine the best sling seat height for your pool.

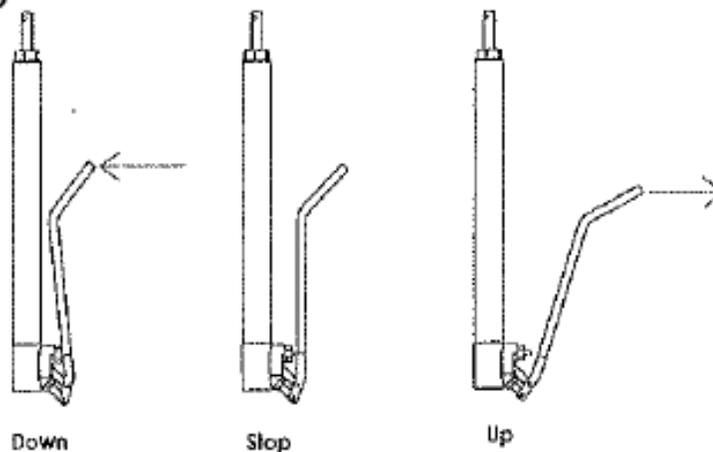
Lift Operation

- a) The hydraulic ram on your Elkhorn is operated by pulling the ram handle away from the ram cylinder to lift the boom arm, see figure 8.

NOTE: It will take approximately 70 pumps of the ram handle to completely extend the hydraulic ram and reach the fully raised lift position.

- b) Push the handle toward the ram cylinder to lower the boom arm.
- c) Rotate the lift by pushing or pulling the boom arm or sling in either direction. The Elkhorn can rotate either clockwise or counter-clockwise. Be careful to prevent excessive swinging of the sling seat while rotating the lift.
- d) To facilitate safe loading and unloading of all users, it is recommended that all facility personal be trained on the proper use of the lift and safe transfer procedures into and out of the sling seat.
- e) Keep other swimmers and children away from the lift at all times. Remove the lift from poolside when not in use and cap the empty anchor socket when the lift is removed to prevent a tripping hazard.

Figure 8



Life Maintenance

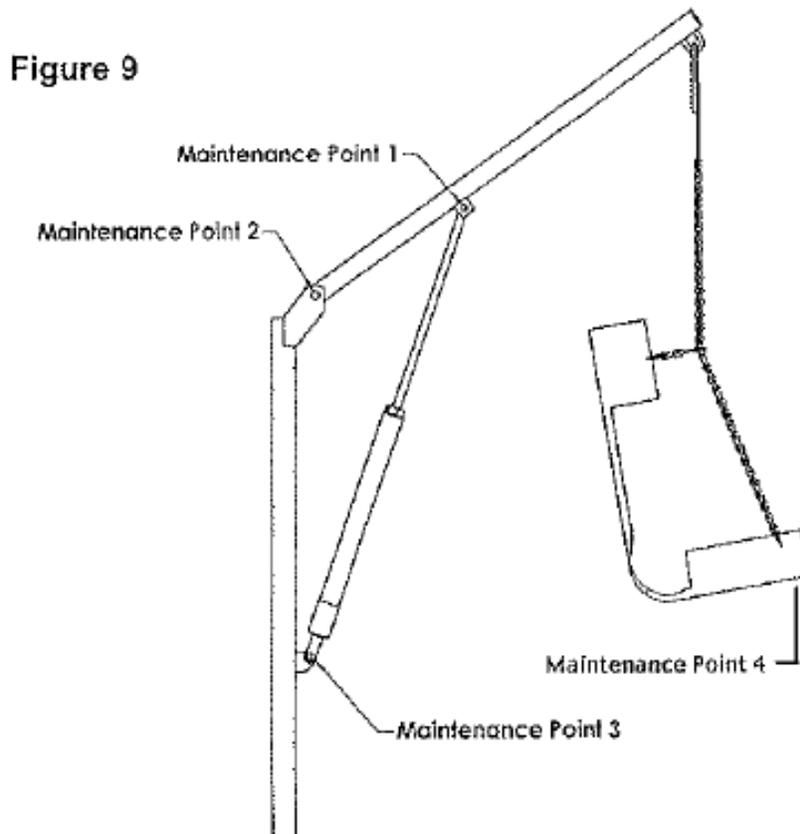
- a) Before each use of your Elkhorn, perform a visual inspection of the lift. Look for wear or damage to any of the components of the lift. If any excessive wear or damaged is observed, do not use the lift. Replacement parts are available from Spectrum Products.
- b) There are four structural maintenance points that must be inspected each time the lift is used. See figure 9 and the following list for more information on maintenance.

Maintenance Point 1: Make sure the bolt/nut assembly is securely tightened and not worn or damaged.

Maintenance Point 2: Make sure the bolt/nut assembly is securely tightened and not worn or damaged.

Maintenance Point 3: Make sure the 1/2" shoulder bolt in the end of the hydraulic ram is tightened to 25 foot-pounds of torque. Make sure the 1/2" shoulder bolt through the clevis and ram-mounting tab is tightened to 15 foot-pounds of torque.

Maintenance Point 4: Inspect the mesh sling for signs of wear and tear. Do not use if worn – replace. Inspect stainless steel chair for signs of ware – replace if worn.



Cleaning

Spectrum Products uses TP304 stainless steel in the fabrication of its products. All of our products are manufactured using advanced fabrication techniques and our exclusive two-stage passivation process with an electro-polish bath, all of which provide for the optimum corrosive resistant finish.

Stainless steel is corrosion resistant alloy; however, it may discolor under certain conditions. A factor that may affect the appearance of stainless steel in the pool environment is excessive humidity in conjunction with halogen salts (chlorine and bromine).

To insure that your Spectrum products maintain their rich appearance, your facility should institute the following preventative maintenance program:

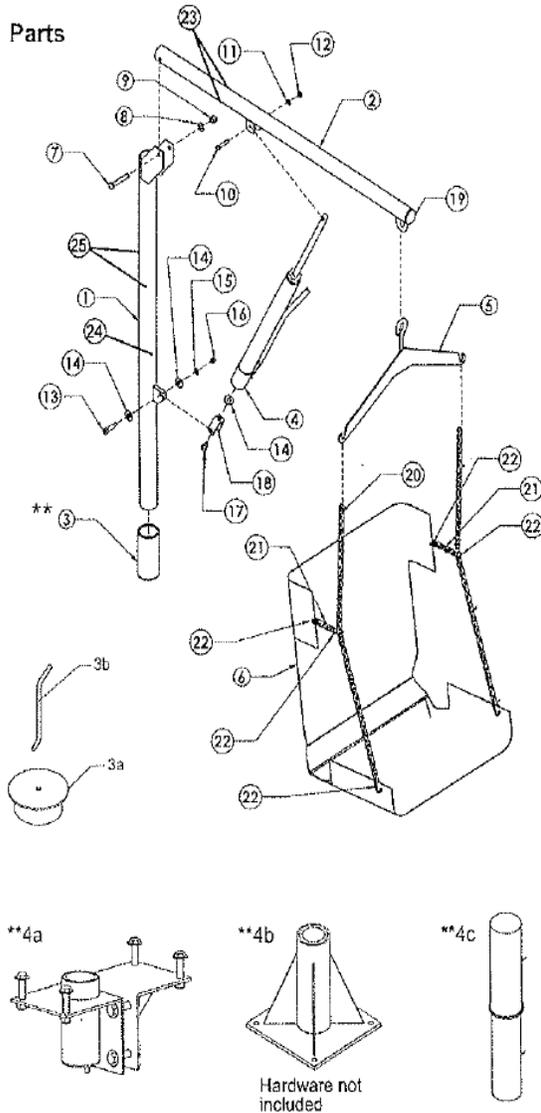
- a) Wash your equipment frequently with fresh water (not pool water) and wipe clean with a dry cloth.
- b) Inspect your equipment for any discoloration or water stains on the stainless steel surface. If this condition exists, clean the affected area with a 3M scratch pad and non-chlorinated stainless steel cleaner (Spectrum Cleaning Kit No. 202050-00). Rinse off the affected area with clean water and dry with a clean cloth.

WARNING: DO NOT USE CHLORINATED CLEANERS, STEEL WOOL, OR HARSH ABRASIVE CLEANERS TO CLEAN THE ELKHORN.

Cleaning kits are available from Spectrum, which are specifically designed for cleaning stainless steel components in a pool environment.

Note: The National Electric Code requires that all stationary equipment must be properly bonded to the pool-bonding grid. Bonding to a common grid may promote a galvanic condition, enhancing the possibility for corrosion and discoloration of metallic materials. Be aware, corrosion of the least noble metal may occur.

Parts



Number	Description	Quantity	Part Number
1	Mast Assembly	1	209250-00
2	Boom Arm Assembly	1	209251-00
3	Socket Anchor (Concrete Deck)	1	28510-00
3a	Elkhorn Anchor Cap	1	10169 + 506190-03
3b	Anchor Cap Removal Tool	1	10171
4	Hydraulic Ram Assembly	1	209254-00
5	Hanger Assembly	1	28570-04
6	Mesh Sling Without Chain	1	28578-04
7	Hex Head Bolt 1/2"-13x3"	1	20062
8	Flat Washer 1/2"	2	20029
9	Nylock Nut 1/2"-13	1	20131
10	Hex Head Bolt 3/8"-16x1 1/2"	1	20053
11	Lock Washer 3/8"	1	20017
12	Hex Nut 3/8"-16	1	20004
13	1/2" Shoulder 1-1/4"x3/8"-16	1	566335-03
14	Plastic Washer 1/2"	3	566690-03
15	Flat Washer 3/8"	1	20012
16	Nylock Nut 3/8"-16	1	20011
17	1/2" Shoulder 1-1/4"x3/8"-16	1	566330-03
18	Ram Clevis	1	513807-03
19	HDPE Tube Cap 1.9x.145	1	522525-03
Chain Kit			209258-00
20	Chain - Stainless Steel 3/16"	6	557610-03
21	Quick Link 3/16"	6	13035
Stickers			
23	Elkhorn Die Cut Sticker "Blue"	2	557114
24	Max. Lifting 400 lbs. Sticker	1	23056
25	Spectrum Die Cut Sticker "Blue"	2	23060
Options:			
4a	Wood Deck Anchor	1	28515-00
4b	Surface Mount Anchor	1	28520-00
4c	Elkhorn/EC-100 Anchor Adapter	1	28550-00