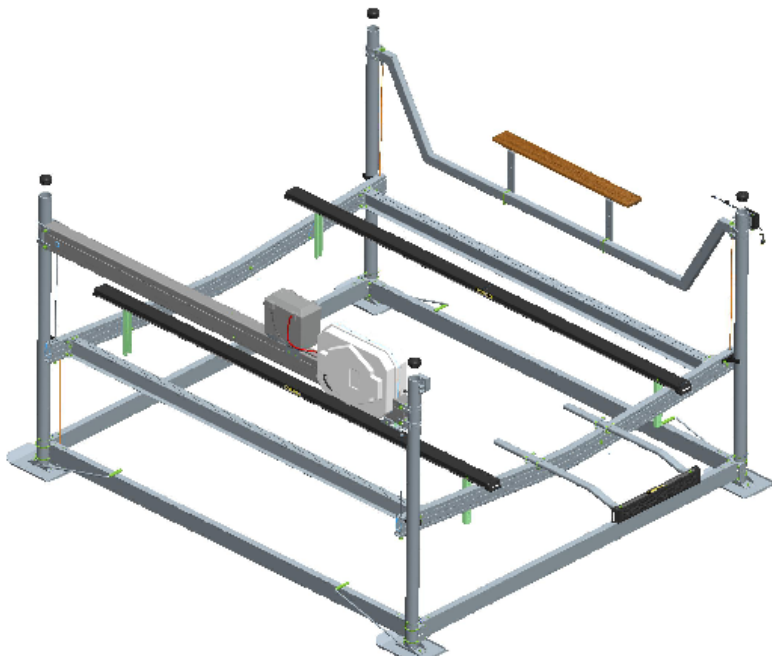


Assembly Instructions Hydraulic Boat Lift

SSV40108HS & HSDW, SSV40120HS & HSDW, SSV60120HS & HSDW, SSV80132HSDW, SSV100132HSDW & SSV150144HSDW

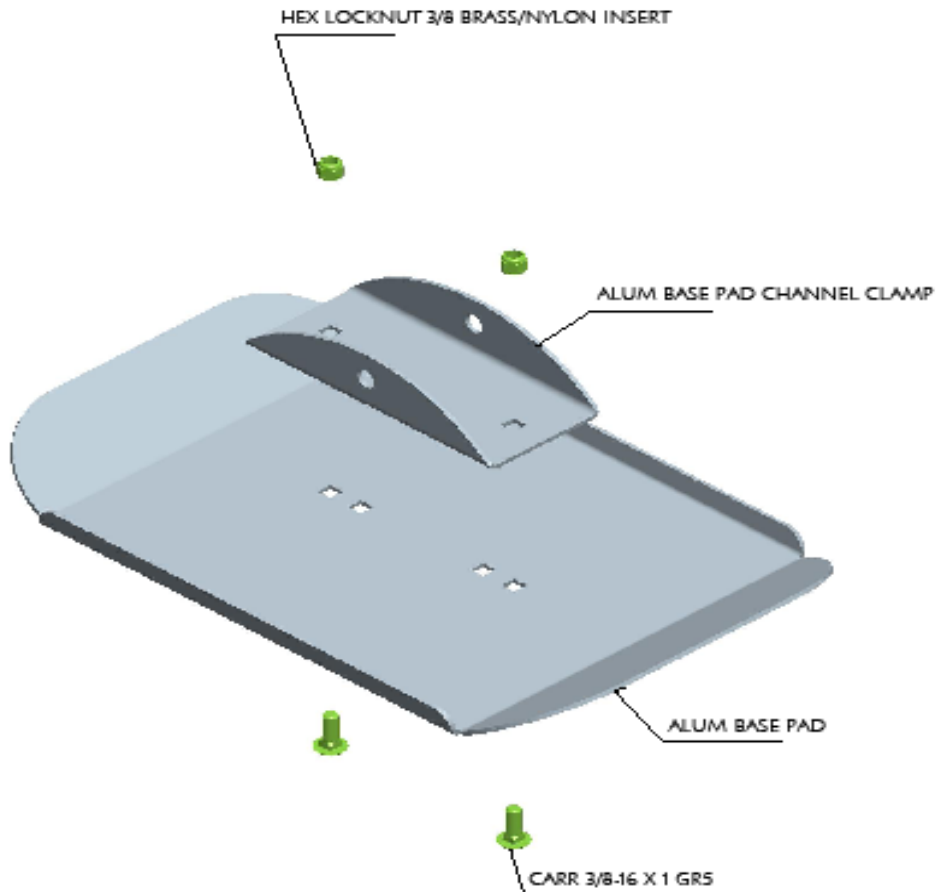


Step #1 – Sort Hardware

Open the hardware box and bag and sort the hardware and other contents by size. Locate the fastener finder sheet in the hardware box to help identify the fasteners used in the assembly of these lifts.

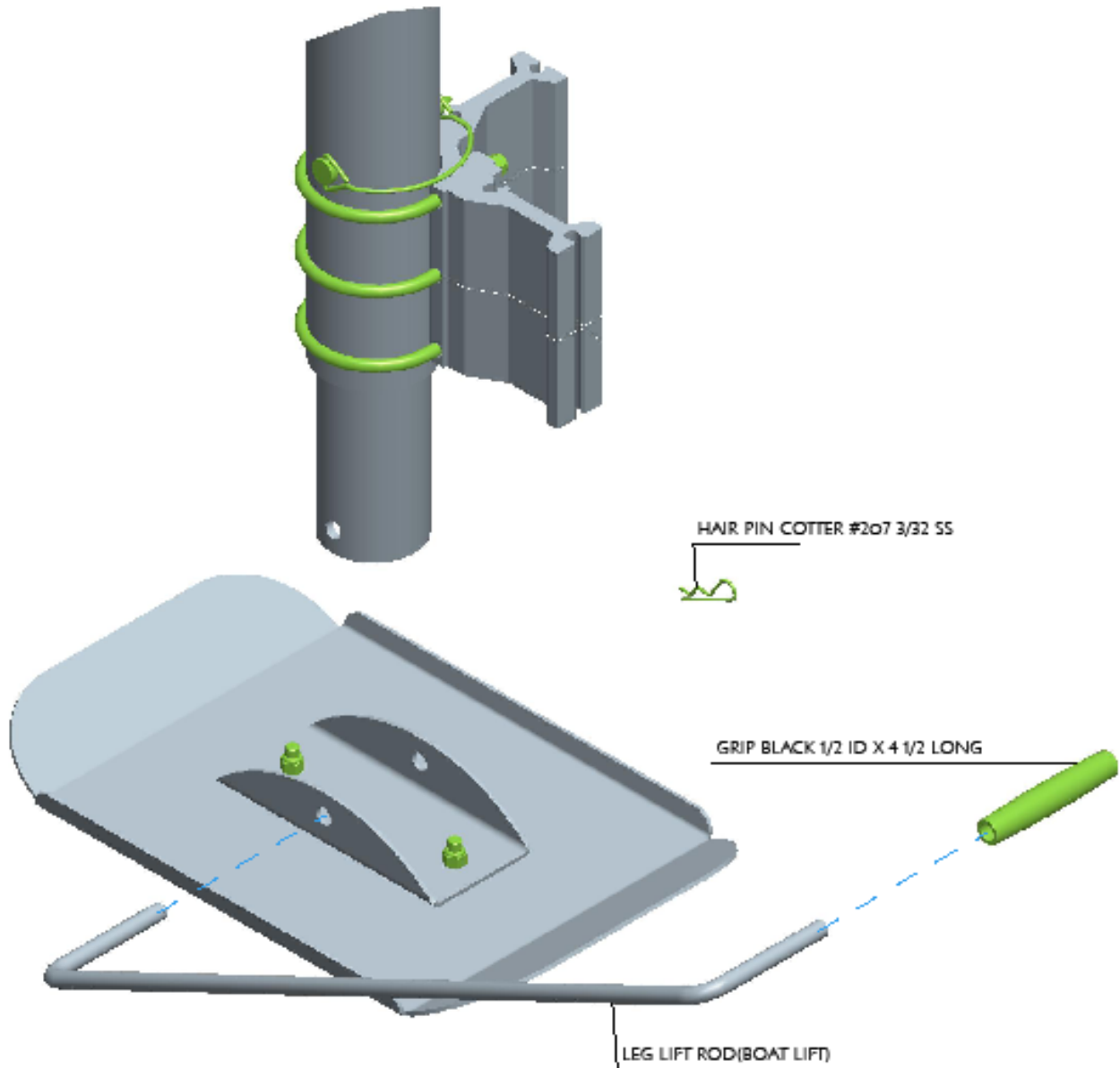
Step #2 – Assemble Base Pads

Collect enough of the fasteners and items shown below to assemble four base pads. Align the channel clamp with the holes in the base pad as shown, insert bolts from the bottom up and secure with lock nuts. Tighten and repeat for all four base pads.



Step #3 – Assemble Base Pads to Legs

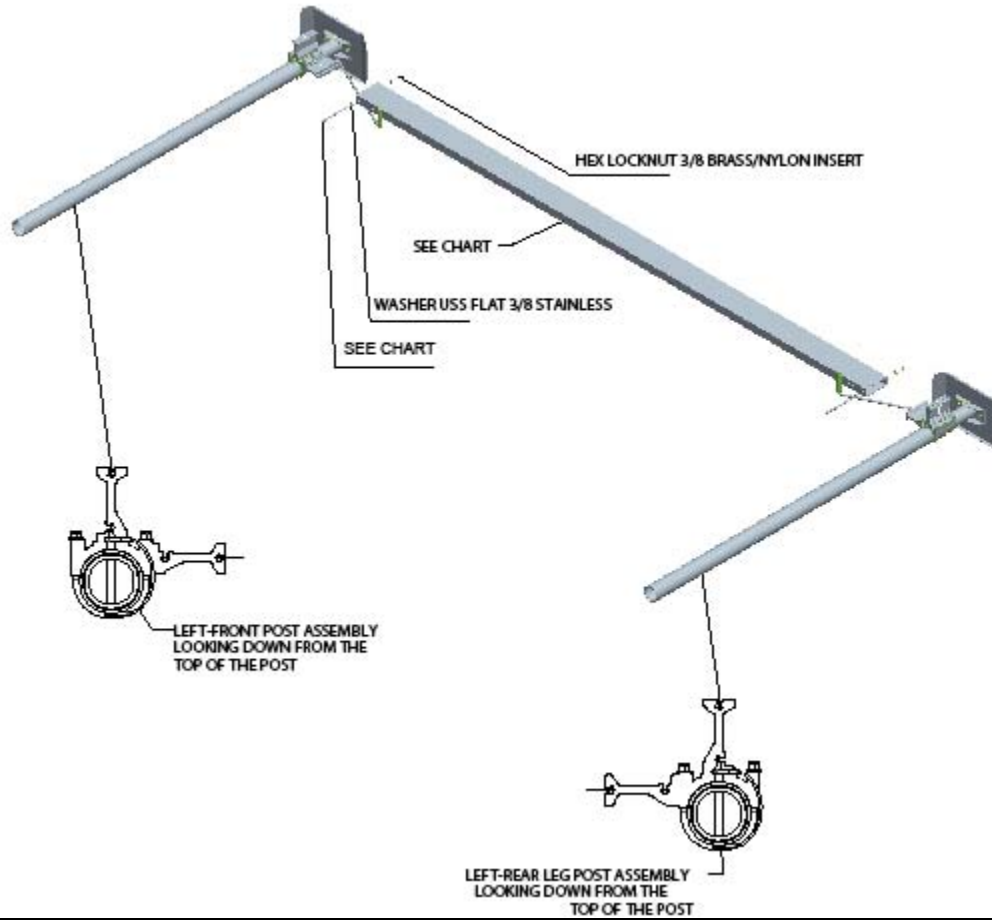
Locate the leg bundle or bundles and cut the bands to open it up. Locate the leg lift rods and other components shown slide the end of the leg lift rod with the hole in it thru the channel clamp and the adjustable leg tube as shown and secure with the hair pin cotter.



Note that the rods should be inserted in the same direction as that of the u-bolt. Slide the grip onto the other end of the lift rod. Repeat this process on the remaining legs.

Step #4 – Assembly of Lower Side Frame

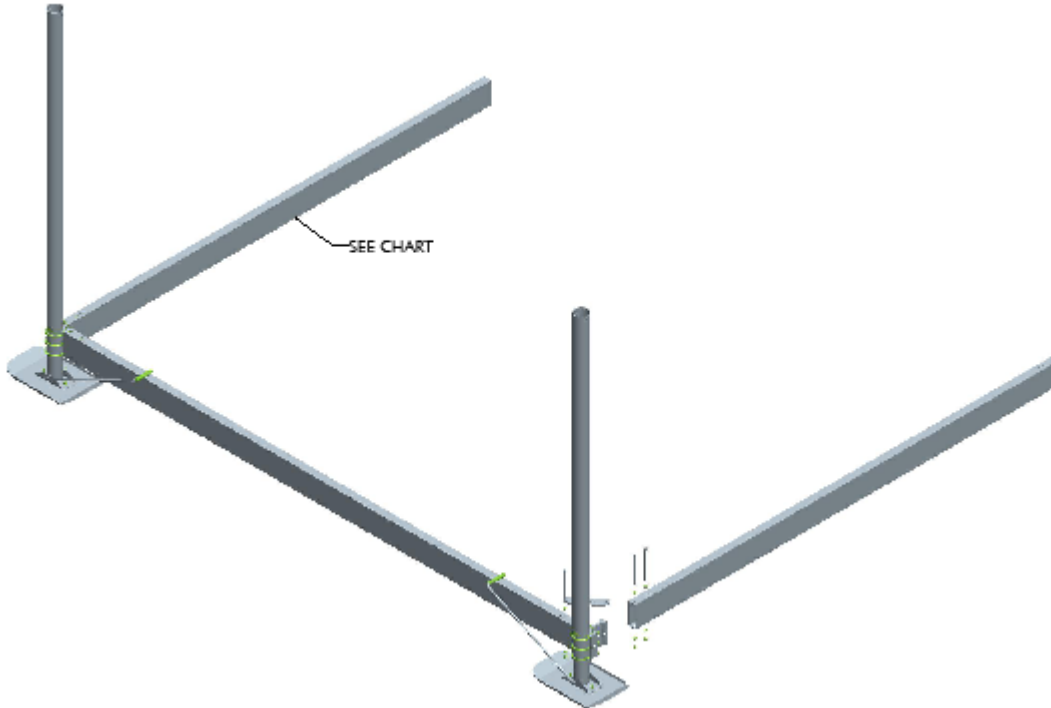
Using the chart at the bottom of the page find the model that you are assembling, locate the necessary components that are included in the lower frame bundle. Your assembly will start by laying two legs down with the corner blocks as shown and using the chart slide a sideframe tube over the corner block and insert the short bolt (see chart) with a 3/8” flat washer into the hole closest to the post assembly. Secure with flat washer and brass locknut. **DO NOT TIGHTEN.**



Model	Lower Frame Components		Bolts to Assemble	
	Front & Rear Crossmembers	Side frames	Short Bolts	Long Bolts
SSV40108HS & HSDW	5" X 2" X 107"	5" X 2" X 131"	3/8-16 X 6"	3/8-16 X 6 1/2"
SSV40120HS & HSDW	5" X 2" X 119"	5" X 2" X 131"	3/8-16 X 6"	3/8-16 X 6 1/2"
SSV60120HS & HSDW	6" X 2" X 119"	6" X 2" X 143"	3/8-16 X 7"	3/8-16 X 7 1/2"
SSV80132HSDW	6" X 2" X 131"	6" X 2" X 155"	3/8-16 X 7"	3/8-16 X 7 1/2"
SSV10132HSDW	6" X 2" X 131"	6" X 2" X 155"	3/8-16 X 7"	3/8-16 X 7 1/2"
SSV150144HSDW	8" X 2" X 143"	8" X 2" X 185"	3/8-16 X 8 1/2"	3/8-16 X 9"

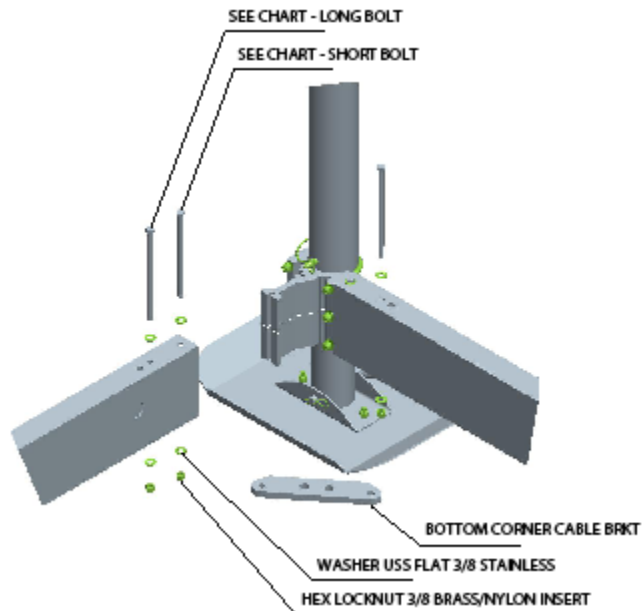
Step #5 – Attach Front & Rear Frame Crossmembers

Using the chart, locate the correct length tubes for crossmembers. With the unit still laying on it's side, slide the crossmembers over the other corner block leg and insert the short bolt with a washer into the hole closest to the post and secure on the bottom with a flat washer and brass lock nut. **DO NOT TIGHTEN.**



Step #6 – Complete Frame Corner Assembly

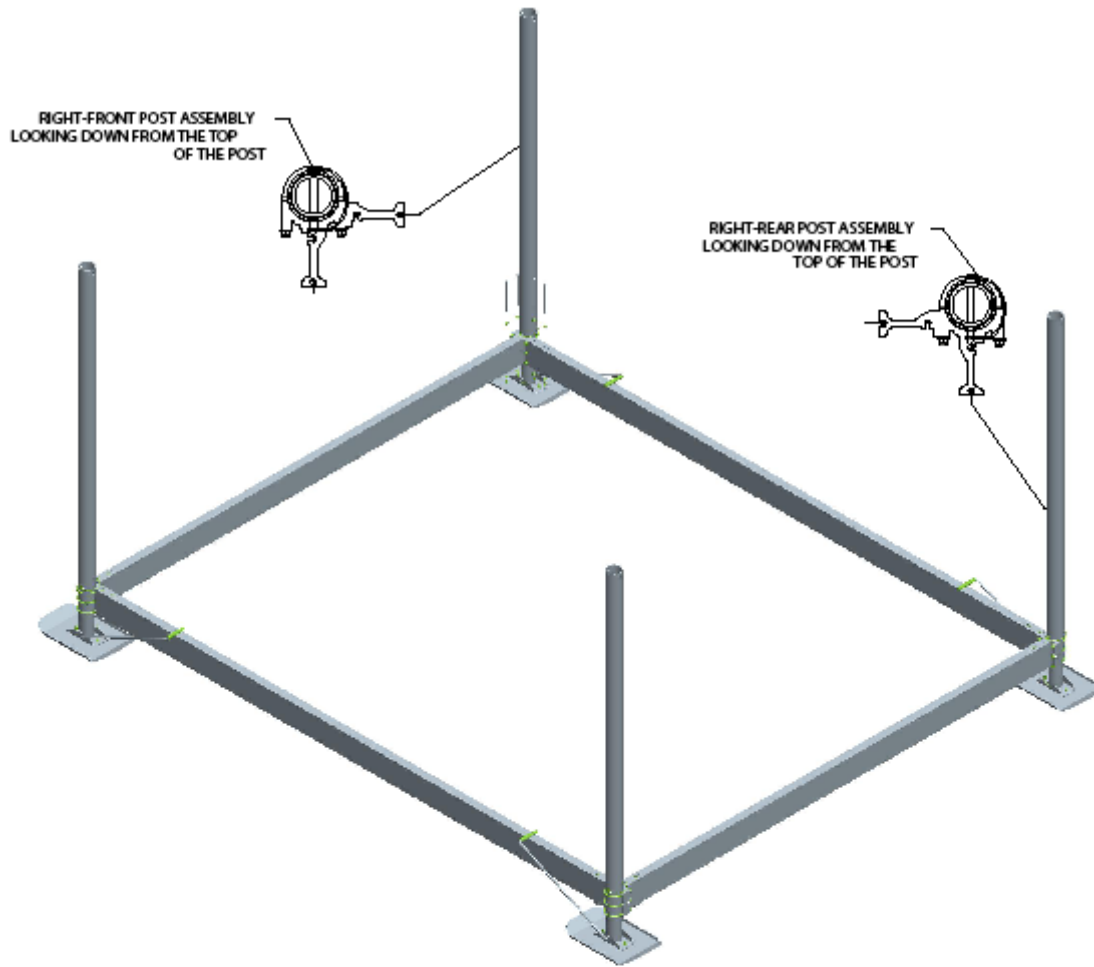
Flip the entire assembly upright onto the base pads.



Locate the long bolts and the bottom corner cable bracket. Insert the long bolt with a flat washer thru the second hole from the post, thru the frame tubes and then thru the corner cable bracket on the bottom as shown. Secure with a flat washer and brass lock nut. **Do not tighten.**

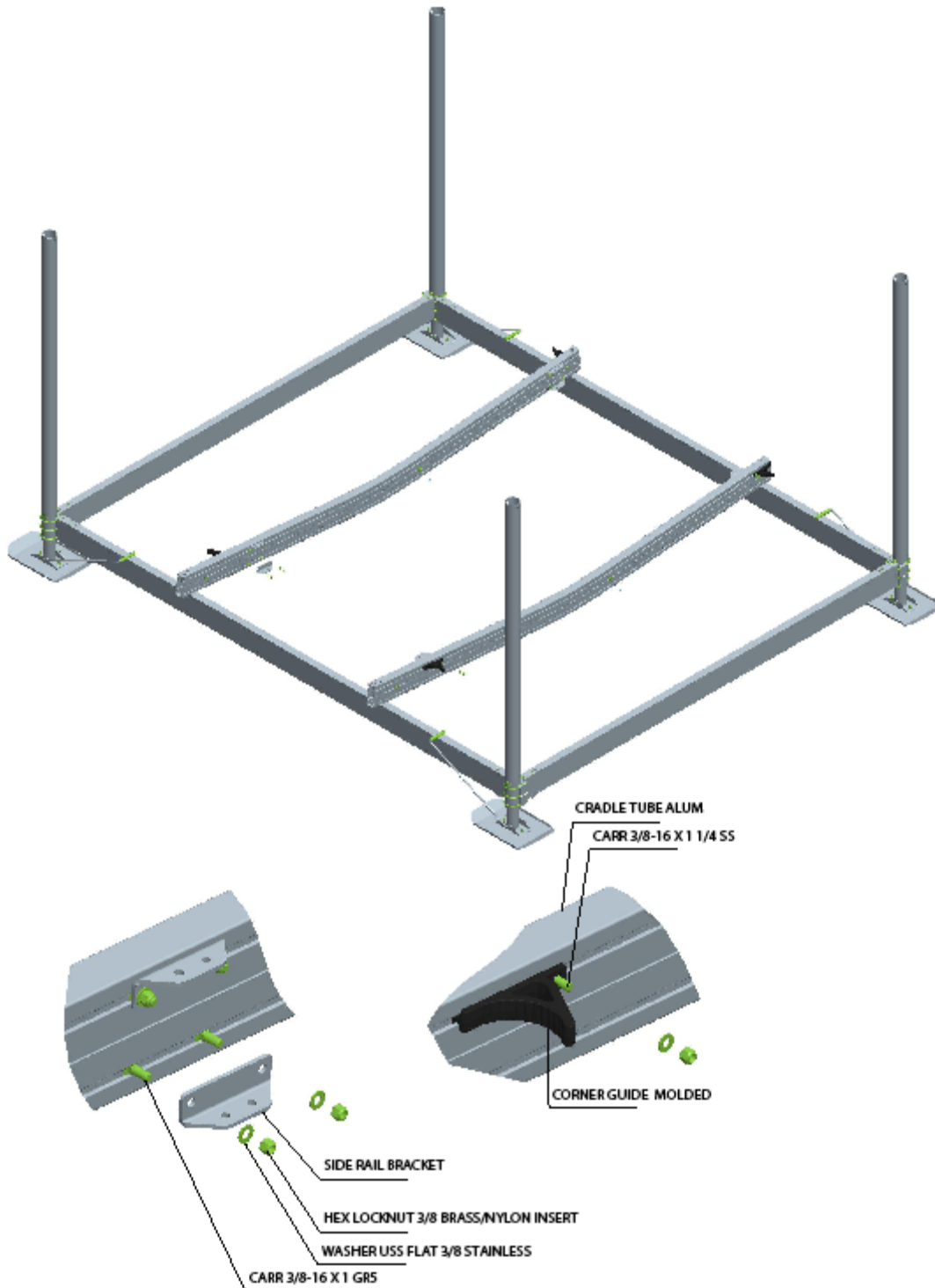
Step #7 – Complete Bottom Frame & Post Assembly

Insert the corner blocks of the two remaining leg assemblies into the crossmembers as shown below, insert short bolts with washers in the holes closest to the posts to keep them in place. Pull the legs apart slightly and slide the other side frame over the corner blocks and secure these also with short bolts, washers, and brass lock nuts. Square the frame and tighten all hardware installed.



Step #8A – Assemble the Lift Platform for 4000# and 6000#

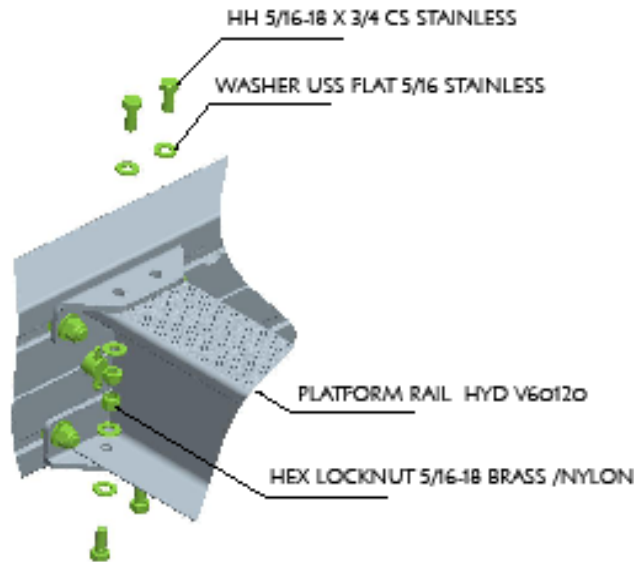
Lay the V-Shaped cradle tubes across the lower frame as shown (4000 and 6000lb). Place the end with the lift cable threaded out the bottom on the same side as the corner cable brackets.



For the 4000 and 6000 lb. models insert a carriage bolt into the corner guide as shown and slide the head into the top slot in the cradle tube. Secure corner guide with a flat washer and lock nut. Do the same on the other three corners. Slide two carriage bolts into the top slot and 2 into the bottom slot on the inside of the cradle tube. Using those bolts, mount a pair of side

rail brackets on each end of the cradle tube as shown above. Position the outer edge of the brackets at least 3 inches from the end of the cradle tube. It is important to keep this distance equal on all four corners to keep it square. **Do not tighten at this time.**

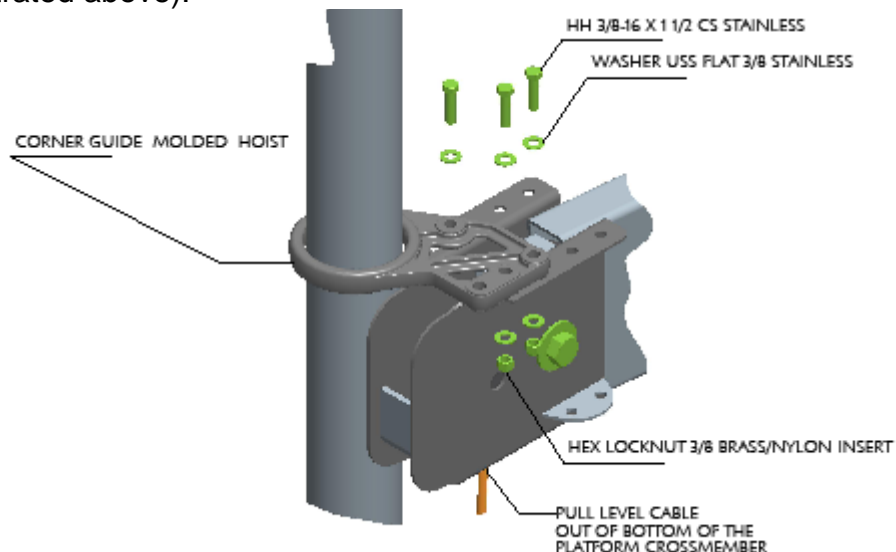
Insert the platform rails into the space between the mounting brackets and between the v-frames and secure with bolts, washers and nuts as shown.



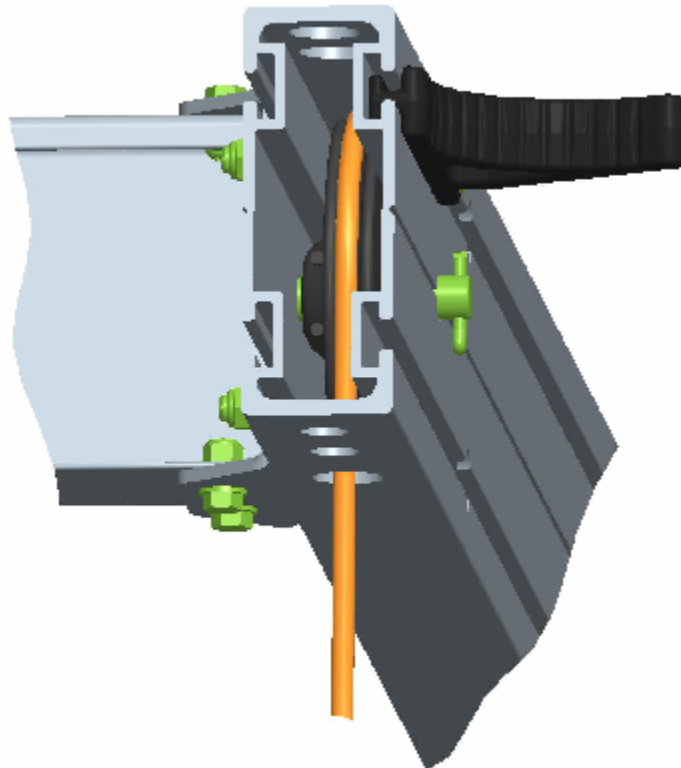
Step #8B – Assemble the Lift Platform for 8000# - 15000#

The cradle tubes on all the lifts above 8000# have galvanized steel cradle tubes with different attaching system. They also use the plastic (plastic and aluminum) ring style corner guides. Lay the galvanized cradle tubes on the bottom frame with the end with the cables coming out the bottom on the same side as the corner cable brackets. Slide the corner guides over the post and attach as shown.

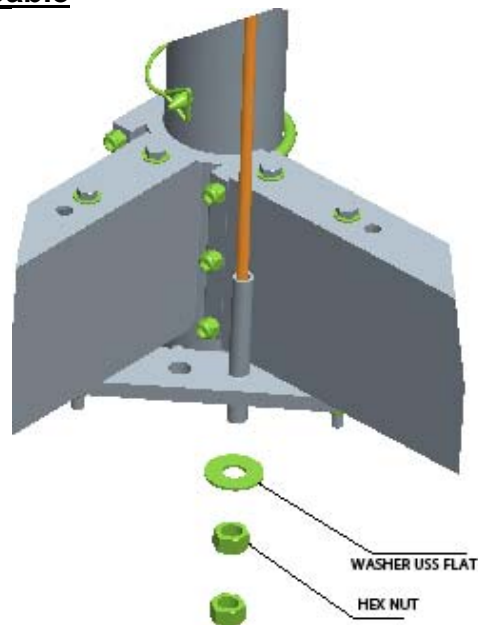
Place the platform side rails between the welded brackets on the cradle tube and attach as illustrated above (use the same fasteners as used for the aluminum cradle tube on the 4000# - 6000# lifts illustrated above).



The following picture shows the position of the level cable as it comes over the pulley in the cradle tube and out the bottom to go to the cable mounting bar attached to the corner of the lower frame. Note the other two holes on the end of the cradle tube. These will be used later to attach the cables coming from the bottom of the lift tube.



Step #9 – Attach the Level Cable

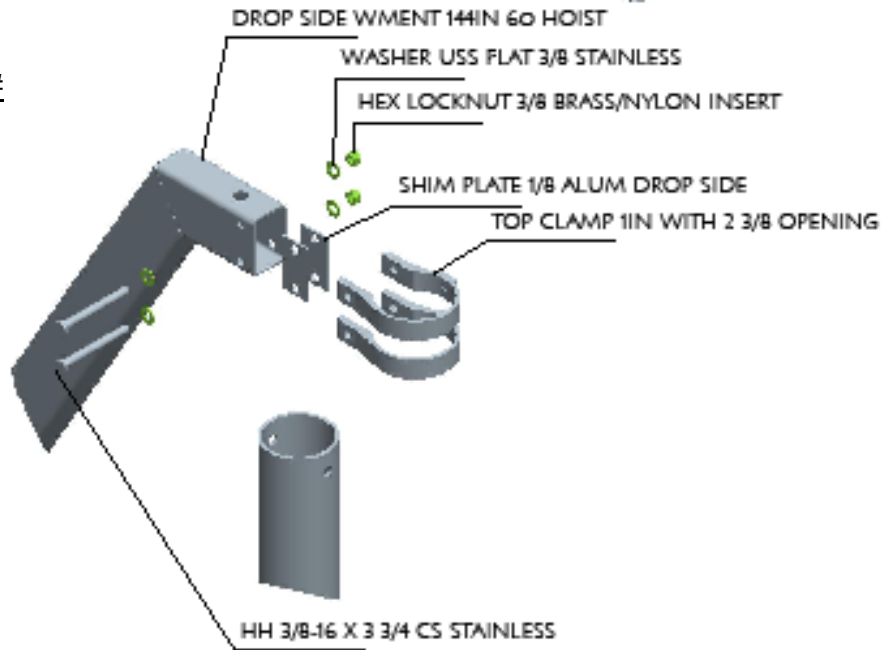


Attach the level cable as shown inserting the cable into the hole closest to the sideframe and securing with a flat washer and 2 brass hex nuts (see chart on page 11 for hardware sizes). The first nut will be run to the bottom of the threads and the second run down and secured tightly against the first. Repeat on other level cable.

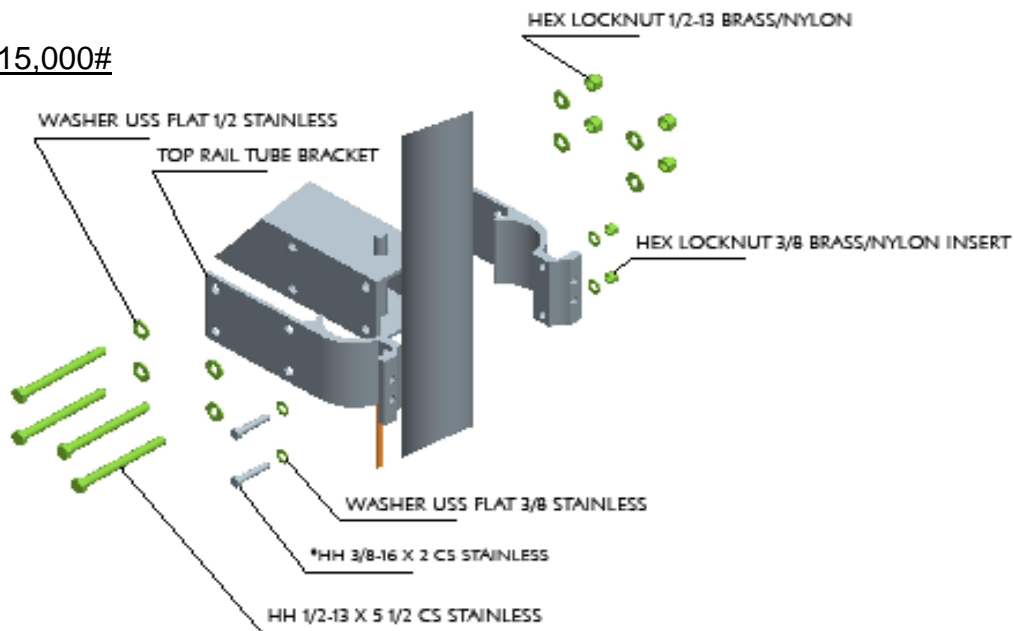
Step #10 – Install the Side Spacer Brace Tube

The side spacer brace tube is located opposite the lift tube so install it on the posts opposite the corner cable brackets. The 4000# & 6000# lifts use a drop side brace tube and the 8000# thru 15000# lifts use a straight side brace tube. Locate the appropriate brackets and hardware from the illustrations below. Mount the spacer tube to the post as shown, keeping the lock nuts on the outside. Adjust brackets on both sides the height indicated by the decal found on the posts and tighten all fasteners securely.

4000# - 6000#



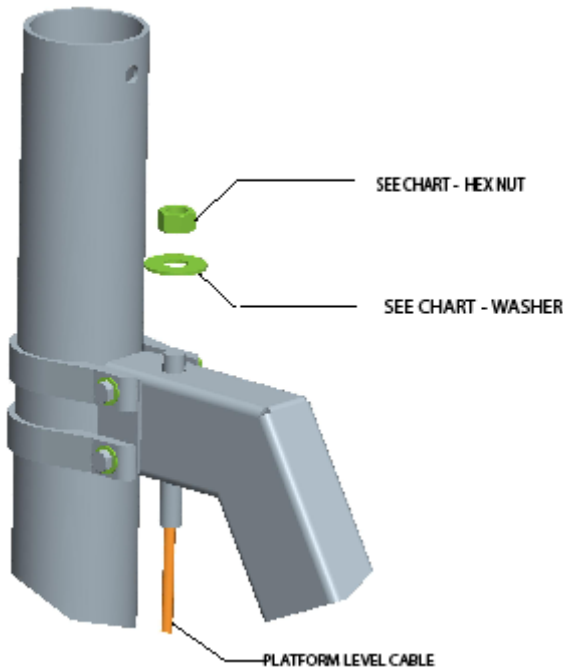
8000# - 15,000#



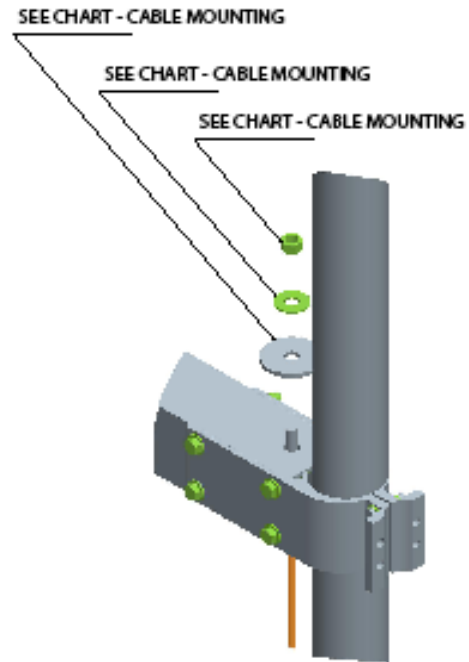
Step # 11 – Attach Level Cables to Spacer Brace Tube

Insert the ends of the level cables (from the cradle tubes) directly up thru the space brace tube and secure with hardware from chart below. Hint: Block the platform off the lower frame about 6 inches to create enough slack for the cable to pass thru the brace tube.

4000# - 6000#



8,000# - 15,000#



Hoist Models	Level Cable		Lift Cables	
	Hex Nut	Washers	Hex Nuts	Washers
SSV40108HS & HSDW	5/8-11	5/8	5/8-11	5/8
SSV40120HS & HSWD	5/8-11	5/8	5/8-11	5/8
SSV60120HS & HSDW	5/8-11	5/8	5/8-11	5/8
SSV80132HSDW	5/8-11	5/8 & A314*	5/8-11	5/8
SSV100132HSDW	5/8-11	5/8 & A314*	7/8-9	7/8
SSV150144HSDW	7/8-9	7/8 & 6767900*	1 1/8-7	

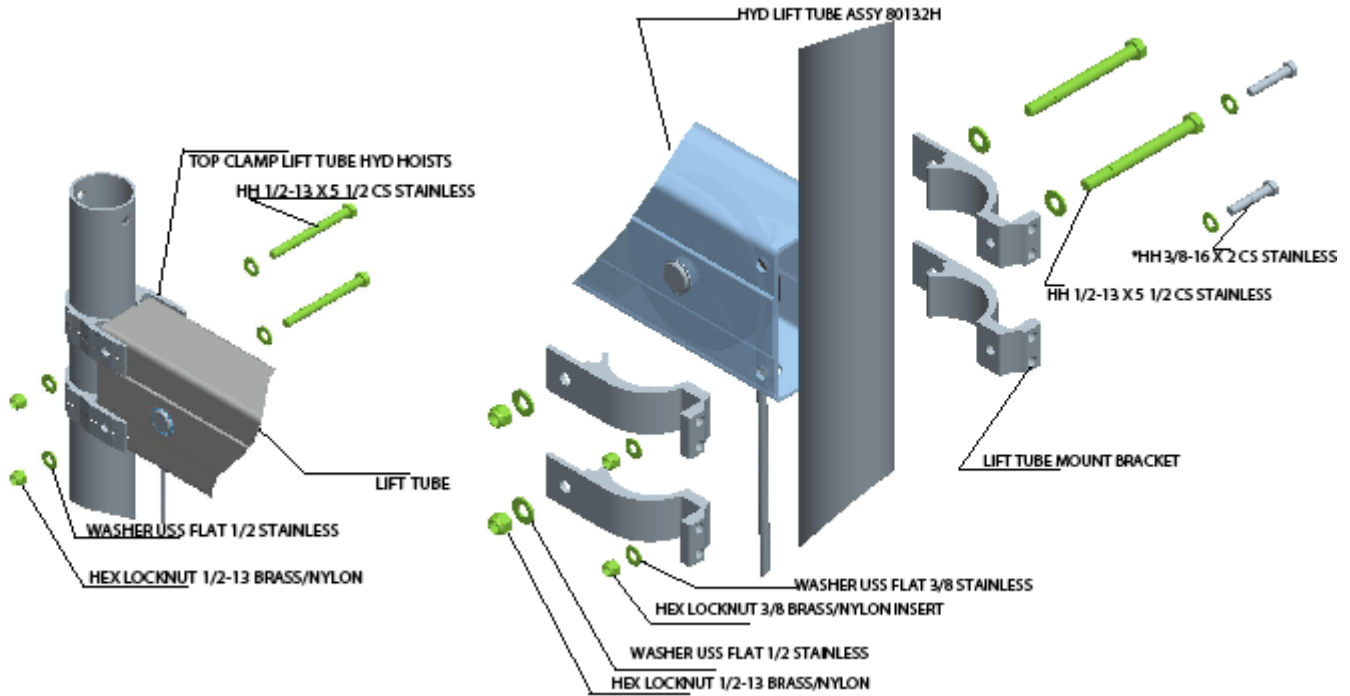
Note *: Used Only On Brace Tube

Step #12 – Install the Hydraulic Lift Tube/Assemblies

The lift tube contains the hydraulic cylinder and is quite heavy. You will need several people or powered assist to lift and hold it in position until it is secured. Orient the lift tube on the side of the lift with the corner cable brackets, the cables exiting the bottom and hydraulic ports to the outside. Locate the brackets and hardware for your model as specified below. Locate the brackets at the height indicated on the decal on the post and attach the hydraulic lift tube as shown. Tighten all fasteners securely

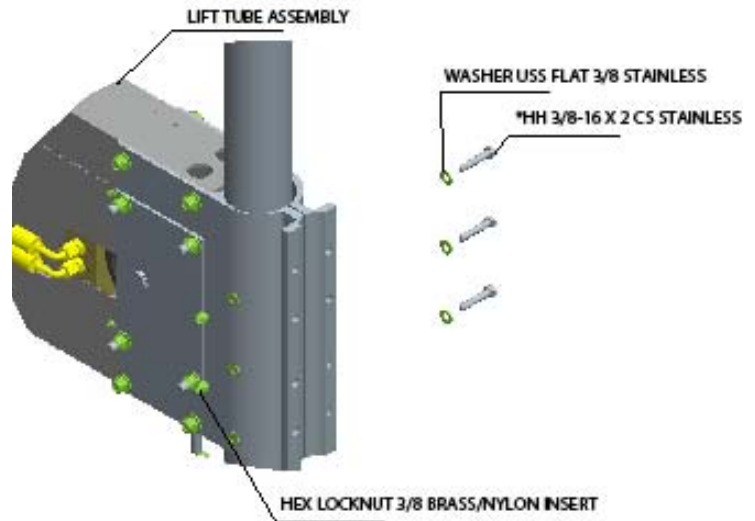
4,000# - 6,000#

8,000#



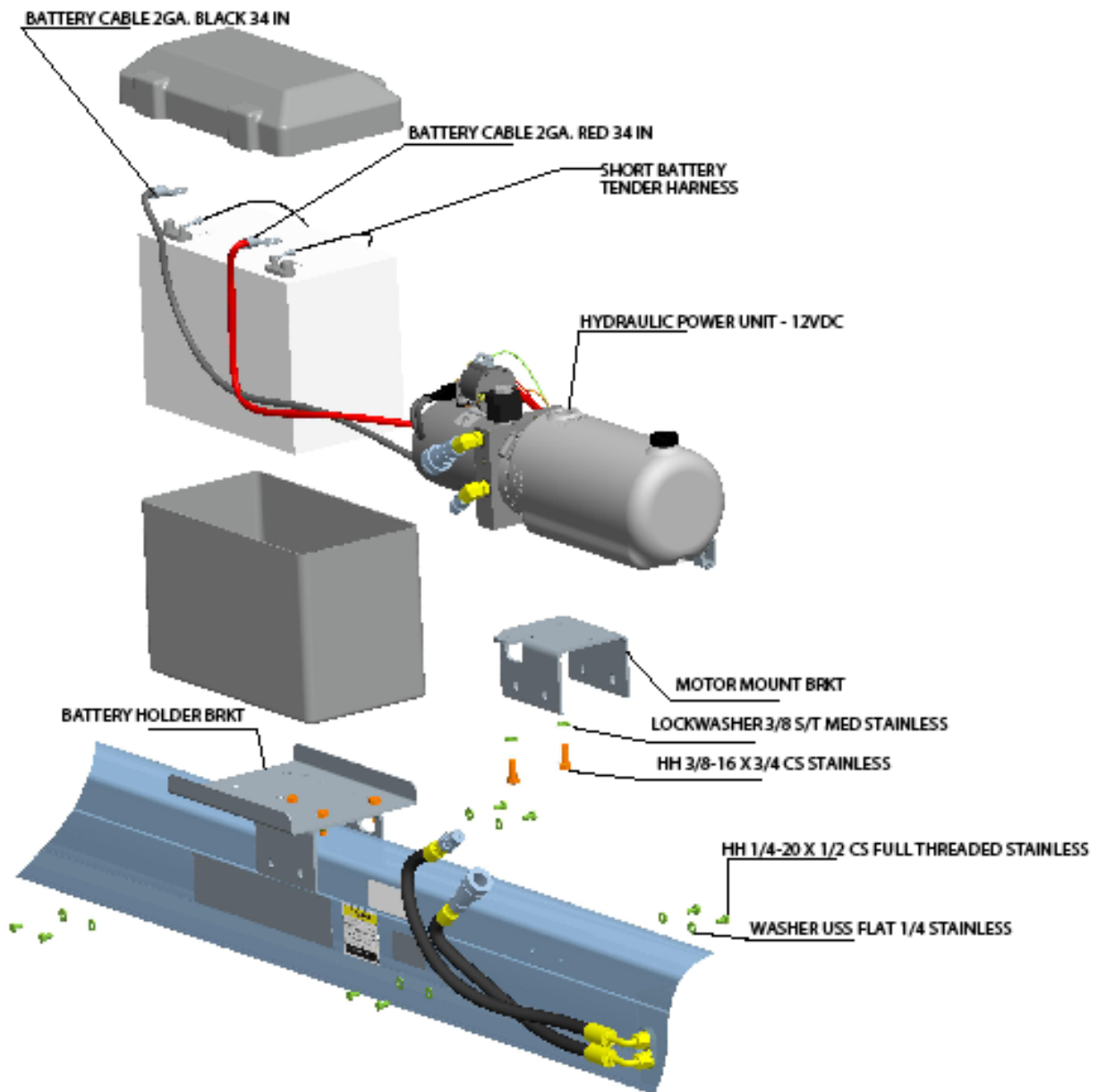
10,000# & 15,000#

On the fully assembled lift assemblies for the 10,000# and the 15,000# you will need to loosen the 1/2" lock nuts on the plates (**DO NOT REMOVE ANY OF THE 1/2" BOLTS OR LOCK NUTS**) which hold the assembly together. This will allow it to slide down over the corner post to get it in position at the point of the decal or on the stops. Once in place complete assembly using shown hardware and tighten securely.



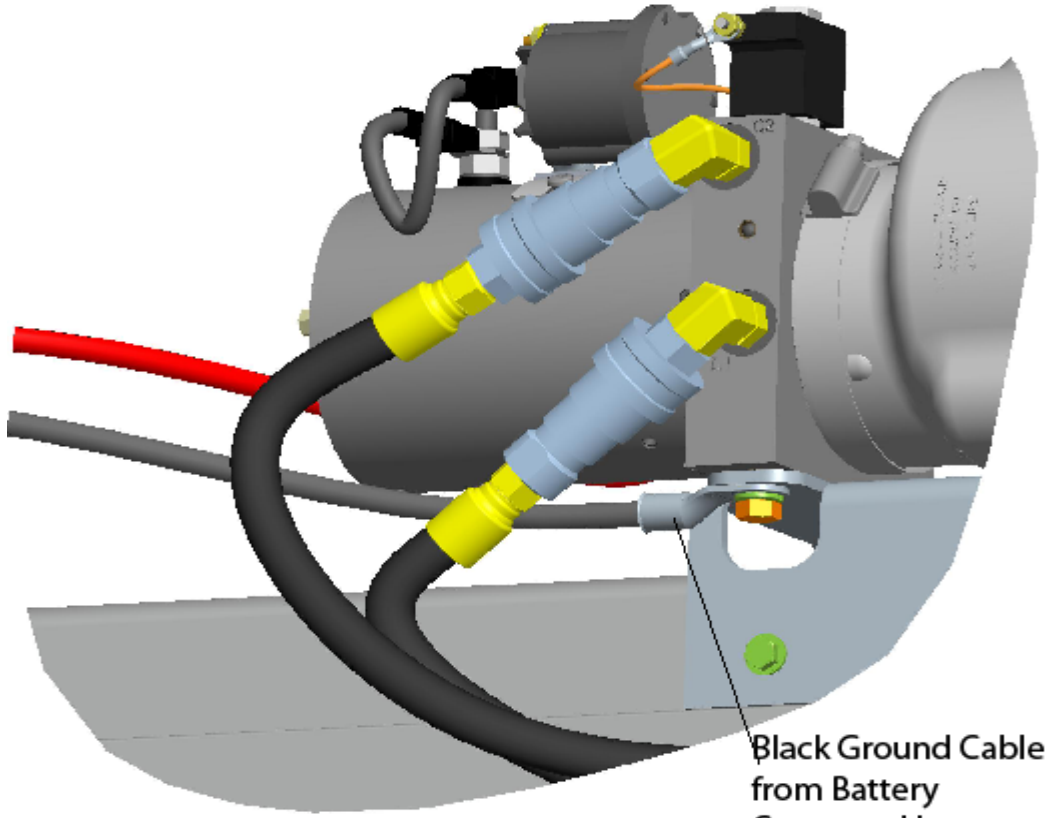
Step #13 – Mounting the Pump and Battery Holder

Attach the pump to the bracket before mounting to the lift tube. Mount the bracket in the pre-drilled and tapped holes on the lift tube using the hardware shown. You will also connect the hydraulic hoses that are on the lift tube assembly to the pump by pulling back the locking collar on the female connector and inserting the male, release the collar locking the two together. Repeat the process on the other connections. The battery holder bracket with battery box come as an HA kit with their mounting instructions included. Place battery in box and place in holder. Attach red battery cable to the positive post and black to negative post this would also be the time to attach the short Battery Tender harness to the battery matching the colored cable ends to the battery cables. **Do not allow the cables to make contact with each other or any part of the lift.**

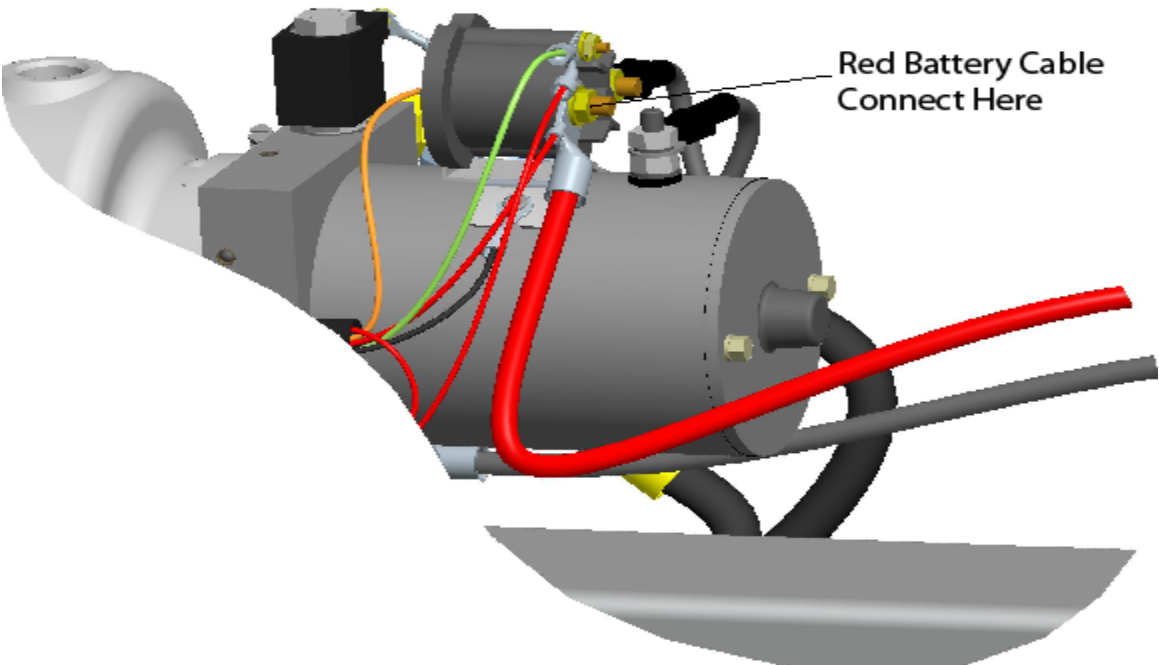


Step #14 Connecting Battery to 12 Volt Pump

The positive and negative cables from the battery will be mounted as shown below for 12 volt pumps. The black ground cable from the battery will connect to the mounting bolt that holds the pump to the mounting bracket. The red positive cable will be attached to the post on the solenoid post that has the red wire for the harness attached.



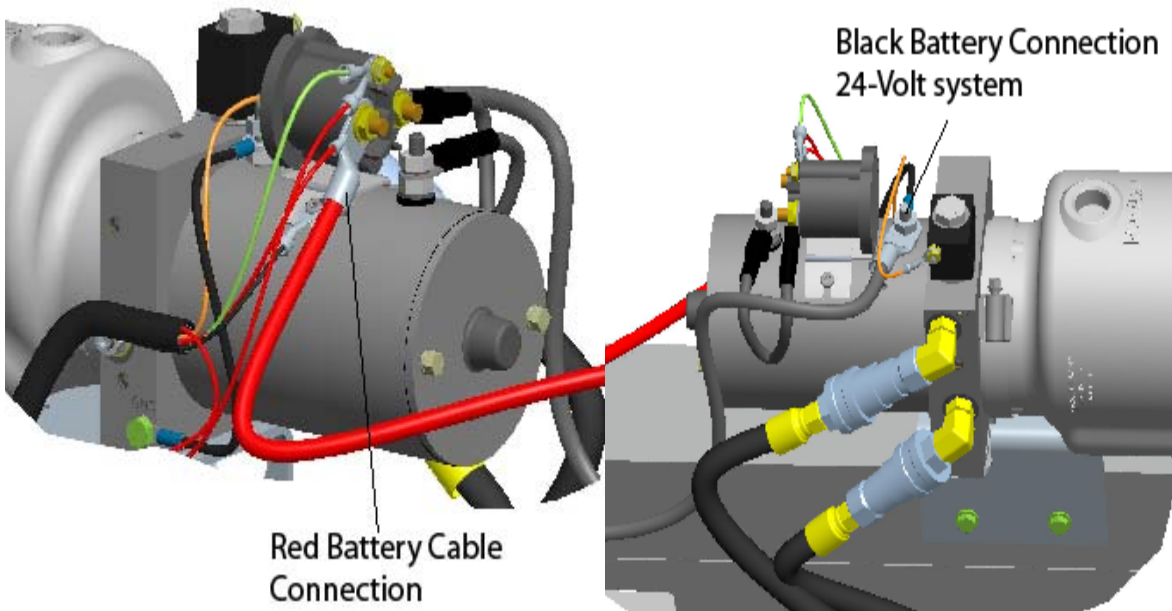
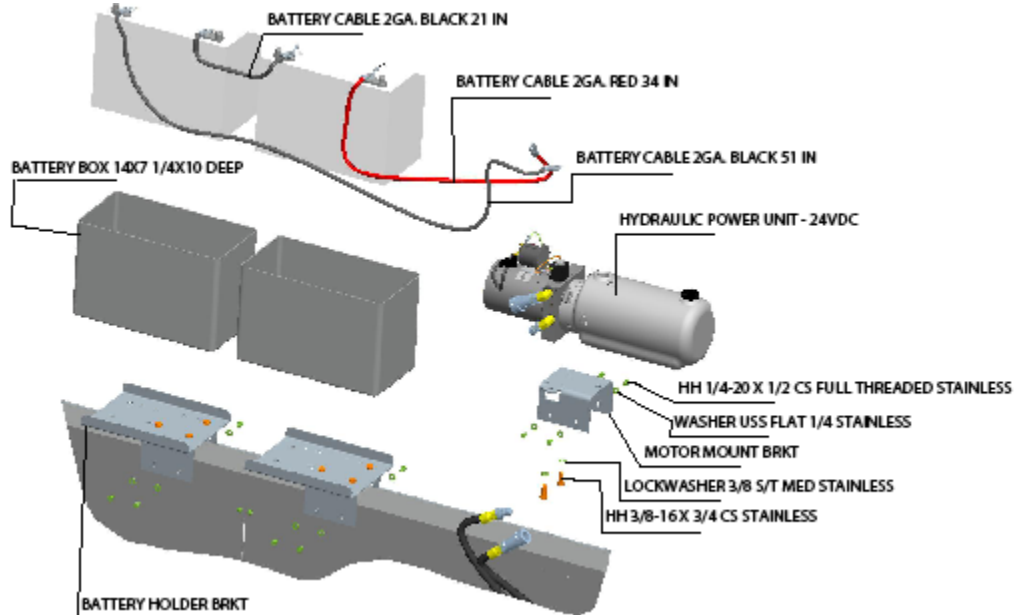
Black Ground Cable from Battery Connects Here



Red Battery Cable Connect Here

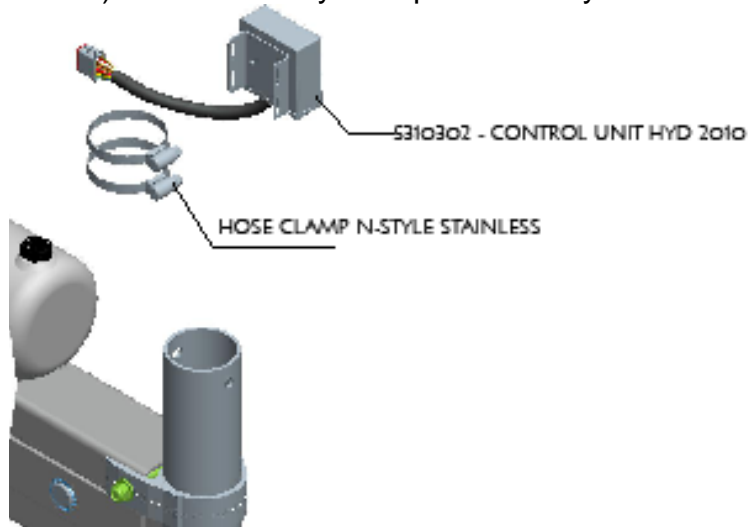
Step #14A – Connecting the Battery Cables 24-Volt Pump

The long black ground cable will be connected to the post on top of the motor behind the solenoid. The short black cable will be used to hook the batteries together positive on one battery to the negative on the other. The red battery cable will be hooked to the positive on the battery and to the post on the solenoid that has been pre-wired with the red wire from the harness post that has the red wire from the harness attached.



Step #15 – Attach the Controller to the Lift

With the pump and battery mounted it will be time to mount the controller unit to the post closest to the pump. This will allow the pump cover to be lowered over the pump with out damaging the wiring. Open the hose clamps and insert the ends thru the slots in the controller bracket, place on the leg post next to the pump reconnect the hose clamps and secure. Plug the connector to the one mounted to the pump. At this time program or check the remotes (refer to the *Quick Start Hydraulic Controller* instructions included in the pump box for key fob programming and operation) to be sure they will operate the system.

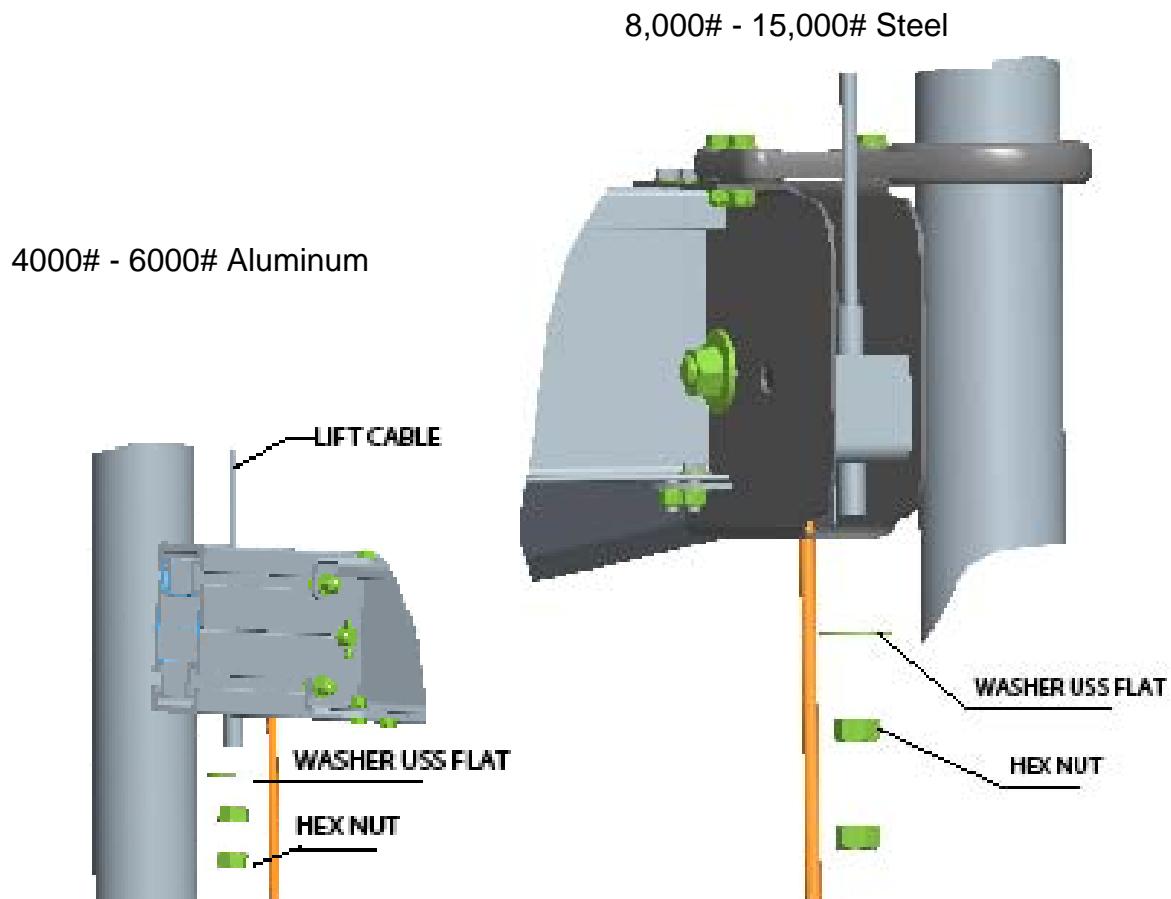


Step #16 – Connecting Lift Tube Cables

Using the Key Fob remote controller, push the Down Button to run the cables down so they can be attached to the lift platform.

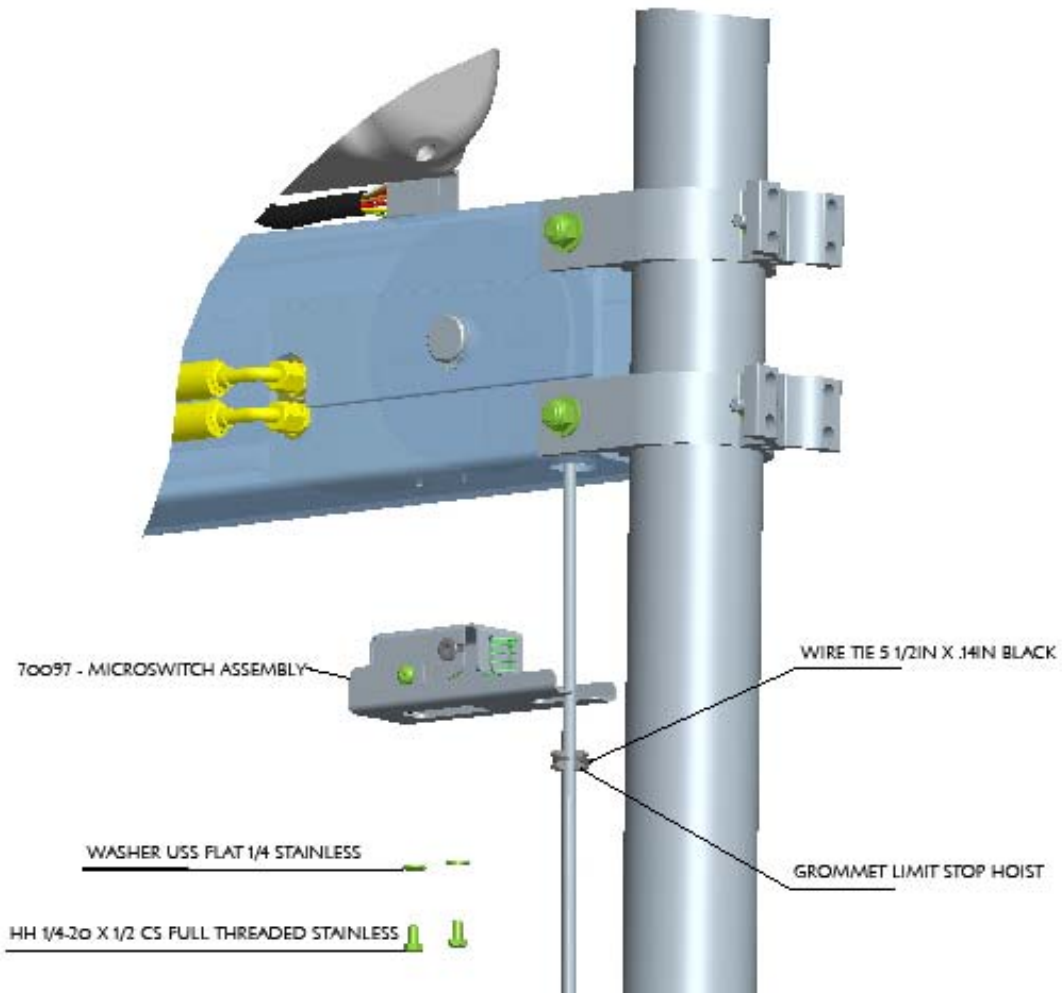
- *Attaching cables to Aluminum Cradle Tubes:* the cable coming from the outside pulley of the Lift Tube goes thru the outside holes in the Cradle Tube. The cable coming from the inside pulley, on the other end of the Lift Tube, goes thru the inside hole on the Cradle Tube.
- *Attaching cables to Steel Cradle Tubes:* both cables are attached to the cable mounting brackets welded into the end of the steel Cradle Tube.

Secure the cables to the Cradle Tubes with 2 brass nuts and a flat washer as shown below. Refer to the chart on page 11 for the proper sizes.



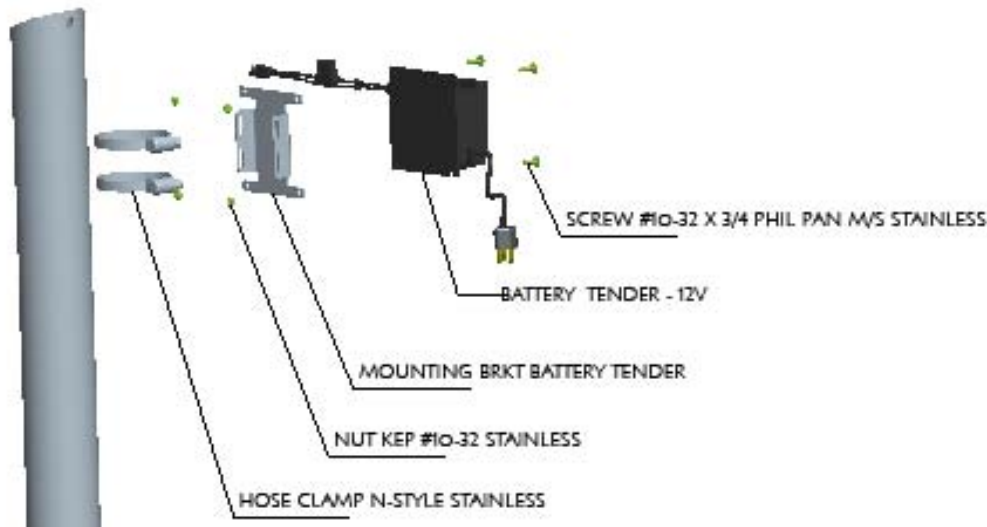
Step #17 – Attaching Upper Limit Switch

Attach the upper limit switch to the bottom of the winch tube assembly as shown. The holes will allow the switch to be adjusted so the cable will travel thru the center of the slot in the pivot arm. The grommet and wire tie are to be mounted to the cable, the final placement will not be made until the lift is in the water and the boat can be loaded into the lift.



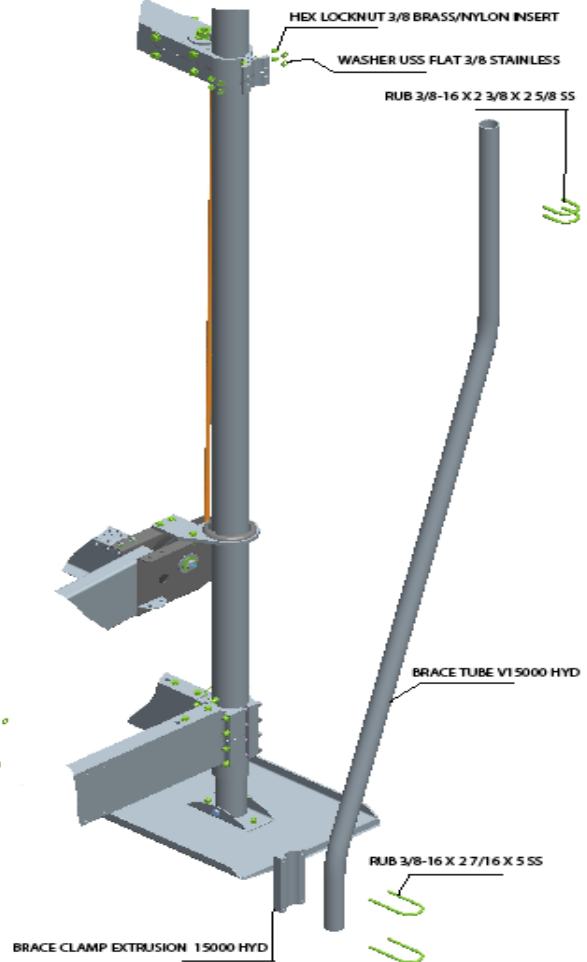
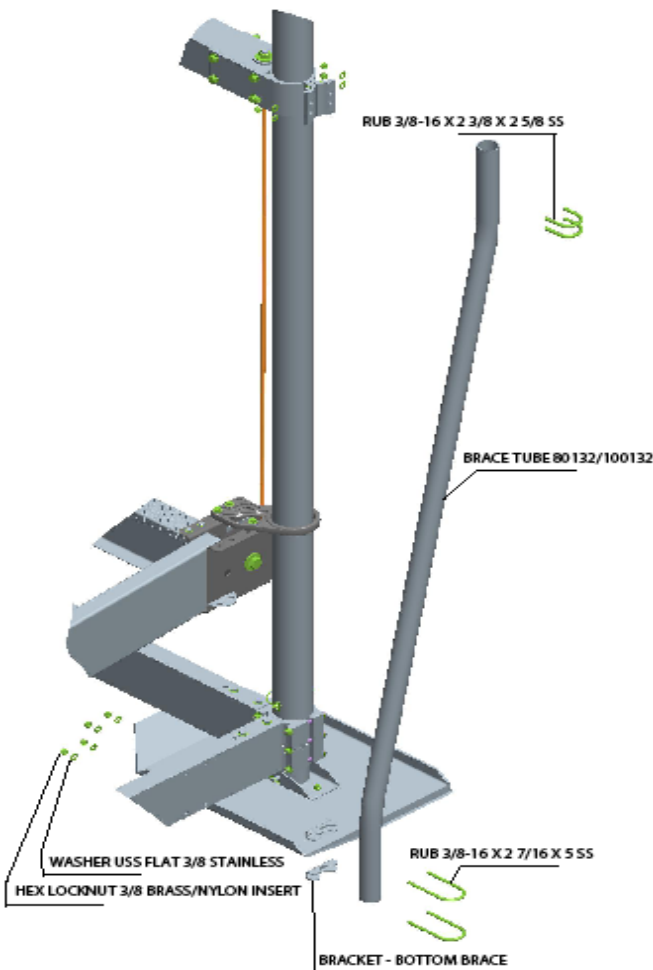
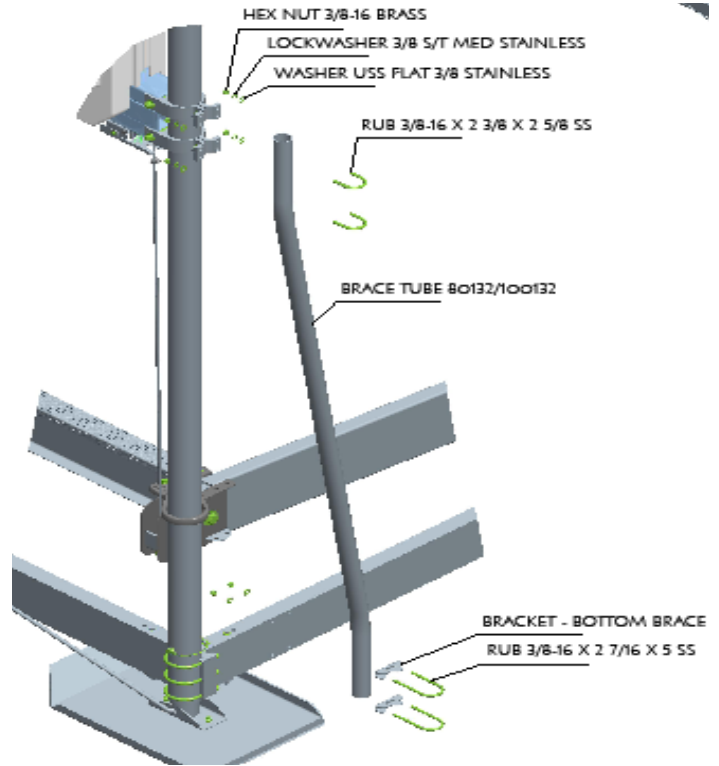
Step #18 – Mounting the Battery Tender

The Battery Tender battery charger is to be plugged into a properly and safely installed 110 volt power line near the lift. It is designed to rapidly re-charge the battery then maintain a full charge. The Battery Tender Kit included with this lift contains the charger unit with power cord, short battery harness and 25 ft. long connecting cord. *For additional operating and safety instructions, please see the Delran Battery Tender Instruction Manual packed with this kit.* Mount the charger unit on the dock side of the lift (opposite the Lift Tube) on the post opposite the Pump so that it may be safely connected to your AC power supply. We recommend installation of the charger on a lift with a canopy. If so, attach the charger unit high on the canopy leg above the post and under the canopy. Run the 25' connecting cord under the canopy, zip tie it to the canopy bows, and plug it into the short battery harness. This preferred method protects the unit and connections from accidental disconnect and excessive moisture. Note: if the lift does not have a canopy, it is the responsibility of the installer to safely route the 25' connecting cord from the charger to the opposite side of the lift and the battery.



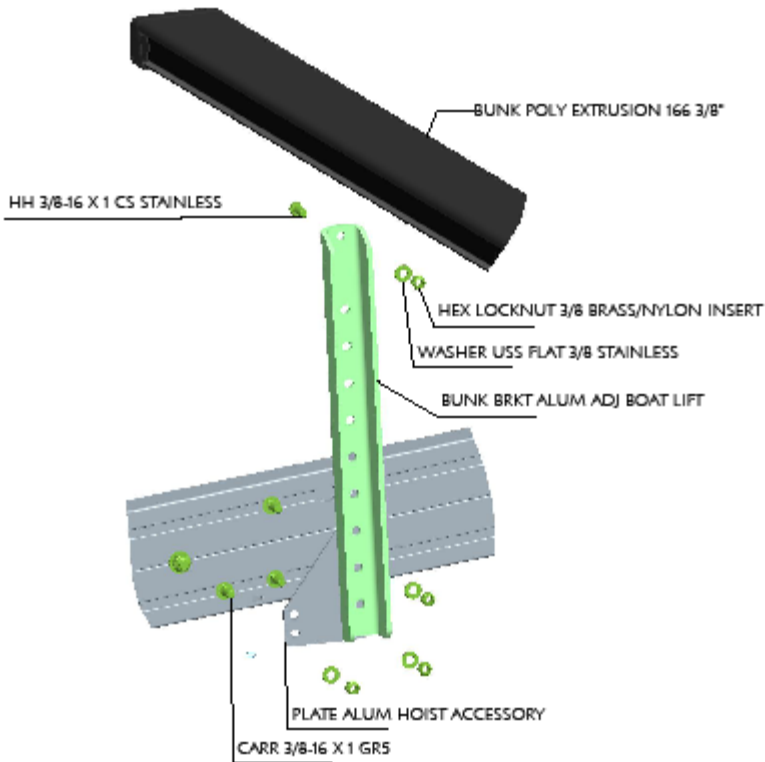
Step #19 – Mounting Braces for 8000# Lifts and Larger

At this point with the 8000 lb lifts and larger we will mount the braces to these hoists. Assemble the braces using the hardware shown 8000 lb to the right, 10,000 lb below left, and 15,000 lb below right



Step #20A – Mounting the Bunks and Brackets 4000# to 6000# Lifts

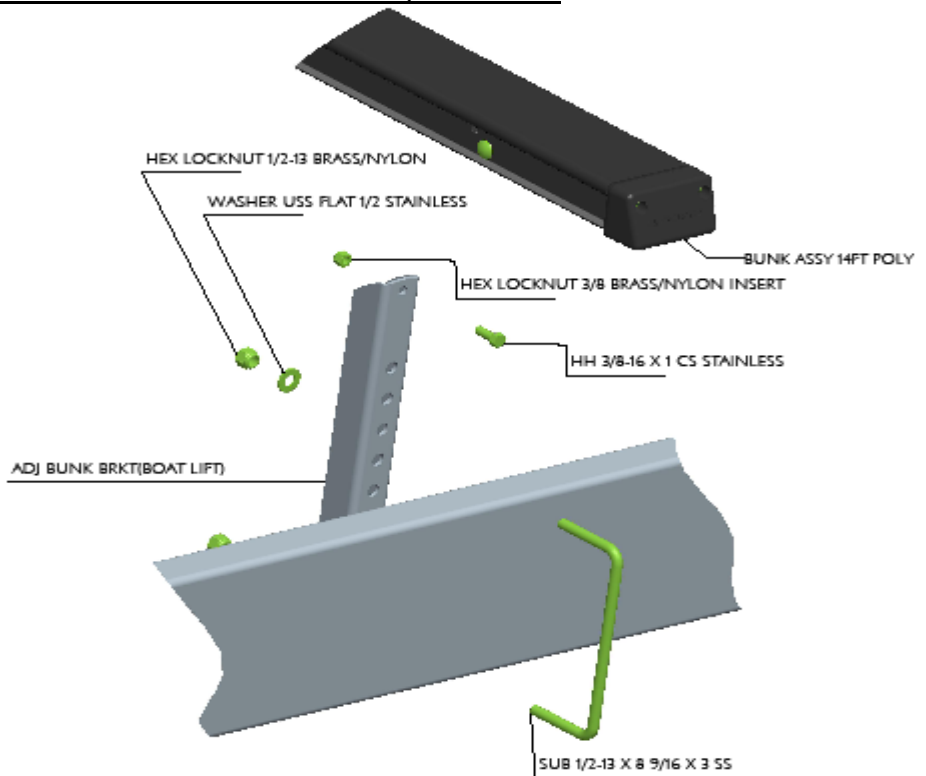
The mounting of the bunks on the 4000 and 6000 lb models will be done with carriage bolts inserted into the slots on the inside of the aluminum v-frame



. Depending on the positioning required of the bunks the plate that helps retain the position may be mounted on either side of the adjustable bunk bracket, on the inside it will hold the bracket in a more upright position and to the outside will allow the bracket to sit at more of an angle. The height and position in and out will be determined by the model and shape of the boat being placed on the lift.

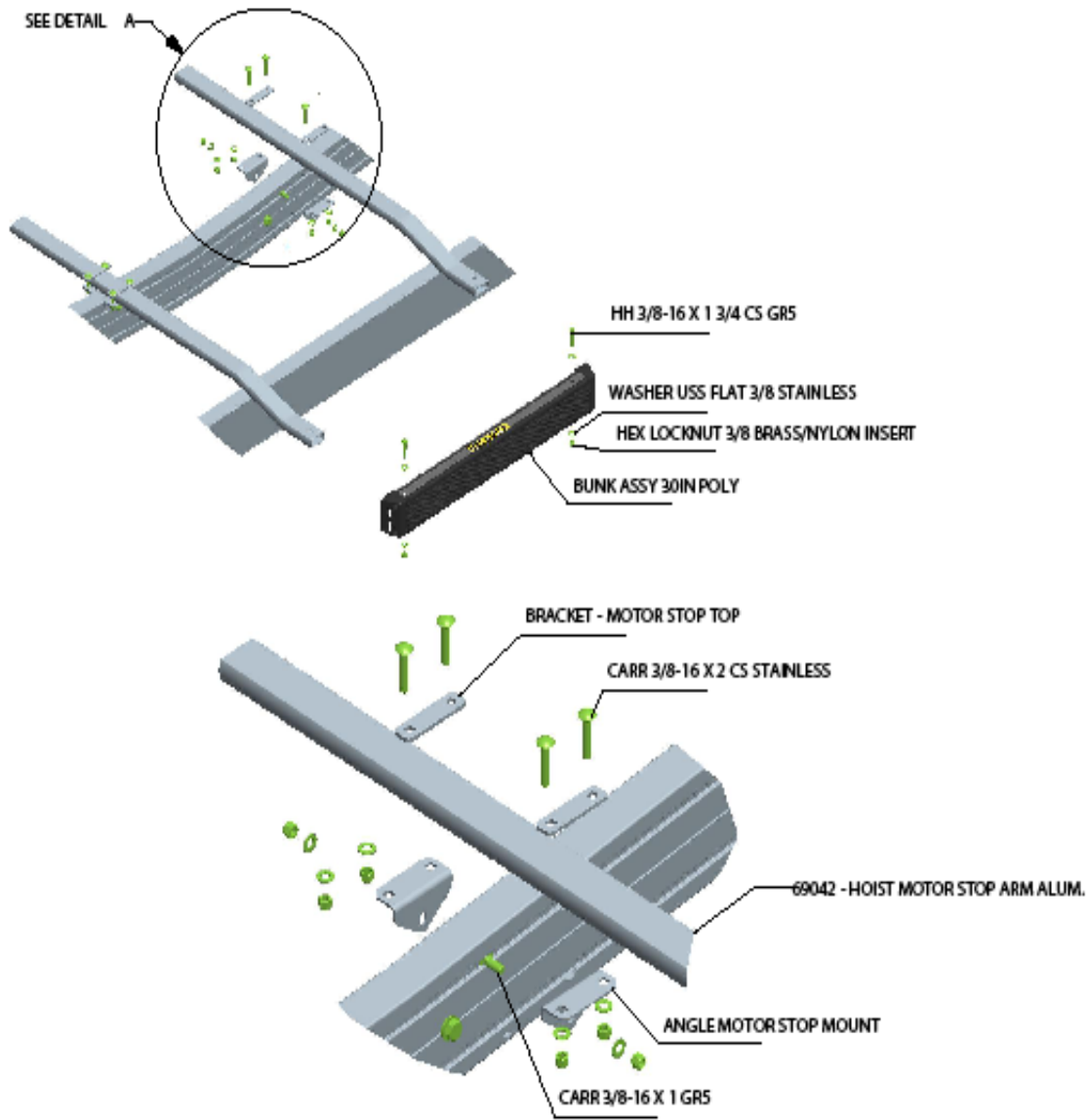
Step #20B – Mounting Bunks and Brackets 8000# to 15,000# Lifts

The mounting of the adjustable bunk bracket to the galvanized welded v-frame will be the same as before only that we will be using stainless steel hardware and brass lock nuts with nylon inserts.



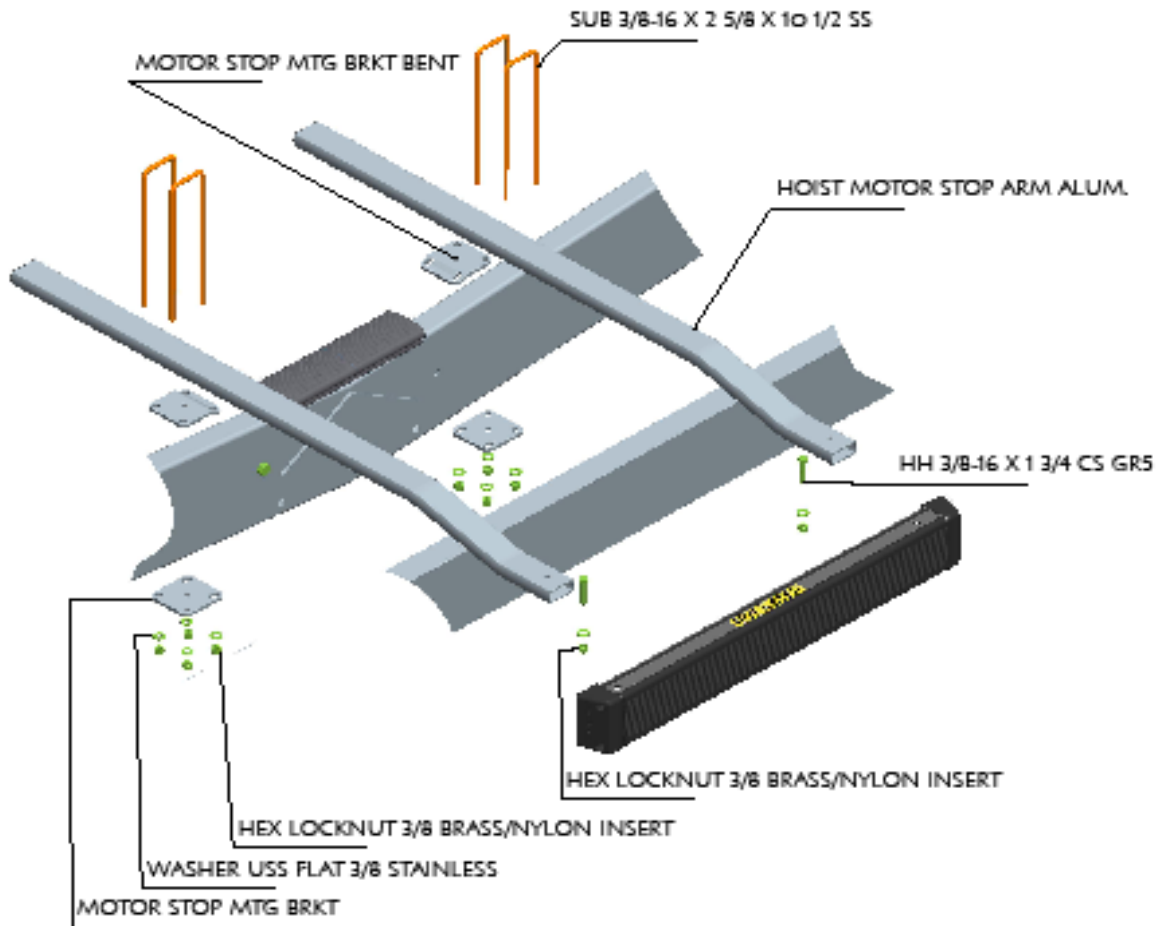
Step #21A Attaching the Motor Stop – Aluminum V-Frame

Assembly of the motor stop will start by breaking open the bundle and the bag and sorting the parts. Refer to the instructions included in the HA kit



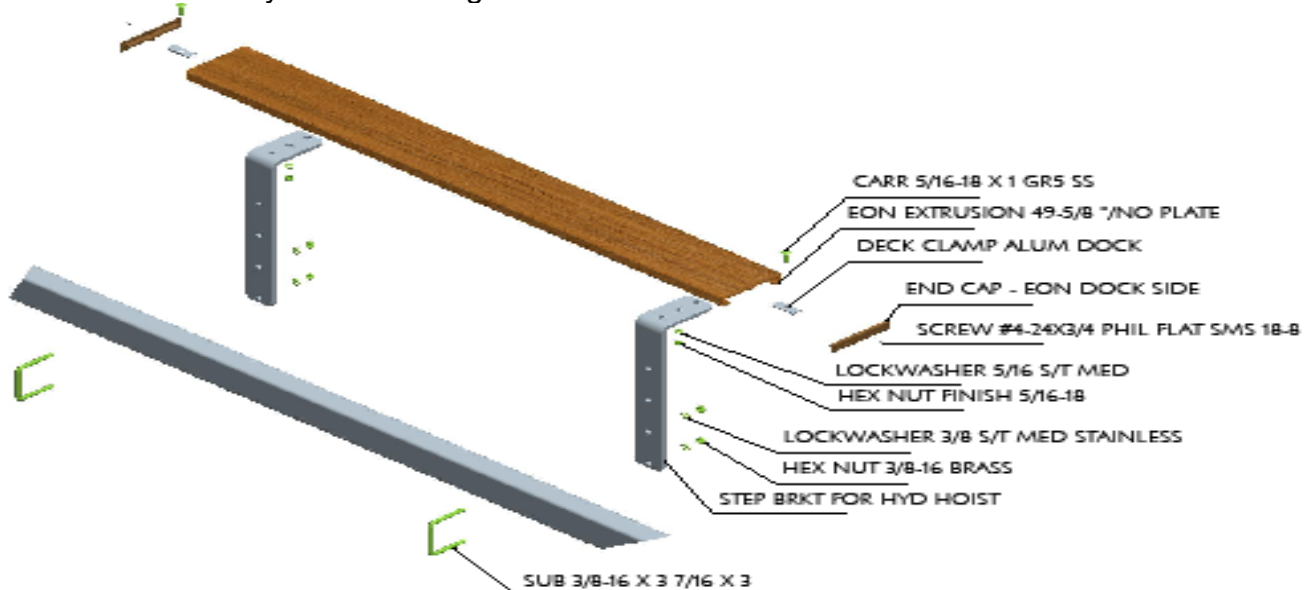
Step #20B – Attaching the Motor Stop – Galvanized V-Frame

For mounting to the 8" galvanized v-frame open all bundles and bags and sort. Refer to the instructions included in the HA kit.



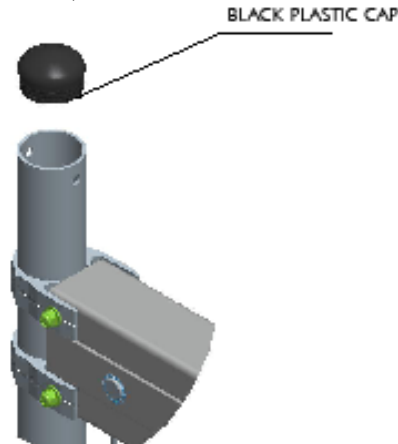
Step #21 – Assemble and Attach the Step Kit to 4000# Thru 6000# with Drop Sides

This HA kit assembly and mounting instructions are included with the kit.



Step #22 – Inserting Caps

If you are adding a canopy you can omit this step in the assembly process. The last step would be to go around and put the black plastic caps in the top of the leg post. Before calling your assembly complete take one last walk around your hoist and make sure all nuts and bolts have been tightened, all cables are secured, and all hoses and electrical connections are together.



Step #23 – Applying Cover over Pump

It is recommended is that you keep your pump covered to protect it not only from the weather but also from the aging effects that the suns rays will have on the wiring, hoses, and the plastic oil tank. These things will deteriorate more rapidly when exposed to direct sunlight. Straps are also included to keep the cover in place.

