

IMPORTANT: READ MANUAL AND STICKER SAFETY WARNINGS BEFORE USING THE HOIST

4000 lb Vertical High Boat Lift

Model MH-40120HL

Assembly Instructions, Safety Information and Warranty

See CraftLander YouTube for Video Assembly Instructions



Proudly made in Michigan

By

NuCraft Metal Products

402 Southline Rd

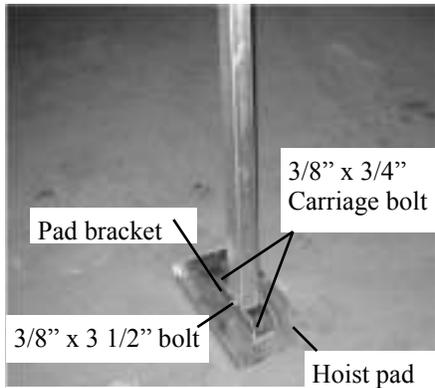
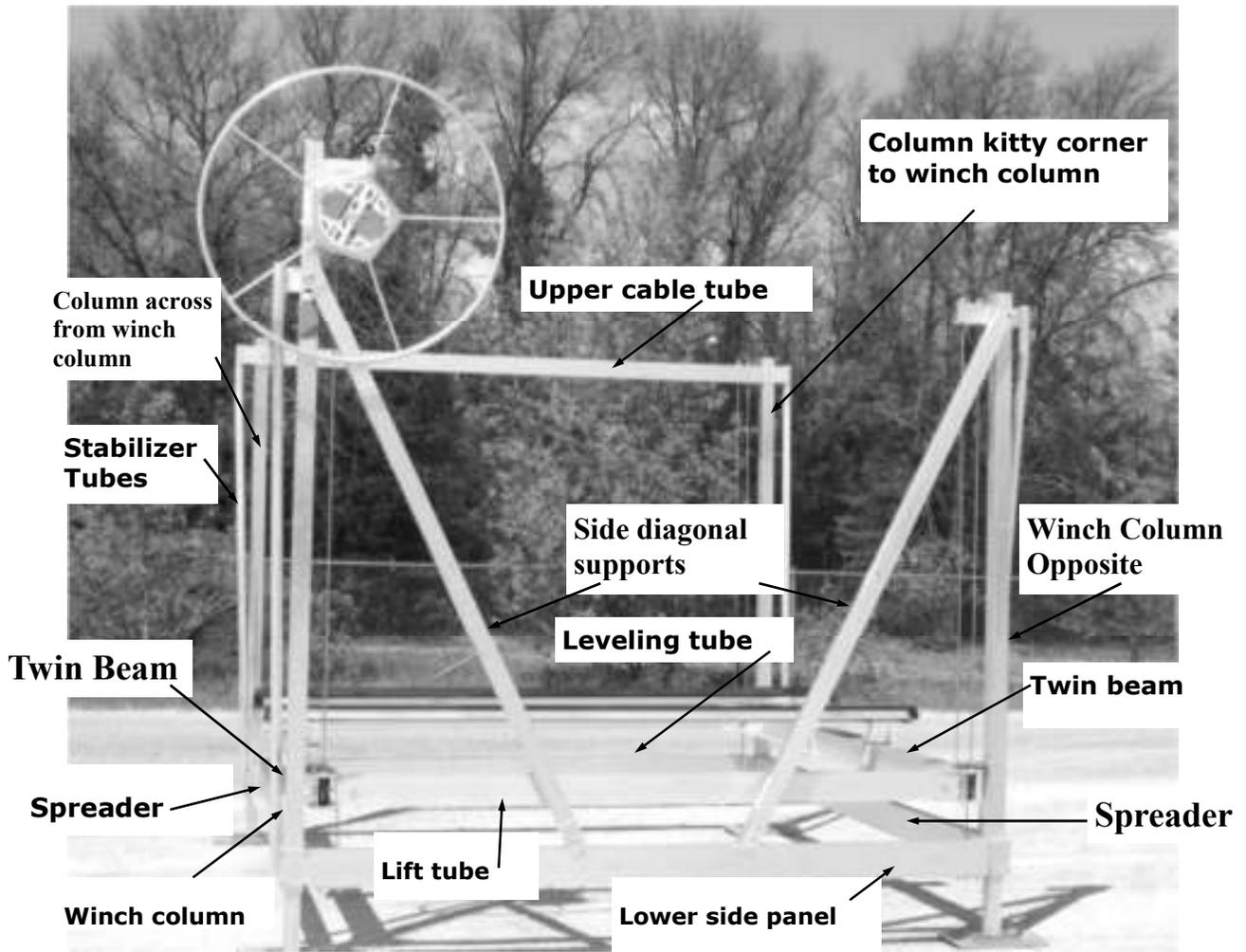
Roscommon, MI 48653

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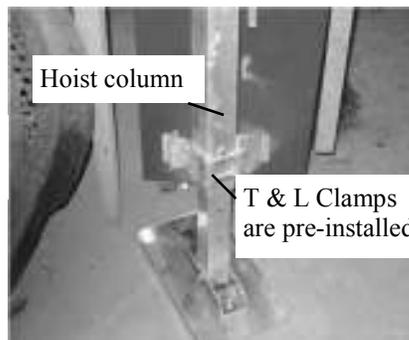
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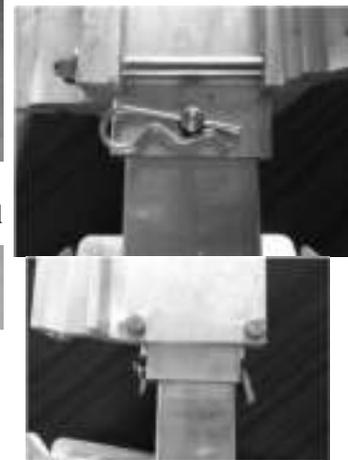
IMPORTANT: ONLY PERSONS THAT HAVE READ THE MANUAL AND SAFETY STICKERS AND UNDERSTAND THE DANGERS OF OPERATION SHOULD OPERATE.



View of hoist pad, pad bracket and telescoping leg.



Assemble telescoping leg in hoist column, aluminum T & L Clamps are pre-attached for lower tube frame.



Use enclosed 7/16" leg pin and 1/8" hitch pin to attach column to leg.

Below is also in smaller picture on assembly drawing. Good information before starting. Top view of hoist frame.

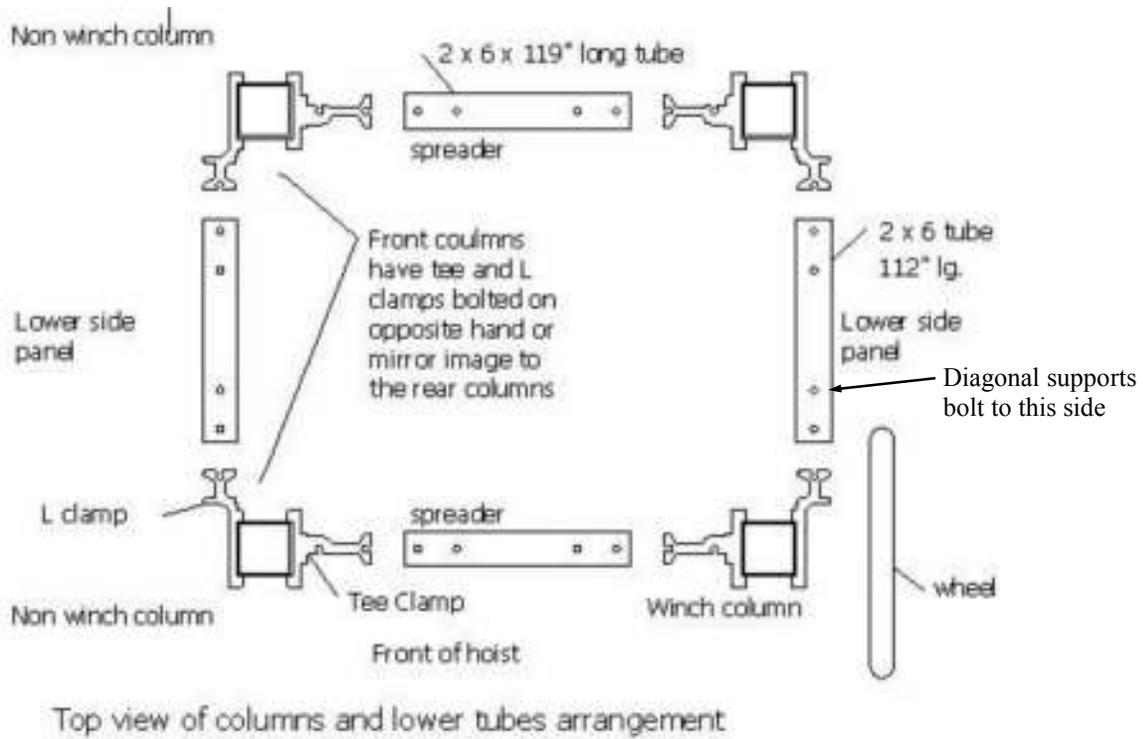
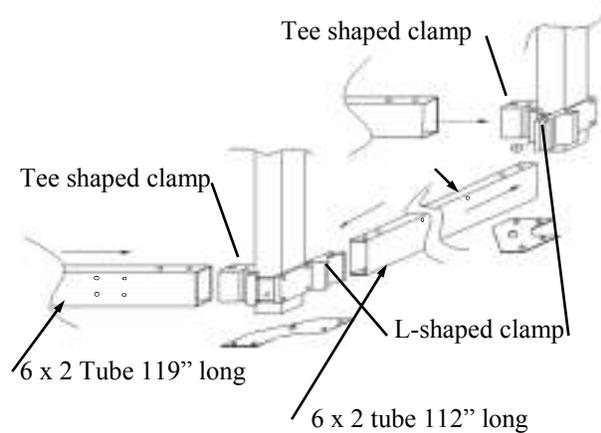
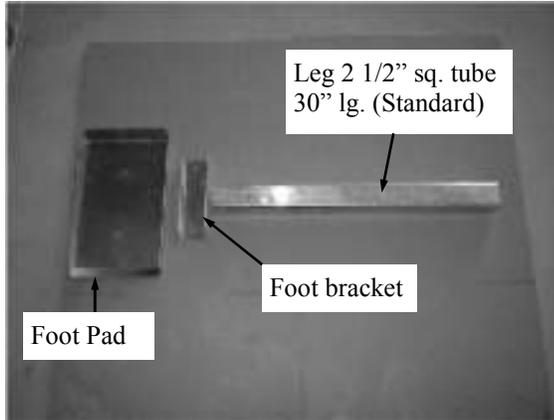
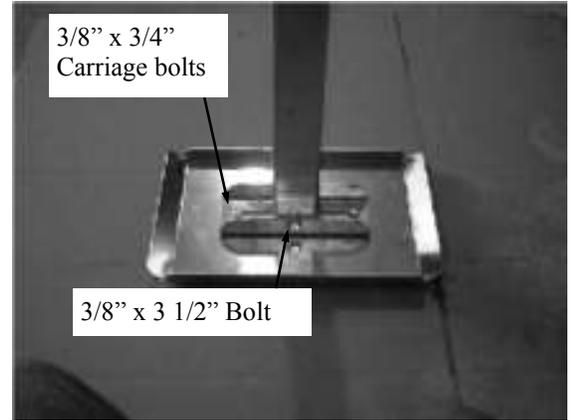


Illustration showing lower framing components.

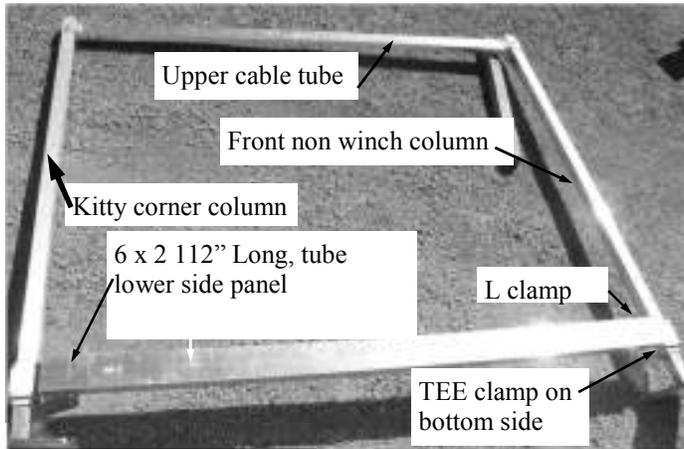




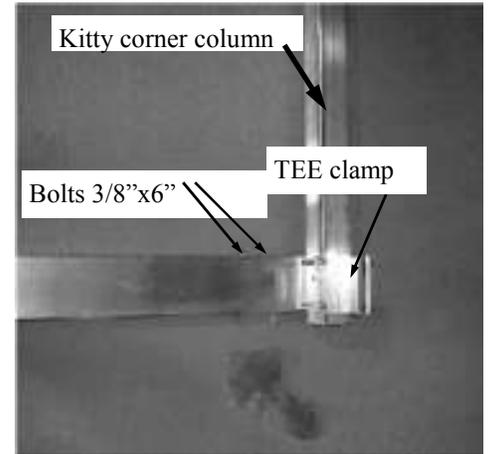
Start by finding the foot pads, foot pad brackets and legs that go together. You will also need 8-3/8" x 3/4" carriage bolts, 4-3/8" x 3 1/2" bolts and 12-3/8" serrated nuts (whiz nuts) to hold the legs together.



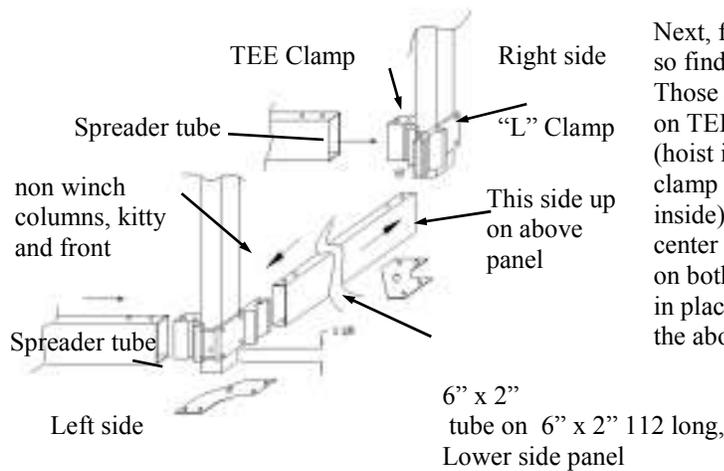
Put the foot bracket on the foot pad and line the holes in them up. Put the 3/8" x 3/4" carriage bolts through the foot pad so nut will be on the bracket side. Put the leg into the bracket and put 3/8" x 3 1/2" bolt through with whiz nut on end of bolt.



Assembled non winch side



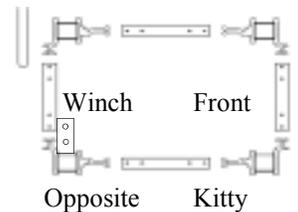
Kitty corner to winch column view shown above.



Drawing of lower side panel assembly

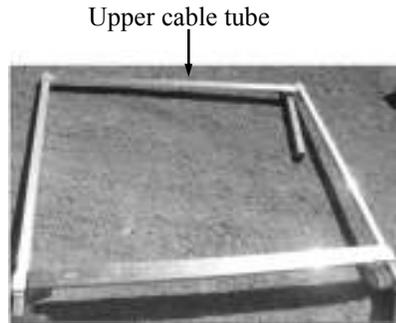
Next, find 2 columns- (3" sq. tube 8'-6" long). There are 2 of them so find the two that are a mirror image of each other (opposite hand). Those are the ones you'll use. Lay one on the ground with the bolted on TEE clamp facing down and the "L" Clamp going to your right. (hoist inside) Lay the other column on the right side with the TEE clamp facing down and "L" Clamp going toward the left (hoist inside). Find the lower side panel tube 6 x 2 x 112" long. Holes in center of the tube closest to top side. Slide it over the "L" clamps on both columns and drop 2- 3/8"x7" 3" bolt through to hold in place. See next page for finishing the above assembly.

Frame work top view

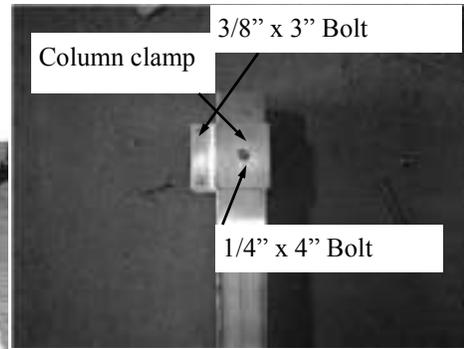


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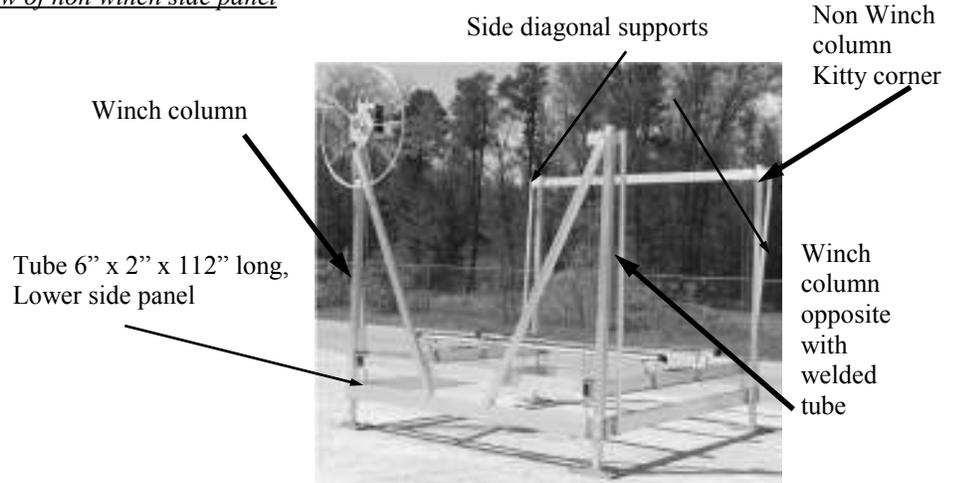
Next, find the column clamps 3" square inside x 4" long. See picture to far right) Slide one over each column on top side facing toward inside of columns. Line hole up in columns and put a 1/2" x 4" bolt through from the top going down. The nut will be on far side or on the hoist outside. (less likely to damage boat by sticking bolt toward the outside of hoist). Repeat on other column. Next, insert the upper cable tube size 4" x 2" x 113" long into the column clamps and put 2- 3/8" x 3" bolts through from top going down like on the 1/2" x 4" bolt on each side. Now you have the side opposite the winch (non winch) side panel together.



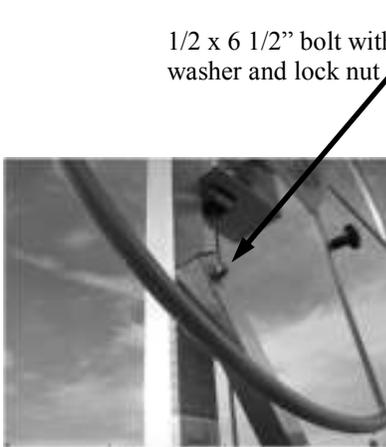
View of non winch side panel



Upper column with column clamp attached



Next, you will need the winch column 3" square tube 10'-0 long, and the winch column opposite 3" square 8'-6 long with tube welded on top, lower side panel tube 6" x 2" x 112" long, two side diagonal supports. Put the lower side panel tube into the "L" clamps like was done with the other panel and drop some bolts though tube. The diagonal supports have one 1/2" hole at square cut end. Use the 1/2 x 6 1/2" bolt with 2- 1/2" washers and 1/2" lock nut. Lay diagonal support on the winch column, line up holes and put 1/2" x 6 1/2" hex bolt with washer through the winch column from the back side through the column and brace. Put another washer over the bolt then lock nut, do not over tighten. The other support end bolts to the 6 x 2 tube on bottom with 3- 3/8" x 2 3/4" bolt and 3/8" whiz nuts. (see below picture) Remember all bolts stick toward the outside of the hoist. The other diagonal brace bolts to the winch column opposite similarly.



Close up of winch column brace connection.

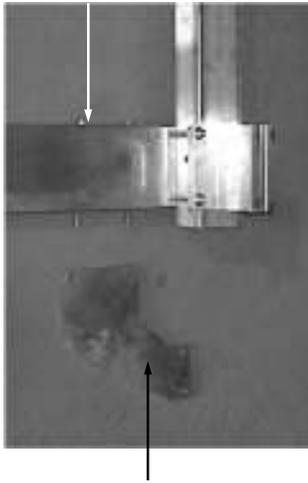


To the left close up of winch column opposite brace connection

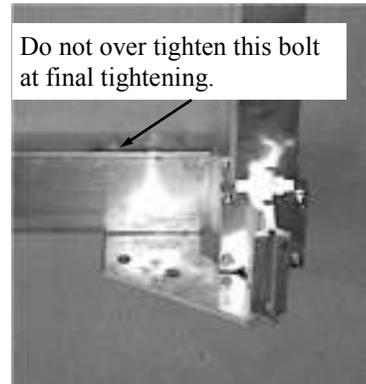


View of 3/16 x 3 x 6" long flat bar (4-req'd) on diagonal braces secured with 3/8 x 2 3/4 bolts and 3/8 whiz nuts. (6-req'd)

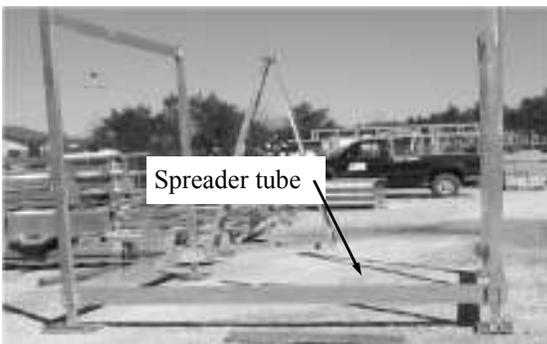
3/8" x 7" Bolts



Find the 1/4" steel lower corner plates.



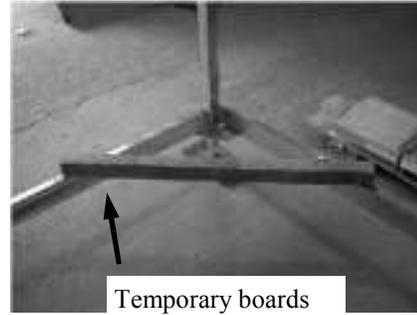
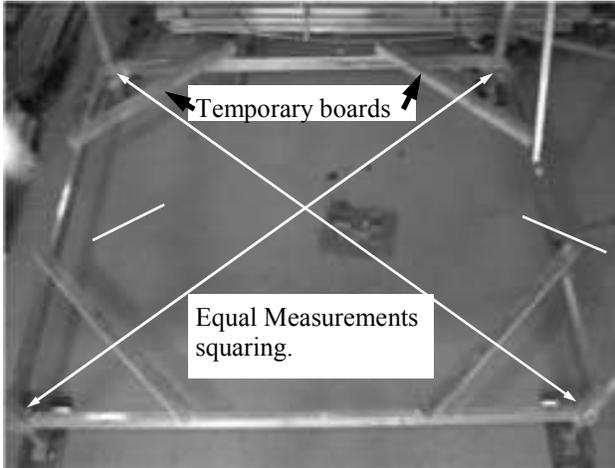
Next, put the galvanized lower corner plate on the corners of the assembled sides. Leave 3/8" x 7" bolts loose to help installing the lower spreader into the TEE clamps use 3/8" whiz nuts on bottom. Important note: One of the L clamp area bolt holes has no member under it. **Do not over tighten this, as it could damage the aluminum tube.**



Next stand the side panels upright and lay the spreader tubes 6" x 2" tube (Length is 1" shorter than beam on hoist tube. Example: 120 wide hoist tube is 119" lg.) in between them. You may want someone to hold them while you are assembling. Insert the lower spreader tube into the TEE clamps each side using 7" bolts with whiz nuts.
(This picture shows a spreader tube already)

Before tightening bolts, square (tram) the corners of the hoist with equal measurements. See next page for example photo.

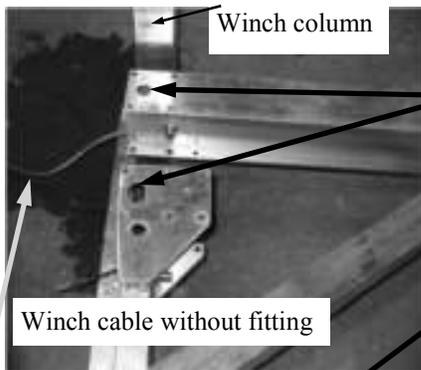
Below: Laying twin beams on the temporary boards



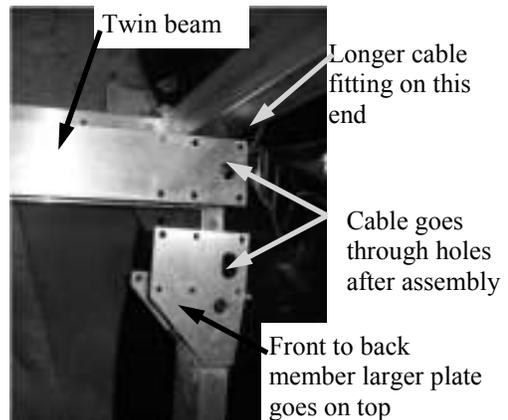
Another picture of diagonal use of the temporary boards.

After squaring hoist frame, tighten bolts. To help further installation lay boards across the corners of the frame diagonally. They will support the carriage when assembling. (Like shown in the picture)

Find the twin beams. The twin beam that has one cable in it goes on front winch corners of hoist. The winch cable without fitting goes on the winch side. The cable end with fitting goes on front corner. The winch cable end without fitting goes up though hole on twin beam and front to back member after the front to back member is slid over the twin beam. See pictures below. Larger plate on front to back member is the top.



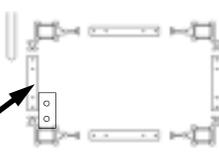
Winch column view of twin beam.



Non winch front of hoist corner above.

The cable fitting with threaded stud goes through hole in twin beam and front to back member. After the two are slid together the cable connects above in the upper support cable tube.

Top View drawing



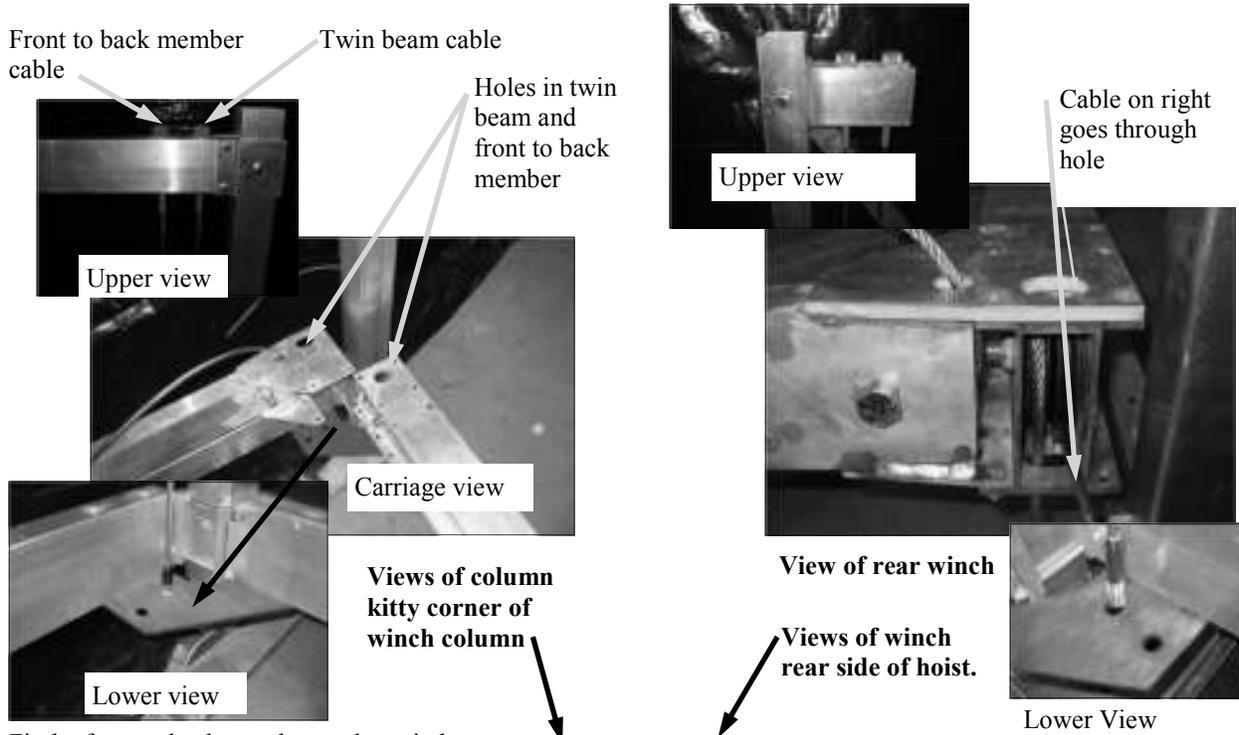
Winch column view of twin beam and front to back member together.

Winch cable without fitting

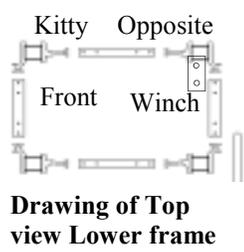
Non winch front of hoist corner. Parts are fit together.



Page8 Next, lay the rear twin beam (the beam with 2 cables) in on the temporary boards on rear of hoist. The cables that go up (longer cable fittings) are closest to outside of hoist. The cables that go down (shorter cable fittings) will be closest to inside of hoist.

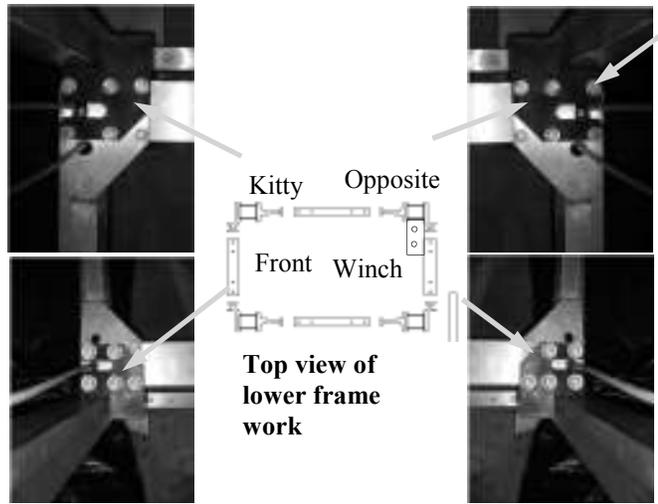


Fit the front to back member to the twin beam. Feed the cable in twin beam with the longer cable fitting through the holes in the twin beam and front to back member upward. The cable end on the front to back member goes up and fastens to the upper support cable tube. The cable coming out of the front to back member also fastens to the upper support cable tube. The Twin beam also has a cable with shorter fitting that's on the inside of the hoist that fastens to steel plate on the bottom with 5/8" lock nut.



The cable on right with longer cable fitting goes up through hole in twin beam and clip on front to back member and has longer cable fitting on it.

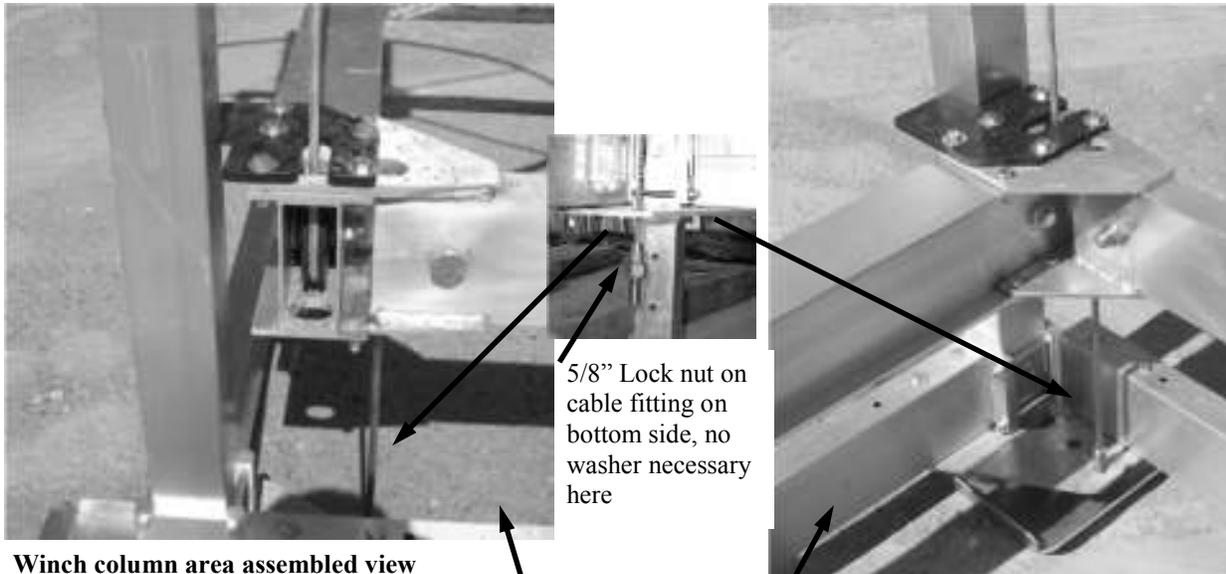
Below top views of corners with plastic guide plates on



Next put the plastic guide plate on top of the twin beam. Bolt with 3/8" x 1 1/2" and 3/8" whiz nut. Tighten. Next page has more top view of connections. Repeat on the other ends.

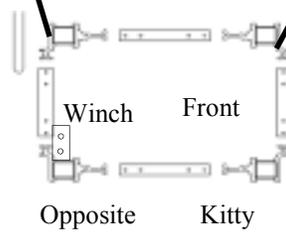
NOTE: WASHERS SHOWN IN GUIDE PLATE PICTURES ARE NO LONGER USED

Page9 Note when putting nuts on cables the lower cable fittings do not need washers but the upper longer fittings do. **Do not tighten cables very much.** You should be able to grab the cable after putting nuts on and move from side to side some. Cables over tightened can prevent the hoist from going down freely



Winch column area assembled view

Front Column area assembled view



Winch column opposite area assembled view



Kitty corner to winch column area assembled view

NOTE: WASHERS SHOWN IN GUIDE PLATE PICTURES ARE NO LONGER USED

Page10 Top cable connections



Next, we will be doing the upper cable connections. The long cable fittings will be going through tubes with washer and 5/8" lock nut. See next picture.

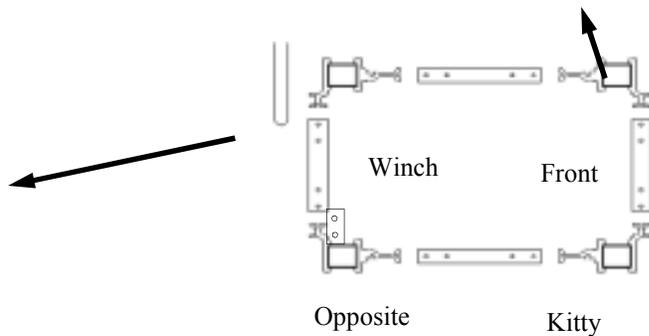
The winch cable in the twin beam goes up and fastens here with 5/8" lock nut and washer



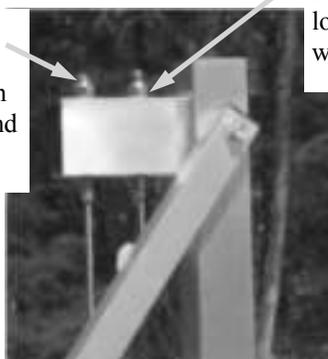
View of non winch front column



View of winch end with diagonal support next page will show assembly.



Front to back member cable long fitting with 5/8" lock nut and washer

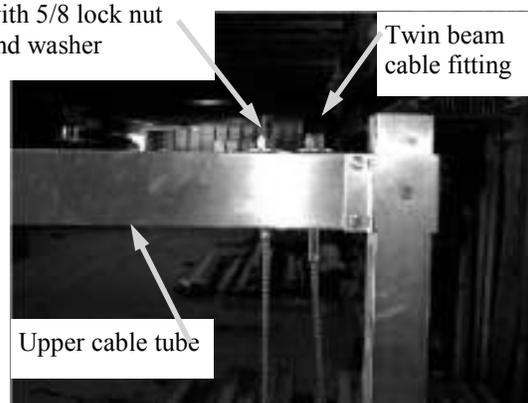


View of winch column opposite, rear corner of hoist.

Rear twin beam cable with 5/8" lock nut and washer

Front to back cable with 5/8 lock nut and washer

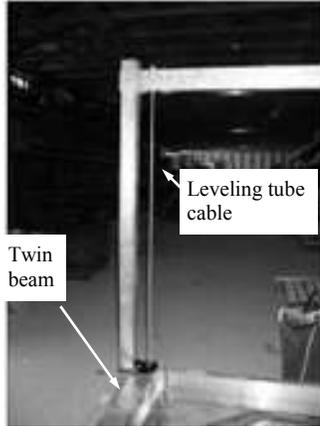
Twin beam cable fitting



Upper cable tube

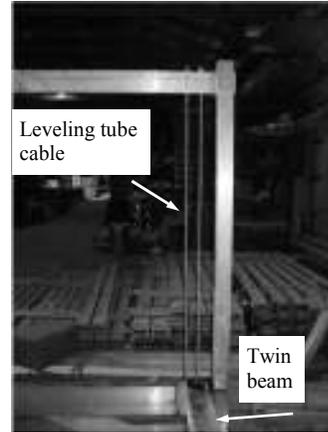
View column kitty corner to winch column

Next take the twin beam long cable fitting ends and attach to upper cable tube with 5/8" washer and nylon insert lock nut. Tighten so cables are not tight but not real slack either. Use the holes on the outer edge of tube. If cables are too tight it will prevent the hoist from going down freely. Repeat on the other end. The front to back cables fasten similar (see above for locations).



View of column across from winch column.

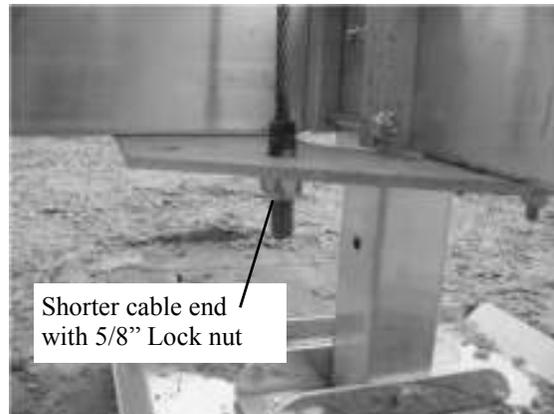
DO NOT OVER TIGHTEN CABLES. SHOULD BE A LITTLE LOOSE.



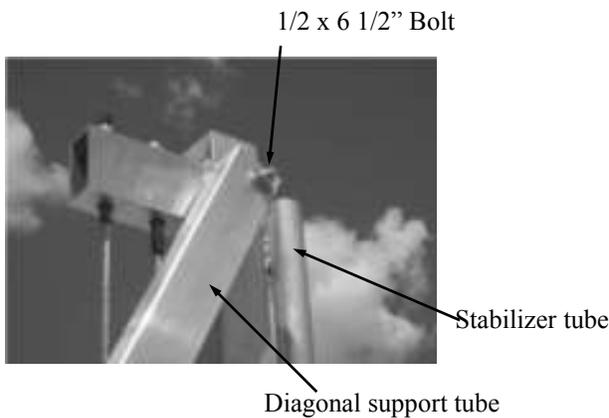
View of column kitty corner to winch column.



View of side opposite of winch.



Lower cable end bolted to lower galvanized plate.



View of column rear of winch column.

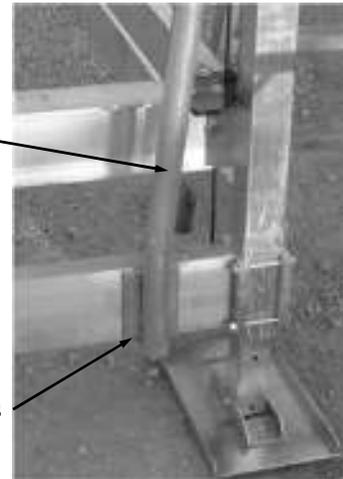


Next bolt the stabilizers to hoist. There will be 2-left hand parts and 2-right hand parts. Use 3/8 x 2 3/4 inch bolts on the bottom and 1/2 x 4 1/2 inch bolt on top. Use 1/2 x 6 1/2 inch on winch column.

Column Kitty Corner View



You'll need a ladder for this step because you must bolt on the Stabilizer Tubes to the top of the inside of hoist. There are left and right column braces. Use existing bolt in hoist to attach the tops. See Drawing for more details.



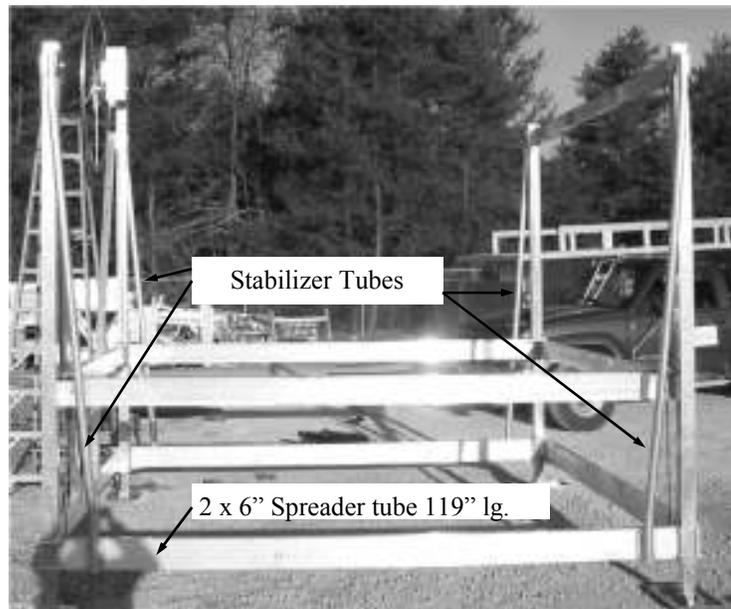
3/8" x 2 3/4" bolts

Then, you'll bolt the bottom of the Stabilizer Tubes onto the bottom of the hoist using 3/8" x 2 3/4" bolts and whiz nuts. Slant the tubes in toward the outside of hoist.



Front of hoist non winch side

This is what one Stabilizer Tube should look like.

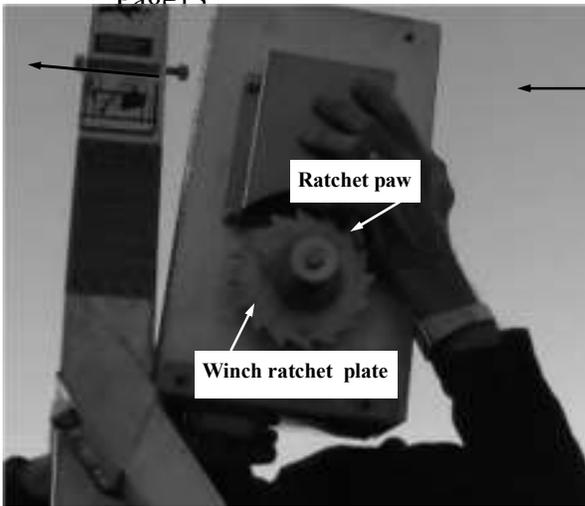


As you can tell all of the Stabilizer Tubes bottoms are bolted to the spreader tube and angle toward out toward the columns. This is what your hoist should look like so far.

WINCH INSTALLATION

Note: We use a 11:1 Winch on the V25 & V35 and a 16:1 Winch on the V45 and VHL40.

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In the upper hole, insert (1) 1/2"x4" flanged bolt and 1/2" whiz nut into the Winch Column from the inside going to the outside. Take the cover off the winch box and slide the keyhole slot over the flanged bolt. Insert the other flanged bolt up through the bottom open area of the winch box and through the lower hole in the Winch Column.



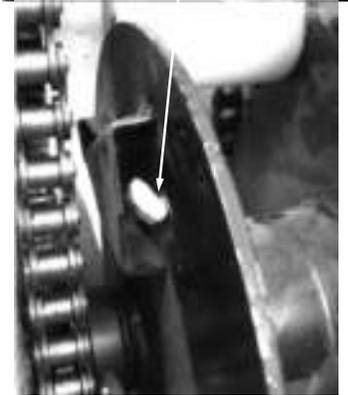
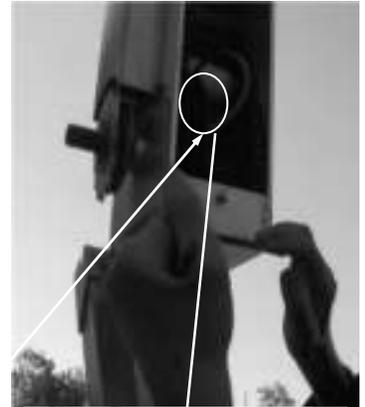
Tighten bolts with a 9/16" socket on the inside of the Winch box and a 9/16" open end wrench on the outside.



Remove the 3/8"x3/4" bolt and washer from the end of the Winch shaft and take off the thread protective sleeve. The threads will have some grease on it. This keeps the wheel spinning freely. Leave the bolt and washer off for now.



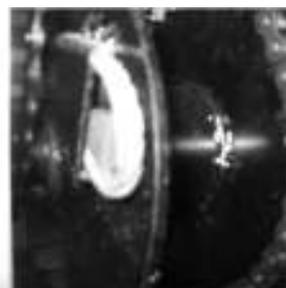
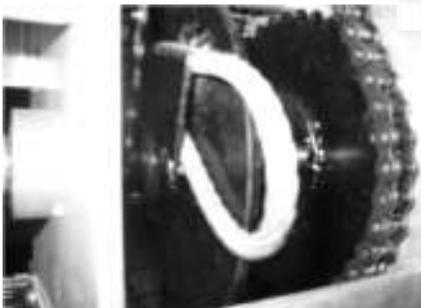
Take the end of the cable coming out of the front Twin Beam and insert it up through the bottom of the Winch Box. This cable will not have a threaded end on it. Wrap it around the lower drum assembly and pull out of the box. Next, put in the cable and push it through the hole that is in the plate on the drum assembly. You can turn the wheel shaft to adjust the position of the hole to make it easier. Pull extra cable out.



Loop the cable and push the end into the welded clip on the plate. You can tighten the slack in the loop by pulling down on the cable coming out of the Winch Box.



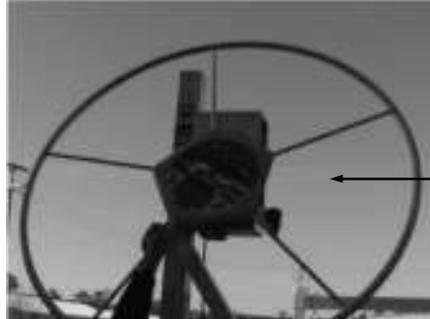
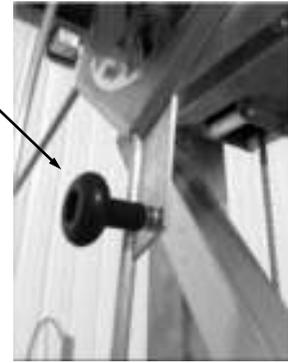
Insert the cable wedge into the clip and pull the cable as tight as you can through the bottom of the Winch Box. You can tighten the cable by using a vise grip and hammer. Pound in a downward motion on the tighten vise grip.





The wheel sticker covers the hole for the winch threaded shaft to go through so the sticker needs to be cut out in the hole area.

Put a 3/8"x2 1/2" bolt through the knob and spin on a 3/8" whiz nuts. Don't spin the nut all the way to the knob or else it won't turn freely, leave a small gap. Put the rest of the bolt through the hole in the wheel plate and put a nut on the back side. Use an open end 9/16" wrench to hold the nut by the knob and tighten the nut on the back side of wheel plate.

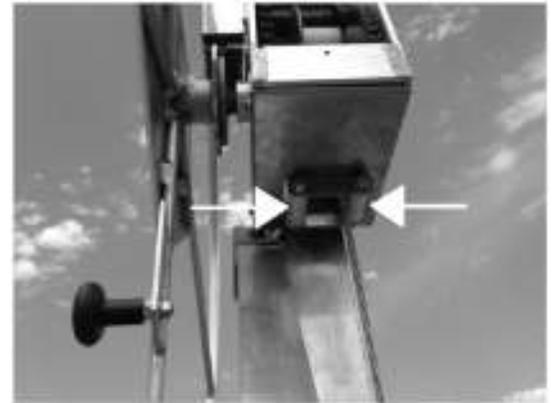


Take the wheel and thread it on the winch clockwise. Thread it on until it comes in contact with the brake pad. At this point when the wheel turns you should hear the ratchet paw clicking on the ratchet plate.



View of how the cable should wind on the drum

Level wind the cable in the winch spool by turning the wheel clockwise. A clicking should be heard as the ratchet paw brakes against the ratchet plate. At some point the hoist carriage will start to rise. The platform should stay put when the wheel is let go. Sometimes the carriage needs some more weight on it to stay though. Now would be a good time to spray the cable inside the Winch Box with a White Lithium Grease. You can get this at your local hardware in a spray can. Spray in a back and forth motion enough to cover the cable. Once finished put the cover plate back on the Winch Box.



Note: Cable life can be extended up to 3 times longer by regular lubrication of the Winch Cable. The rollers on the winch bottom help the cable level wind. Don't let to much slack out in cable as it can unspool and get caught in winch gears.

Put the 3/8"x3/4" bolt with the heavy 3/8" washer back on the winch shaft and tighten.



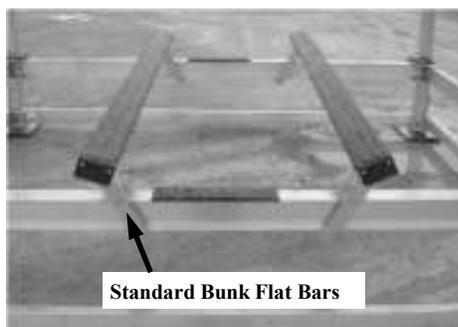
IMPORTANT: After the main hoist components have been assembled, it is important to check and see that the winch mechanism is functioning properly. You can do this by raising the empty platform (carriage) up about a 1/3 of the way and releasing your grasp on the lift wheel. If the winch is operating properly the clutch brake will automatically hold the platform. Repeat at higher locations. When you have your lift in the water repeat this test with your boat on it. If the lift wheel begins to spin down freely from any of these test positions, at no time should you attempt to prevent it from doing so. Such action could result in injury to arms and hands. Instead simply let the platform spin down into the water. Doing so will neither damage your boat or hoist. If the lift is cranked up as high as it will go and someone continues to crank the lift up the cable or boat lift will break at some point and boat will drop down. If for some reason your winch mechanism does not function as described call your local Craftlander dealer.

Don't unwind the cable in the winch so much the cable goes slack as it can unspool and get caught in the chain and gears of winch.

****DO NOT TAMPER WITH WINCH MECHANISM****

Hoists manufactured after January 2010 are supplied with vinyl covered aluminum bunks. Carpeted bunks are available upon request. Please note that hoists ordered with a pontoon kit will not come with bunks.

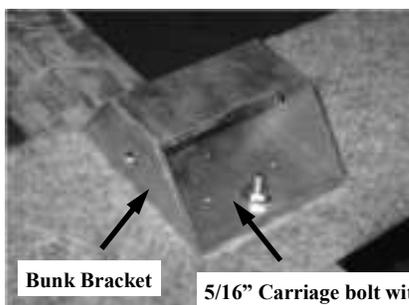
Vinyl Covered Aluminum Bunks



Bunk shown on the left is set up with our 'ski' bars. The length on this type of bar is 20" versus the standard length of 13" and will get your boat up higher. The ski bunk setup can be ordered as an option.

(39) The last step will be to attach the aluminum bunks to the front and back beams. All of the hardware to do this will be in the bunk bolt bag. Use the instructions contained within the bolt bag to attach the bars to the vinyl covered bunks. You may need to make adjustments once you have your boat in the water.

Carpeted Bunks



Note: Bunks shown assembled on the hoist. Fit and adjust to boat. Boat weight should be loaded 100% on the bunks.

Safety Precautions!!!

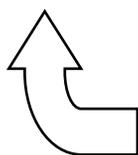
In order to prevent possible injury to both the operator and equipment it is extremely important that the lift wheel is always turned clockwise when raising the platform. Close attention should be paid to the decal on wheel raise and lower arrows. (*clockwise raises, counter clockwise lowers*) If cable is unwound counter clockwise and continued to turn counter clockwise the hoist will begin to raise causing winch damage and **brake will not work** which could cause injury. Under no circumstances should one raise the platform by turning the wheel counter clockwise. Never flip the ratchet located at the lower left corner of the winch box up or raise counter clockwise, as this will cause uncontrollable spin.

The lift is intended for the hand wheel and winch per below photos. If a electric winch is added to the lift the manual for it needs to read and understood by the user. Alteration to the wheel or winch could void the warranty and be a risk. A limit switch is recommended if available.

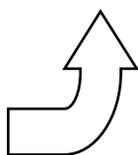


Raise clockwise

Lower (counter clockwise)



Raise



Lower

Wheel sticker



Ratchet, never lift up as this will cause uncontrollable

Winch

These stickers are similar to ones on the hoist wheel and column. Wheel brake works when cranking in the up direction only. Stickers say:

Failure to follow below instructions will result in **uncontrolled spin down** and possible **personal injury** and or hoist damage.

Lift wheel must be turned clockwise for lifting. Do not raise hoist by turning wheel counter clock wise/down direction.

Possible personal injury and or hoist damage may result.

DO NOT work, play, be in or around or under hoist with boat in.

Do NOT leave hoist unattended without first securing wheel.

DO NOT reach through hoist wheel serious personal injury may result.

DO NOT attempt to stop spinning wheel. Serious injury may result.



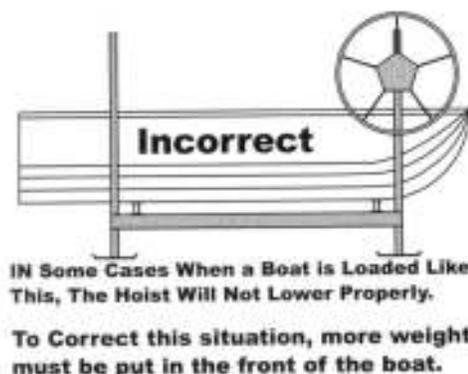
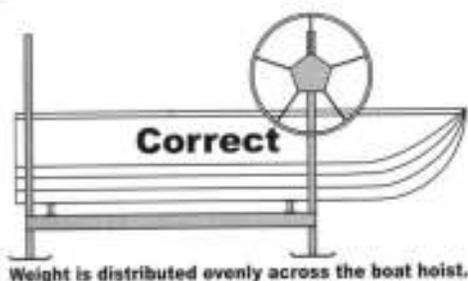
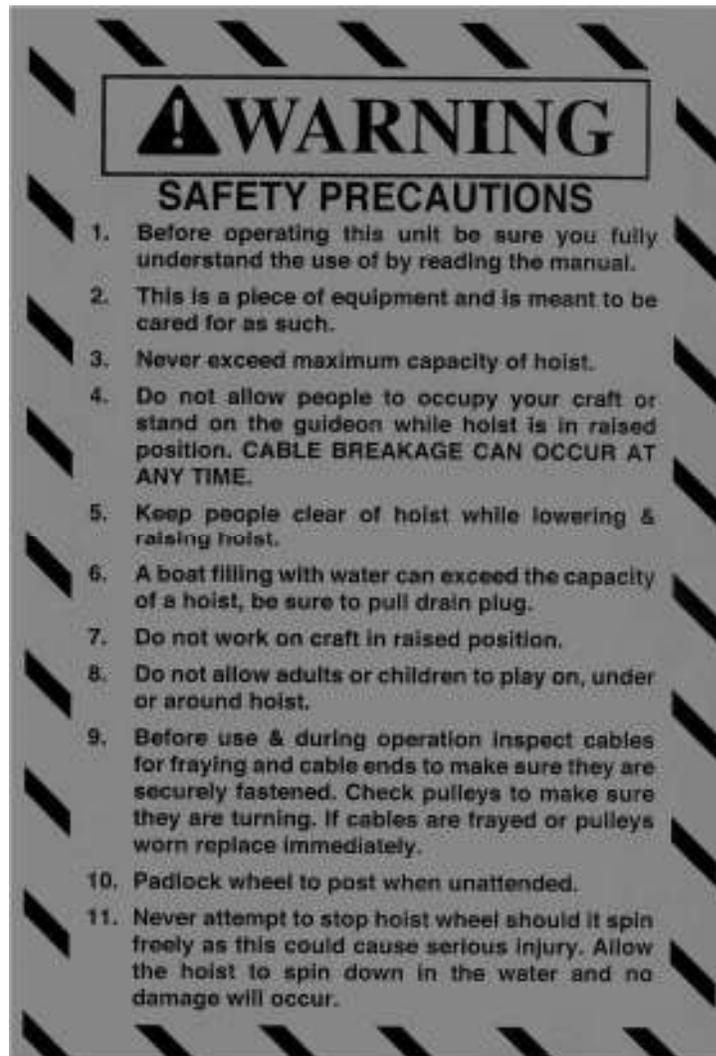
Column danger sticker incorporated into the wheel sticker below now.



Wheel sticker

It is recommended that your Craftlander Lift be thoroughly inspected at least once a season. Tighten all bolts. Check all pulleys and make sure they are turning freely. Inspect all cables for fraying, wearing or deteriorating. If any signs appear, replace cables. Check frame thoroughly. Grease the winch drive chain. Turn lift wheel off shaft. Remove washer and grease threads on winch. **Do not grease clutch plate on winch.** Check for rust on clutch plate then sand and clean off if needed. Install wheel back on lift with retaining bolt and washer and follow the raising instructions in this manual.

This is a typical safety precaution sticker that is applied to our lifts. If your sticker is not legible Be sure to contact your  Craftlander dealer for a new one.



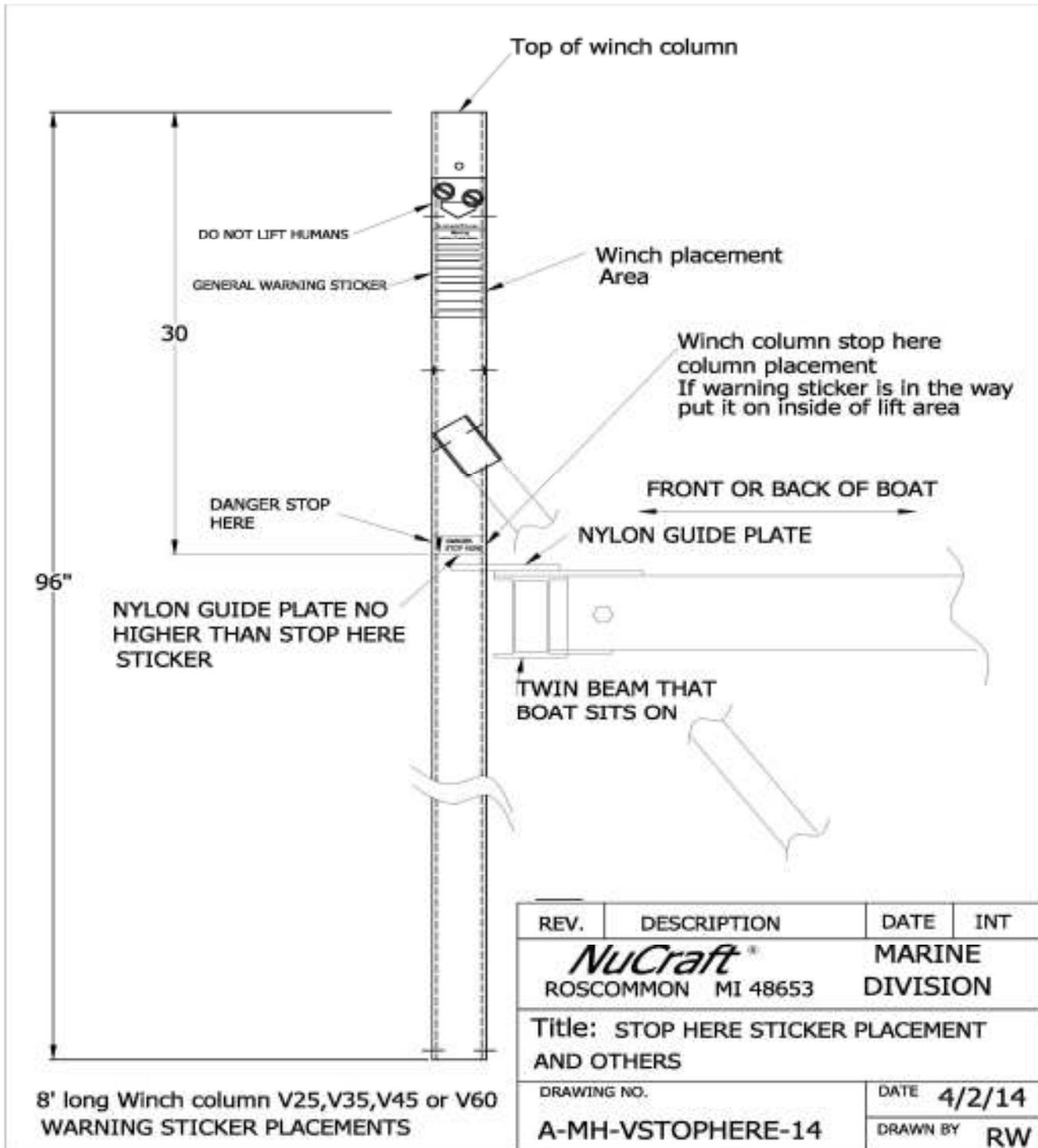
This is a typical sticker put on our vertical lifts. If a boat is loaded on the hoist with too much weight on one end it may not work properly when going down. The lift may bind and only one end will go down. If this happens, more weight needs to be placed on the light end of hoist to relieve pressure on the cables leveling it in that direction. (Do not put people in the boat as weight injury could result). When the hoist is down remove the weight and reload the hoist with better weight distribution.

Loading sticker used on all vertical lifts.



Additional warning sticker is placed on the winch column and on interior of the lift as a reminder of the danger. The boat lift is not meant to lift humans which means the guides on also. The cable can break unexpectedly so keep that in mind and don't allow swimming near or under the lift also.

Below is a warning sticker placement for the stop here and other. If the lift is raised to high raised to high the lift can break and cause damage to the boat in the lift. If any of the stickers are not on the lift contact us and we will send them out as well as any others you may need.





Since 1979

Craftlander Boat Hoists

Your Craftlander Hoist Limited Warranties

During the terms of the Limited Warranties on your aluminum Craftlander hoist, NuCraft Metal Products, Inc. (hereafter referred to as "NuCraft") covers the cost of all parts needed to repair or replace any NuCraft supplied item that proves defective in material, workmanship or factory preparation. These replacements will be supplied by your dealer at no charge using new or remanufactured parts.

Your Legal Rights Under NuCraft's Limited Warranties

All of the NuCraft Limited Warranties stated in this booklet are the only express written warranties made by NuCraft applicable to the aluminum Craftlander boat lifts. These Limited Warranties give you specific legal rights and you may also have other rights which vary from state to state. You may have some implied warranties, depending on the state in which your aluminum lift is located.

For example, you may have:

1. An "implied warranty of fitness for a particular purpose," (that your hoist is reasonably fit for the general purpose for which it was sold);
2. An "implied warranty of fitness for a particular purpose," (that your hoist is suitable for your special purposes; if your special purposes were specifically disclosed to NuCraft itself-not merely to the distributor or dealer-prior to purchase.)

These implied warranties are limited, to the extent allowed by law, to the time period covered by the written warranties set forth in this publication. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

SUBSEQUENT BUYER/OWNER

This Warranty is extended only to the first buyer/owner of the hoist. This is defined as the first legal owner of a NuCraft aluminum Craftlander other than an authorized Distributor or Dealer who has bought the hoist from NuCraft for resale to the public.

HOIST ALTERATION

This warranty does not cover alteration of the aluminum Craftlander hoist, or failure of hoist components caused by such alteration.

PRODUCTION CHANGES

NuCraft and its distributors/dealers reserve the right to make changes in aluminum Craftlander hoists built and/or sold by them at any time without incurring any obligation to make the same or similar changes on hoists previously built and/or sold by them.

Your 2-Year Basic Limited Warranty

WHAT IS COVERED:

The 2-Year "Basic Warranty" covers every NuCraft supplied part on your aluminum Craftlander hoist and aluminum canopy support frame.

The “Basic Warranty” begins on your hoist’s Warranty Start Date. The Warranty Start Date is the earlier of (1) the date you take delivery of your new aluminum Craftlander hoist, OR (2) the date the hoist was first put into service (for example, as a dealer “demo” or as a NuCraft company hoist). The “Basic Warranty” lasts for 2 years (24 months) from this date.

The “Basic Warranty” covers the cost of all parts only needed to repair any item on your aluminum Craftlander hoist that are defective in material, workmanship or factory preparation.

Your 15-Year Fabricated Frame & Extrusion Warranty

WHAT IS COVERED:

The “Frame and Extrusion Warranty” covers these parts and components of your aluminum Craftlander hoist frame for 15 years counted from your hoist’s Warranty Start Date:

Extruded Aluminum: columns, rails, spreaders, cross members, “Twin Beams”, legs, stands, extensions, canopy inserts, bows, rails, and clamps.

Fabricated: hoist wheel, winch, corner brackets, column guide plates, and footpads.

What your NuCraft Limited Warranties Do Not Cover

1. Vinyl canopy covers are covered by a limited 5-Year Limited Warranty by the material manufacturer. Contact with the material manufacturer would be necessary to verify if any damages would be covered.
2. Your NuCraft Limited Warranties do not cover the costs of repairing damage caused by environmental factors or acts of God. “Environmental factors” include such things as airborne fallout, chemicals, tree sap, salt, electrolysis, ocean spray, and water hazards. “Acts of God” include such things as hailstorms, windstorms, tornadoes, sandstorms, lightning, floods and earthquakes. Some water situations may require Anodes to be placed on your Craftlander hoist. Please check with your dealer or local marina for additional information as damages done by electrolysis is not covered under warranty.
3. Your NuCraft Limited Warranties do not cover the labor costs to repair and or replace warranted products.
4. Your NuCraft Limited Warranties do not cover the costs of repairing damage to the warranted product caused by poor/improper maintenance or improper installation.
5. Your NuCraft Limited Warranties do not cover costs to repair damage done to the boat by the warranted product. Examples scratches, dents, puncture damage, or finishes like paint/gel coat.
6. Your NuCraft Limited Warranties do not cover the costs of normal/scheduled maintenance of your aluminum Craftlander hoist.
7. Your NuCraft Limited Warranties do not cover the cost to repair warranted products caused by not complying with the specifications or instructions.
8. Your NuCraft Limited Warranties do not cover the costs of repairing damage or conditions caused by fire or accident; by abuse or negligence; by misuse (including raising or lowering the hoist with people in the boat or water in the boat); by tampering with parts; by improper adjustment or alteration; or by any changes made to your aluminum Craftlander hoist; the cost of rental hoist or slip; gasoline, telephone, travel or lodging; the loss of personal or commercial property; the loss of revenue, etc. NOTE: Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

How To Get Warranty Service for Your Hoist

Please contact the dealer from whom you bought the hoist for warranty parts. When contacting your dealer, please provide them with your hoist’s model number, hoist serial number, date of purchase and the nature of the problem. The hoist model and serial number will be located on the blue tag either on the winch box or the winch column. If contact with the dealer is not feasible, please contact NuCraft Metal Products for further assistance.

Proudly Made in Michigan
By
NuCraft Metal Products
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Roscommon, MI 48653