



2500lb, 3500lb & 4500lb Vertical Boat Lift

Assembly Instruction Manual

Safety & Warranty Information for Models

MH-V25108, MH-V35108, MH-V35120

MH-V45108, MH-V45114, MH-V45120

Version 2012-2013



Proudly Made in Michigan
By
NuCraft Metal Products
402 Southline Rd.
Roscommon, MI 48653

Manuals and drawings also available online at www.craftlander.com

Visit www.youtube.com/craftlander for additional assembly help

A-MH-253545-12manual, Rev 12/13

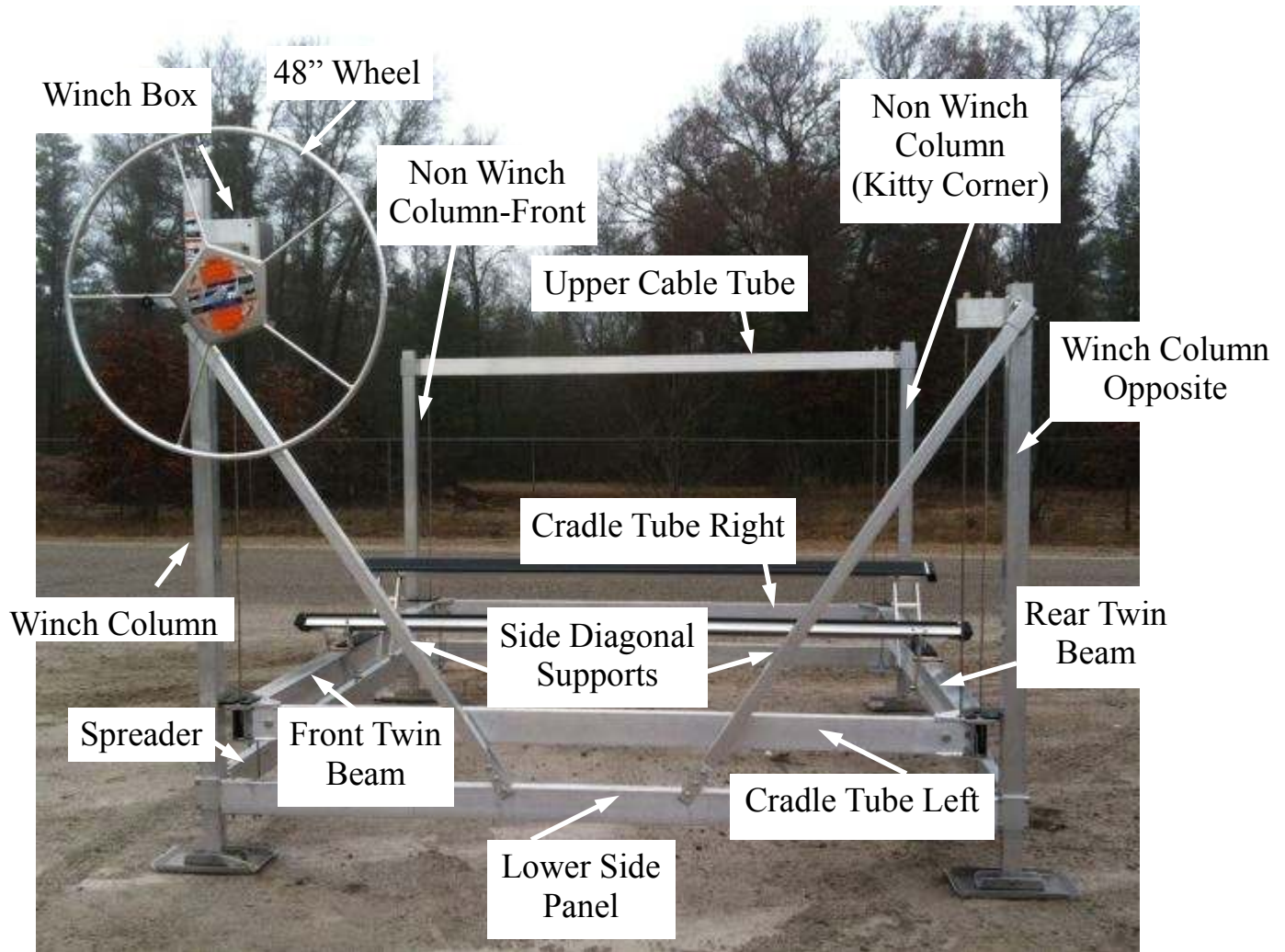


IMPORTANT: ONLY PERSONS THAT HAVE READ THE MANUAL AND SAFETY STICKERS AND UNDERSTAND THE DANGERS OF OPERATION SHOULD OPERATE.



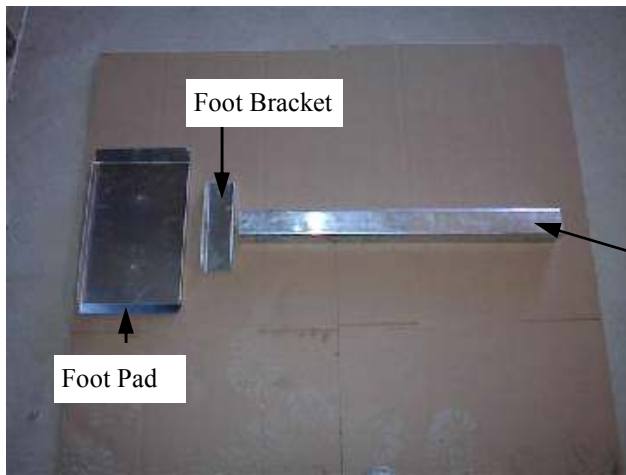
WARNING: Only persons who have read the manual and understand the dangers of operation should use.

Main Lift Components

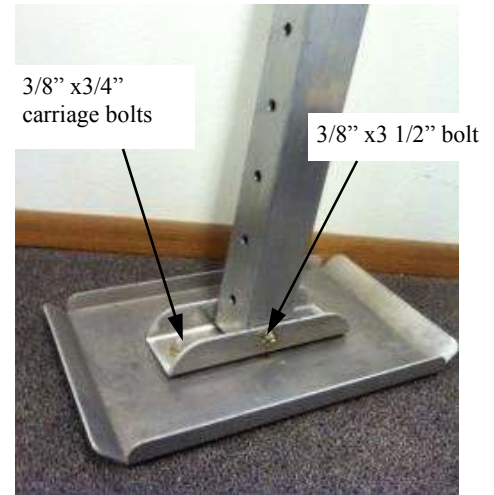


* Steps for assembly are on the following pages. Please note that steps may vary as there are a few different ways to assemble.

* The winch side of the hoist would be the side with the winch box on it. The non-winch side would be the opposite side.



- (1) Start by finding the Foot Pads, Foot Pad Brackets and Legs that go together. You will also need 8-3/8"x3/4" carriage bolts, 4-3/8"x3 1/2" bolts and 12-3/8" serrated nuts (whiz nuts) to hold the legs together.



- (2) 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"x3 1/2" bolt through with whiz nut on end of bolt.

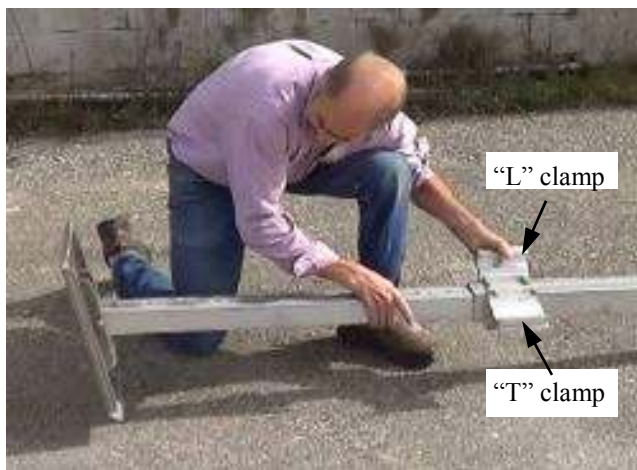
Winch Column Opposite



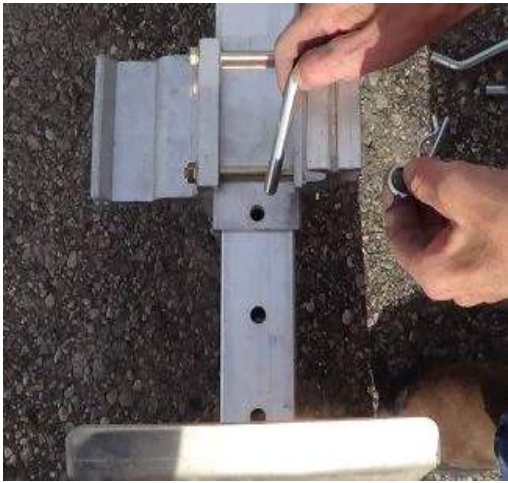
Non Winch Column



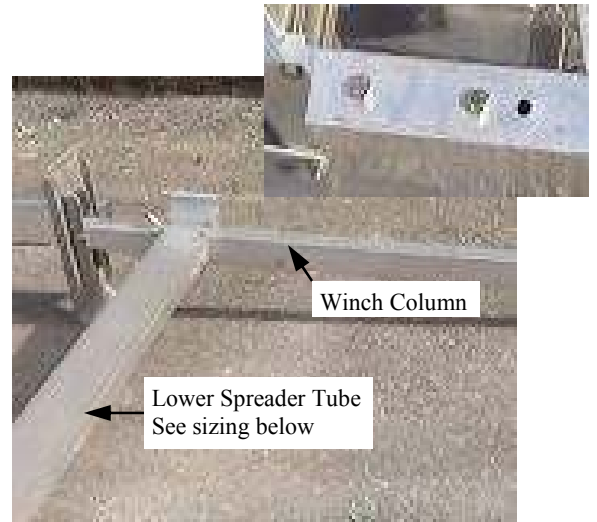
- (3) Find the four columns and lay out in a square approximately 10' apart. (See frame detail next page at bottom) The Winch column will be 96" long which is longer than the other 3. The Winch Column opposite will be 78" long with a welded 2"x4"x7" tube on the top. The (2) Non Winch Columns will be 78" long and will have a raised beaded surface along one side.



- (4) Starting with the Winch Column (96" long) insert the Leg/Foot Pad assembly into the Column. Assemble all four corners the same way. Note: each Column will have a "T" and "L" clamp already bolted to them.

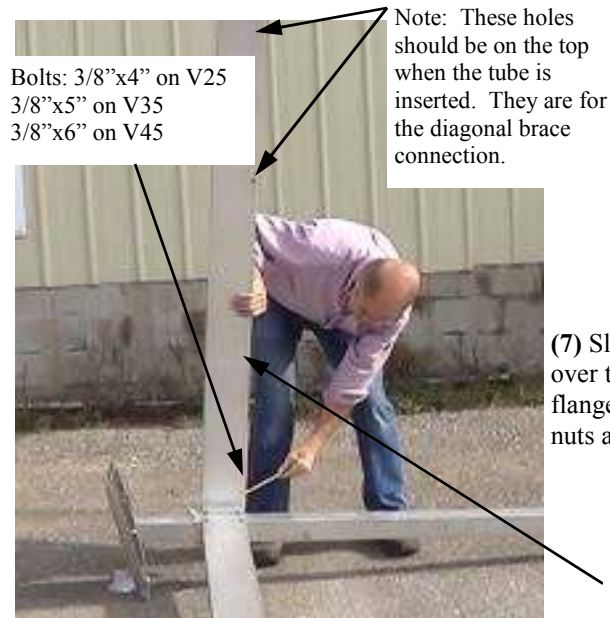


(5) Insert the 7/16" leg pin into the 3rd hole up (approx). This will give you room to work under the clamps. You can adjust after hoist is complete if necessary.



(6) Using the Winch Column (96" long), slide the Spreader Tube over the "T" clamp. Insert (2) flanged bolts (sizing to left) into the top side of the spreader tube. The nuts are not used at this point.

Lower Spreader Tube:
 2"x3"x107" on V25108
 2"x4"x107" on V35108 or 119" on V35120
 2"x5"x107" on V45108 or 113" on V45114 or 119" on V45120



Bolts: 3/8"x4" on V25
 3/8"x5" on V35
 3/8"x6" on V45

Note: These holes should be on the top when the tube is inserted. They are for the diagonal brace connection.

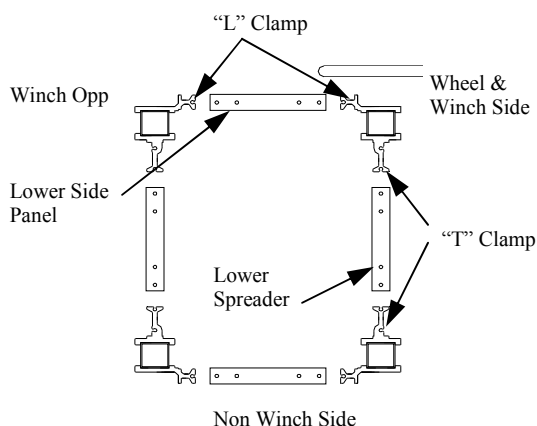
(7) Slide the Lower Side Panel Tube over the "L" clamp and insert (2) flanged bolts into the top side. The nuts are not used at this point.

Lower Side Panel Tube
 2"x3"x100" on V25
 2"x4"x112" on V35
 2"x5"x112" on V45

(8) Stand assembled pieces upright.



Frame work top view



(9) Assemble each corner using the picture as a reference.

(10) Put the 1/4" Galvanized Corner Plates on all four corners. Use the existing bolts and attach the 3/8" whiz nuts on the underside. Do not tighten as some adjustments will be required when 'squaring' the hoist in the next step.

(11) To 'square', or tram the hoist you will need to measure the distance between each Column from inside corner to inside corner as shown below. You may need some help to hold the tape measure. If the two measurements are not equal you can push or pull on the Columns to adjust them accordingly. Once they measure equally go ahead and tighten the bolts and nuts that connect the Galvanized Corner Plates that were assembled in the previous step.

Non Winch Kitty Corner Side View



Galvanized Corner Plates



(12) Insert the Diagonal Supports into the 2 5/16" square x 3 1/2" long tube that is welded on the Winch Column as well as the Winch Column Opposite. Secure with a 1/2" x 3" bolt and a 1/2" nylon lock nut. The Supports are 2" x 2" x 85 1/8" long on the V25 and are 2" x 2" x 83 1/8" long on both the V35 & V45. Use (4) 3/16" x 2" x 6" long flat bar (shown above) with (6) 3/8" x 2 3/4" bolts and 3/8" whiz nuts to secure bottom of brace to the Lower Side Panel. Make sure the bolts stick toward the outside of the hoist. This will help prevent any scratching when loading and unloading your boat.



*Diagonal Support
Connection View
on assembled hoist*

*Diagonal Support
Connection View
on Winch Column
Opposite*



*Connection View
to the Lower Side
Panel*





Upper Cable Tube:
2"x3"x102" long on the V25
2"x4"x114" long on the V35 & V45

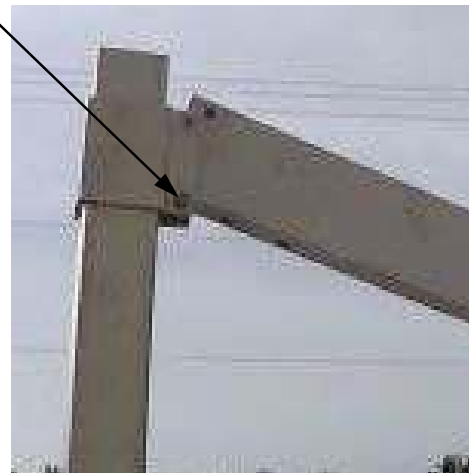
View of Non-Winch Column kitty corner from Winch Column



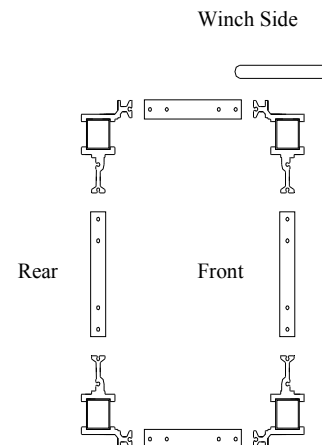
(13) Find the column clamps 3" square x 3" long for V25 or 3" square x 4" long for the V35 & V45. Slide over each column on the top side facing toward the inside of columns. They will only slide down until the point where the raised beaded surface starts. Next, insert the Upper Cable Tube (sizes shown to the right) into the column clamps and secure with 2- 3/8"x3" bolts and 2-3/8" whiz nuts. It is helpful to insert (1) bolt in the bottom of the clamp (shown here) and use as a prop and then secure the opposite side. Again, make sure bolts are sticking to the outside of the hoist to prevent damage.

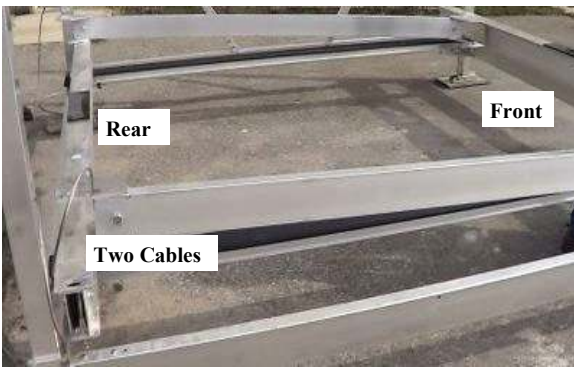


View of Non-Winch Column across from Winch Column

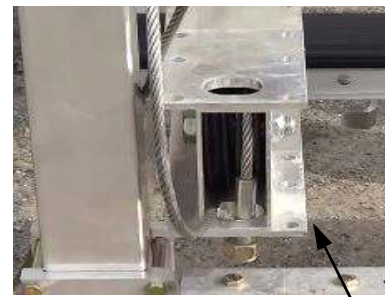


(14) Use the vinyl bunks that came with the hoist package as a 'prop' to separate the twin beams from the assembled lower frame. You can also use the pontoon rack wood if your hoist came with that package. Temporary boards in the four corners will work as well (shown here).

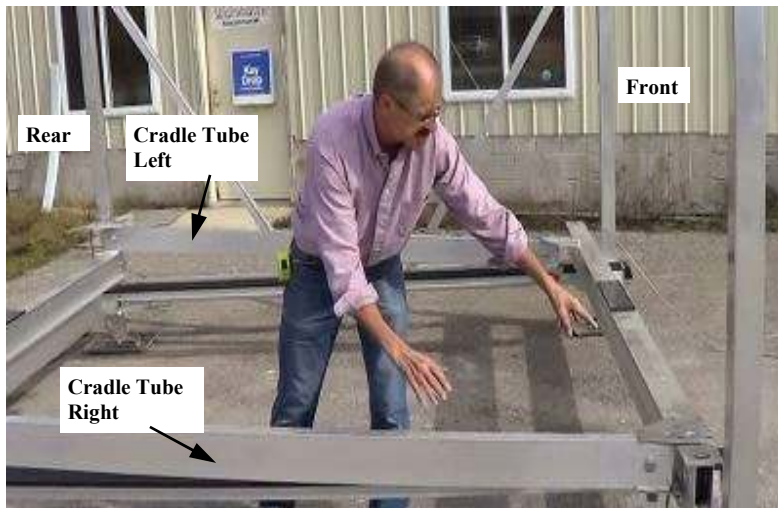




(15) The front Twin Beam will be the one with one cable coming out of it. This will be placed in the front of the hoist. The end of the beam that has the cable without a fitting will go on the Winch corner. The rear Twin Beam will have two cables coming out of it and this will be placed at the rear of the hoist.



Note that the beams should be placed with the holes on the bottom facing the inside of the hoist as shown above.



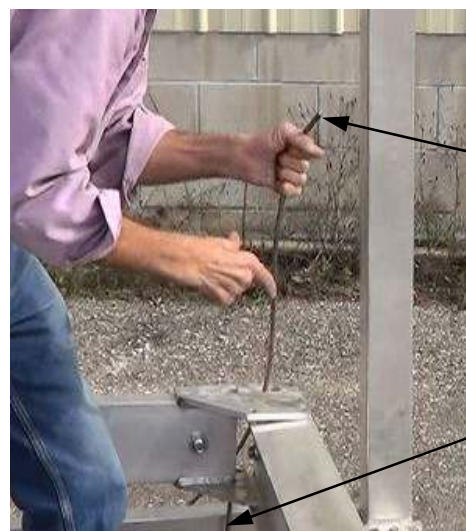
Twin Beam:
 4"x4 3/8"x113 1/4" long on V25108
 4"x5 1/2"x113 1/4" long on V35108 or V45108
 4"x5 1/2"x119 1/4" long on V45114
 4"x5 1/2"x125 1/4" long on V35120 or V45120

Cradle Tube (both sides):
 1 3/4"x4"x100" long on V25
 1 3/4"x5"x112" long on V35 & V45

(16) The Cradle Tube Left and Right will have one cable coming out of it. Each end will have a welded connection plate. The larger plate will be on top of the tube. Place the Cradle Tubes so the angle portion of the connection plate is facing the inside of the hoist. Match the top larger hole with the holes on the twin beam on all four corners.



(17) Next, starting with the Non-Winch front corner you will need to pull the cable coming from the Twin Beams through the corresponding hole in the Right Cradle Tube. The cable with a long threaded end coming out of the front Twin Beam will be pulled through to attach to the Upper Cable Tube. The cable coming out of the Cradle Tube Right with the short threaded end will go down to the 1/4" galvanized plate fastened to the lower frame.

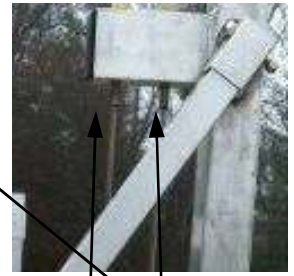


(18) Continue on to the Winch corner. The Cable coming out of the end of the front Twin Beam will not have a threaded end. This end will be connected to the Winch Box in a later step. The cable coming out of the Left Cradle Tube will go down to be attached to the lower frame.



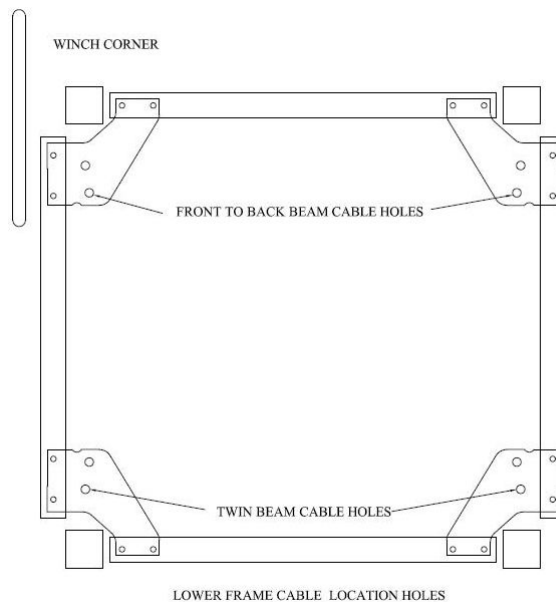
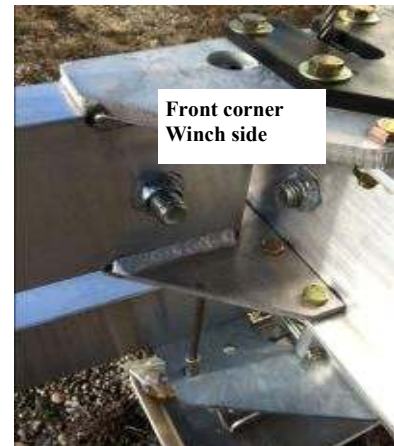
(19) Move on to the corner opposite of the Winch corner. There will be two cables coming out the Rear Twin Beam. The one closest to the column with the long threaded end will be pulled through to be attached to the welded tube at the top of the column. The other one will go down through the hole of the welded bracket on the Left Cradle Tube to be attached to the lower frame. The cable with the long threaded end coming out of the Left Cradle Tube will go up through the hole in the top of the bracket to also be attached to the welded bracket at the top of the column.

(20) Continue on to the Non-Winch rear corner. This will be done the same way as step #19.



Note: This view shows the black guide plate attached. This will be done in the next few steps.

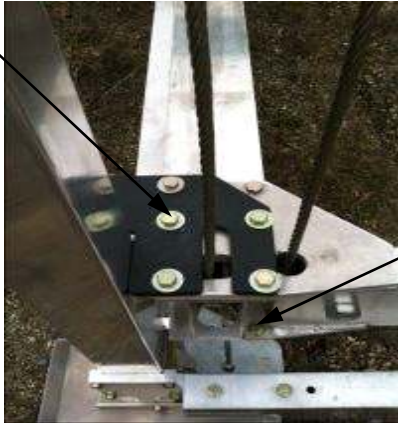
(21) On every corner there will be a cable with a short threaded end going down. Pull the cable down through the hole in the galvanized corner bracket. In the rear of the lift the hole will be closest to the column. In the front of the lift the hole you will use will be the one farthest away from the column. See diagram at bottom for positions. Make sure the cables are going straight down. Using a 15/16" ratchet, 9/16" wrench and a 5/8" lock nut (this will be in the bolt bag with the black caps) tighten the nut to the top of the threads. This will prevent any un-necessary slack in the cable. Do this on all four corners.



(22) Next, attach the black polypro guide plates in each corner. Insert (5) 3/8"x1 1/2" bolt with washer and 3/8" whiz nut into each hole in the guide plate. You will also need to insert a 3/8"x1 1/4" bolt with a 3/8" whiz nut in the hole on the cradle bracket that the guide plate didn't cover as well as the (3) holes in the bottom inside of the twin beam. The washer is not required for these bolts.

3/8" x 1 1/2"
bolt with washer
and 3/8" whiz
nut, 5 places

Rear corner
Winch opposite



3/8" x 1
1/4" bolt
with 3/8"
whiz nut,
4 places

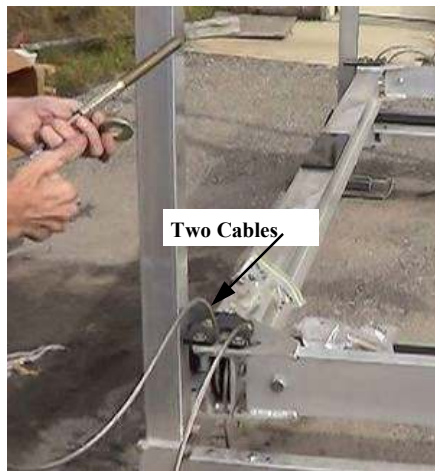


Front corner
Winch side



(23) Starting in the Non Winch Column rear corner, pull the two cables with the long threaded end out far enough to reach the holes in the Upper Cable Support Tube. Attach them on the top with (2) 5/8" washers and (2) 5/8" nylon lock nuts. Do not tighten down at this point.

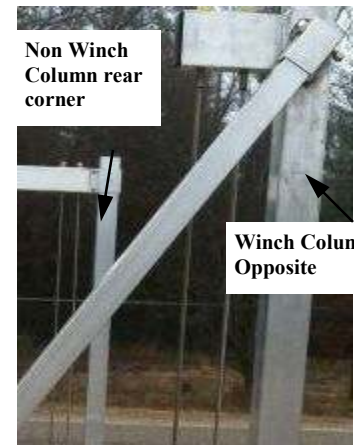
(24) Continue on to the Winch Column Opposite and attach the two cables with the long threaded stud to the welded tube at the top of the column with (2) 5/8" washers and (2) 5/8" nylon lock nuts.



Two Cables



Non Winch
Column rear
inside view



Non Winch
Column rear
corner

Winch Column
Opposite

(25) On the Non Winch Column front corner the cable with the long threaded stud will go through the hole in the Upper Cable Support that is closest to the column. Attach with a 5/8" washer and 5/8 nylon lock nut.



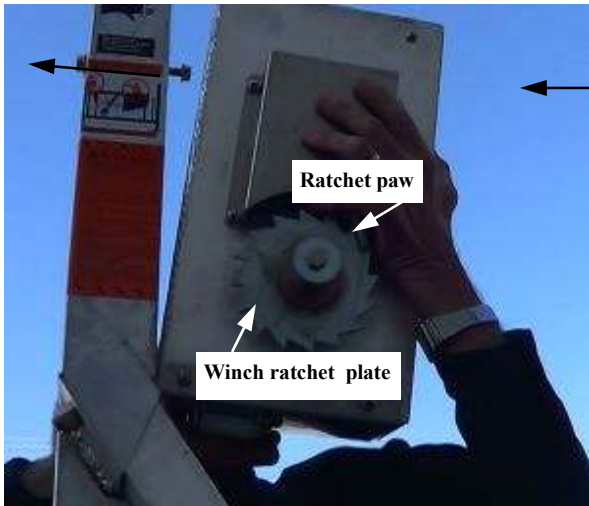
Non Winch
Column
front corner



(26) Using a 15/16" ratchet and a 9/16" wrench go around to each corner and tighten the nylon lock nuts. Leave a little slack but not too much. You should be able to grab them and move them back and forth freely. Having the cables too tight will inhibit the hoist from going down freely.

WINCH INSTALLATION

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



(27) In the upper hole, insert (1) 1/2"x4" flanged bolt, 1/2" washer and 1/2" whiz nut into the Winch Column from the inside going to the outside. Use the washer on the column. It is not necessary inside the winch box. 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.



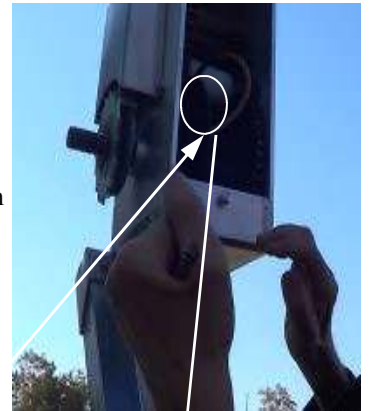
(28) Tighten bolts with a 9/16" socket on the inside of the Winch box and a 9/16" open end wrench on the outside.



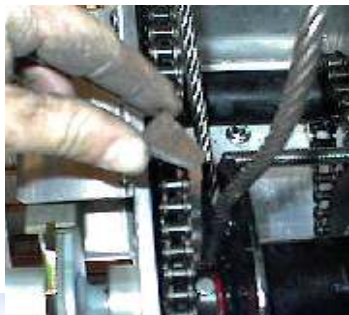
(29) Remove the 3/8"x3/4" bolt and washer from the end of the Winch shaft and take off the thread protective sleeve. The threads will have some grease on it. This keeps the wheel spinning freely. Leave the bolt and washer off for now.



(30) 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.



(31) 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.



(32) 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.





(33) 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.

(34) 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.



(35) 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.



(36) 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.



View of how the cable should wind on the drum



Note: Cable life can be extended up to 3 times longer by regular lubrication of the Winch Cable. This will keep the cable moving freely along the rollers on the bottom of the Winch Box.

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



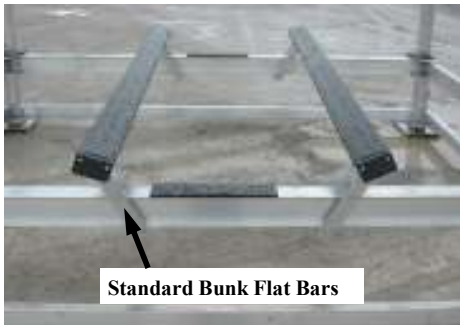
IMPORTANT: After the main hoist components have been assembled, it is important to check and see that the winch mechanism is functioning properly. You can do this by raising the empty platform (carriage) up about a 1/3 of the way and releasing your grasp on the lift wheel. If the winch is operating properly 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.

(38) Next you will need to find the black plastic caps. There will be (2) 3"x3" with the numbers 10-14 stamped in the inside and these will be put into the top of the Non-Winch Columns. The (2) 3"x3" with the number 5-8 will be used on the Winch and Winch Column Opposite. There will be (1) 4"x2" rectangular cap that will be put into the welded tube on the Winch Column Opposite. There will be (2) 2"x2" caps that will be used on the diagonal braces. You can softly tap them into place with a hammer.



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



5/16" Carriage bolt with nut



Back side of carpeted bunk with aluminum tube attachment.

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

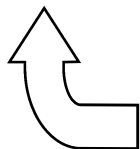
Safety Precautions!!!

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.

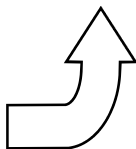


Raise clockwise

Lower (counter clockwise)



Raise



Lower



Ratchet, never lift up as this will cause uncontrollable spin

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 or play 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.



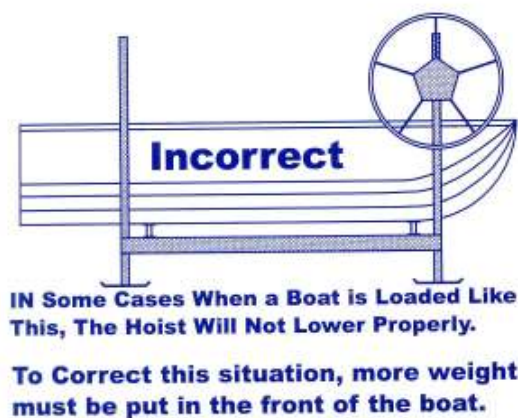
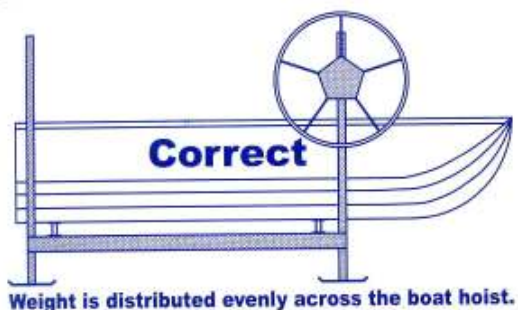
Column sticker



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.



Loading sticker used on all vertical lifts

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.



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 hoist. 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 hoist is registered.

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 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, crossmembers, “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

Vinyl canopy covers are covered by a 5-Year Limited Warranty by the material manufacturer.

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.

Your NuCraft Limited Warranties do not cover the costs of repairing damage caused by poor or improper maintenance.

Your NuCraft Limited Warranties do not cover the costs of normal/scheduled maintenance of your aluminum Craftlander hoist.

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: 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 service. 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. If contact with the dealer is not feasible, please contact NuCraft Metal Products for further assistance.

Proudly Made in Michigan
By
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