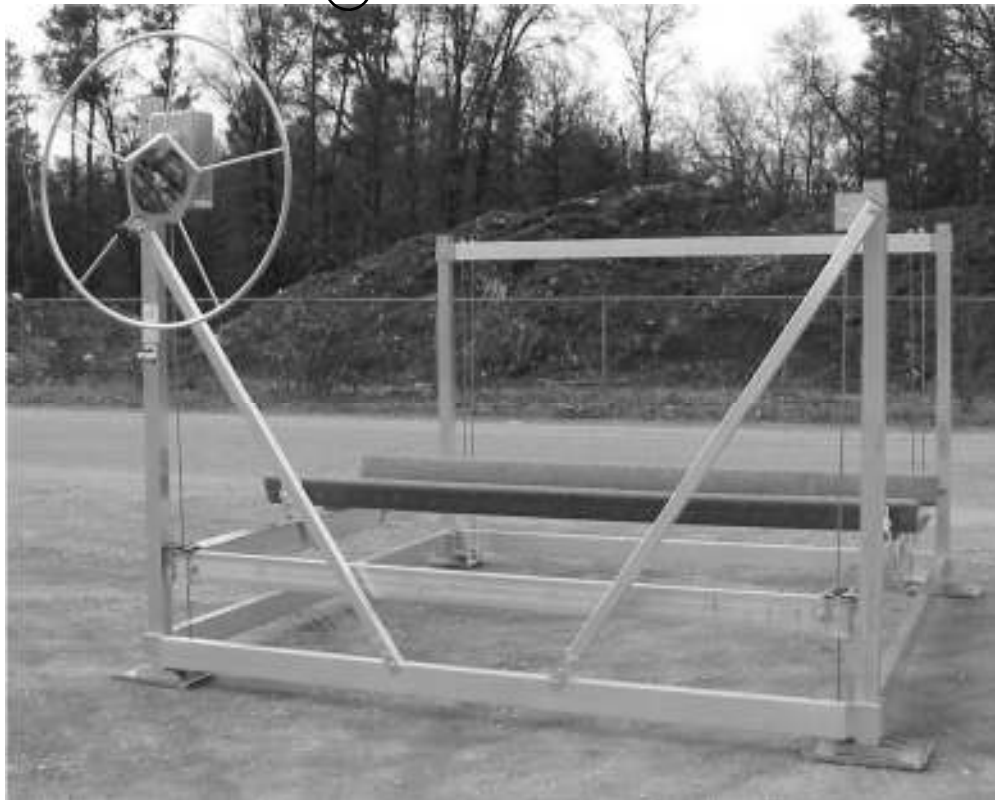


Page1 **IMPORTANT: READ MANUAL AND STICKER SAFETY WARNINGS BEFORE USING THE HOIST.**

4500 lb Vertical Boat Lift Assembly Instructions, Safety Information, Manual and warranty. For model # 45108V, 45114V and 45120V for years 2006 and up.

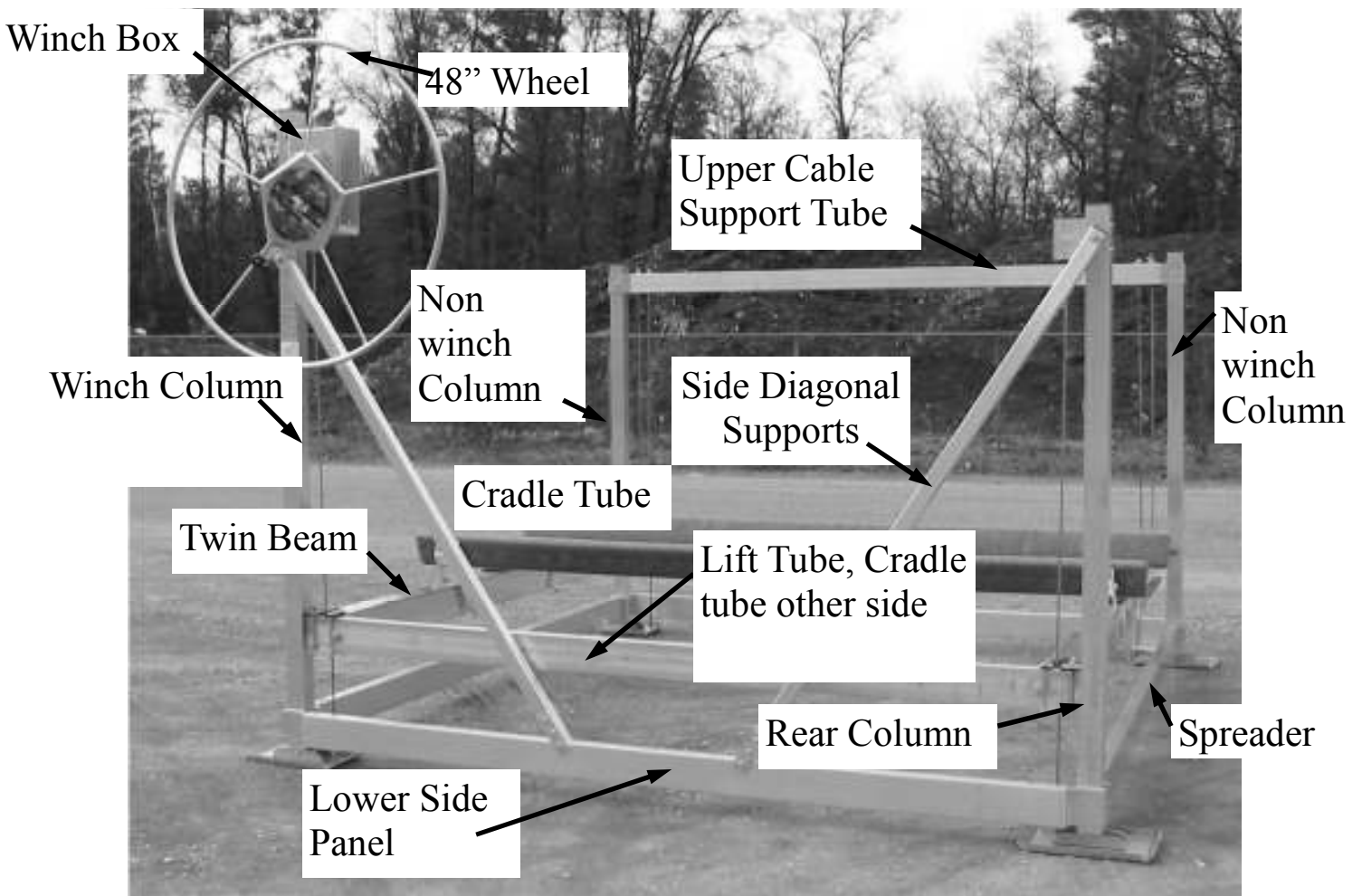


Proudly Made in Michigan
By
NuCraft Metal Products
402 Southline Rd.
Roscommon, MI 48653

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

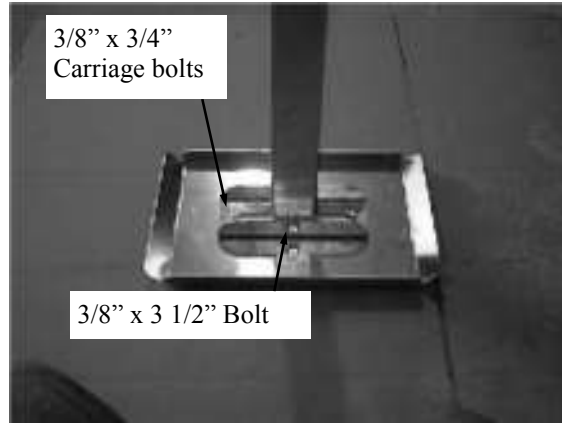
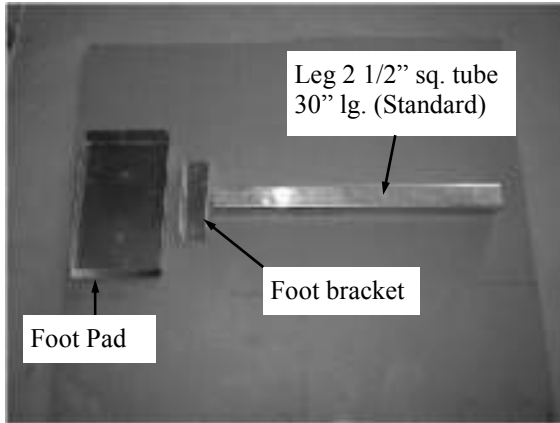


Main parts as shown below



* Steps to putting together this hoist are on the preceding pages. Steps may vary because there are many different ways of putting it together.

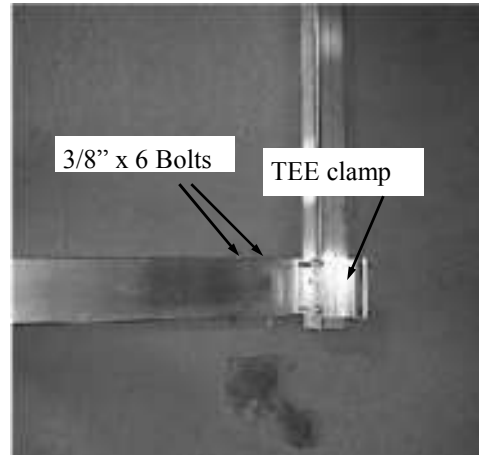
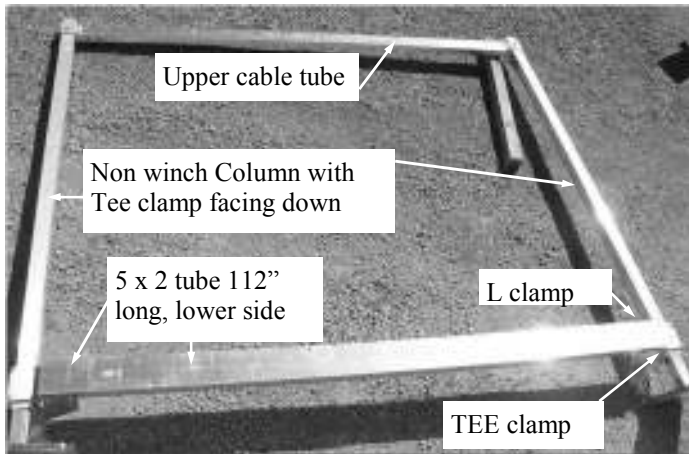
* The winch side is the side of the hoist with the winch box on it. The non winch side is the side without the winch box on it.



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.

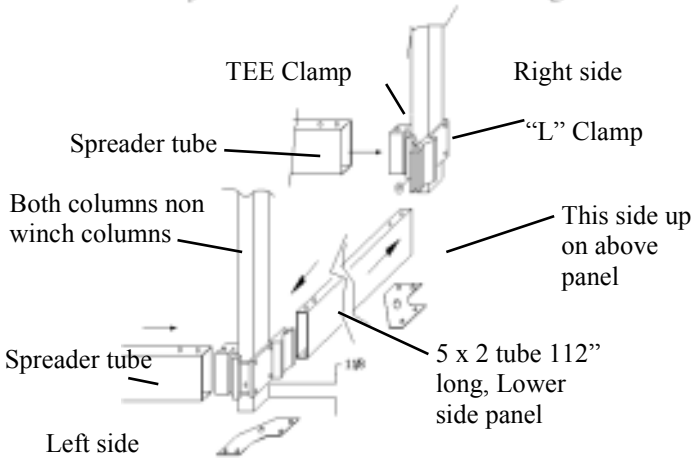
Note: Rear column has 2- 1/2" holes drilled in the top do not use this column on below.



Left hand column

Right hand column

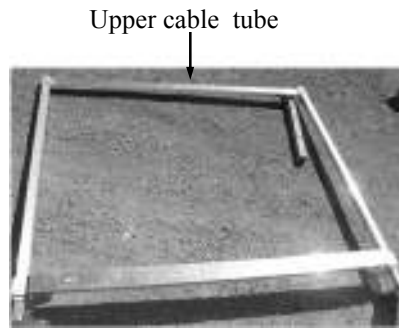
Right hand column with corner plate shown below.



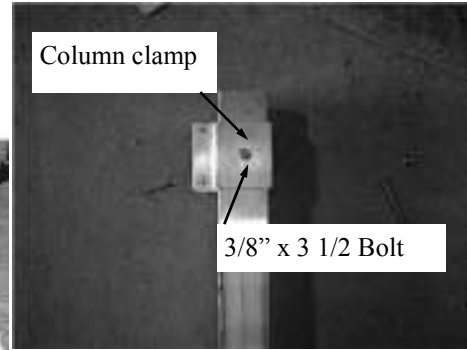
Drawing of lower side panel assembly

Next, find 2 columns- (3" sq. tube 8'-6" long). There are 3 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 5" 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" x 6" bolt through to hold in place. See next page for finishing the above assembly.

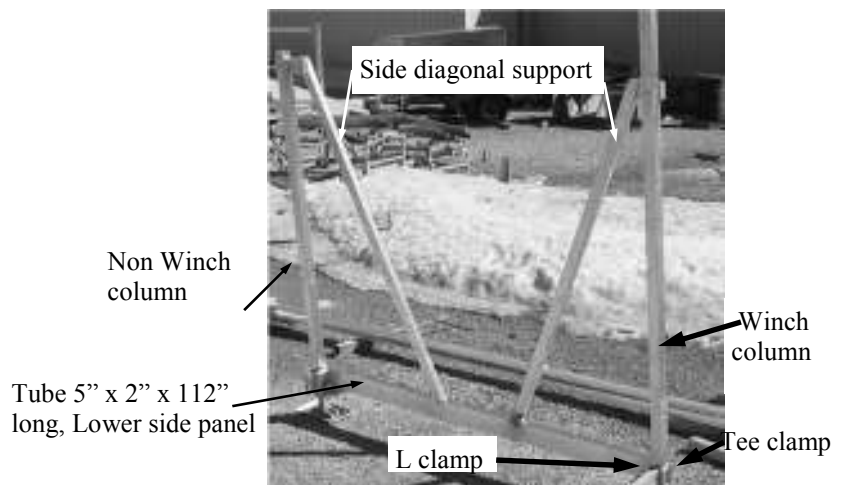
Next, find the column clamps 3" square inside x 4" long. Slide one over each column on top side facing toward inside of columns. Line hole up in columns and put a 3/8" x 4" bolt through from the top going down. The nut will be on far side or on the hoist outside. (less likely to damage boat by sticking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



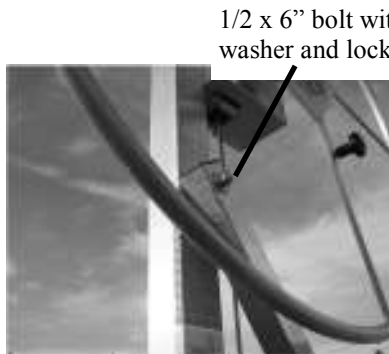
View of non winch side panel



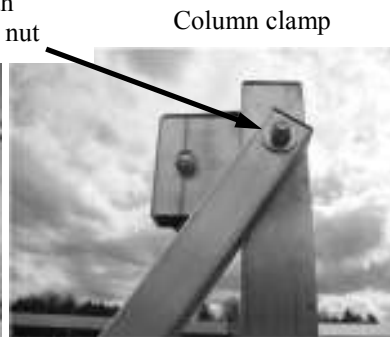
Upper column with column clamp attached



Next, you will need the winch column 3" square tube 8'-0 long, and the rear column 3" square 6'-6 long, lower side panel tube 5" x 2" x 112" long, two side diagonal supports. The above picture shows where the Tee clamp goes toward the inside of hoist and winch column on the right, so bolts need to be put in from the near side toward the outside of the hoist. Put the lower tube into the "L" clamps like was done with the other panel and drop some bolts though tube. The winch column diagonal support has one 1/2" hole at square cut end. Use the 1/2 x 6" bolt with 2- 1/2" washers and 1/2" lock nut. Lay the wide part of support on the winch column, line up holes and put 1/2" x 6" 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 5 x 2 tube on bottom with a 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 rear column similarly.



Close up of winch column brace connection.

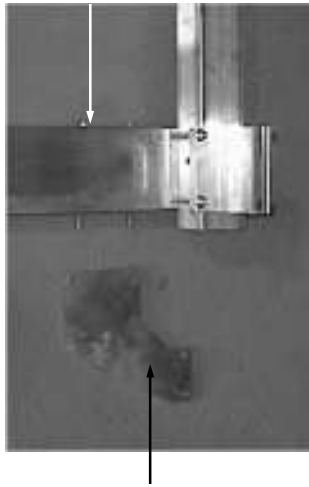


Close up of rear winch column brace connection

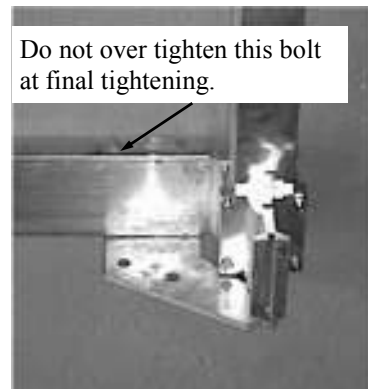


View of 1/4 x 2 x 6" long flat bar (4-req'd) on diagonal braces secured with 3/8 x 2 3/4 hex bolts and 3/8 whiz nuts. (6-req'd)

3/8" x 6" Bolts



Find the 1/4" steel lower corner plates.



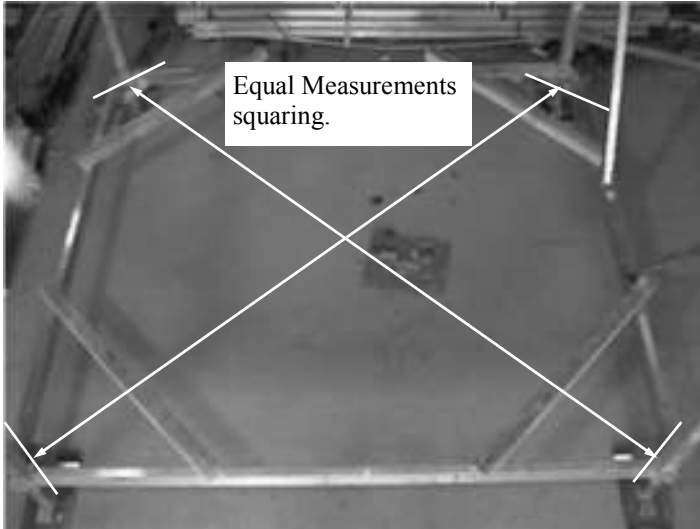
Next, put the galvanized lower corner plate on the corners of the assembled sides. Leave 3/8" x 6" bolts loose to help installing the lower spreader into the TEE clamps use 3/8" whiz nuts on bottom. Important note one of the L clamp area bolt holes has no member under it. **Do not over tighten this, as it could damage the aluminum tube.**



Next stand the side panels upright and lay the spreader tubes 5 x 2 tube (Length is 1" shorter than beam on hoist. 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 3/8" x 6" bolts with whiz nuts.

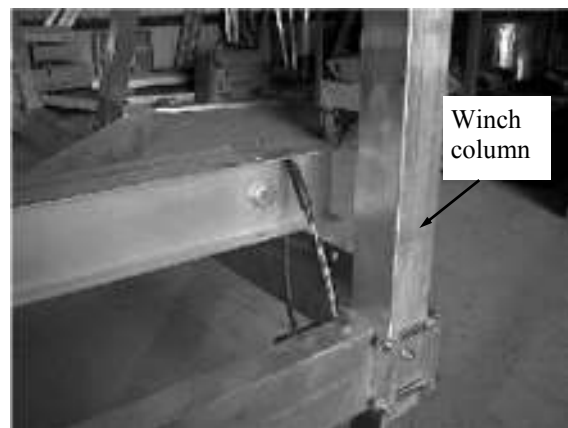
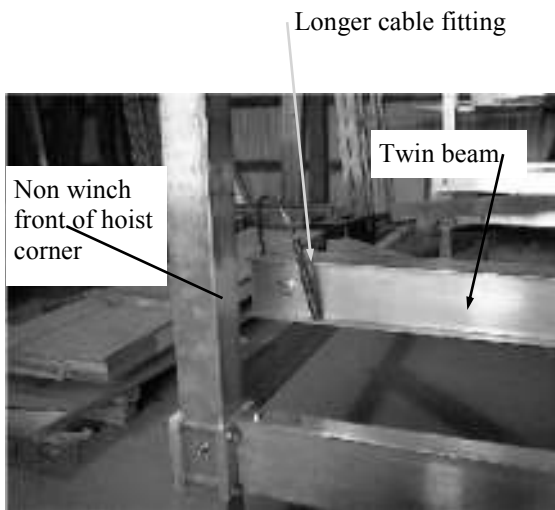


Before tightening bolts, square (tram) the corners of the hoist with equal measurements. See next page for example photo.



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)

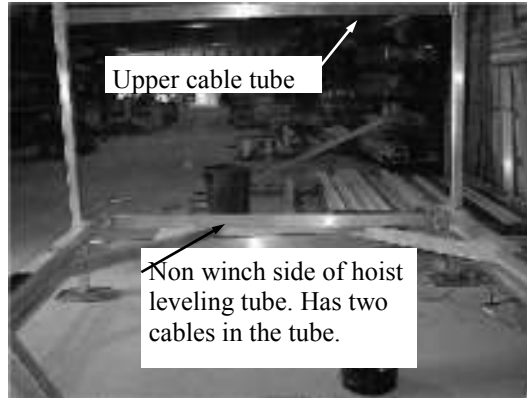


Find the twin beams. Lay them on the boards with the cable that goes up on the non winch side of the hoist frame. The cable fitting is longer on that end.

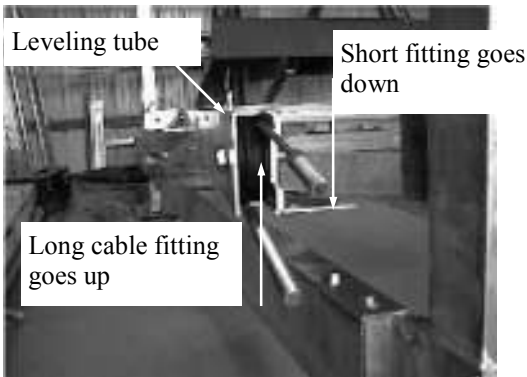
Winch column view of twin beam. Shorter cable fitting on this end.



End view of twin beam on non winch side of hoist front. Showing longer cable fitting. That goes up.

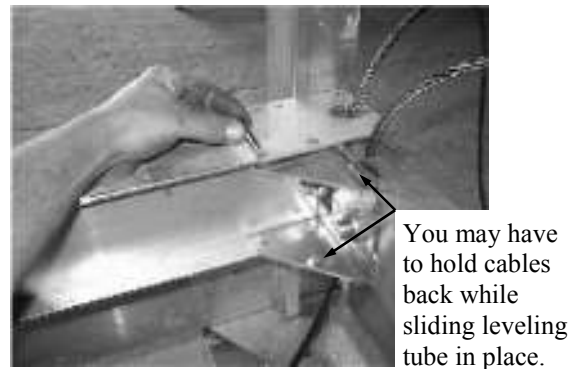


Lay the leveling tube on the non winch side of the hoist. In between the twin beams. See below for close up photos of the tube and how it is positioned on the hoist.



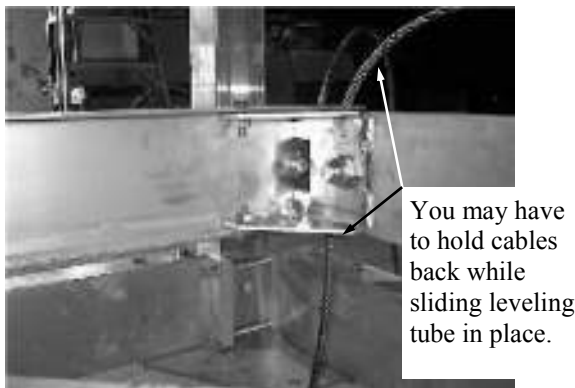
Non winch front side of hoist.

The leveling tube has 2 cables in it. The longer cable fitting will be coming out the bottom of the tube and go up to upper cable tube. The shorter cable fitting comes out the top the tube and goes down to the steel corner plate (see next page).



Non winch front side of hoist.

Next slide the leveling tube into the flanges of the twin beam like above. Use 3/8" x 1 1/4" or 1" long bolts through the lower holes and the hole toward the inside of the hoist. Repeat on other end of the tube.



Non winch front side of hoist.



Non winch front side of hoist. Placing guide plate on

Next put the plastic guide plate on top of the twin beam and at the leveling tube connection points. Bolt with 3/8" x 1 1/4", 3/8" washer and 3/8" whiz nut. Tighten. Next page has top view of connection. Repeat on the other end.



Top view of non winch front side of hoist. Rear of non winch side a mirror image of above.

Put a 3/8" x 1" or 1 1/4" and washer through the guide plate extra hole with whiz nut on back side. Repeat at other lift tube end.

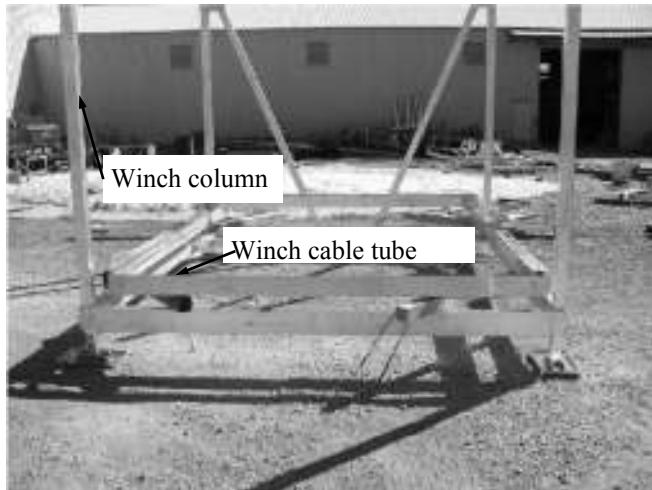


View of non winch column front of hoist

Next take the short cable fitting coming out of the leveling tube beam on non winch column front side of hoist and put it through the furthest hole to column. Put a 5/8" nylon insert lock nut on the back side and tighten so some threads are sticking out from the nut. Use a wrench on the cable machined flats to turn the nut. Repeat on the other end.



Next take the short cable fitting coming out of the bottom of the twin beam on winch column side of hoist and put it through the nearest hole to column. Put a 5/8" nylon insert lock nut on the back side and tighten so some threads are sticking out from the nut. Use a wrench on the cable machined flats to turn nut. Repeat on other end.

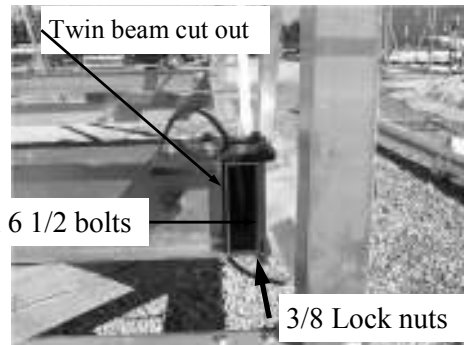


Next lay the winch cable tube with the threaded fitting on the cable toward the rear of the hoist and the cable end without a fitting on the winch side (left in above picture). Angles attached to tube face toward the inside of hoist.

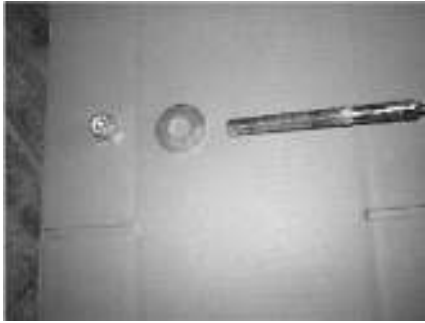


View of winch column area

Pictures of the winch column area showing the winch cable tube inside of cut out in twin beam. 3/8 x 6 1/2 bolts



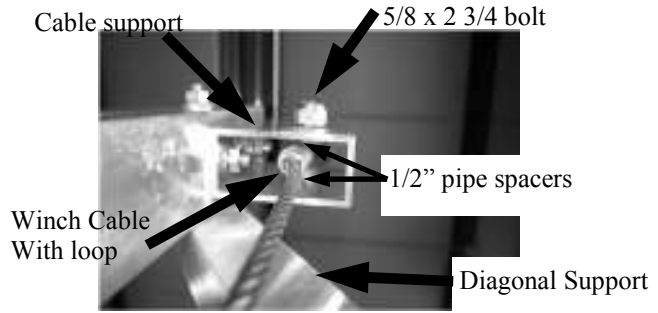
View of winch column area end view of the winch cable tube.



Next, we will be doing the upper cable connections. The long cable fittings will be going through tubes with washer and lock nut. Except for the winch cable which has a loop on it. See next picture.



*View of winch side, rear corner of hoist.
Viewed from inside of the hoist.*

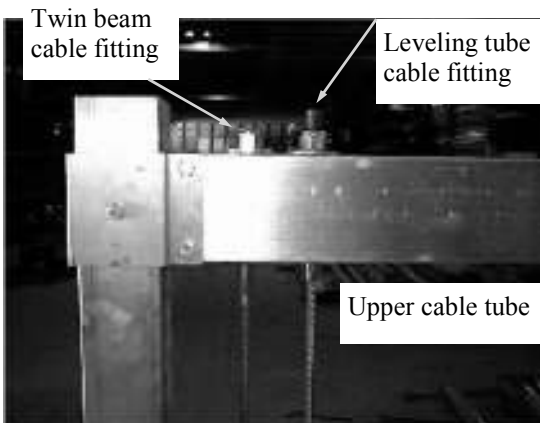


View of winch side, rear corner of hoist.

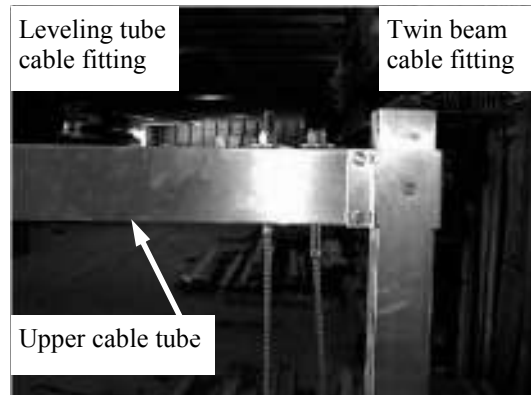
Bolt a 4 x 2 tube short piece to the rear column with 2-1/2" bolts 4" long use 1/2" washers each end of bolt. (See next picture) Bolts go in from the back and nut on small tube inside. Take the long cable with the looped end coming out of lift tube on the rear of the hoist and put it in the bottom of the cable support inserting the 5/8 x 2-3/4 bolt through the loop having a 1/2" pipe spacer each side of the loop end to center cable loop. Install a 5/8 lock nut and tighten.



View of winch end with diagonal support



View of non winch column front side.



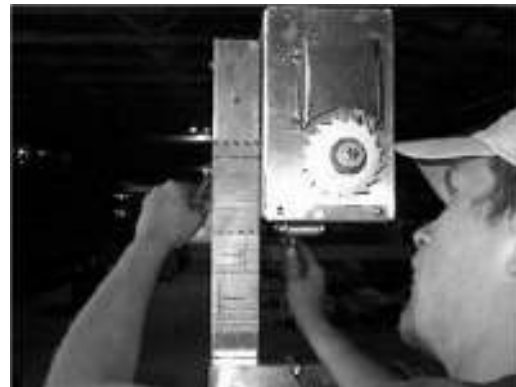
View of non winch column front

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 inhibit the hoist from going down freely. Repeat on the other end.



View of winch on column.

O.K. it's time for the winch. Take 2- 3/8" x 4" bolts with 2 -3/8" washers and whiz nuts. Put the bolts through the winch column like above or from the inside out. Doesn't matter. Line up the bolts with the holes. Use washers on column, none required on inside of winch.



Tighten bolts like above pictures with a 9/16" socket on inside and a 9/16" open end wrench on outside. Grip with the wrench and tighten with the socket.



The wheel is missing the knob yet. Find a 3/8" x 2 1/2" bolt and 2- 3/8" whiz nuts. Put the bolt through the knob and spin one of the whiz nuts on. 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.



Next, take the 3/8" x 1" bolt out of the winch threaded shaft and steel washer. As shown above.



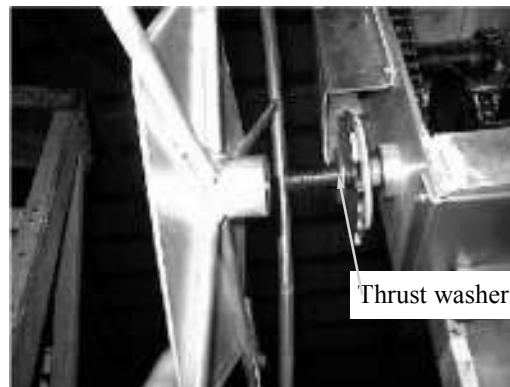
The wheel sticker covering covers the hole for the winch threaded shaft to go through so the sticker needs to be cut out in the hole area.



View of wheel on winch.



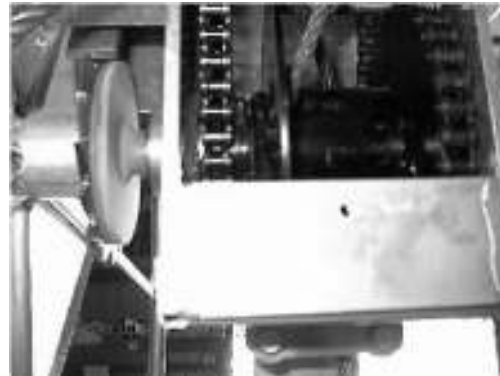
Next, it's a good idea to put a little grease on the threads (often times grease will already be on the threads). Just enough so the wheel can move on the threads and won't freeze up on them. Corrosion between the shaft and wheel will cause the winch brake to not work properly.



Next lets take the wheel and thread it on the winch clockwise. Thread it on until it comes in contact with the thrust washer. At this point when the wheel turns you should hear the ratchet paw clicking on the ratchet plate.



Put the 3/8" x 1" or 3/4" bolt and heavy 3/8" washer back on winch and tighten.



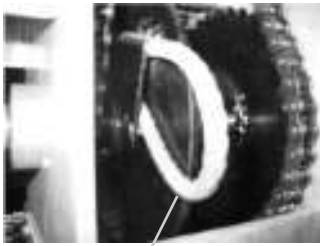
Installing the winch- Take cover off and bolt to winch column with 2 -3/8" x 4 bolts if not already done. Take the winch cable end (end without fitting) and thread through the bottom of the winch and through the hole on the inside of the cable spool.



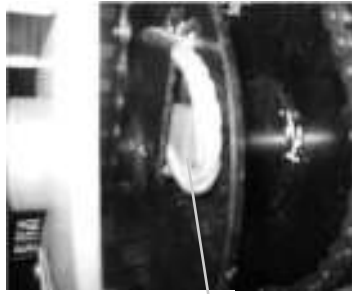
Pull cable out and make a loop and put the end of the cable in the cable holder on the outside of the spool.



Place the cable wedge in the loop then pull cable tight and lock wedge in tight cable loop



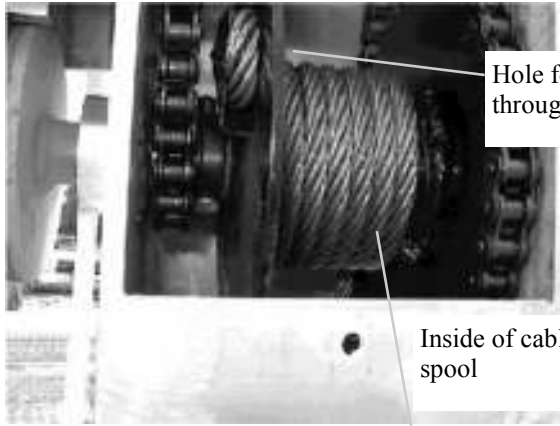
Loop cable



Insert cable wedge



Then pull cable tight through bottom of winch.



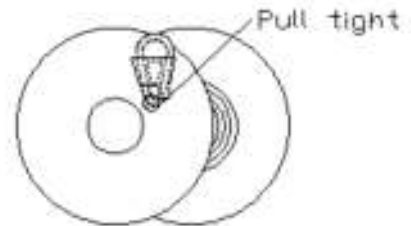
Hole for cable to go through in cable spool

Inside of cable spool

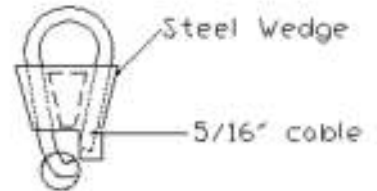
Level wind the cable in the winch spool like above by turning the wheel clockwise. A clicking should be heard when you brake racket paw against ratchet disk. At some point the hoist carriage will lift off the wood on the corners of the hoist. The platform should stay put when the wheel is let go. Sometimes the carriage needs some more weight on it to stay though. See below for more information. Install cover back in place.

After the hoist installation is complete, it is important to next check and see that the winch mechanism is functioning properly. You can do this by raising the empty platform up about a 1/3 of the way up and releasing your grasp on the lift wheel. If the winch is operating properly, clutch brake will automatically hold the platform (described as carriage sometimes). Repeat at higher locations. Next repeat this with your boat on the hoist. 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 for some reason your winch mechanism does not function as described call you local Craftlander dealer. Do not tamper with winch mechanism.



Winch Hub



Detail

If everything is done right, your hoist should look like the picture on the front cover.

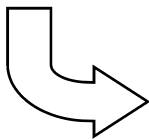
Safety Precautions!!!

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 continue to turn counter clockwise 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.

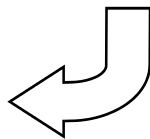


Lower (counter clockwise)

Raise (clockwise)



Lower



Raise



Ratchet, never lift up as this will cause uncontrollable spin

Winch

Page15

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.

Column sticker

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

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

Wheel sticker

Carpeted bunk photos



Back side of carpeted bunk with aluminum tube attachment.



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



After the hoist is installation is complete, it is important to next check and see that the winch mechanism is functioning properly. You can do this by raising the empty platform about a 1/3 of the way up and releasing your grasp on the lift wheel. If the winch is operating properly, the clutch brake will automatically hold the platform (described as carriage sometimes). Repeat at higher locations. Next repeat this with your boat on the hoist. 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 for some reason your winch mechanism does not function as described call you local Craftlander dealer. Do not tamper with winch mechanism.

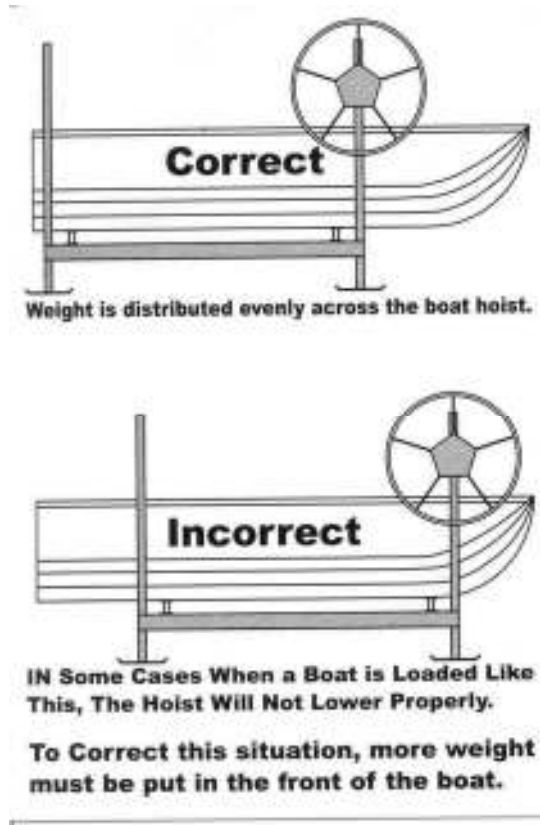
It is recommended that your Craftlander be thoroughly inspected at least once a season. Tighten all bolts. Check all pulleys and make sure they are turning freely. Inspect all cables for fraying, wearing or deteriorating. If any signs appear, replace cables. Check frame thoroughly. Grease the winch drive 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 and 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 hoists. If your sticker is not legible be sure to contact your Craftlander dealer for a new one.





Hoist loading sticker. On all Vertical hoists.



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 cause the lift to not work properly when going down. The lift may bind and only one end will go down. If this situation 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 for 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 and labor needed to repair or replace any NuCraft supplied item that proves defective in material, workmanship or factory preparation. These repairs or replacements (parts and labor) will be made 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 and labor needed to repair any item on your aluminum Craftlander hoist that is defective in material, workmanship or factory preparation. You pay nothing for these repairs.

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, ocean spray, and water hazards. “Acts of God” include such things as hailstorms, windstorms, tornadoes, sandstorms, lightning, floods and earthquakes.

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. They do not cover the cost of lubrication, replacing cables or fasteners unless done as the result of repair covered by your 2-year “Basic Warranty”.

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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