



# VERTICAL BOAT LIFT ASSEMBLY MANUAL

## DAKA Model V6120



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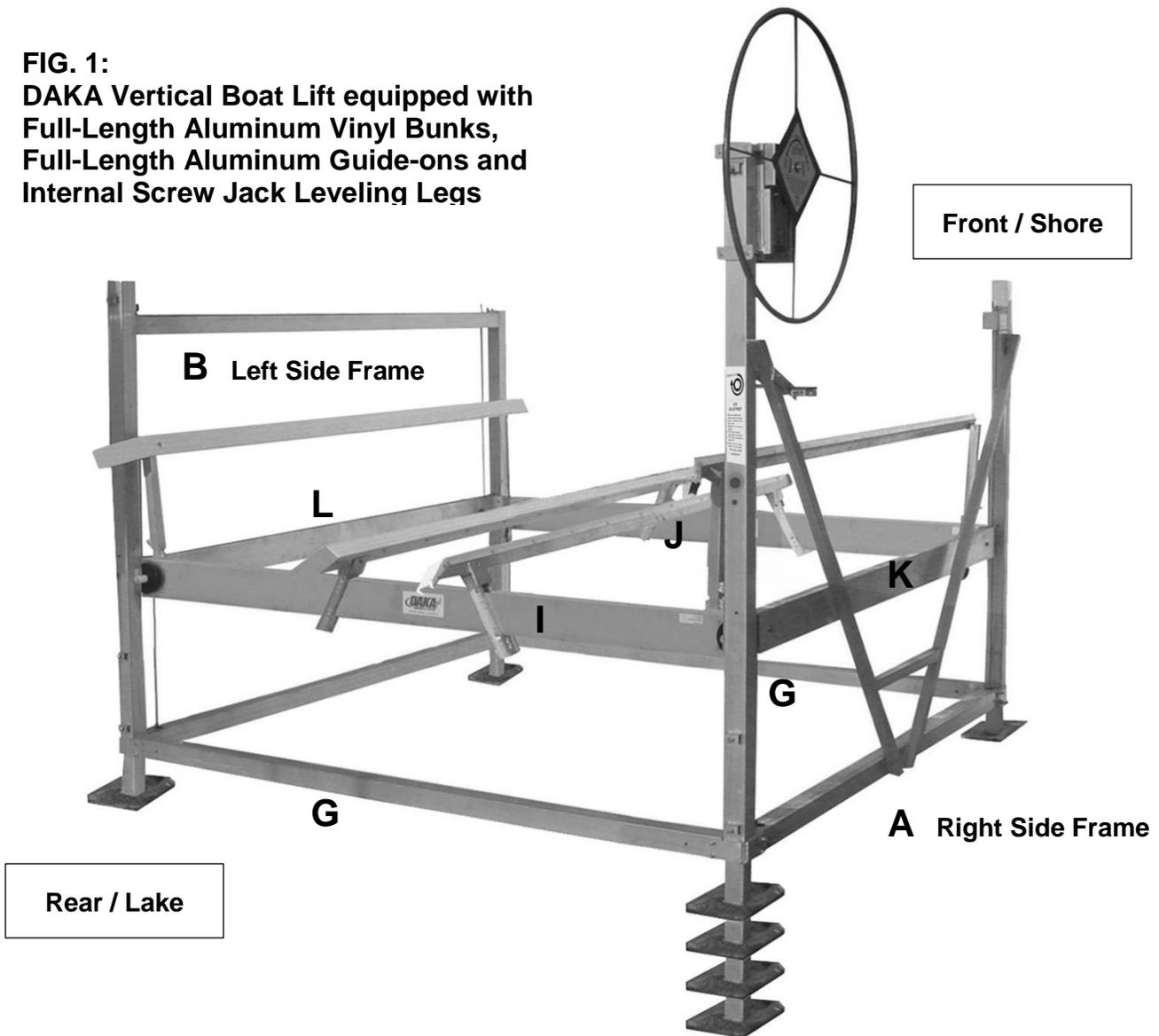


## VERTICAL BOAT LIFT ASSEMBLY MANUAL (V6120)

### TABLE OF CONTENTS

	<b>PAGE</b>
VERTICAL LIFT COMPONENTS .....	3, 4
INSTALLION GUIDE:	
STEP 1 – ATTACH FOOTPADS TO LEGS .....	5
STEP 2 – INSTALL LEGS INTO CORNER POSTS.....	5
STEP 3 – ATTACH SIDE FRAMES .....	6
STEP 4 – SQUARE LIFT FRAME & TIGHTEN BOLTS .....	6
STEP 5 – ASSEMBLE CARRIAGE .....	7, 8
STEP 6 – ATTACH CABLES .....	9
STEP 7 – INSTALL WINCH & ATTACH CABLE .....	10
STEP 8 – INSTALL CRANK WHEEL .....	11
STEP 9 – INSTALL CABLE GUIDE .....	11
STEP 10 – DOUBLE CHECK ASSEMBLIES & LIFT PLACEMENT .....	12
LIFT CABLE REFERENCE .....	13
LIFT MAINTENANCE & OPERATION.....	14-16
WARRANTY .....	17

**FIG. 1:**  
**DAKA Vertical Boat Lift equipped with**  
**Full-Length Aluminum Vinyl Bunks,**  
**Full-Length Aluminum Guide-ons and**  
**Internal Screw Jack Leveling Legs**



VERTICAL LIFT COMPONENTS (MODEL V6120)			
<b>A</b>	<b>Right Side Frame</b>	<b>Carriage:</b>	
<b>B</b>	<b>Left Side Frame</b>	<b>I</b>	Rear Bunk Assembly
<b>G</b>	<b>Cross Bottom Tube</b>	<b>J</b>	Front Bunk Assembly
		<b>K</b>	Side Bunk Tube (RH)
		<b>L</b>	Side Bunk Tube (LH)

### ASSEMBLY TIPS

***A good understanding of part names & shapes will greatly speed the assembly process.***

- Locate a level surface (preferably concrete or paved) and unpack items from truck/trailer.
- Review part identification from **FIG.1** above.
- Hardware bolt bags are numbered 1-8 for easy identification and assembly.

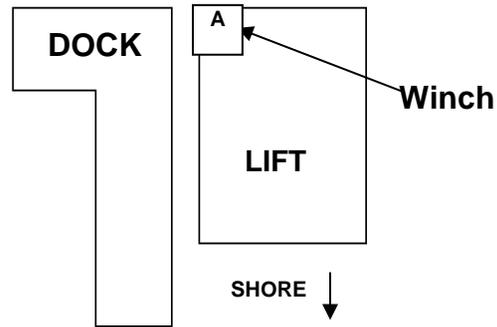
***Don't proceed with assembly until you have a good understanding of part identification.***

## POSITION WINCH

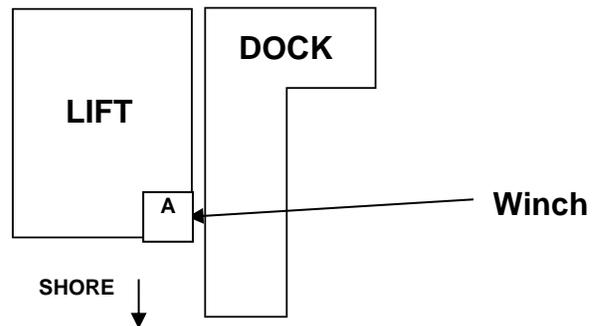
On the vertical lift, the winch and crank wheel can only be mounted on the winch corner post **A** as shown in **FIG.1**. When the lift is placed into the water, the winch and crank wheel need to be next to the dock. The lift may need to be rotated before placing into the water to position the winch next to the dock. Refer to **FIG. 2 & 3** and note the position of the winch corner post in relationship to the dock.

### NOTE:

The **PREFERRED POSITION** of the lift is on the right side of the dock when viewed from the shore (**FIG. 2**). When the lift is installed in this position, the winch and lifting cable are at the rear of the boat where most of the weight load is concentrated. The lift may be installed on either side of the dock but, keep in mind, if you have a choice, install it as shown in **FIG. 2**.



**FIG. 2 – PREFERRED POSITION ABOVE**



**FIG. 3 – ALTERNATIVE POSITION**

## **STEP 1 ATTACH FOOTPADS TO LEGS (BAG #1)**

1. With leg assemblies in all corner posts, attach foot pad to bottom of each leg.
2. Attach footpads to bottom of screw jack or manual adjustment legs using hardware in Bag #8.

## **STEP 2 INSTALL LEGS INTO CORNER POSTS**

### **OPTION 1: INTERNAL SCREW JACK LEVELING LEGS:** *(Mounting hardware packed with screw jack legs)*

1. Insert screw jack leg assembly into corner post making sure that the top portion of the leg assembly is turned so that the pin will line up with the top mounting hole in the corner post. The head of the  $\frac{3}{4}$ " drive bolt faces outward on the side with 3 holes and is accessible through the middle hole in the corner post.
2. Insert mounting pin so that head of pin is to the inside of the lift and the flat washer and hair pin are on the outside (as shown in FIG. 3A).
3. Place yellow warning sticker above the top hole on each corner post.

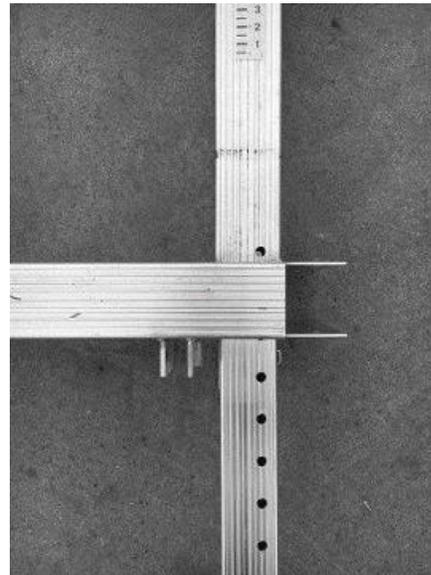


**FIG. 3A Optional Screw Jack Leveling Leg - view from outside**

### **OPTION 2:** **- STANDARD MANUAL ADJUSTMENT LEGS:** *(Bolt bag in Parts Box)*

1. Place one (1) leg into each corner post.

**NOTE:** The holes in the legs are offset; before inserting leg into corner post, make sure the holes are aligned with hole in corner post to allow leg pin to be inserted. See FIG. 4 & 5.



**FIG. 4**

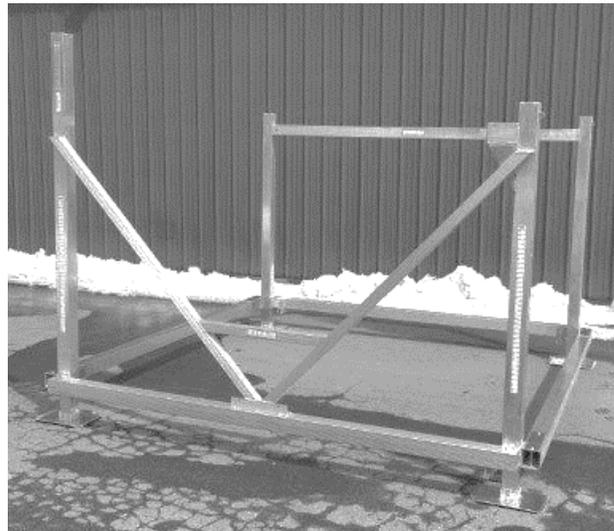


**FIG. 5**

### **STEP 3 ATTACH SIDE FRAMES (BAG #2)**

1. Locate the two cross bottom tubes labeled **G**. The **G** tubes are used to connect the two side frames together: one in front and one at rear of lift shown in FIG. 8.
2. Stand side frames up onto footpads.
3. Install one cross bottom tube **G** at the front & one at the rear of lift using  $\frac{1}{2}$ " bolts in Bag #2. See FIG. 8.

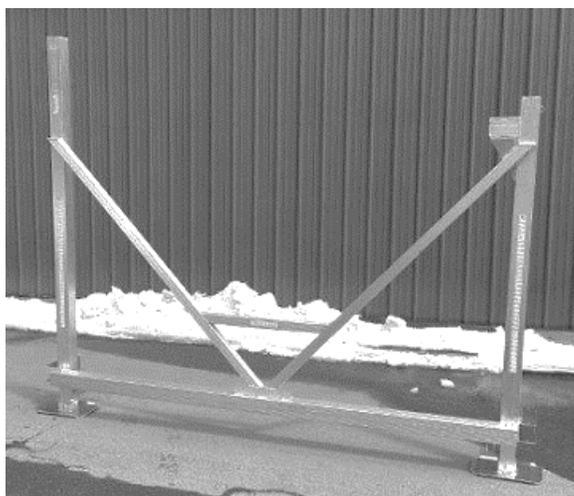
**NOTE:** When installing cross bottom tube **G** into channels, line up holes in tube with holes in the channel before inserting tube into channel. *For ease of assembly, insert one bolt per end of tube before inserting remaining bolts.*



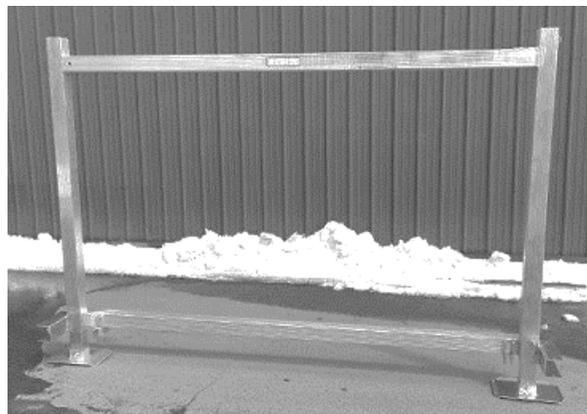
**FIG. 8**

### **STEP 4 SQUARE LIFT FRAME & TIGHTEN BOLTS**

**NOTE:** Before tightening bolts used to hold the 2 cross bottom tubes, the lift frame needs to be squared. Using a tape measure, measure the distance between corner posts (diagonally). There should be no more than  $\frac{1}{2}$ " difference between the two measurements. Adjust the frame accordingly. Once lift frame is squared, firmly tighten all bolts and nuts to 25 ft. lbs. of torque.



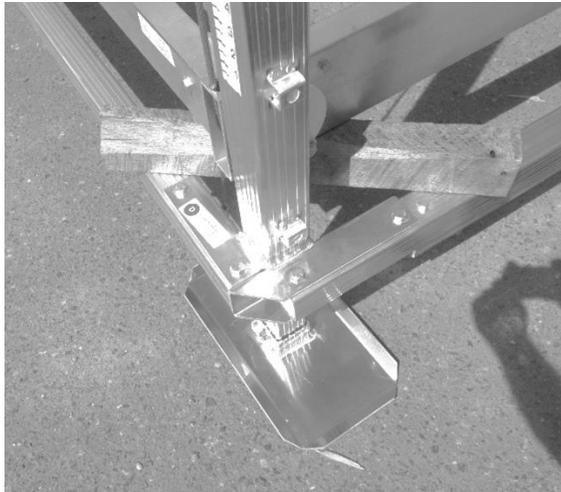
**FIG. 6 RIGHT SIDE FRAME**



**FIG. 7 LEFT SIDE FRAME**

## STEP 5 ASSEMBLE CARRIAGE (BAG #6)

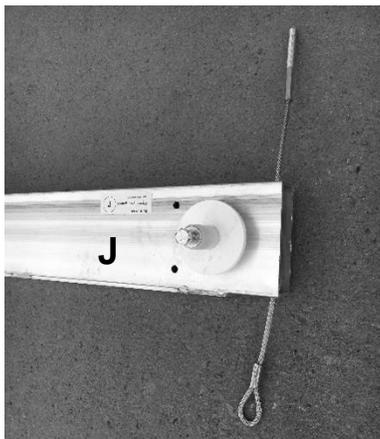
**NOTE:** To aid in assembly and support carriage frame, place one piece of 2" x 4" x 24" wood in each corner as shown in FIG. 9.



**FIG. 9**

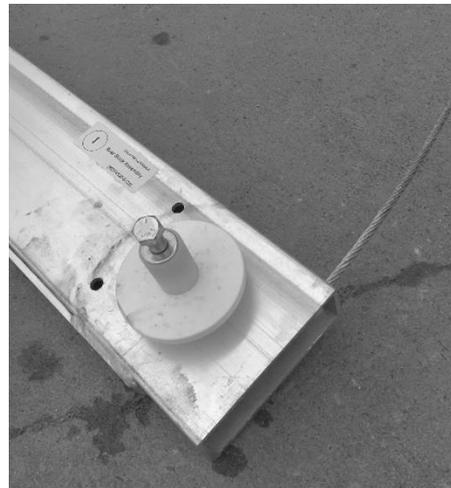
The lift carriage is made up of 4 separate tube assemblies, all of which have pre-sprung cables running through them. Before securing cables to the lift frame, assemble lift carriage.

1. Locate front bunk tube **J** (2 cables protruding from each end) and rear bunk tube **I** (one cable protruding from each end).



**FIG. 10**

2. Position front bunk tube **J** (2 cables) at end of lift in between corner posts **B & C** (See FIG. 10 & 11).
3. Position rear bunk tube **I** (1 cable) at rear of lift between the left and right side frames.



**FIG. 11**

4. Insert looped end of rear bunk assembly cable into the left side frame tie-off point. Secure using 5/8" bolt and nut from Bag 5 as shown in FIG 11.  
**Leave winch end of cable loose for now.**

5. With side, front and rear bunk tube assemblies in place, bolt together in all four corners as shown in FIGS. 12 & 13. Remove 1/2" nylock nut from the bolt in the front & rear bunk assemblies **I & J**.

**NOTE: Do not remove the bolt.** (See FIG. 12). This bolt will need to be pulled back an inch or so, so that the threaded end is flush with the outside of the tube. The bolt holds together a pulley and cable assembly inside the front and rear bunk assembly beam that is difficult to get back together once the bolt has been removed.

6. Once side bunk tube assemblies are in position, push bolt through hole and re-install nuts as shown in FIG. 13.

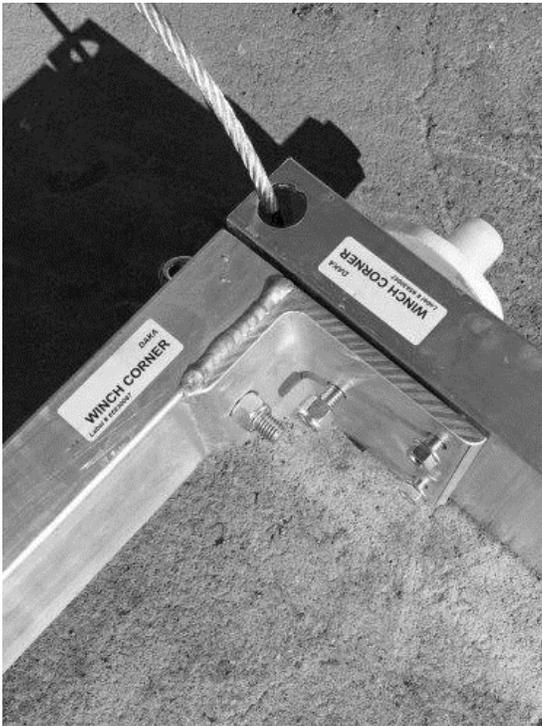
**NOTE:** Side bunk tube assemblies and bunk assemblies should be level with each other in the corners.  
(See FIG. 13).

7. Insert 3/8" bolts/nuts through front and rear bunk assembly and through angle of side bunk tube assemblies (FIG. 25). Repeat same step in all 4 corners. Tighten all bolts/nuts in all 4 corners.

**STEP 5 ASSEMBLE CARRIAGE  
(BAG #6) – continued**



**FIG. 12**



**FIG. 13**

## STEP 6 ATTACH CABLES (BAG #3)

1. Attach looped end of cable to tie off points located at the base of each corner post. Secure using bolts & nylock nuts in Bag #3. FIG. 14.



FIG. 14

**NOTE:** Before installing nuts and washers on studs, remove all weight from cables by lifting the carriage up and blocking it approximately 6" off the ground. Do not stand on carriage and try to tighten nuts. **Do NOT use an impact wrench to tighten.**

2. On end of side bunk tube assemblies, attach stud end of cable to the upper corner post cable holders. Place the threaded ends through the mounting holes (See FIG. 15 & 16). Attach nut and washer to threaded stud end on topside of cable holder tube.
3. Attach front bunk tube stud cable ends to the upper corner post cable holders. Place the threaded ends through the mounting holes.
5. Tighten nuts so that the cable closest to the post has approximately 1/2" of exposed thread. The other cable end should have approximately 1 inch of exposed thread.

(See FIG. 15 & 16). Attach nut and washer to threaded stud end on topside of cable holder tube.

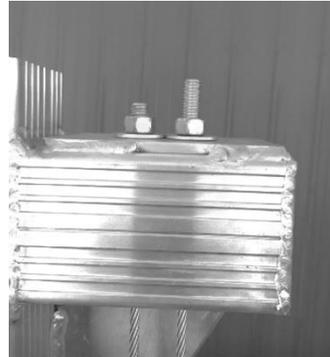


FIG. 15 Right Side Corner Post B  
view from inside lift



FIG. 16 Left Side Corner Post C  
view from inside lift

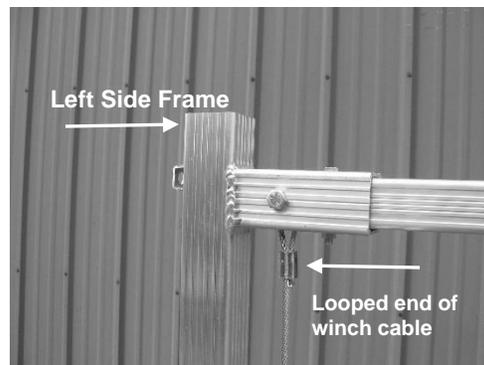


FIG. 17

## **STEP 7** INSTALL WINCH & ATTACH CABLE (BAG #7)

### **V6120 MODEL**

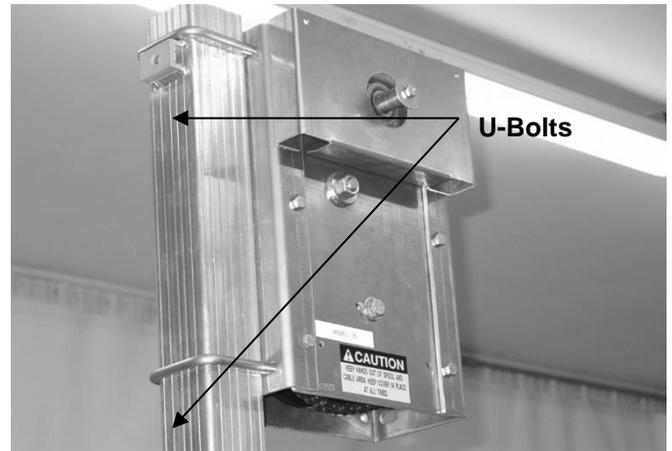
Remove top cover plate and install 7/16" U-Bolt with 7/16" nuts onto winch as shown in FIG. 30. Raise the winch into position, sliding U-bolt over winch corner post tube. Install bottom U-bolt with 7/16" nuts onto winch corner post. Tighten 7/16" nuts using 11/16" wrench. See FIG. 18. Re-install top cover plate.

The cable is fastened to the drum with a pinch plate on the inside of the drum. It must be accessed from the underside of winch box once in place.

#### **NOTE:**

**Winch is always mounted on inside of the winch corner post A (See FIG. 18).**

**All winches must have at least three full wraps of cable on drum when lifting starts.**



**FIG. 18**

## STEP 8 ATTACH CRANK WHEEL

1. Remove tape protecting the threaded shaft and remove the 5/16" bolt and washers.
2. Mount crank wheel onto the threaded shaft until you hear the break clicker engage.
3. Firmly lock in place using a 5/16" x 1" bolt, 5/16" lock washer and 5/16" fender washer (See FIG. 19).

**NOTE:** You should keep a slight amount of tension on winch cable and be sure it is winding evenly on winch drum until the carriage is traveling upward.

**CAUTION:**  
**NEVER ATTEMPT TO REMOVE CRANK WHEEL FROM WINCH WITH LIFT IN THE RAISED POSITION. LOWER CARRIAGE COMPLETELY BEFORE SERVICING LIFT.**

## STEP 9 INSTALL CABLE GUIDE

**NOTE:** Refer to instructions in kit located in Parts Box. See FIG. 20 below.

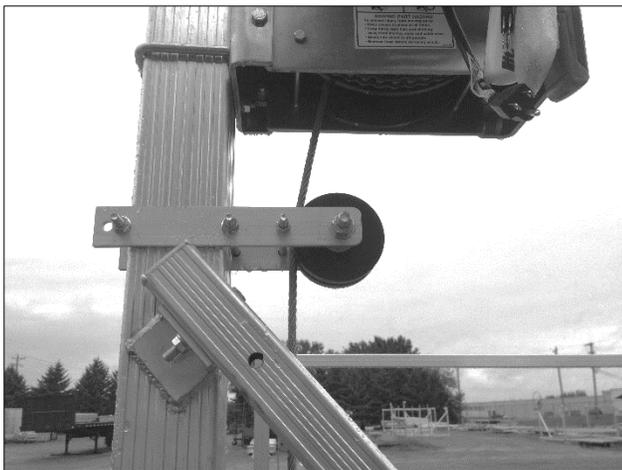


FIG. 20

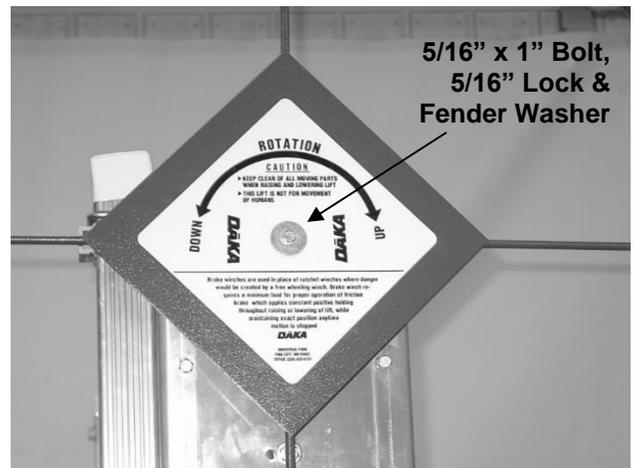


FIG. 19

## STEP 10 DOUBLE-CHECK ALL ASSEMBLIES

Once lift is fully assembled:

1. Double-check bolt tightness.  
Torque all bolts to 25 lb.
2. Fully lower and raise lift.
3. Correct all problems before placing lift in water.

### PLACE LIFT IN LAKE

Place lift in lake and complete the following steps:

1. Place lift in minimum of 24" of water at Lake End of lift.
2. When lift is placed into the water, the winch needs to be positioned next to the dock (See FIG. 20 & 21). Position lift accordingly before placing lift into water.

**NOTE:** The PREFERRED POSITION of the lift is on the right side of the dock when viewed from the shore (See FIG. 20). When the lift is installed in this position, the winch and lifting cable are at the rear of the boat where most of the weight load is concentrated. The lift may be installed on either side of the dock but, keep in mind, if you have a choice, install it as shown in FIG. 20.

3. Level the lift by adjusting the footpads accordingly.

**NOTE:**

For the lift to operate properly, it ***must be level*** ***side-to-side and front-to-back***. Leveling labels are affixed to all four corner posts. Make sure that the lift is level when first installed. The lift may settle into the lake bottom and need to be re-leveled once it has been loaded with weight. Check and re-level if necessary. Remove weight before attempting to re-level.

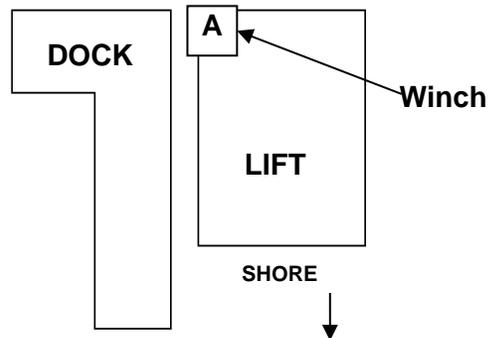


FIG. 20 – PREFERRED POSITION ABOVE

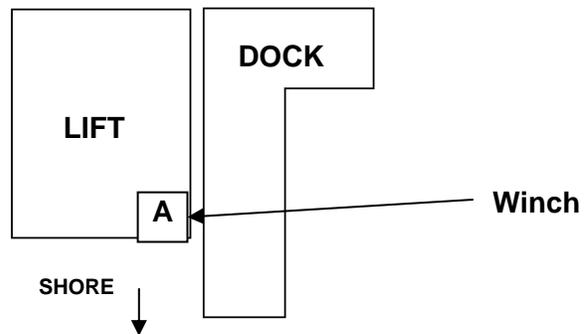
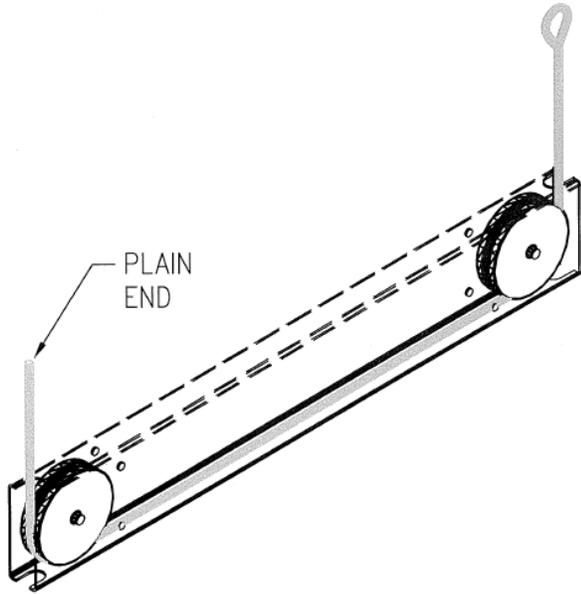
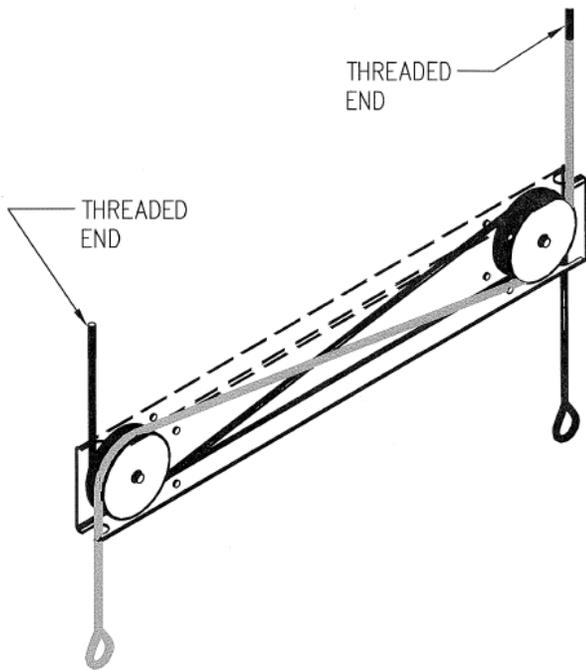


FIG. 21 ALTERNATIVE POSITION

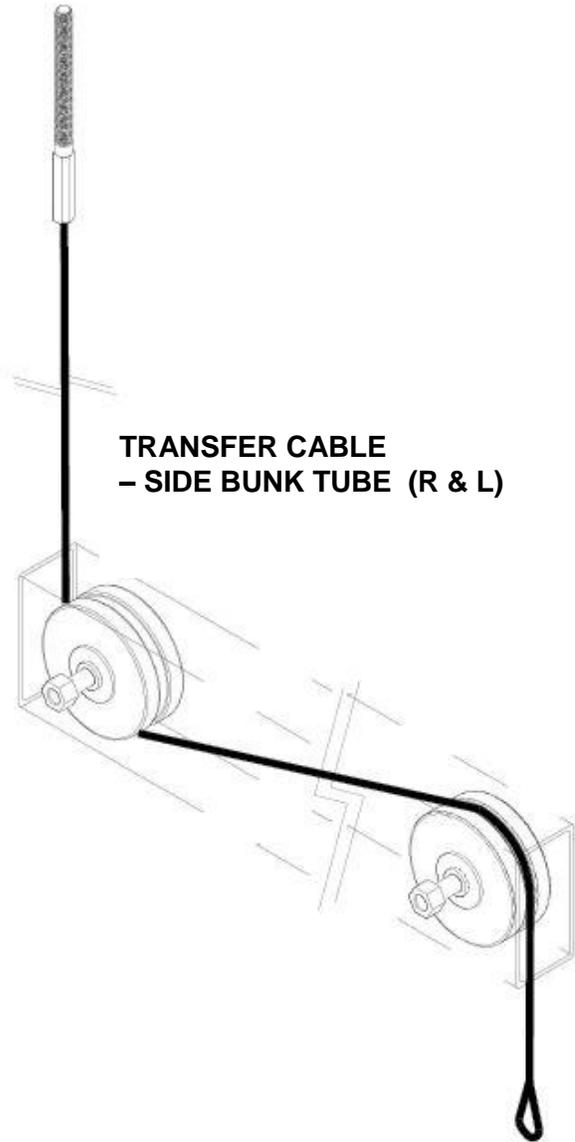
# LIFT CABLE REFERENCE



**WINCH CABLE (LIFTING)  
- REAR BUNK TUBE (1)**



**LEVELING (SAFETY) CABLE  
- FRONT BUNK TUBE (2)**



**TRANSFER CABLE  
- SIDE BUNK TUBE (R & L)**



## BOAT & PWC LIFT MAINTENANCE & OPERATION

### ALUMINUM BOAT LIFTS

1. Check all nuts & bolts for tightness.
2. Visually inspect cables and sheaves for wear.
3. Spray Nylatron bearings with white lithium grease.
4. Reattach loose carpet on bunks (if applicable).

### INTERNAL SCREW JACK LIFT LEGS

1. Annually: Grease threaded rod with lithium grease.
2. Annually: Fully extend & retract each leg to distribute grease. **DO NOT USE IMPACT WRENCH.**

### PERSONAL WATERCRAFT LIFTS

1. Check all nut & bolts for tightness.
2. Visually inspect cables and sheaves for wear.
3. Grease gears or chains with white lithium grease.
4. Reattach loose carpet on bunks (if applicable).

### CABLES

1. Visually inspect the lifting cables regularly for any broken strands (cable fray).
  - a. If cable fray is noticed, notify your dealer. Spray cables periodically with WD-40.
2. Rinse cables and boat lift with fresh water after removing lift from water.
  - a. Cable has a limited operating life and may need to be periodically replaced.
  - b. If signs of wear or damage appear, replace immediately.

### CRANK WHEEL

1. Run lift all the way down and remove bolt & washer.
2. Remove crank wheel.
3. Before reassembly, grease shaft with anti-seize or marine grease (do NOT overdo & get grease on winch brake pad).

### DRIVE UNITS/WINCH BOXES

1. Lubricate drive gear, chains and all bushings, on a monthly basis, with white lithium grease.

### PULLEYS

1. Inspect pulleys on a monthly basis for wear.
2. Make sure all nuts and bolts are tight.
3. Pulleys should turn when weight is on lift (reasonable "squealing" noise from plastic pulleys is normal).

### OTHER

1. Visually inspect all working parts for signs of excessive wear.

## SAFETY

### THINGS TO REMEMBER

1. Always turn off 110V power at main breaker to prevent others from using your lift.
2. Keep all people away from lift while in operation.
3. Inspect all cables and pulleys before operating.

### WARNING!

This product is not a toy. It is capable of lifting very heavy objects. The lift should be respected as power equipment. High forces are created when using a lift, creating potential safety hazards. *Never allow children, or anyone who is unfamiliar with lift operation, use the lift.*

1. Your boat lift is not a hoist. It is NOT intended to lift or move people. Never use in an application where persons could be positioned on or under a load.
2. For use by adults only.
3. Do not let children play on or around lift.
4. Keep the lift area free of all persons. Never stand between load and lift.
5. Do not exceed Maximum Lifting Capacity.
6. Lower boat to water level before entering boat.
7. Do NOT enter boat when lift carriage is in raised position.
8. Do NOT ride in boat while using lift.
9. Keep hands away from all moving parts (i.e., winch crank wheel, cables).
10. Never leave lift running unattended.
11. When not in use, turn off your power supply damage or injury could result if lift is left running.
12. **Death or bodily injury could result if you ignore any of the above warnings and operations.**

## LIFT OPERATION

### LOWERING YOUR BOAT LIFT

After inspecting your lift (*remember to insert drain plug in your boat*):

1. Turn main power on to your lift.
2. Lower your lift into the water.
3. Do not ride in boat while lowering or raising your lift.

### DRIVING BOAT ONTO LIFT

1. Lower lift sufficiently so your boat will float over the bunks.
2. Slowly position your boat over the bunks to desired position. Use your guide posts to center your boat on the lift.
3. Raise lift until the weight of the boat is on the bunks. Inspect the boat to insure proper alignment.
4. Make necessary adjustments.
5. Once the boat is in position, continue to lift the boat for storage. Do not ride in boat while lowering or raising your lift.
6. Remove drain plug to prevent excess weight from water accumulation.
7. Turn power off at main breaker after each use.

### STORAGE

1. When boat is completely ready for storing, make sure the boat is positioned properly on the lift.
2. Turn the electrical power to the lift OFF.



## **Caution:**

**Do Not Exceed Maximum Lifting Capacity!!**



## **Caution:**

**Do Not Enter Boat When In Raised Position!!**  
**Lower Boat Lift Before Entering Boat!!**



## **Caution:**

**Do Not Let Children Play On or Around Lift!!**



## **Caution:**

This product is not a toy. It is capable of lifting very heavy objects. The lift should be respected as power equipment. High forces are created when using a lift, creating potential safety hazards. Never allow children or anyone who is not familiar with the operation of the lift to use it.



## **Caution:**

This product is not a hoist. Do not use for movement of people. Never use in an application where persons could be positioned on or under the load.



## **Caution:**

**Keep the lift area free of all persons. Never stand between load and lift.**



## **Caution:**

Keep hands and fingers clear of all moving parts.  
(e.g. winch, crank wheel, cables)

**Boat lift should be placed in a minimum of 24' of water at lake end of the lift.**

## **- Maintenance -**

**Before installing lift in the spring and after removing lift in the fall, lightly oil cables and pulleys. Check all cables and bolts for deterioration. Replace if necessary.**

**Note:** If winch wheel is hard to turn when trying to lower lift, place hand on winch wheel and quickly jerk wheel in a counter clockwise direction to loosen brake mechanism.



## LIMITED WARRANTY

DAKA Corporation warrants its boat docks and boat lift components purchased new by the original owner to be free of defects in material or workmanship, from the date of sale for the periods of time set forth below:

New DAKA built aluminum boat docks and lifts carry a 15 year conditional warranty on all aluminum and aluminum welds, and a 5 year pro-rated warranty on canopy tops, excluding fading.

New DAKA built steel boat docks carry a 10-year conditional warranty on steel and steel welds. There is no warranty on paint and/or finish.

DAKA Corporation further warrants all other parts, excluding wood, used on DAKA built lifts, boat docks and accessories, purchased new by original owner, to be free from defects in the material and workmanship under normal use for a period of 24 months from the date of purchase (excluding components and options which carry their own manufacturer's warranty, wherein that warranty will apply). Excluded from this warranty are all paint and/or finishes, and wood decking. There is no other express warranty. DAKA Corporation is not liable for incidental or consequential damages or injuries of any kind due to installation, removal, use, misuse, snow or ice, electrolysis, severe weather, acts of God, misapplication, or improper selection of one of our purchased or displayed products. DAKA agrees to repair or replace only defective parts returned to the factory (prepaid) and deemed defective by DAKA. Warranty is void when misuse or neglect is the cause. Specifications are subject to change without notice.

DAKA is not responsible for removal, dismantling or reinstallation cost. This warranty is void if the boatlift or dock is used in other than normal residential service, or installed in salt water. *For commercial boat dock and lift warranty, see Commercial Warranty.*

For services under this warranty, contact selling dealer or DAKA Corporation, Customer Services Department, 955 Industrial Street, N.E., Pine City, Minnesota 55063; Telephone (320) 629-6737.

Implied warranties including that of merchantability are expressly limited in duration of this warranty. DAKA Corporation disclaims any liability for incidental or improper selection, removal, use, misuse, misapplication, neglect or improper selection of our product. Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages so this limitation and exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This is our exclusive written warranty.

Effective 09/03  
Revision 1: 11/1/07



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