



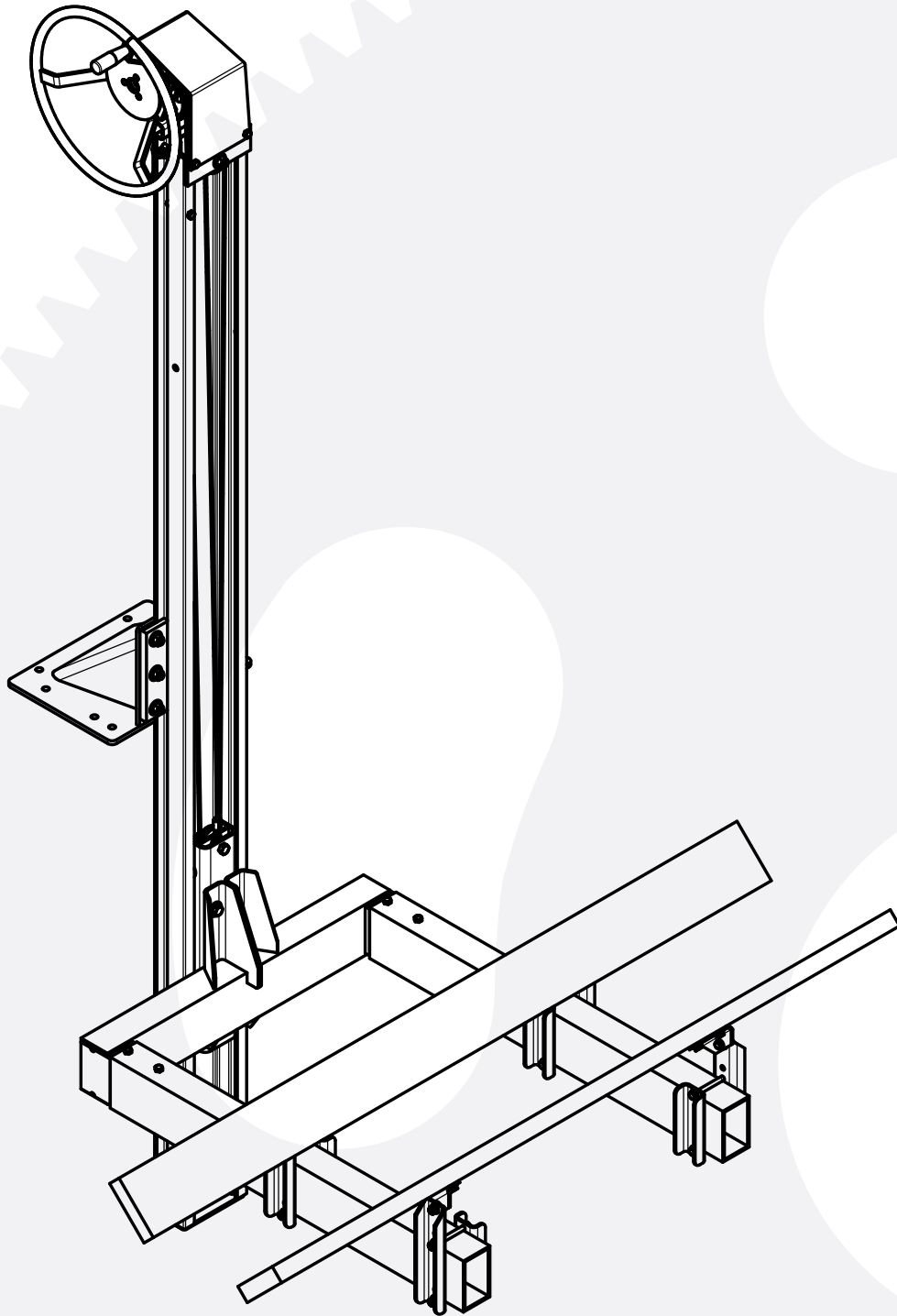
# BH-USA

EVERYTHING FOR YOUR DOCK & PIER

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## DOCKSIDE LIL' LIFTER™



ASSEMBLY  
INSTALLATION  
REPLACEMENT PARTS

KEEP FOR YOUR RECORDS

READ complete manual CAREFULLY  
BEFORE attempting operation.

Lift Capacity 1000lbs.  
maximum beam width 56"

## General Information

1. Unless otherwise specified, high-strength SAE 5 (grade 5) (3 radial-line head markings) hex head bolts are used throughout the assembly of this piece of equipment. See Page 8.
2. Whenever the term “LEFT” and “RIGHT” is used in this manual, it refers to a position in which the boat enters the hoist and faces forward.
3. When placing a parts order, refer to this manual for proper part numbers and order by PART NO. & DESCRIPTION.

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## Operating Instructions

1. To operate the hand wheel winch for the hoist, turn the winch wheel clockwise to raise the cradle and turn the winch wheel counter-clockwise to lower the cradle.
2. To raise the hoist using the electric winch, turn the switch to the raise position and to lower the cradle.
3. To remove your PWC from the hoist, turn the winch wheel counterclockwise to lower the cradle as far as necessary. This will release the PWC.
4. When entering the hoist, approach slowly until the PWC is in the center of the bunk mount boards. Then proceed to raise the cradle by turning the winch wheel clockwise.
5. When the hoist is in the up position a padlock can be placed in the ½” hole located on the upright post.



### Warning: To Prevent Personal Injury

**Only raise the cradle until it touches the upper stop. DO NOT raise the hoist too high or the hoist may be damaged or the cables may break.**

**DO NOT lower the hoist too low or the cable can begin to wrap around the top side of the winch and may damage cables.**

**All persons should be off the PWC before operating the hoist, otherwise you may increase your gross weight over the maximum capacity of the hoist and cause failure or injury.**

## Periodic Maintenance

1. Inspect the lift cable for worn, frayed or rusty areas periodically and replace as needed.
2. Tighten all bolts at the beginning and end of each boating season.
3. Grease all zerks and the worm gear drive of the electric winch periodically with a high quality all purpose water-proof grease.

## Safety Cues

**TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.**



**This symbol means attention become alert your safety is involved!**

### Signal words:

Safety messages include **DANGER**, **WARNING**, and **CAUTION**. The appropriate signal word for each has been selected using the following guidelines:

#### Danger:

Indicates an immediately hazardous situation that, if not avoided, will result in death or serious injury. For machine components whose functional purpose cannot be guarded, this signal word should only be used in extreme situations.

#### Warning:

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury. It includes hazards exposed when guards are removed. It may also alert users to unsafe practices.

#### Caution:

Indicates a potentially hazardous situation that, if not avoided may result in minor or moderate injury. It may also alert users to unsafe practices.

If you have questions not answered in this manual, require additional copies, or if your manual is damaged, please contact BH-USA.

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PO box 2883. Longview, TX 75606



QR codes have been added into this technical guide to make accessing all of our guides and website much easier.





# Equipment Safety Guidelines

## Equipment Safety Guidelines

Every year many accidents occur that could have been prevented with a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the precautions outlined in this section. To avoid personal injury, consider the following precautions and insist those working with you, or you yourself, follow them.

In order to provide a better view, certain illustrations in this manual may show an assembly with a safety shield removed. Equipment should never be operated in this condition. Keep all shields in place. If shield removal becomes necessary for repairs, disconnect the power. Replace the shield prior to use.

Replace any caution, warning, danger or instruction safety decal that is unclear or missing. Location of such decals is indicated in this booklet.

Do not operate this equipment under alcohol or drug influence.

Review safety instructions for all users.

The operator should be a responsible adult. **DO NOT ALLOW PERSONS TO OPERATE OR ASSEMBLE THIS UNIT UNTIL THEY HAVE DEVELOPED A THOROUGH UNDERSTANDING OF SAFETY PRECAUTIONS AND HOW IT WORKS.**

Never exceed the lift limits (1200 lbs.). If the ability to do the job safely is in question, **DO NOT TRY IT.**



## SAFETY SIGN CARE

- Keep safety signs clean and legible at all times.
- Replace safety signs that are missing or illegible.
- Replacement parts that display a safety sign should also display the current sign.
- Safety signs are available from your distributor, dealer's parts department, or factory.

## How to install safety signs:

- Make sure that the installation area is clean and dry.
- Decide on the exact position before removing backing paper.
- Remove the small portion of split backing paper.
- Align decal over specified area and carefully press small portion with exposed sticky backing in place.
- Slowly peel back remaining paper and carefully smooth remaining portion of decal into place.
- Small air pockets can be pierced with a pin and smoothed out using decal backing paper.



## Remember

Your most effective defense against accidents is a careful and responsible operator. If there is any portion of this manual or function you do not understand, contact your local authorized dealer or manufacturer (844) 367-5806.



## Before Operation:

- Carefully study and understand this manual.
- Do not wear loose-fitting clothing which can catch in moving parts.
- Always wear protective clothing.
- Give the lift a visual inspection for any loose bolts, worn parts, or cracked welds, and make necessary repairs. Follow the maintenance and safety instructions included in this manual.
- Be sure there are no tools lying on or in the equipment.
- Do not use the lift until you are sure that the area is clear, especially around children and animals.
- It is important not to rush the learning process or take lift for granted. Take your time and become familiar with your newly installed lift.
- Practice the operation of your lift and its attachments. Completely familiarize yourself and other operators with its operation before using it.

## Bolt Torque

### TORQUE DATA FOR STANDARD NUTS, BOLTS, AND CAP SCREWS.

Tighten all bolts to the torques specified in the chart unless otherwise noted. Check bolt tightness periodically, using the bolt chart as a guide. Replace hardware with the same grade bolt. NOTE: Unless otherwise specified, high-strength Grade 5 hex bolts are used throughout the assembly of equipment.

#### Torque Specifications

**Bolt Torque for Standard bolts \***

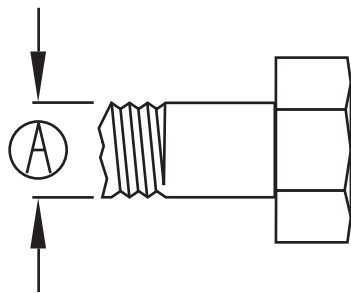
"A"	Grade 2		Grade 5		Grade 8	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
1/4"	6	(8)	9	(12)	12	(16)
5/16"	10	(13)	18	(25)	25	(35)
3/8"	20	(27)	30	(40)	45	(60)
7/16"	30	(40)	50	(70)	80	(110)
1/2"	45	(60)	75	(100)	115	(155)
9/16"	70	(95)	115	(155)	165	(225)
5/8"	95	(130)	150	(200)	225	(300)
3/4"	165	(225)	290	(390)	400	(540)
7/8"	170	(230)	420	(570)	650	(880)
1"	225	(300)	630	(850)	970	(1310)

**Bolt Torque for Metric bolts \***

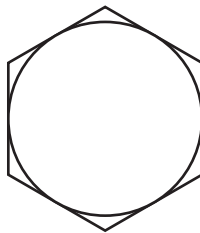
"A"	Class 8.8		Class 9.8		Class 10.9	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
6"	9	(13)	10	(14)	13	(17)
7"	15	(21)	18	(24)	21	(29)
8"	23	(31)	25	(34)	31	(42)
10"	45	(61)	50	(68)	61	(83)
12"	78	(106)	88	(118)	106	(144)
14"	125	(169)	140	(189)	170	(230)
16"	194	(263)	216	(293)	263	(357)
18"	268	(363)	--	--	364	(493)
20"	378	(513)	--	--	515	(689)
22"	516	(699)	--	--	702	(952)
24"	654	(886)	--	--	890	(1206)

Torque figures indicated are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or cap screws unless otherwise specified in this manual. When using locking elements, increase the torque value by 5%.

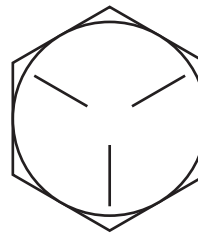
\*GRADE or CLASS values for bolts and cap screws are identified by their head markings.



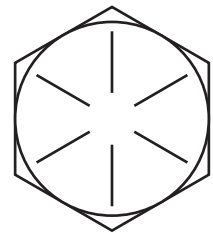
**GRADE-2**



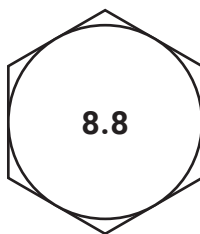
**GRADE-5**



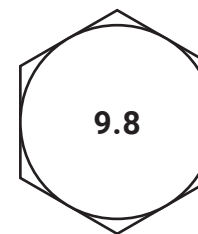
**GRADE-8**



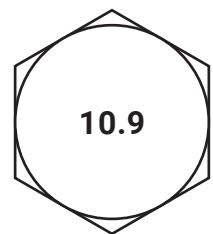
**CLASS 8.8**



**CLASS 9.8**



**CLASS 10.9**



# Tower Assembly Instructions - Follow diagrams

**You will need one 5/8" wrench, and one 3/4" wrench.**

1. Bolt Roller Base Assembly (#16) to cradle (#15) using four 1/2" x 1-1/4" bolts (#20), eight 1/2" SS flat washers (#22), and four 1/2" hex nuts (#24).
  2. Slide the four Cradle Rollers (#17) and four 3/4" SS Flat Washers (#21) onto the Roller Assembly Shafts (#16). NOTE: Adjustment shims should be used to maintain proper cradle assembly fit in the upright post.
  3. If the rollers of the cradle fit too tight in the upright post, remove the 1/2" SS Flat washers (#21) one side of the cradle at a time until proper adjustment of a total gap of 1/16" to 1/8" between the ends of the rollers and the side of the upright is achieved.
  4. Lower the roller base assembly with cradle assembly into the top of the upright lift post (#31).
  5. Attach the winch mount bracket (#10) to the upright lifting post using four 3/8" x 1 1/4" bolts (#3), four 3/8" SS flat washers (#26), four 3/8" lock washers (#35), and four hex nuts (#36). Do not tighten the nuts at this time.
  6. Bolt the Lil' Lifter Winch (#28) to the winch mount bracket (#10) using three 3/8" x 1-1/4" SS bolts (#3), six SS flat washers (#26), three 3/8" SS Lock washers (#35), and three hex nuts (#36). Do not tighten nuts at this time.
  7. Attach cable to winch as shown in the Wire Installation Image on PAGE 6
  8. Follow detail A and the pictures carefully to route the cable. Begin by routing the cable from the winch down to the roller base assembly. Assemble bottom sheave assembly (#12 & #18) with the cable routed and tied down as shown in detail A with a 1/2" x 2-1/2" bolt (#25), and a 1/2" thin Nylock locknut (#29). With plenty of slack, route cable back up and assemble top sheave assembly (#12 & #18), with sheave brackets (#9 & #8) with cable routed as shown. Secure using one 1/2" x 1-3/4" bolt (#23), two 1/2" SS flat washers (#22), and one 1/2" locknut (#29).
  9. The winch cover is attached by first inserting the slotted holes in the cover (#13) between the bottom of the winch bracket (#10) and the top of the SS flat washer. Use two 3/8" x 3-1/2" SS hex head bolts (#4), 3/8" SS flat washers (#26), and 3/8" hex nut (#36) to hold the winch cover (#13), top formed sheave bracket (#9), and top sheave bracket (#14) to upright post (#31). DO NOT OVER TIGHTEN.
  10. Attach cradle stop (#11) using 3/8" x 2-1/2" stainless steel bolt (#1), 3/8" SS flat washer (#26) and 3/8" hex nut (#36) to upright leg. As shown in the diagram. DO NOT OVER TIGHTEN.
  11. Mount the winch Hand Wheel (#19) to the winch (#28) using the nuts and springs included with the winch. YOU MAY NOW TIGHTEN ALL NUTS, DO NOT OVER TIGHTEN.
  12. Slide the Cradle Fork Tubes (#14) over the Cradle Carriage I-extensions (#15), and secure with four 3/8" x 5-1/2" bolts (#2), six 3/8" SS flat washers (#26), four 3/8" hex nuts (#36), and four 3/8" SS Lock washers (#35).
  13. Attach the four Bunk Board Mounting Angles (7.7) to the bunk boards (#33) using eight 3/8" x 1-1/4" wood screws (#6), and eight 3/8" SS flat washers (#7.9). Bolt form Bunk Mount Bracket (7.5) to Bunk Mount Mounting Angle (#7.7) using four 3/8" x 1" bolts (#7.3), eight 3/8" SS flat washers (#7.9), four 3/8" lock nuts (#7.1), four 1/2" flat washers (#7.8), and four bunk mount bushings (#7.4). Leave these bolts just loose enough that the weight of the boat will cause brackets (#7.7) to rotate and settle into a supportive position.
- IMPORTANT: After the PWC has been loaded for the first time, tighten the 3/8" x 1" bolts (#7.3) bolts that attach to the bunk boards.**
14. Mount bunks over cradle fork tubes using each set of holes in the formed bunk board brackets (#7.5). Mount using two 3/8" x 4" SS Bolts (#7.2), four 3/8" SS flat washers (#7.9), Bunk Board Backplate (7.6), two 3/8" hex nuts (#7.11), and two 3/8" SS Lock washers (#7.10). Repeat this step for all four mounting points as shown in detail D. Adjust to fit watercraft.
  15. Attach Dock Plate Assembly (#32) to the lift assembly using the Dock Plate Backup Plates (#30), six 1/2" x 2" SS Bolts (#34), twelve 1/2" flat washers (#22), and six 1/2" hex nuts (#24) as shown on detail E.

# Lil Lifter - Manual Parts List

## Lil' Lifter Manual Winch Kit #62530

Part	Quantity	Sk#	Description
1	1 ct	BH09335	Cable Stop Bolt 3/8 x 2.5
3	1 pk (7 ct)	62524	Winch & Bracket Bolt Pack
4	1 pk (2 ct)	62528	Winch Cover Bolt Pack
5	1 ct	BH09356	Cable 3/16 SS x22ft
8	1 ct	97188	Sheave Bracket Cover
9	1 ct	BH09340	Sheave Bracket
10	1 ct	BH09336	Winch Bracket
11	1 ct	BH09335	Cradle Stop
12,18,22,23,29	1 pk (6pc)	62929	Winch kit sheave and bolt kit
		304236	Winch Wheel Hardware
			Cable Attachment Hardware
13	1 ct	BH09328	Winch Cover
19	1 ct	97181	Lil' Lifter Black Winch Hand Wheel
26	1 pk (21 ct)	62525	Winch Kit 3/8 Flat Washer Pack
28	1 ct	5150404	Lil' Lifter Winch
35	1 pk (11ct)	62527	Winch Kit SS Lock Washer Pack
36	1 pk (14ct)	62526	Winch Kit SS Nut Pack

## Lil' Lifter Roller Assembly Kit #62523

Part #	Quantity	Sk#	Description
12 & 18	1pk (1ct/1ct)	BH09334	Sheave Bushing & Sheave Pack
16	1 ct	62523	Roller Base Assembly
17	1 pk (4 ct)	97190	Cradle Rollers
20	1 pk (4 ct)	62518	Roller Assembly Bolt Pack
21	1 pk (4 ct)	62519	Flat Washer Pack 3/4"
22	1 pk (8 ct)	62520	Flat Washer Pack 1/2"
24	1 pk (4 ct)	62521	Hex Nut Pack Roller Assembly
25 & 29	1pk (1ct/1ct)	62522	Axle Bolt Pack Roller Assembly

Order replacement parts by Sk#  
NO. and DESCRIPTION

## Lil' Lifter Bunk Mount Kit #62514

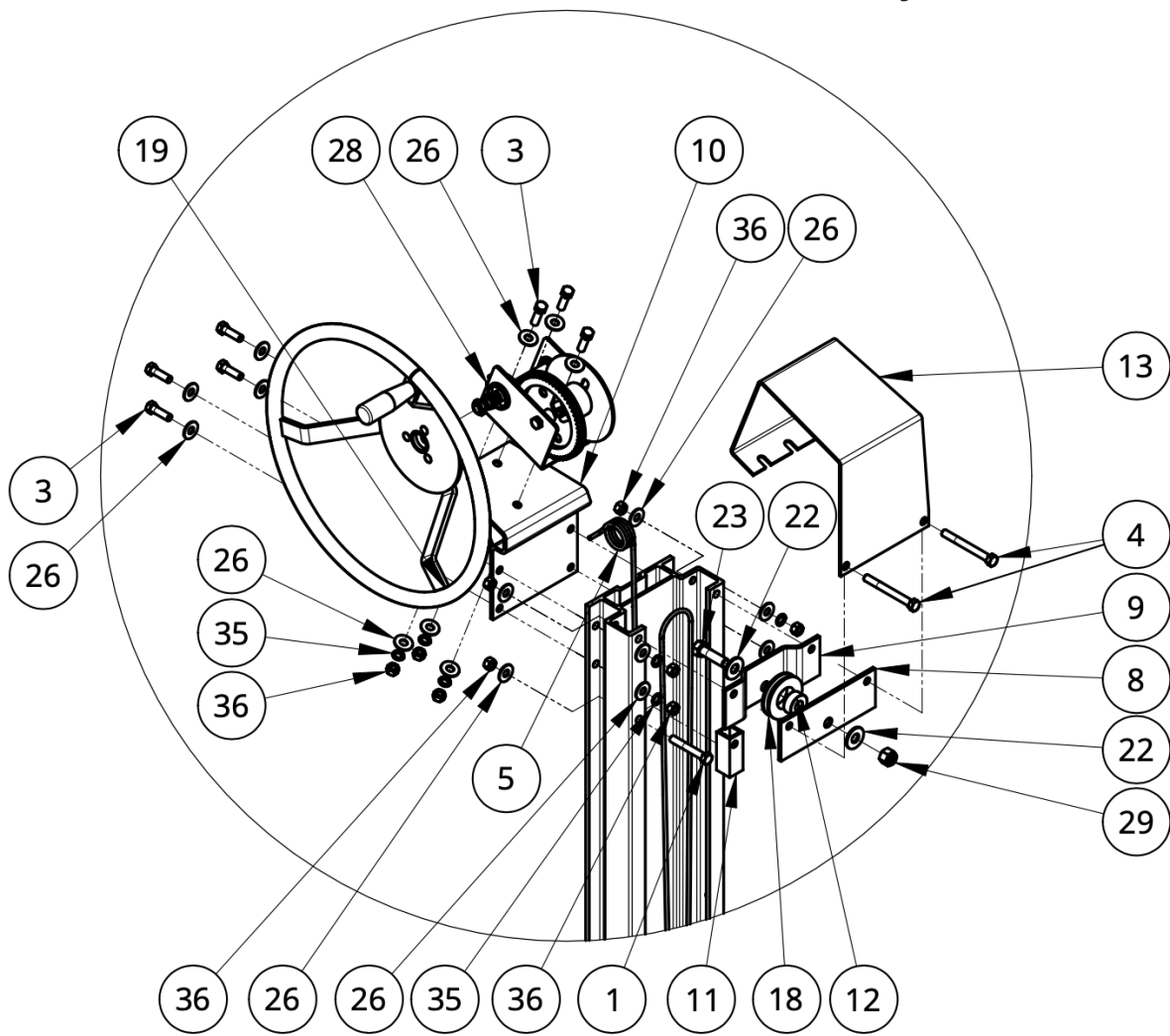
Part #	Quantity	Sk#	Description
6	1 pk (8 ct)	97155	Lag Screw Pack
7.1	1 pk (4 ct)	BH09517	Nylon Nut Pack
7.2	1 pk (8 ct)	BH09518	4" Hex Bolt Pack
7.3	1 pk (4 ct)	BH09519	1" Hex Bolt Pack
7.4	1 pk (4 ct)	62558	Bushing Pack
7.5	4 ct	BH09350	Formed Bunk Mount Brackets
7.6	4 ct	BH09349	Bunk Mount Backplate
7.7	4 ct	BH09348	Bunk Mount Angle
7.8	1 pk (4 ct)	62557	1/2" Flat Washer Pack
7.9 & 27	1 pk (32 ct)	62510	3/8 SS 304 Flat Washer
7.10	1 pk (8 ct)	62512	Lock Washer Pack
7.11	1 pk (8 ct)	62513	3/8" Hex Nut Pack
31	1 ct	25336	1200lb. Dock Side Lil' Lifter Main Track
33	2 ct	62533	1200lb. Carpeted Bunk Set
14	2 ct	BH09327	1200lb. Cradle Fork Tube
15	2 ct	BH09326	1200lb. Cradle Carriage

## Lil' Lifter 1000lb Dock Mount Kit #62515

Part #	Quantity	Sk#	Description
30	2 ct	25338	Dock Mount Clip
24	1 pk (6 ct)	BH09380	1/2" Stainless Nut Pack
34	1 pk (6 ct)	BH09366	1/2" x 2" Bolt Pack
22	1 pk (12 ct)	BH09379	1/2" Flat Washer Pack
32	1 ct	25332	Dock Mount



# Lil Lifter - Manual Winch Assembly



**Detail A**

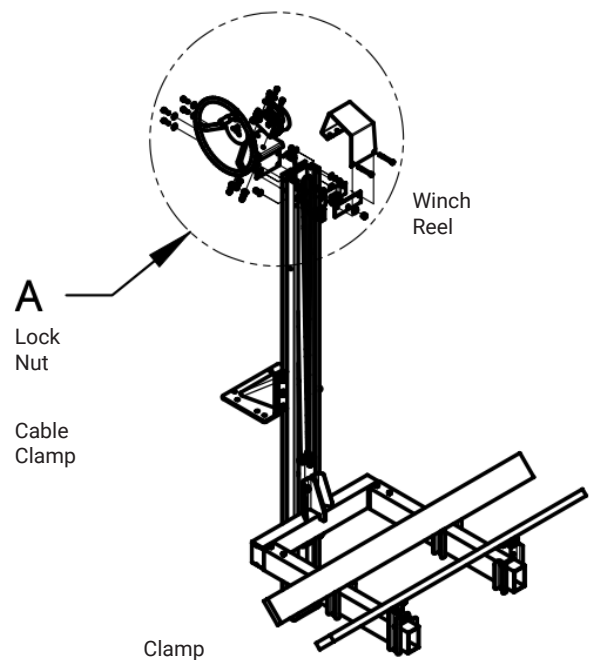
## View B

Pull cable through & pinch between side plate by tightening lock nut on backside.

5481 Kit HDW Includes Cable clamp, locknut & special bolt.

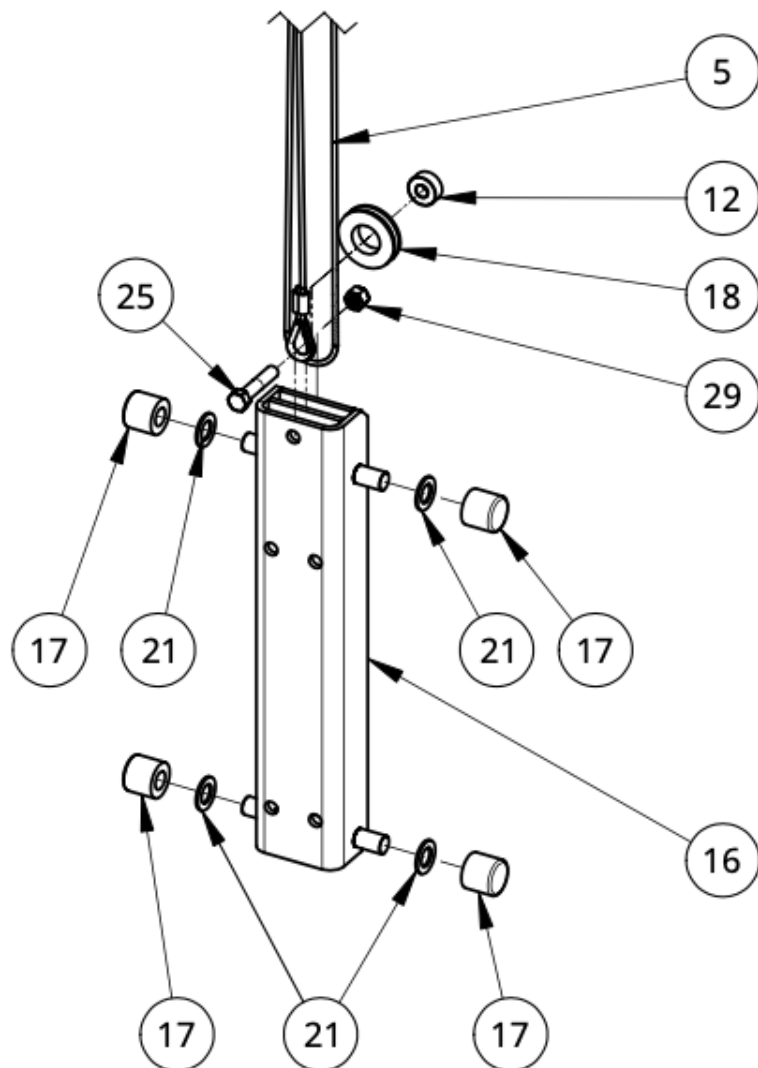
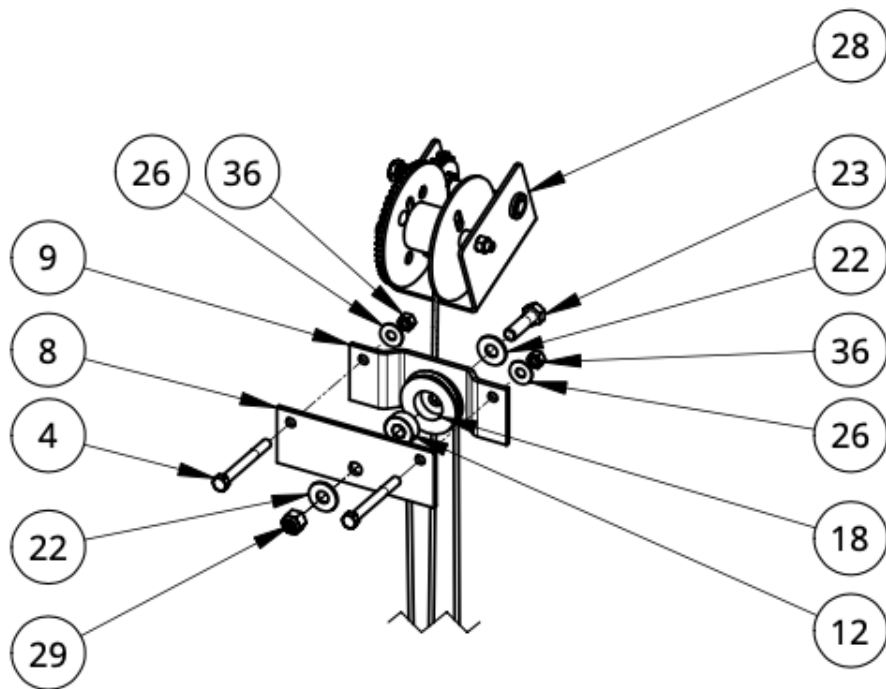


## WIRE ROPE INSTALLATION



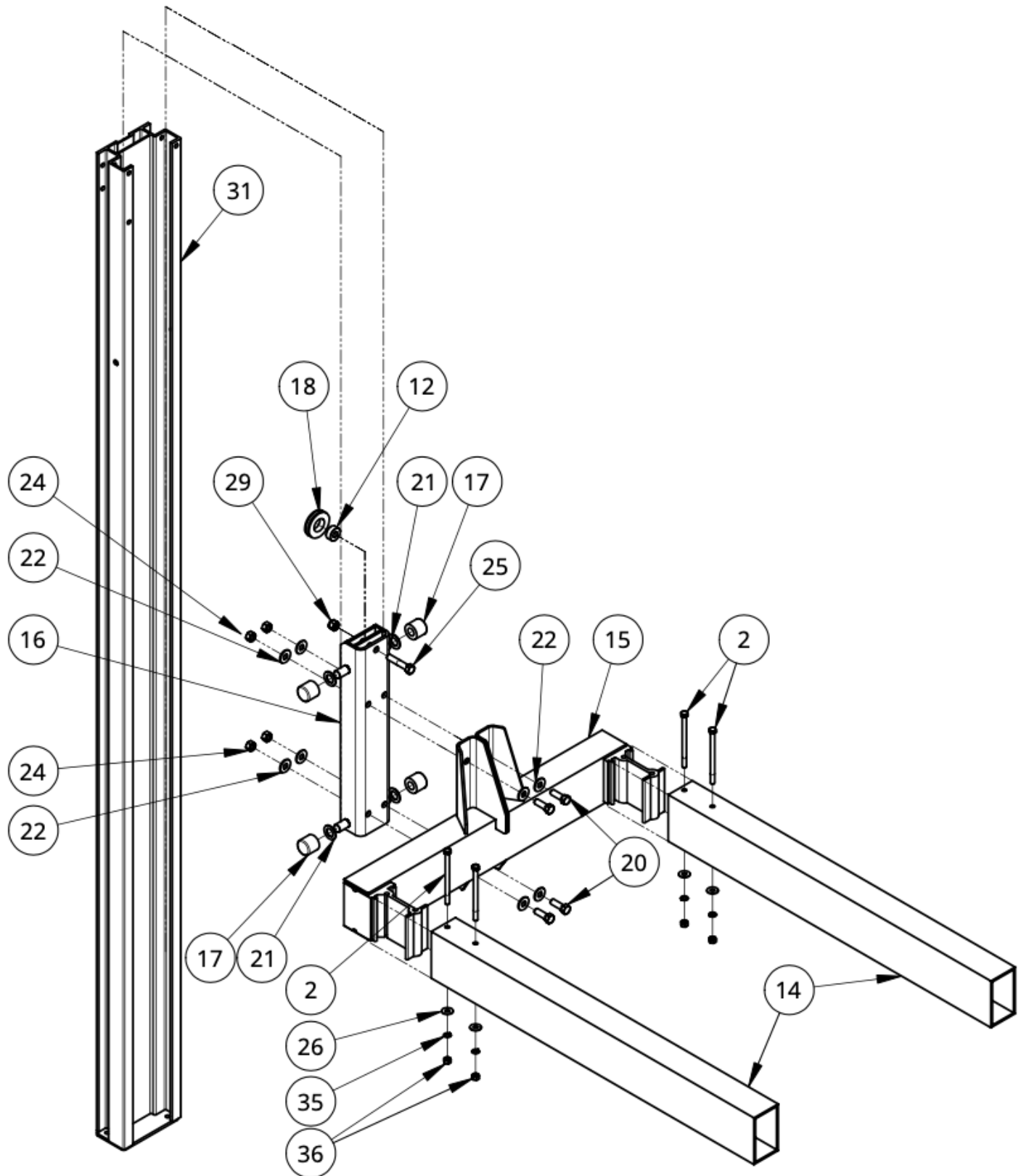


# Lil Lifter - Roller Assembly

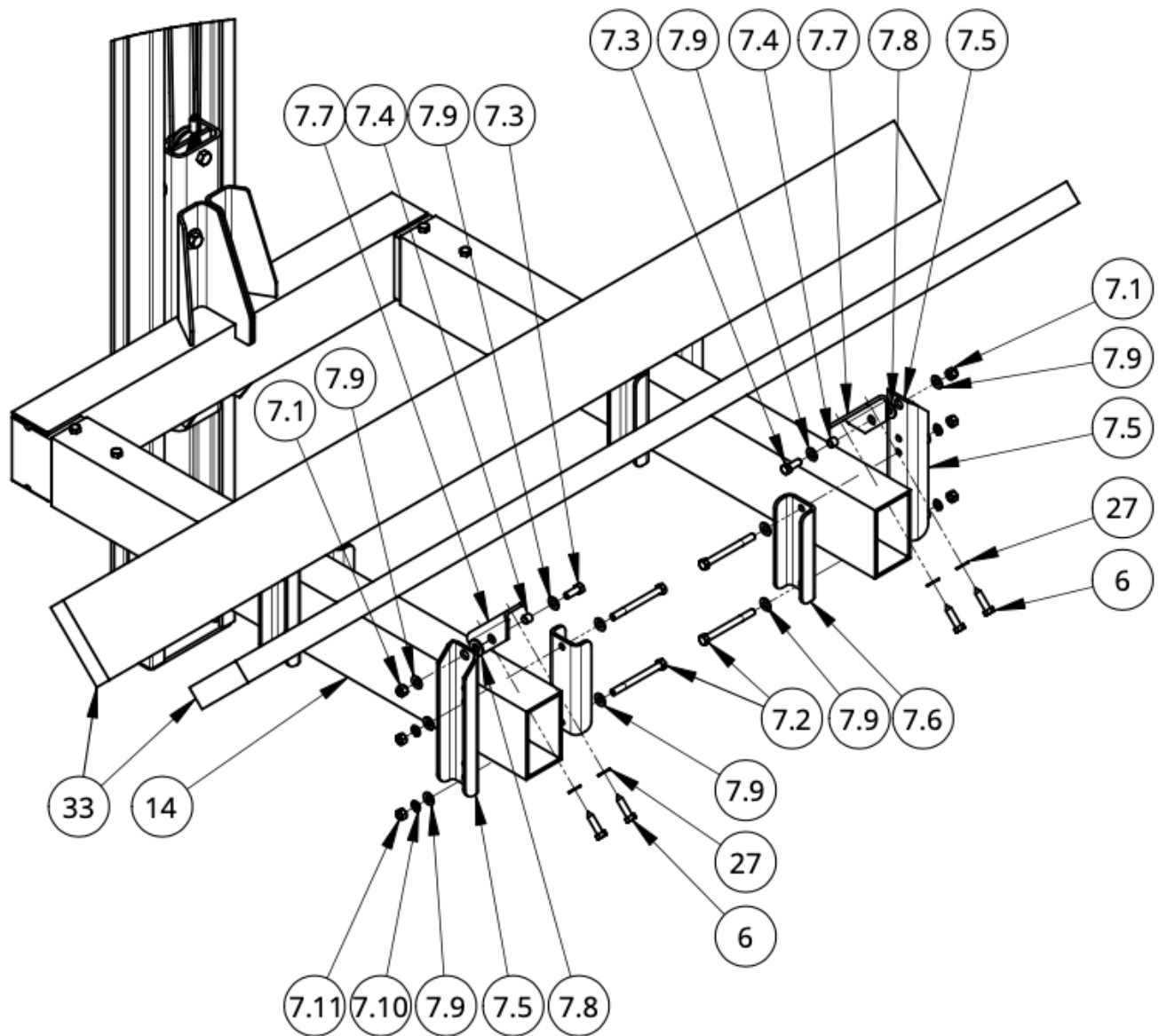


**Detail B**

## Lil Lifter - Bunk Mount Assembly

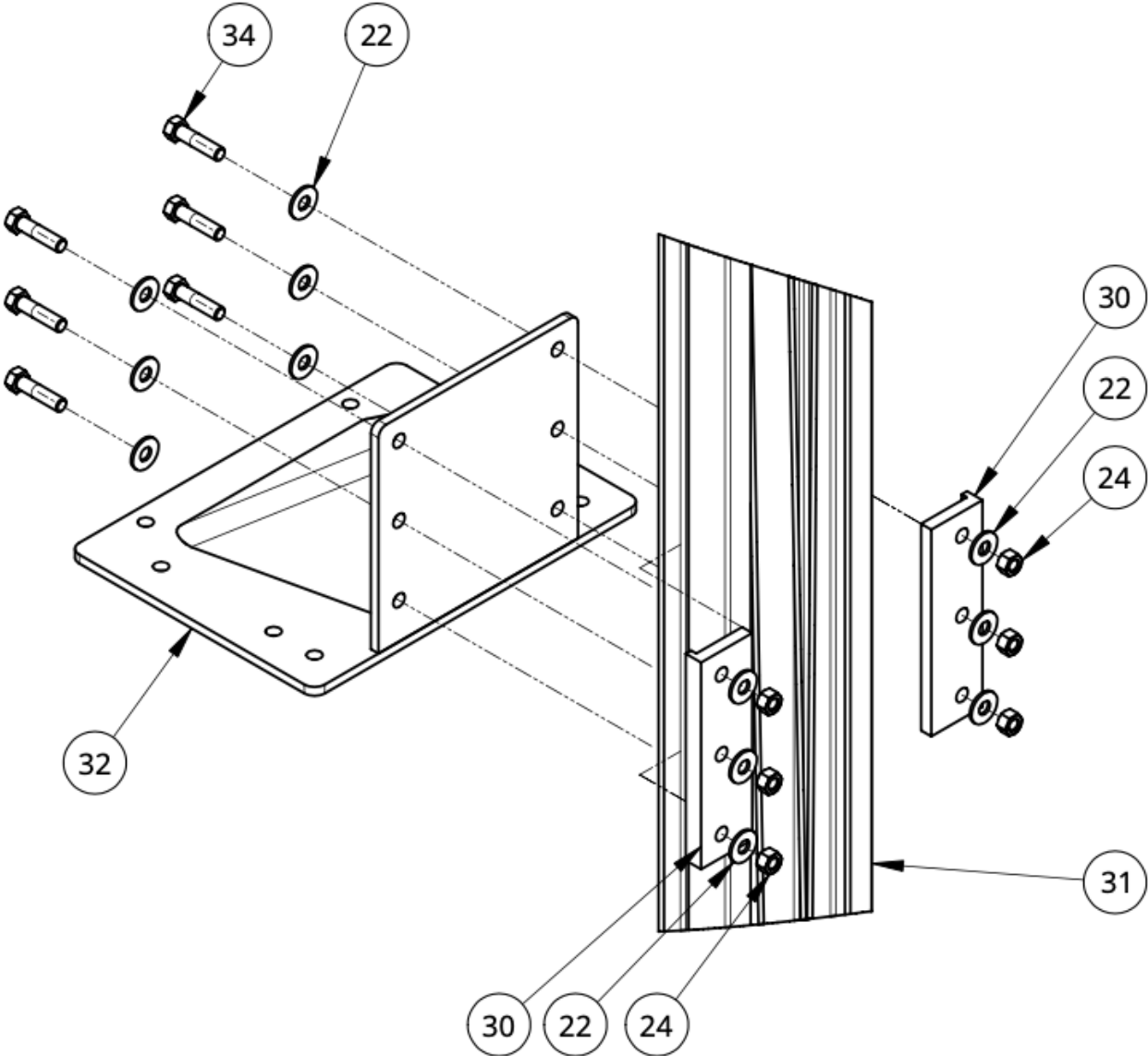


Detail C



**Detail D**

# Lil Lifter - Dock Mount



Detail E

# DO NOT OPERATE THIS HOIST WITHOUT FIRST STUDYING YOUR OWNER'S MANUAL.



## Safety First

## INSTALLATION INSTRUCTIONS



### **WARNING: TO PREVENT PERSONAL INJURY**

1. Begin by measuring the distance from the dock top to the water surface.
2. Position the dock plate (#4) in the correct position on the Upright Post (#6) so the watercraft can freely be removed in the lowered position until the watercraft is safely out of the water in the raised position. Tighten the 1/2" nuts.
3. Mount the dock plate (#4) to the dock in the desired position using four 1/2" x 2-1/2" hex nuts (#3).
4. Lower the hoist cradle into the water just enough to allow the PWC to float on the cradle.
5. The PWC should be guided into the bunk mounts and centered.
6. The cradle should be raised so that the PWC just starts to lift, then the PWC Bunk Mounts should be adjusted accordingly. After final adjustments are made, make sure all fasteners are tight.
7. After making sure no damage will result to either the PWC or the hoist, lift the PWC from the water.

### **CRADLE SETTINGS**

When the PWC is on the cradle boards the boards should be approximately 18" to 24" out of the water under calm conditions, 30" out of the water under windy conditions. For example, if your PWC is located on an open shoreline, the cradle should be set at a height of 30" above the water. If it is located in a sheltered cove it can be set at a height of 18" to 24".

This hoist is not a toy, but a piece of equipment that deserves your respect. Before allowing anyone to operate the unit, ensure they read and understand the proper operating procedure. Don't exceed the unit's maximum capacity (1200 lbs). Overloading the hoist may cause mechanical failure and serious personal injury.

All persons should stand clear of the hoist and **DO NOT**

board your watercraft when it is being raised or lowered. The watercraft should be off and away from the lift before boarding.

### **DO NOT PUT YOUR HAND INTO THE SHIELD.**

Children or adults should be restricted from playing on or near the hoist.

All persons should be off the watercraft and/or hoist before operating the hoist.

If you have a hoist without a canopy, be sure to pull the drain plug in the watercraft before leaving for any length of time. A rain storm could push your gross weight over the hoist capacity. Service the hand winch according to the specifications located in the hand winch manual.

### **IMPORTANT: A winch maintenance schedule must be followed to avoid failure and injury.**

Check cable for wear, fraying and stress on cable attaching ends. If this occurs, replace the cable immediately.

Make sure the hoist is installed level. It is possible for a hoist to hang up when the installation is out of level, resulting in serious personal injury.

**DO NOT** work on your watercraft or hoist with the watercraft on the hoist.

Check the sheave to make sure it turns and operates properly. Lubricate periodically.

Service the winch regularly.

### **IMPORTANT: A winch maintenance schedule must be followed to avoid failure and injury.**



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