

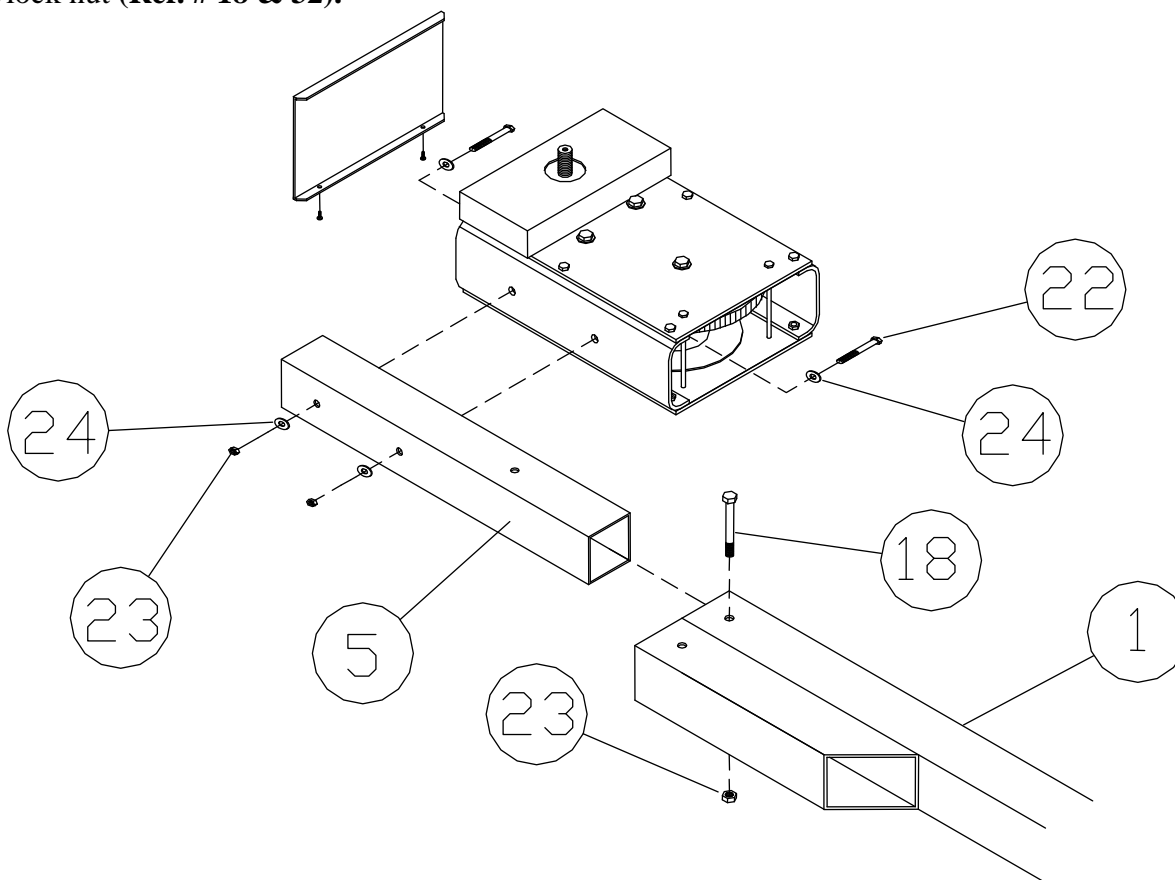
## **601AL VERTICAL 60120VL LIFT W/CHAIN DRIVE WINCH**

**Thank you for purchasing our product!**

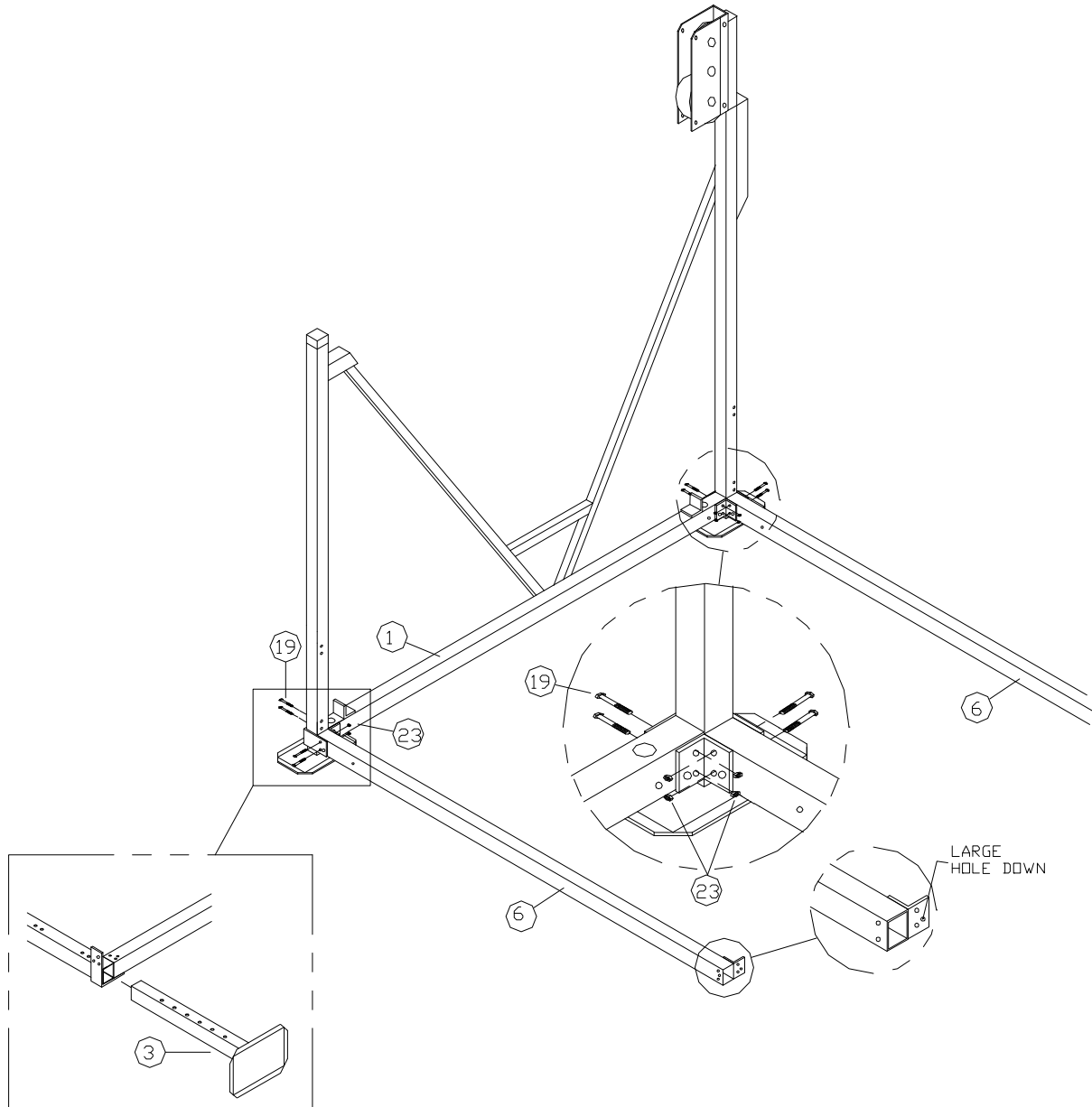
**\*Please read these instructions and follow them step by step.\***

**Step 1.** Separate and group like parts and fasteners together. Locate the four 3 1/2" x 3 1/2" x 32" leveling leg tubes with multiple holes (**Ref. # 3**) and the four leveling pads (**Ref. # 4**) bolt channel of pad to leveling leg tube with 1/2" x 5" bolt and nut (**Ref. # 18 & 23**)

**Step 2.** Locate the 3 1/2" x 3 1/2" x 26" winch mount tube (**Ref. # 5**) and the chain drive winch (**Ref. # 10**) remove the top guard from the winch and bolt the winch to the winch mount tube with 1/2" x 4 1/2" bolts, washers, and nuts (**Ref. # 22, 24 & 23**). Slide the winch mounting tube into the upright tube of the lift, line up the holes and secure it with a 1/2" x 4 1/2" bolt and nylock nut (**Ref. # 18 & 32**).

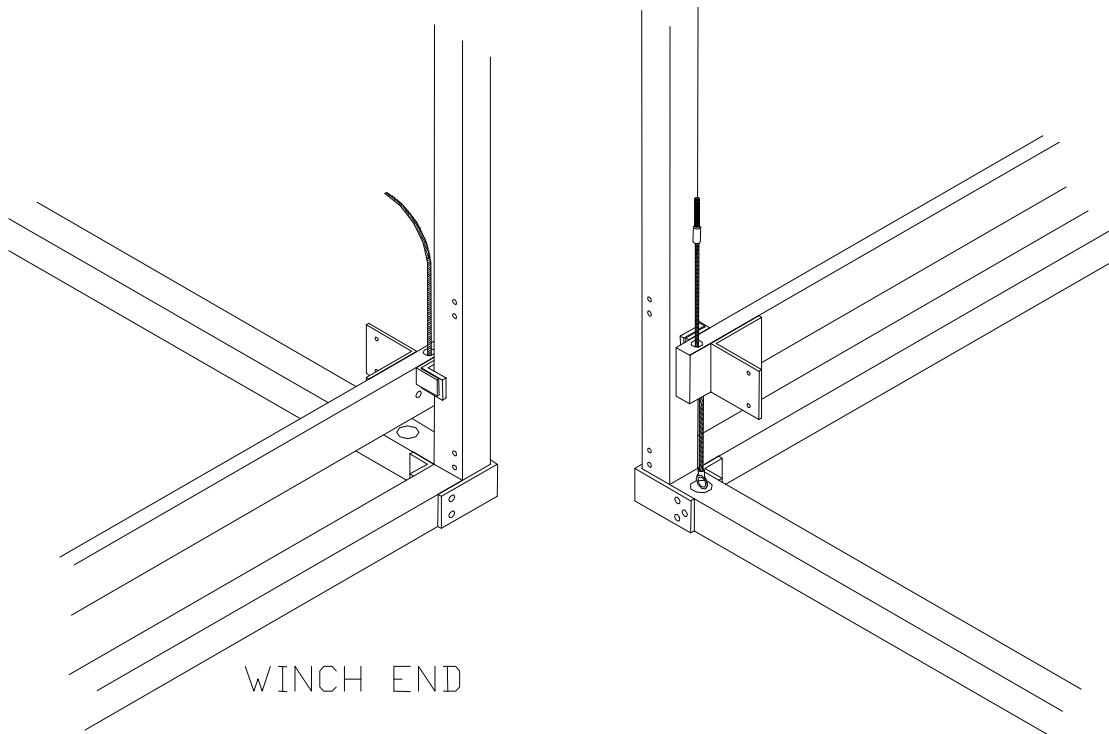


**Step 3.** Locate the winch side member with the diagonal braces (**Ref. #1**). Lay the winch side member on its side with the corner angles facing up. Slide the winch and mounting tube into the side member upright that has the extra pocket welded onto it's outside. **Have the winch facing toward the inside of the lift.** Bolt in place with 1/2" x 5" bolt and nut. Slide the leveling legs into the uprights so that the holes in the leveling leg are toward the outside of the lift. Pin leveling legs into the lowest position with a 1/2" x 5" clevis pin and clip (**Ref. #30 & 31**). Locate the two 4" x 4" x 110 1/2" bottom cross tubes (**Ref. #6**). Using two people, stand the side member up on it's leveling legs. With one person balancing the side member, bolt the bottom cross tubes to the corner angles of the side member using 1/2" x 5 1/2" bolts and nuts (**Ref. # 19 & 23**). Leave nuts finger tight at this time.

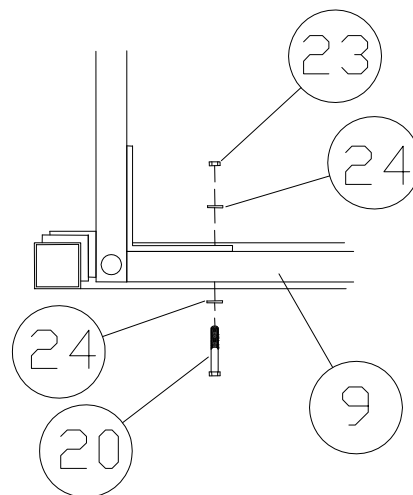
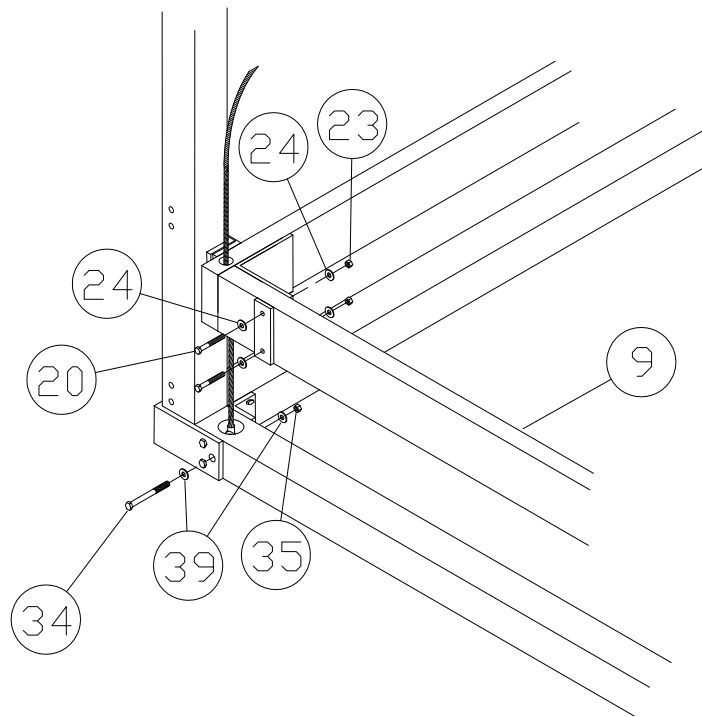


**Step 4.** Slide leveling legs into the anchor side member (**Ref. #2**) and pin in place as done to other side member. Using two people stand the side member up. Bolt anchor side member up to the ends of the bottom cross tubes. Using 1/2"x 5 1/2" bolts and nuts (**Ref. #19 & 23**). At this time, leave the bolt out of the single centered hole at the ends of the side members. Finger tighten nuts.

**Step 5.** Locate the top bed cross tubes, (2" X 6" X 126"), the tube with the single cable protruding from each end, is the winch bed cross tube (**Ref. # 7**). From the inside of the lift frame, on the winch end, place the top bed cross tube across the end of the lift so that the nylon slide angles are up against the inside corners of the side member uprights. Take the other top bed cross tube with the two cables protruding from the ends (**Ref. # 8**) and place across the other end of the lift frame, so that the bottom loops of the cable are in the holes in the bottom side tube of the side member. The nylon slide angles should be against the inside corner of the upright tubes.

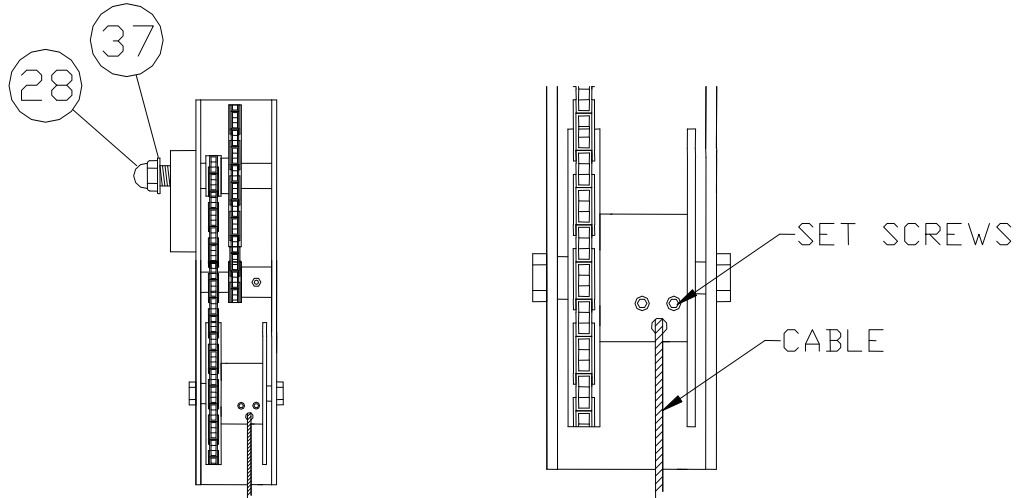


**Step 6.** Find the two 2" x 6" x 129 1/2" top bed side rail assemblies (**Ref. #9 & 9a**). **With the cable loop down and the angle toward the inside, place that end toward the winch end of the lift** and fasten the tube to the angle of the bed cross tube with a 3/8" x 3" bolt, washer, and nut (**Ref. #15, 32 & 27**). Repeat procedure for the other end. Place the cable loops into the cutout holes of the bottom tube of the side members and secure each with a 5/8" x 5 1/2" galvanized steel bolt, washer, and 5/8" galvanized nut (**Ref. #33, 39, & 35**). On the other end of the lift place the cable loops of the double cable top bed cross tube into the holes of the bottom tube of the side member. Align the loop with the first single hole and secure in place with 5/8" x 6" galvanized bolt, washer, and 5/8" galvanized nut (**Ref. #34, 39, & 35**). Using a tape measure square the corners of the lift to within 1/4" or less. Tighten all bolts at this time.

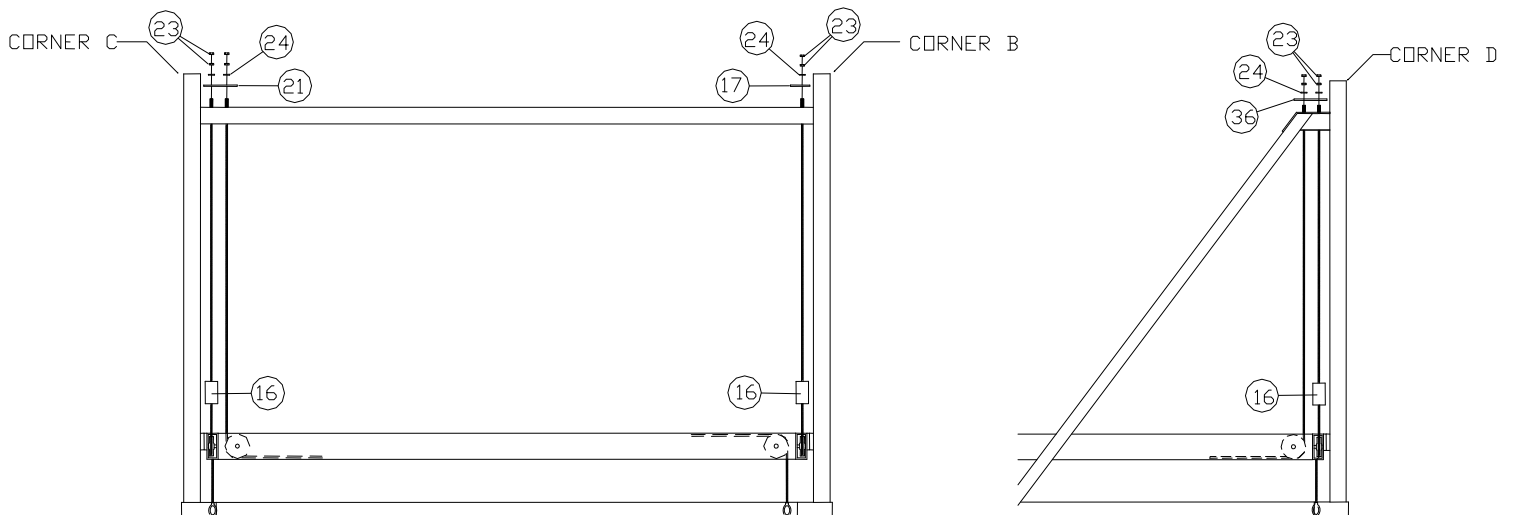


TOP VIEW

**Step 7.** Take the winch nut, washer (**Ref. #28 & 37**) and plastic shipping collar off the winch shaft. If possible lubricate the winch shaft with a light lubricant. Thread on lift wheel (**Ref. #11**) and replace washer and nut. Tighten acorn nut onto the winch shaft. There will be roughly an 1/8" clearance between the winch washer and the winch wheel. Turn the wheel clockwise until the set screws in the face of the drum are in a position that you can turn them. Loosen the allen head set screws in the face of the drum. Place the cable into the hole in the face of the drum, making sure that the cable goes between the backer flat and the drum on the inside of the drum. Tighten the set screws.



**STEP 8.** As a reference the corners are marked below on the assembly drawing. At corner B slide a rubber stop tube (**Ref. #16**) on to the cable. Fasten the cable stud to the top cross tube of the anchor side member using the 1/4" x 3 3/8" x 3 3/8" cable support plate, 1/2" washer, and double nut with two 1/2" nuts (**Ref. #17, 24 & 23**). At corner C slide a rubber stop tube on to the cable that is closest to the upright tube. Fasten both cable studs to the top cross tube of the anchor side member using the 1/4" x 3 3/8" x 6" cable support plate. Secure with 1/2" washers and double nut with two 1/2" nuts (**Ref. #21, 24 & 23**). At corner D slide a rubber stop tube on to the cable that is closest to the upright tube. Fasten both cable studs to the winch side member at the horizontal stub with 1/2" washers and double nut with two 1/2" nuts (**Ref. #24 & 23**). While standing on the double cable corner of the lift bed adjust the nuts on the cable studs until the cables have the same amount of tension and the bed is just off the angles on the bottom of the lift. Repeat procedure on the other double cable corner. **NOTE: To secure double nuts be sure to tighten the nuts in opposite directions against each other to lock them in position.**

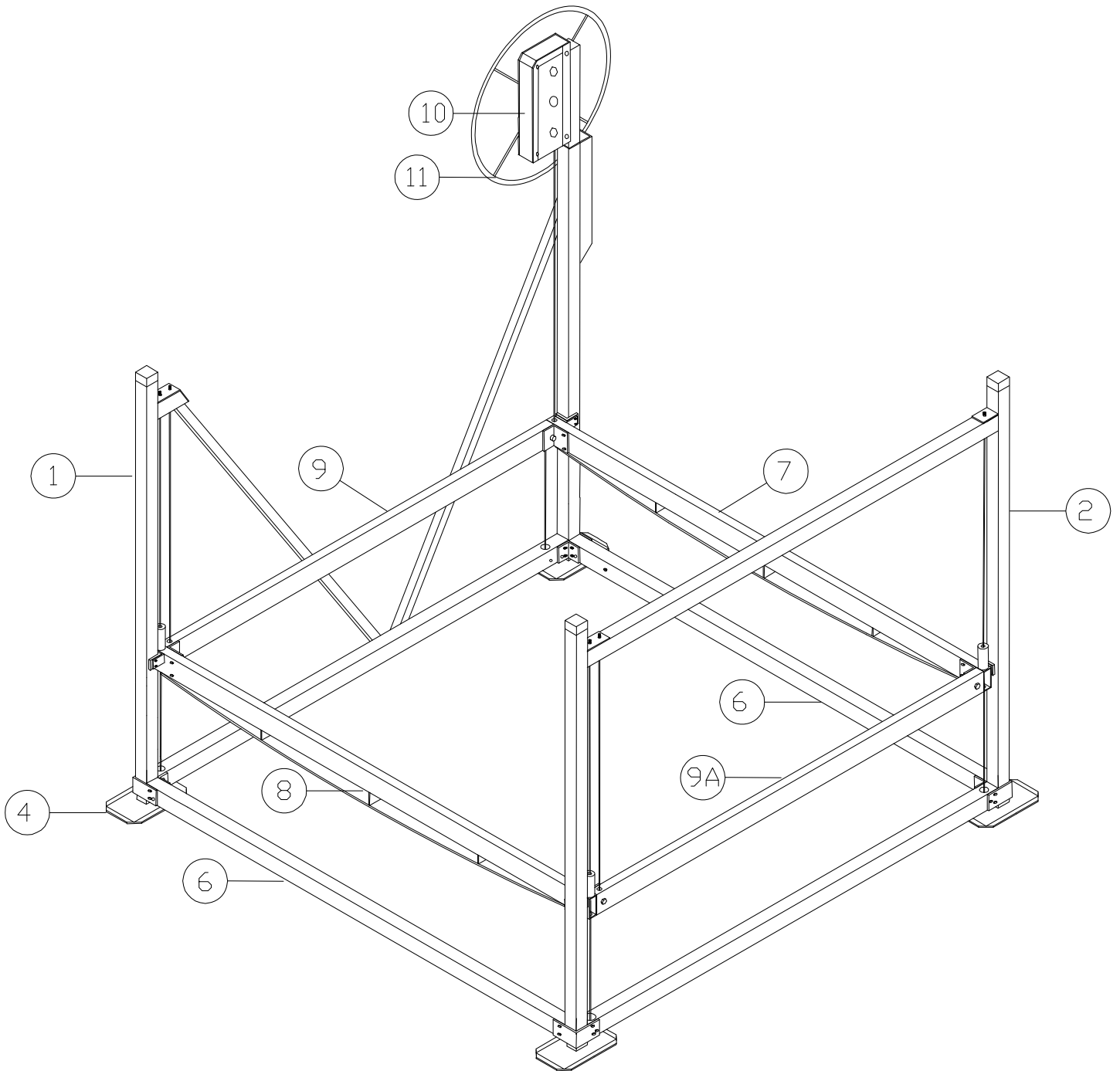


**STEP 9.** Raise and lower the lift a couple of feet a few times with weight on it to see if lift is coming up evenly. If lift is coming up uneven, either tighten or loosen nuts on cable studs. Example: if opposite end of the winch is more than an inch lower than the winch end, remove the weight from lift. Tighten the four nuts on the cable stud about 1" so that the cables have about the same tension. Reload and check again. When the boat is on the lift, there should be about the same tension on each cable.

## PARTS LIST

### 60120VL FLB VERTICAL LIFT CHAIN DRIVE WINCH

<b>REF. #</b>	<b>PART #</b>	<b>DESCRIPTION</b>	<b>QTY</b>
1	69H	60120 SIDE WINCH SIDE	1
2	68H	60120 SIDE ANCHOR SIDE	1
3	1965	60120 LEVELING LEG 32"	4
4	1968	60120 LEVELING LEG FOOT PAD	4
5	50600	WINCH MOUNTING TUBE 26"	1
6	74H	60120 FRONT & REAR BOTTOM CROSS BAR	2
7	97Q	60120 BED CROSS TB SINGLE CABLE	1
8	99Q	60120 BED CROSS TB DBL CABLE	1
9	95Q	60120 TOP BED/SIDE TB ASSEMBLY-RIGHT	1
9A	93Q	60120 TOP BED/SIDE TB ASSEMBLY-LEFT	1
10	3028	WINCH CHAIN DRIVE 24:1 LORENZ	1
11	45F	LIFT WHEEL	1
16	4513	60120 RUBBER STOP 4"	3
17	80112	CABLE SUPPORT PLATE WINCH 1/4" X 3 3/8 X 3 3/8"	1
18	5114	BOLT 1/2" X 5" GR 2	5
19	5115	BOLT 1/2" X 5 1/2" GR 2	16
20	5121	BOLT 1/2" X 3 1/2" GR 2	8
21	80114	CABLE SUPPORT PLATE 1/4" X 3 3/8" X 6"	1
22	5113	BOLT 1/2" X 4 1/2"	2
23	5058	NUT FIN 1/2"	37
24	5071	WASHER 1/2"	25
28	3027	WINCH NUT	1
29	3141	WINCH CABLE WEDGE	1
30	5218	LEG PIN 1/2 X 5" 5000	4
31	5092	HITCH PIN 1/8"	4
32	5039	LOCKNUT 1/2"	4
33	5255	BOLT GALV 5/8" X 5 1/2"	2
34	5256	BOLT GALV 5/8" X 6"	2
35	5257	NUT 5/8" GALV	4
37	5072	WINCH NUT WASHER 5/8"	1
38	3825	CAP 4" SQUARE GRAY	3
39	5072	5/8" WASHER	8

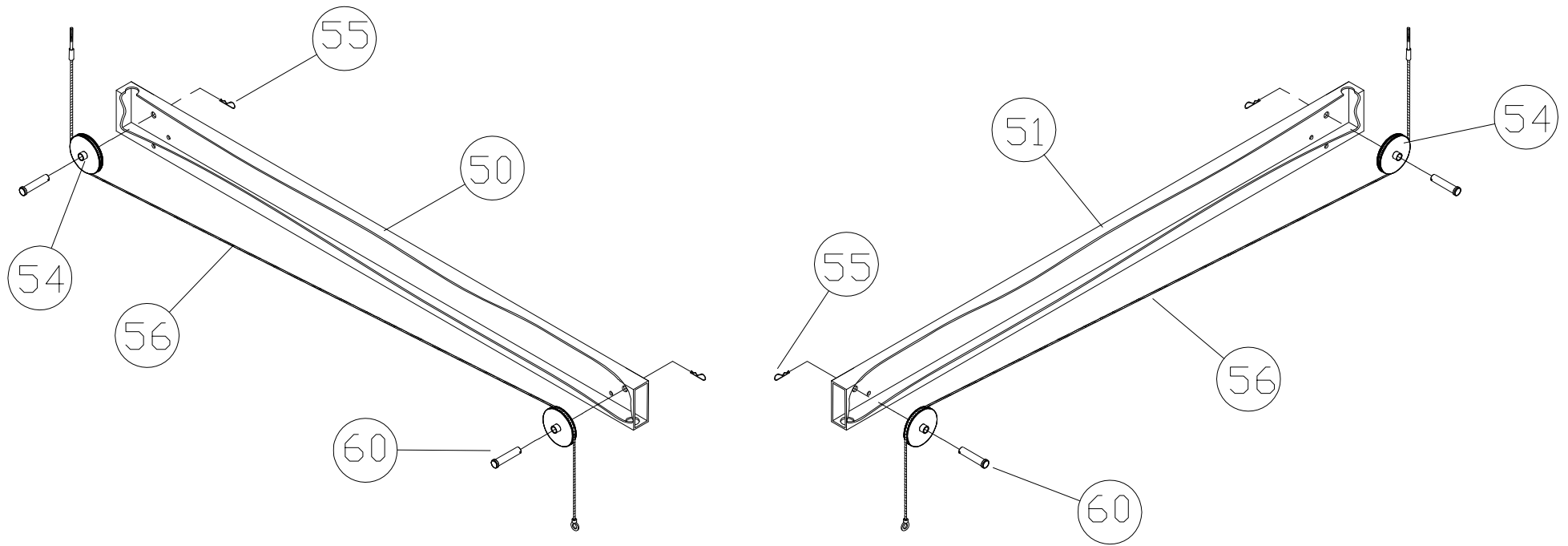


## 60120VL TOP BED ASSEMBLY

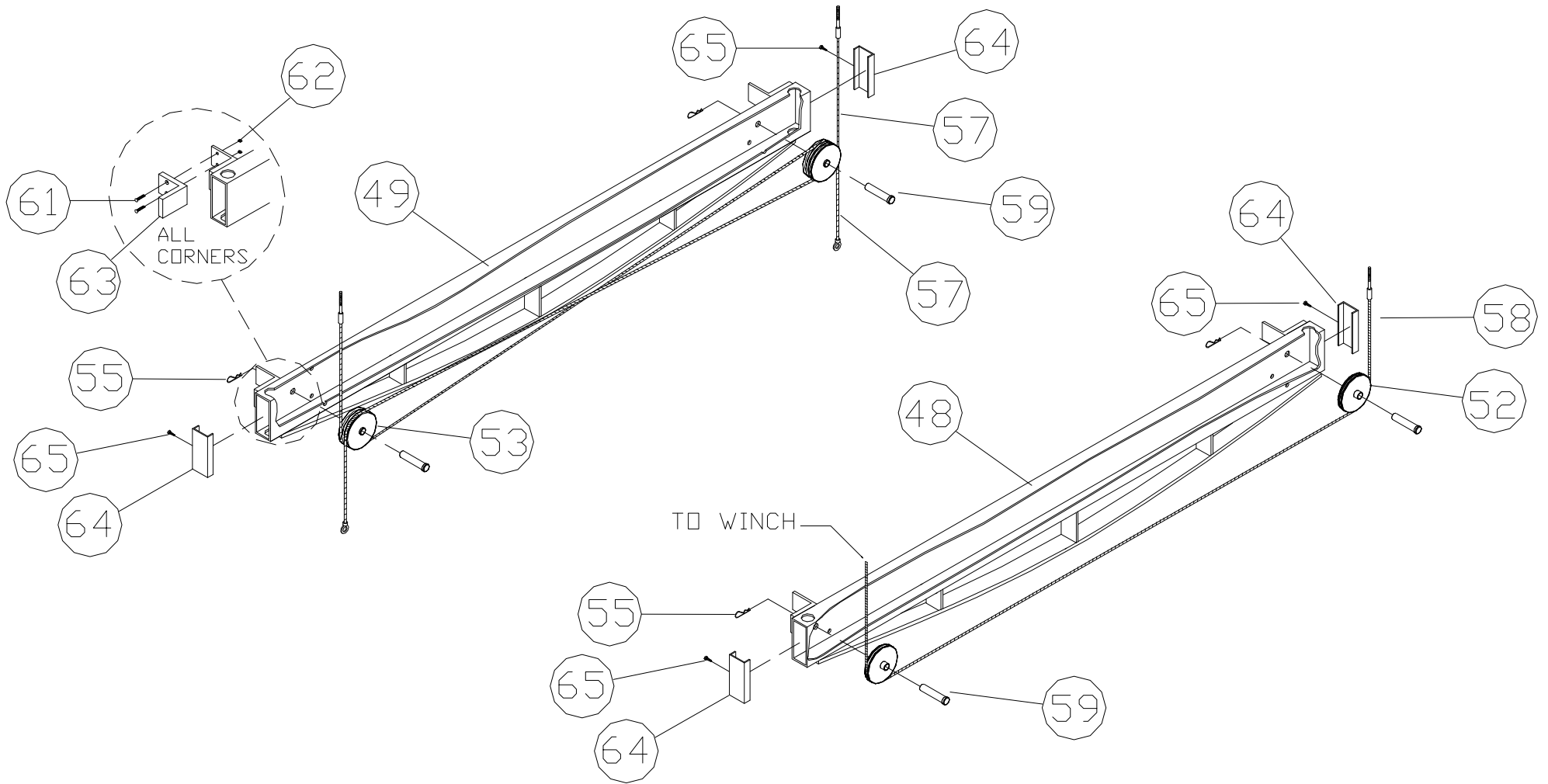
<u>Ref. no.</u>	<u>Part no.</u>	<u>Description</u>	<u>Qty</u>
48	96Q	60120 Winch Bed Cross Tube	1
49	98Q	60120 Anchor Bed Cross Tube	1
50	91Q	60120 Side Bed Tube Left	1
51	94Q	60120 Side Bed Tube Right	1
52	3298	5.25" Pulley Idler	2
53	3230	5.25" Pulley Double	2
54	3316	4" Single Pulley	4
55	5092	Hitch Pin .125"	8
56	1962	Cable 5/16" x 204.75" Loop/Stud	2
57	3117	Cable SS 5/16" x 201" Loop/Stud	2
58	1963	Cable Galv. 3/8" x 302" W/Stud	1
59	5023	Clevis Pin SS 3/4" X 2 15/16"	4
60	5045	Clevis Pin SS 5/8" X 2 1/2"	4
61	4994	Machine Flat Head 1/4" X 7/8" Screw	8
62	5053	Locknut 1/4" Keps	8
63	50095	Plastic Slide Angle 3" X 3" X 2 3/4" UHMW	4
64	50326	End Cap 50120V	4



# 60120VL SIDE BED TUBE LEFT AND RIGHT



# 60120VL WINCH & ANCHOR CROSS TUBE





## IMPORTANT BOAT LIFT SAFEGUARDS

**The boat lift system must be assembled, installed and operated correctly or mechanical failure causing injury or death may occur. Be sure that all persons operating the lift are familiar with the correct operating procedures and safety guidelines.**

**CAUTION** - Keep all body parts inside the boat when entering or exiting the boat lift. Do not try to manually guide the boat into position.

**CAUTION** – Keep clear of chains, cables, and all moving parts when operating the lift.

**CAUTION** – On lifts that have a chain drive winch, the cover must be in place while operating.

**CAUTION** – Never allow anyone to swim around or climb on the lift structure at any time.

**CAUTION** – Do not operate the lift with people inside the boat.

**CAUTION** – Never exceed the rated capacity of the lift as this may cause excessive damage to the lift. Do not allow people to sit in a boat that is on the lift as this may cause the lift's capacity to be exceeded. An uncovered boat can fill up with water and cause the capacity of the lift to be exceeded.

**CAUTION** – Before any adjustments are made to the lift, or any work is done, the boat must be removed and the bed must be fully lowered.

**CAUTION** – Winches are pre set from the manufacturer and do not need adjusting.

**CAUTION** – If using a winch with a remote control, the operator must be close enough to the lift to be sure that no one is around or on the lift, and to be sure that the lift is operating properly.

**CAUTION** - After installation the lift must be leveled in order to operate properly. If the lift is not leveled properly there will be excessive stress on isolated areas causing failure or damage to the lift.

Before installing the lift each year inspect the cables, pulleys, and all moving parts for wear. Immediately replace any part that has excessive wear. Check the brake pad in the winch, if it is worn down to 1/16" thick, cracked, or glazed over, replace it immediately. Check all the bolts to make sure they are tight. On vertical lifts the cables may stretch and will need to be tightened so there is equal tension on all the cables.

Porta-Dock, Inc.