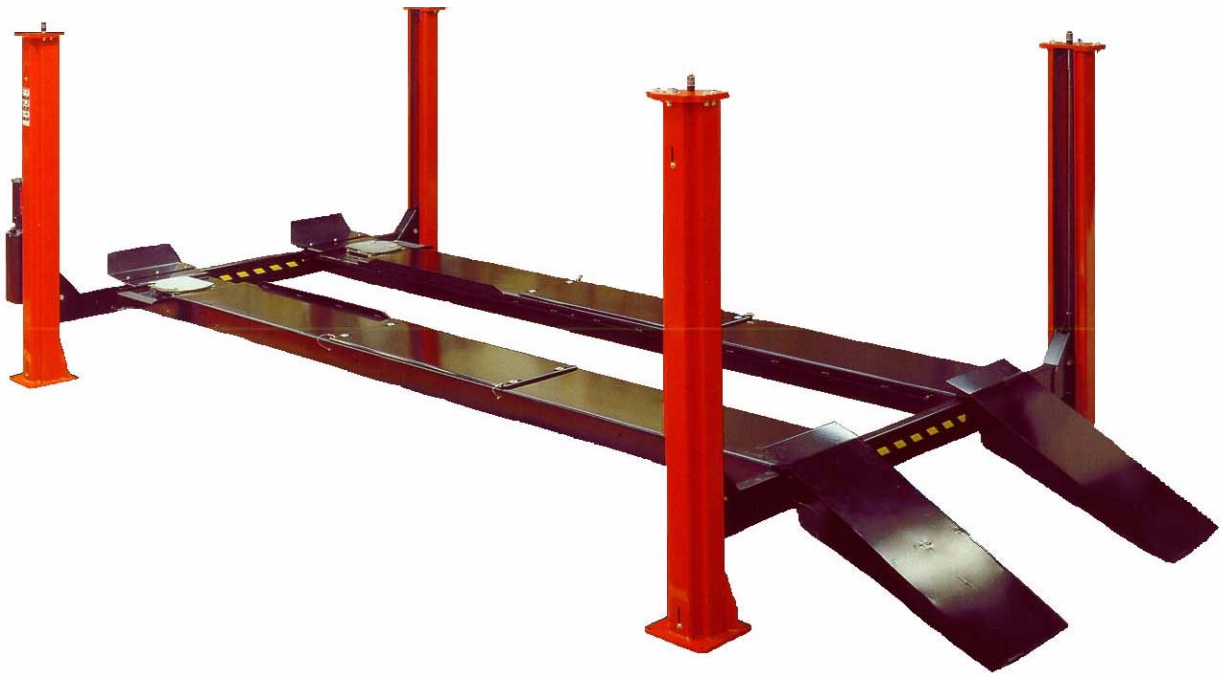


SUN®

INSTALLATION and OPERATION MANUAL



**READ THIS INSTRUCTION MANUAL THOROUGHLY BEFORE
INSTALLING, OPERATING, SERVICING OR MAINTAINING THE
LIFT. SAVE THIS MANUAL.**

**KODIAK QUAD RACK
MODEL: ALIGNMENT EELR124A /
EELR124APKG
SERVICE WHE18406
18000 LB**

SUN is a trademark of
**Snap-on Tools
Corporation
1-800-268-7959**

JUL 2010 REV.-

6-1787

THE FOLLOWING APPLIES TO ALL LIFTS

IMPORTANT SAFETY INSTRUCTIONS

When using this lift, basic safety precautions should always be followed, including the following:

1. Read all instructions in this manual and on the lift thoroughly before installing, operating, servicing or maintaining the lift.
2. Inspect lift daily. Do not operate if it malfunctions or problems have been encountered.
3. Never attempt to overload the lift. The manufacturer's rated capacity is shown on the identification label on the power side column. Do not override the operating controls or the warranty will be void.
4. Only trained and authorized personnel should operate the lift. Do not allow customers or bystanders to operate the lift or be in the lift area.
5. **Caution! Never work under the lift unless the mechanical safety locks are engaged.**
6. Always keep the lift area free of obstruction and debris. Grease and oil spills should always be cleaned up immediately.
7. Never raise vehicle with passengers inside.
8. Before lowering check area for any obstructions
9. To protect against the risk of fire, do not operate lift in the vicinity of open containers of flammable liquids.
10. Adequate ventilation should be provided when working on internal combustion engines.
11. Do not remove hydraulic fittings while under pressure.
12. Do not raise or lower the lift with the vehicle on the Jacking Beam.

SAVE THESE INSTRUCTIONS

+ 070126-Quadra-WLSIA01

SAFETY INSTRUCTIONS

If attachments, accessories or configuration modifying components that are located in the load path, affect operation of the lift, affect the lift electrical listing or affect intended vehicle accommodation are used on this lift and, if they are not certified for use on this lift, then the certification of this lift shall become null and void. Contact the participant for information pertaining to certified attachments, accessories or configuration modifying components.

www.autolift.org

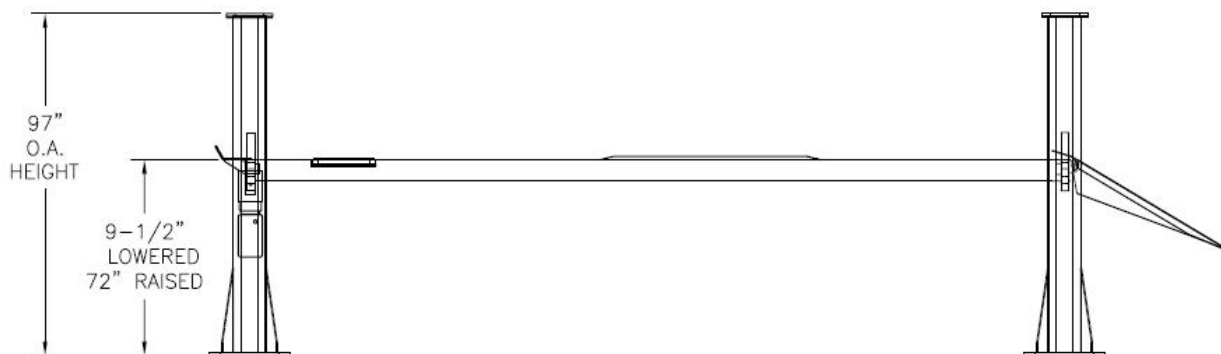
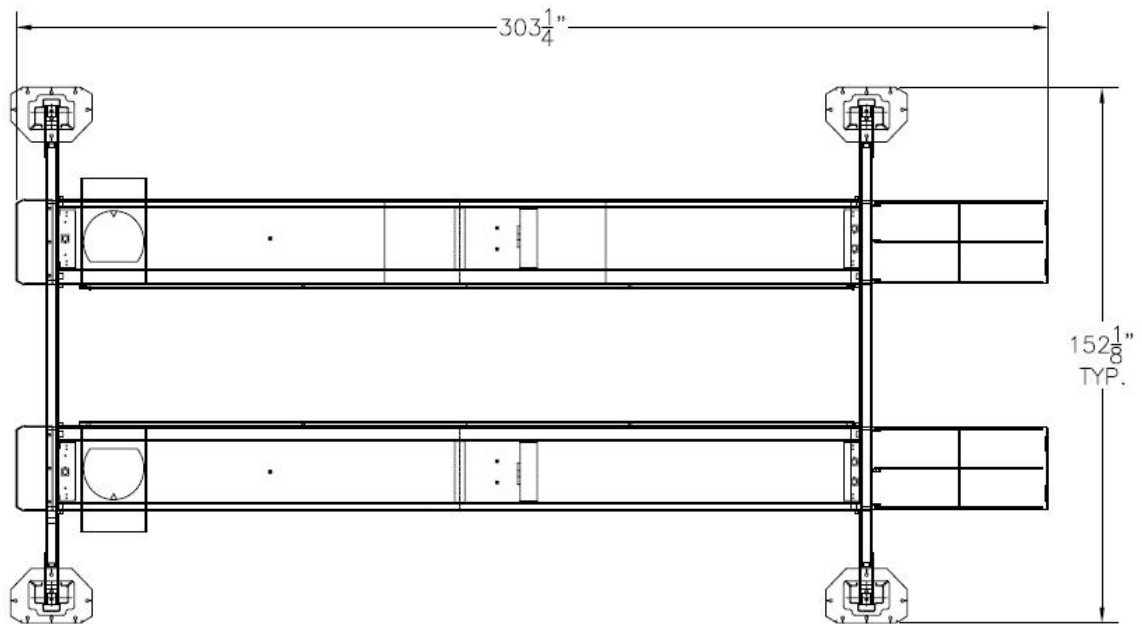
©2007 by ALI, Inc.

ALI / WLSIA01

TABLE OF CONTENTS	PAGE
1.0 GENERAL SPECIFICATION	4
2.0 TOOLS REQUIRED FOR INSTALLATION.....	5
3.0 CONTENTS.....	6
4.0 INSTALLATION INSTRUCTIONS	7
4.1 Chalk Line Layout	9
4.2 Front And Rear Crossmember Assemblies.....	10
4.3 Power Pack Installation.....	14
4.4 Hydraulic Installation.....	14
4.5 Electrical Connections	15
4.6 Cable Installation	15
4.7 Air Installations	16
4.8 Anchor Installation	17
4.9 Deck Leveling Procedure.....	18
4.10 Final Check Of Assembled Lift.....	20
4.11 Operation Test With Vehicle	21
5.0 SAFETY AND OPERATING INSTRUCTIONS	22
6.0 SAFETY AWARENESS.....	23
7.0 RECOMMENDED MAINTENANCE.....	24
8.0 PARTS LIST	25
8.1 Lift Assembly	25
8.2 Parts List – Lift Assembly	26
8.3 Tower Assembly	27
8.4 Parts List – Power Tower Assembly	28
8.5 Deck Assembly (Left Side).....	29
8.6 Parts List – Deck Assembly (Left Side).....	30
8.7 Crossmember Assembly.....	31
8.8 Parts List – Crossmember Assembly.....	32
8.9 Cylinder Assembly	33
8.10 Parts List – Cylinder Assembly	34
8.11 Hydraulic And Air Kit	35
8.12 Parts List – Hydraulic And Air Kit	36
8.13 Cable Routing	37
8.14 Parts List – Cable Routing	38
8.15 Power Pack Assembly	39
8.16 Parts List – Power Pack.....	40
9.0 AVAILABLE ACCESSORIES	42

1.0 GENERAL SPECIFICATION

Maximum Capacity:	18,000 lb.	8,165 kg
Overall Length:	304-7/8"	7468mm
Overall Width:	152-1/8"	3864mm
Down Position Height:	9-1/2"	241mm
Maximum Lifting Height:	72"	1829mm
Maximum Wheel Base:	210"	5334mm
Power Rating:	208-230 Volts, 1Ph., 20 Amp, 60Hz.	
Air Requirements:	90 – 120 psi Shop Air	
Shipping Weight:	5,465 lb.	2,484 kg



CHECK CONTENTS OF ACCESSORY BOX WITH THE PACKING LIST ENCLOSED



ATTENTION! This lift is intended for indoor installation only. It is prohibited to install this product outdoors. Operating environment temperature range should be 41 – 104 °F (5 – 40 °C). Failure to adhere will result in decertification, loss of warranty, and possible damage to the equipment.

2.0 TOOLS REQUIRED FOR INSTALLATION

- ROTARY HAMMER DRILL
- 3/4" CONCRETE DRILL BIT
- 4' LEVEL
- HAMMER (for anchor installation)
- PRY BAR (for shim installation)
- CHALK LINE (lift location)
- TAPE MEASURE
- ELECTRICAL TAPE
- STEP LADDER (adjusting cables and/or safety ladder in posts)
- SIDE CUTTERS (for cutting shipping straps)
- 4 WORK STANDS (set up)
- STANDARD SOCKETS AND WRENCHES
- ALLAN KEY SET
- SCREWDRIVER SET
- FLOOR JACK OR ENGINE HOIST

3.0 CONTENTS

The lift is packaged to protect it from any damage that may occur during shipping. The two deck assemblies and crossmembers are packaged together with the accessory boxes strapped to them.

Main Structural Components:

- 1 - Left Side Deck Assembly (complete with hydraulic cylinder, sheaves and cables)
- 1 - Right Side Deck Assembly
- 1 - Front Crossmember Assembly (with air cylinder release locks and sheaves)
- 1 - Rear Crossmember Assembly (with air cylinder release locks and sheaves)

Accessory Box Components

Box 1 Contents:

- 1 - Power Post (with safety ladder)
- 3 - Post (with safety ladder)

Box 2 Contents:

- 1 - Hardware Kit (with separate packaging list)
- 2 - Ramp pin
- 2 - Front Wheel Stop
- 4 - Sheave Cover
- 2 - Approach Ramp
- 1 - Coupler, ¼"NPT
- 2 - Recoil Hose
- 1 - Power Unit 220v/1Ph/3hp
- 10ft - 1/4" DIA. Polytube
- 10ft - 3/8" DIA. Polytube
- 1 - Hose Guard
- 1 - Hydraulic Hose Assembly (16ft. lg.)
- 2 - Cable Tie
- 1 - Air Valve & Filter Assembly
- 1 - Flow Control
- 1 - Installation & Operation Manual
- 1 - Lift it Right Manual "ALI"
- 1 - Lift it Right Safety Tips
- 1 - "ALI" Standards
- 1 - "ALI" Quick Reference Guide
- 8 - Glide Bearing

4.0 INSTALLATION INSTRUCTIONS

PLEASE TAKE THE TIME TO READ THESE INSTRUCTIONS COMPLETELY. A QUICK CHECK OF THE CONTENTS OF THE ACCESSORY BOX WOULD ALSO DECREASE THE INSTALLATION TIME.

- Gather the tools and materials required for the installation.
- Select the location best suited for your lift.

NOTE: In determining lift area check for the following:

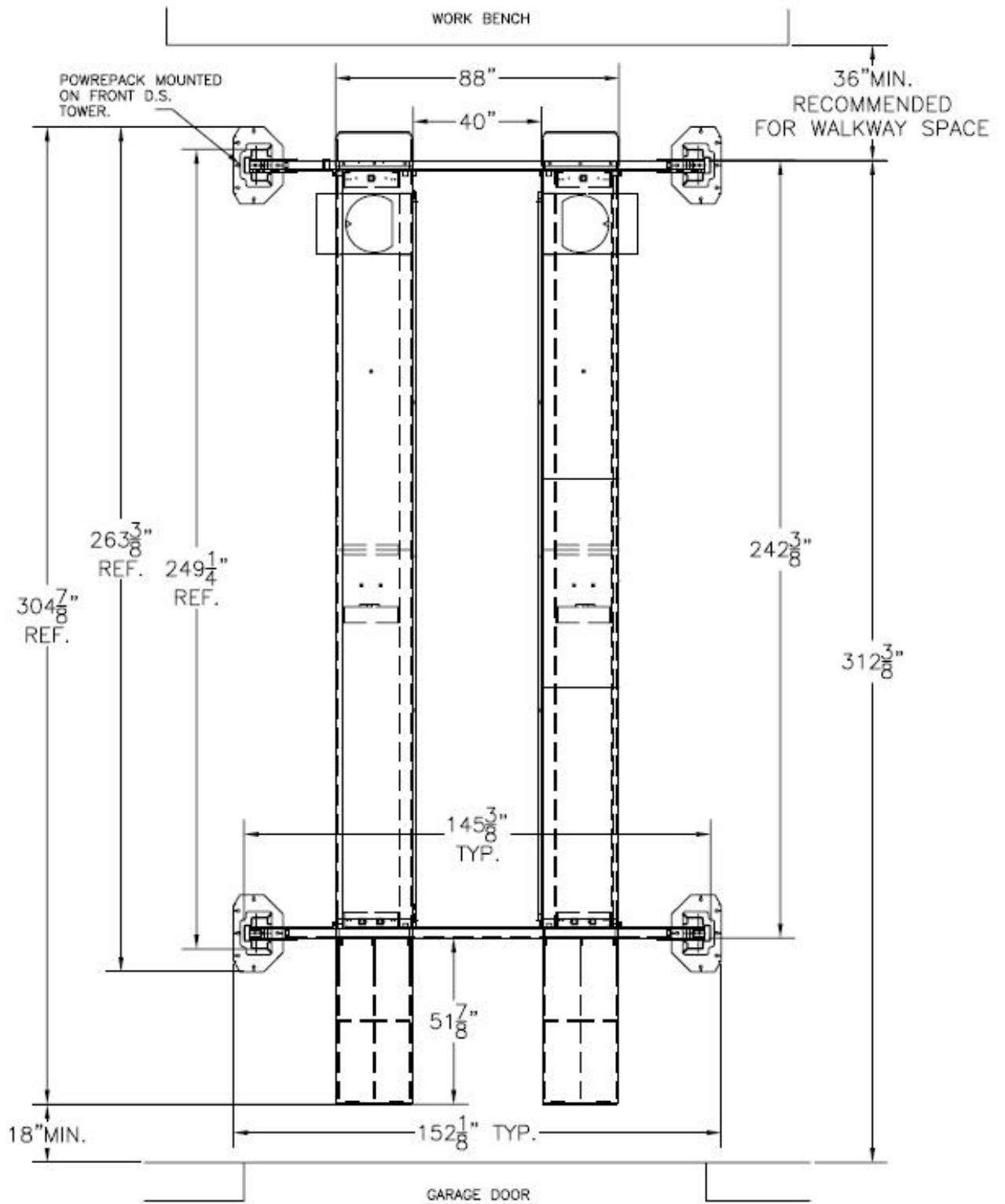
- Ease of driving a vehicle on and off the lift.
- Overhead obstructions, low ceiling height, overhead doors, overhead heaters etc.
- Floor obstructions, uneven floor in lift area, floor drains, work benches, electrical wiring in floor, etc.
- **Concrete grade:** Lifts should only be installed on level concrete floors with a minimum thickness of five (5) inches. Concrete must have a minimum strength of 4,000 psi., and should be aged 30 days prior to the installation of the lift.

Recommended clearance around the lift is three (3) feet. Ensure clearance conforms to local building and fire codes.

Recommended overhead clearance is a minimum twelve (12) foot ceiling providing 6 feet for the maximum lift height and 6 feet for the supported vehicle. For vehicles taller than 6 feet it is recommended that the user provides additional overhead clearance or a shut off mechanism to stop the lift from raising the vehicle too high.

An outline matching the dimensions shown in Figure 1 will need to be marked on the floor. Refer to Figure 1 for outline dimensions. Refer to General Lift Specifications for overall lift dimensions.

TYPICAL BAY LAYOUT



4.1 CHALK LINE LAYOUT

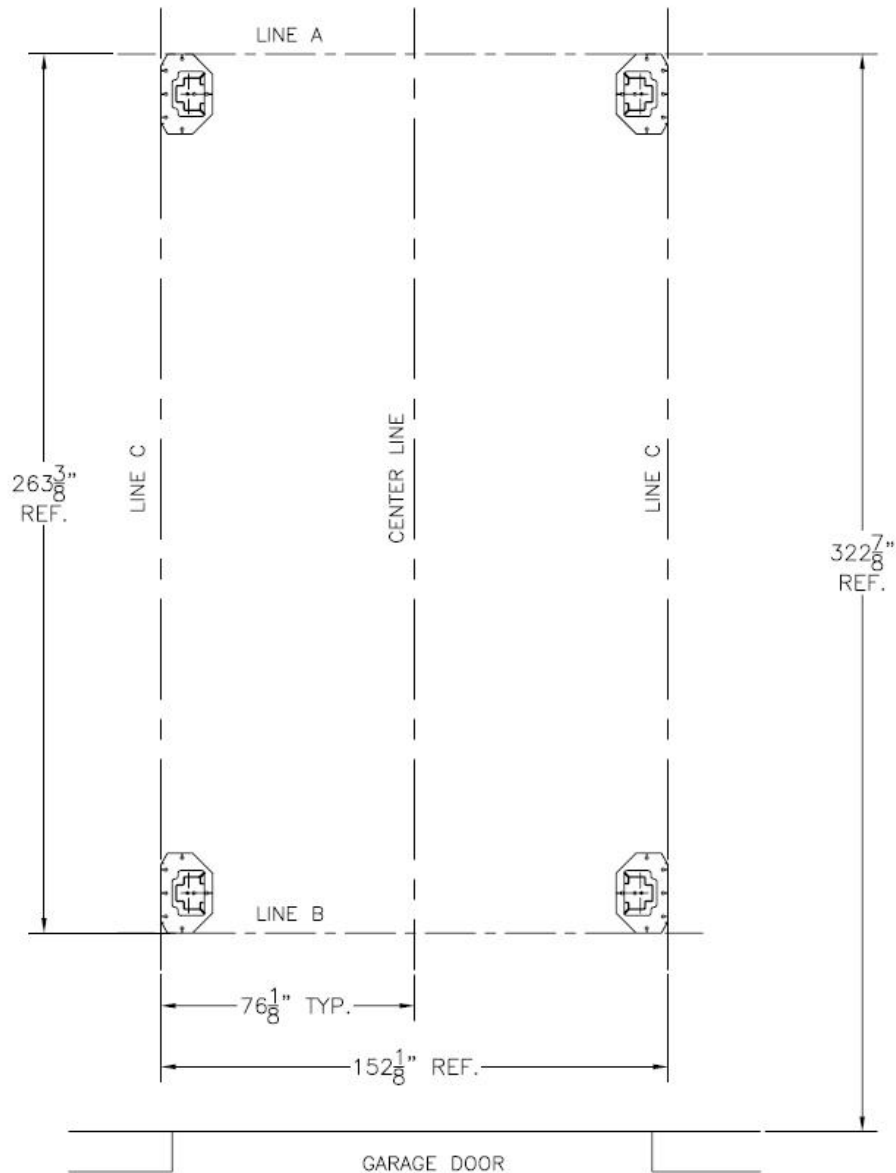


Figure 1. Chalk line layout

- **Refer to Figure 1.** Make a chalk line parallel to the doorway at least $322\frac{7}{8}"$ in from the doorway. This will be the location for the front face of the tower baseplate. Call this line "A".
- Determine the center of the doorway and bay. Make a centerline to intersect with line "A".
- Make a chalk line parallel to line "A", $263\frac{3}{8}"$ back toward the door. Call this line "B".
- Make two chalk lines spaced $76\frac{1}{8}"$ to the left and right side of the centerline intersecting line "A" and line "B". Call these lines, line "C". These will be the lines that the outside edge of the tower baseplate runs along.

4.2 FRONT AND REAR CROSSMEMBER ASSEMBLIES

IMPORTANT

NOTE: To determine the front, rear, left side and right side of the decks check the following:

- The left side deck has the hydraulic cylinder mounted to its underside and includes the cables. The work steps, attached to the turn plate pocket cutouts, are located at the front of the lift and should point outward when installed.

NOTE: To determine the front and rear, of the crossmembers check the following:

- The rear crossmember has three ears for attaching the approach ramps. There are 2 locating tabs on each side of the crossmembers for positioning the decks between the crossmembers (see Figure 2).

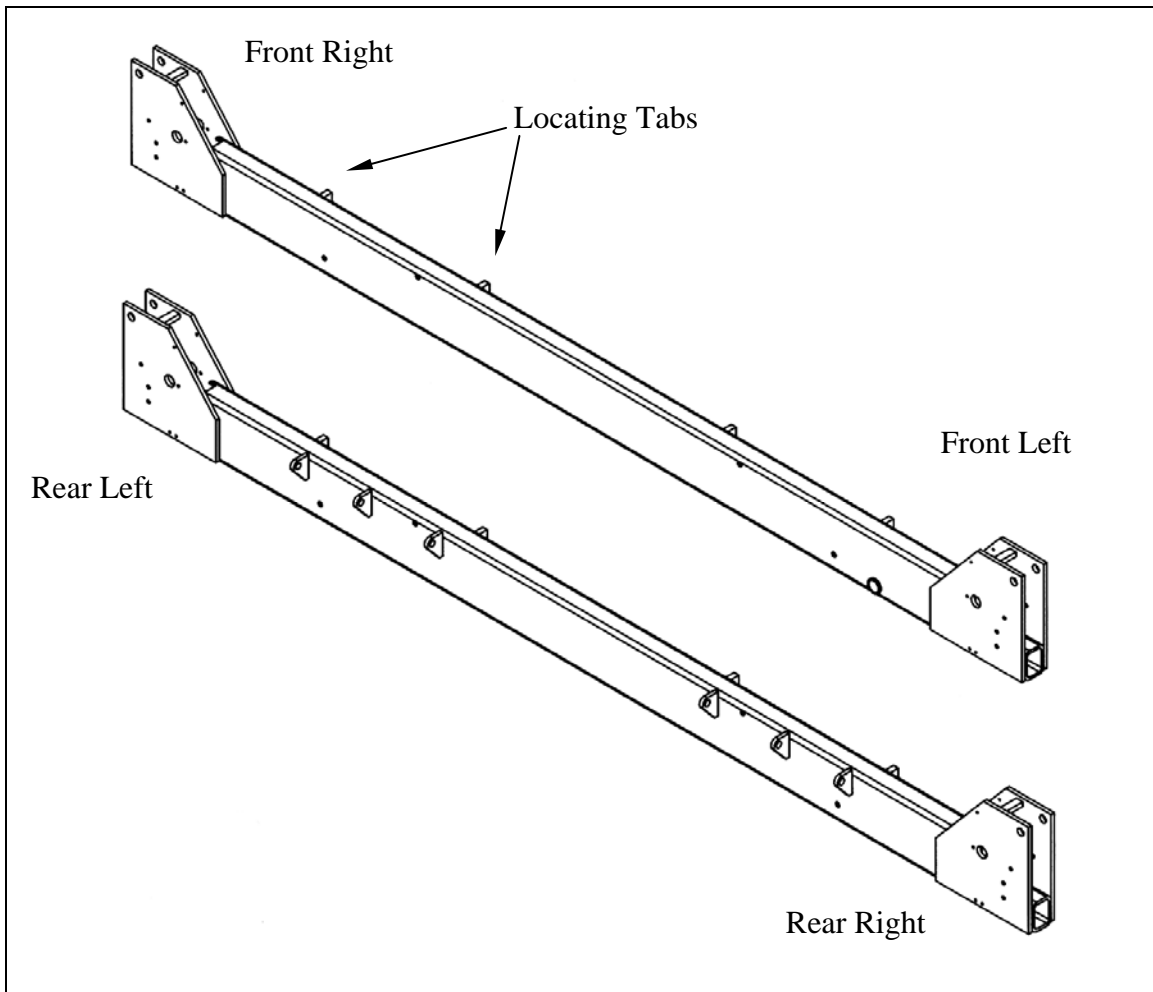


Figure 2. Front and rear crossmembers

- Remove the left and right deck assemblies from their packaging and place them on axle stands as follows (see Figure 1):
 - Place the left deck assembly so that the inside edge lies along chalk line “B”
 - Place the right deck assembly so that the inside edge lies along chalk line “C”
 - Position both decks so that the front edge lies along chalk line “A”
- Using a floor jack or engine hoist, move the front crossmember into position in front of the lift and the rear crossmember into position at the rear of the lift. Refer to Figure 2 to identify the front and rear crossmembers.

NOTE: THE PULLEYS (SHEAVES) IN THE DECK ASSEMBLY DO NOT NEED TO BE REMOVED FOR ASSEMBLY.

- Check the part numbers of the cables (located on each stud) to determine routing.

2-1360	FRONT LEFT
2-1361	FRONT RIGHT
2-1362	REAR LEFT
2-1363	REAR RIGHT

NOTE: Refer to Figure 4 and the Parts Manual, Cable Routing Diagram for a detailed layout of cable routing.

- Remove the pulleys (sheaves) from the crossmembers along with the spacers and nylon thrust washers. Place these to the side of the crossmembers.
- Run each cable through the crossmembers and out past the safety lock (see Figure 3).
- Raise the front crossmember up to the level of the decks and attach it using the ½”DIA x 4½”LG Hex Bolts, ½” Washers, ½” Lockwashers and ½” Hex Nuts found in the polybag labeled “D” (Decks).

NOTE: THE CABLES RUNNING INSIDE THE CROSSMEMBERS MUST PASS BETWEEN THE ½”DIA x 4½”LG HEX BOLTS USED TO FASTEN THE CROSSMEMBERS TO THE DECK ASSEMBLIES.

- Repeat the previous step for the rear crossmember.
- Position the decks between the locating tabs on the crossmembers using the ½”-13UNC x 1”LG Set Screws found in the polybag labeled “D” (Decks). The set screws go in the outer locating tabs and should be tightened until the inside of the edge of the deck assemblies are flush with the inside edge of the locating tabs on the crossmembers.
- At this point the decks should be completely fastened to the crossmembers and the threaded portion of each cable should be routed through the crossmembers, past the lock safety. The crossmember pulleys should be

removed and lying at each corner of the lift. Before proceeding, check that the layout matches that shown in Figure 1, that the lift is square and that there is a 40" gap between the decks along their entire length.

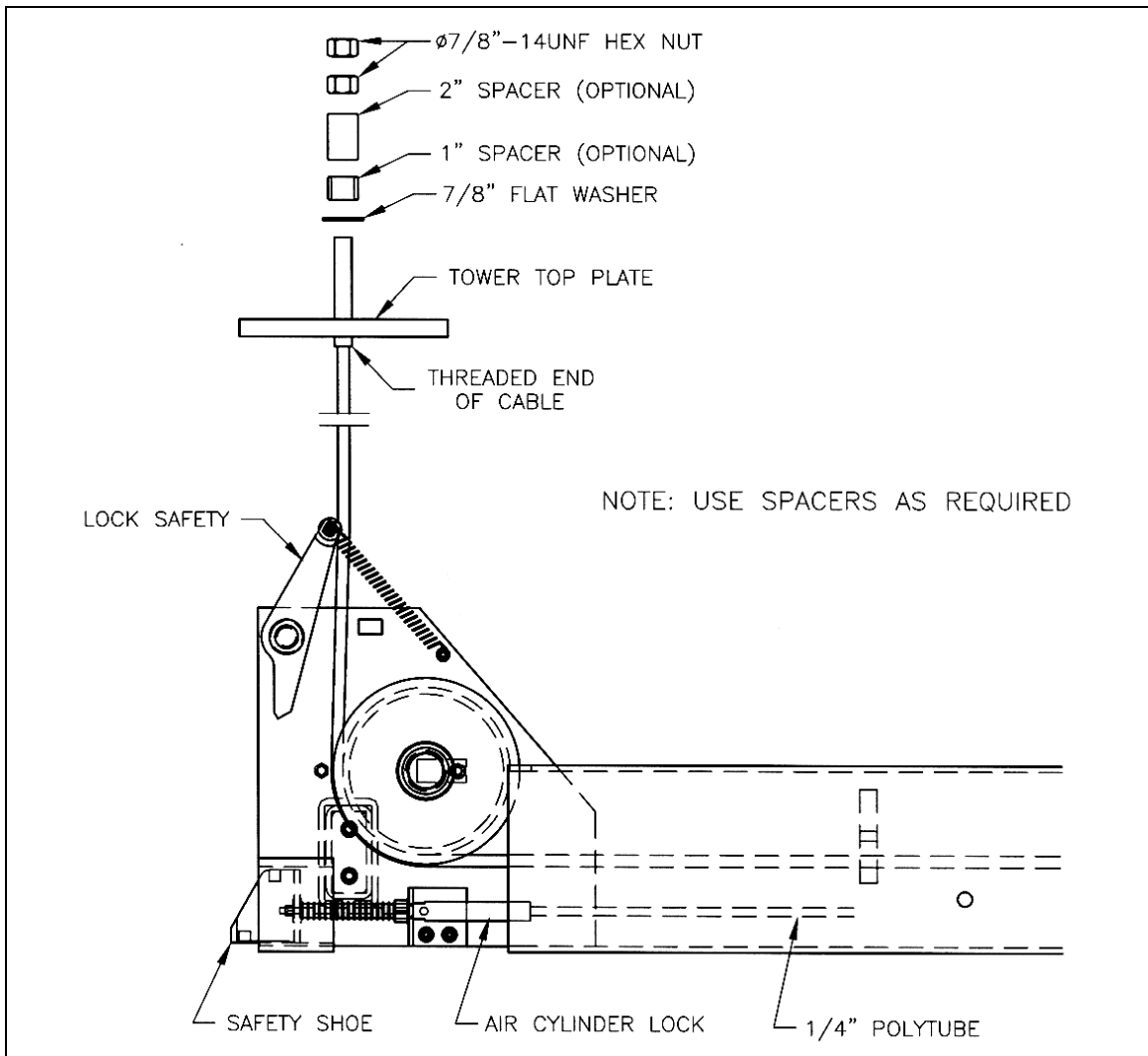


Figure 3. Cable routing diagram

NOTE: THE 40" DIMENSION SHOWN IN THE TYPICAL BAY LAYOUT (PAGE 4) IS CRITICAL AS IT IS NECESSARY TO ALLOW THE JACKING BEAMS TO ROLL FREELY.

- Remove the slider block weldments from both crossmembers by removing the 3/8"-16UNC x 1"LG Hex HD Bolts and 3/8" Lockwashers attaching them to the crossmember.
- Determine which tower is the power post (the tower with the mounting plate for the powerpack) and position it in the front left corner. Position the remaining three towers at the other corners of the lift.
- Slide each tower around the crossmember so that the holes for attaching the slider blocks are roughly halfway inside the channel.

- Place the Glide Bearings (located in the accessory box) on the slider block weldments and bolt the slider block weldments back onto the crossmember using the 3/8"-16UNC x 1"LG Hex HD Bolts and 3/8" Lockwashers removed previously.
- Replace all of the crossmember pulleys, being sure to lock the sheave pins with the 3/8"-16UNC x 1"LG Hex HD Bolt. Be sure to replace pulleys and spacers in the same arrangement as they were removed (see Figure 3 and the Parts Manual, Front Crossmember Assembly).
- Pull the towers backwards (away from the decks) so that the slider blocks are flush with the tower roll form.

NOTE: THE CYLINDER ROD MUST BE FULLY EXTENDED IN ORDER TO ATTACH THE THREADED ENDS OF THE CABLES TO THE TOP PLATE OF THE TOWERS. TO EXTEND THE CYLINDER ROD, THE POWERPACK AND HYDRAULIC KIT MUST BE INSTALLED AND THE ELECTRICAL CONNECTIONS MADE (SEE FOLLOWING SECTIONS).

- The non-threaded ends of the cables are pre-installed on the cable flange. Ensure that the cable flange is installed with the counterbores facing towards the hydraulic cylinder as shown in Figure 4
- Ensure that the two retaining nuts are positioned as shown in Figure 4. The nuts should be locked against each other using two wrenches.

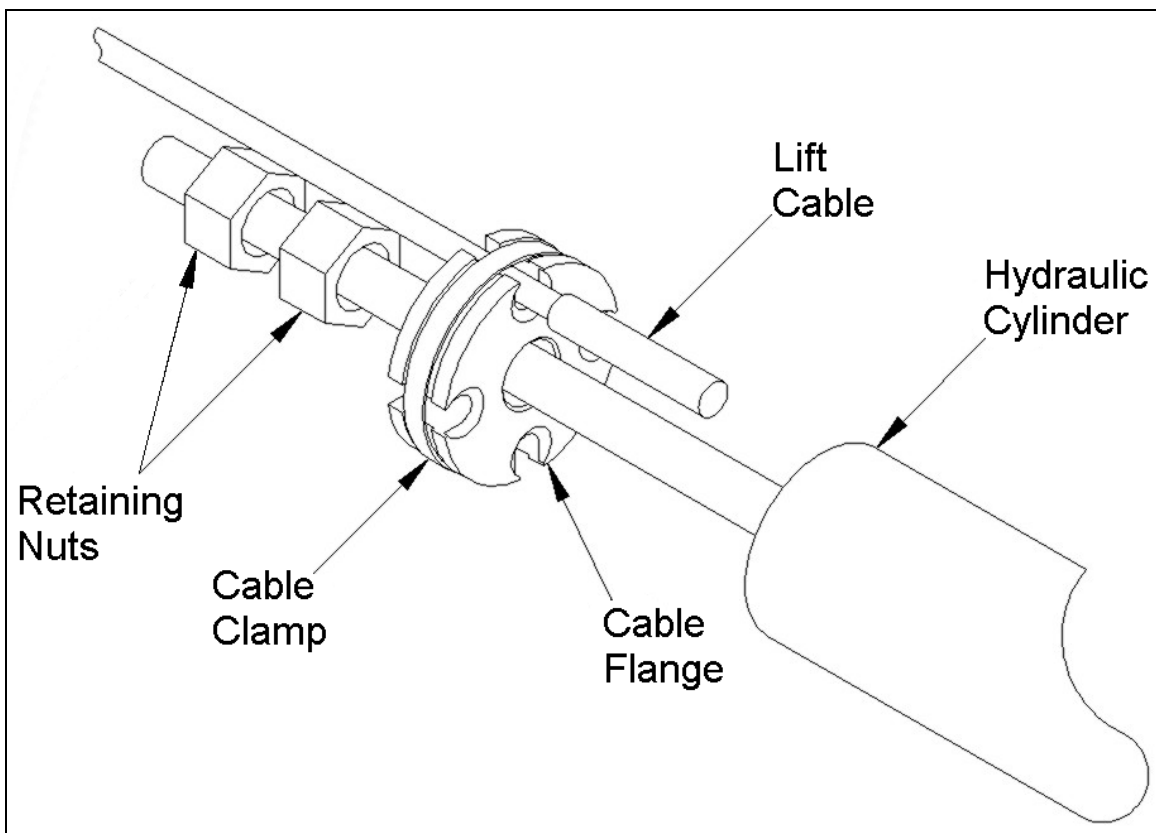


Figure 4. Cable Installation at Flange

4.3 POWER PACK INSTALLATION

NOTE: WHEN WORKING WITH HYDRAULIC LINES AND VALVES, IT IS IMPORTANT TO KEEP ALL COMPONENTS CLEAN AND FREE OF DIRT.

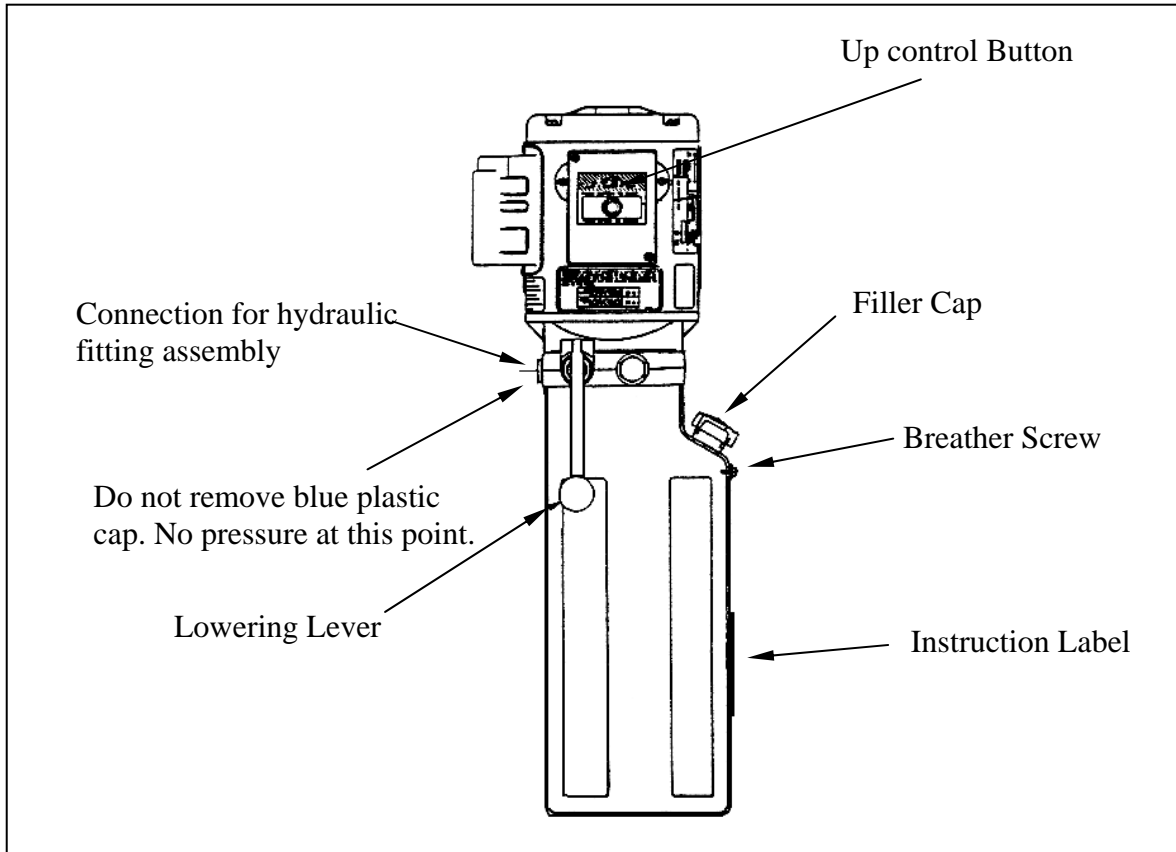


Figure 5. Power pack details

- Install the power pack to the mounting bracket on the front face of the left front post using the 5/16"-18UNC x 1"LG. hex head bolts and 5/16" washers, lockwashers and hex head bolts, found in polybag "C" (Powerpack). Refer to the Parts Manual, Power Post Tower Assembly Diagram.

4.4 HYDRAULIC INSTALLATION

- Refer to Parts Manual, Hydraulic and Air Kit Diagram
- Locate the supply lines: 1/4" and 3/8" polytube (10ft.), 3/8" flexible hydraulic line (16ft.), and install the hose guard to cover all three lines. All four items are found in the accessory box

TIP: TAPE ONE END OF THE HYDRAULIC HOSE TO THE TWO POLYTUBES AND FEED THEM THROUGH HOSE GUARD. NOW REMOVE THE TAPE.

- Feed the hose guard through the opening on the front left crossmember assembly.

- Connect the end of the flexible hydraulic hose (3/8" JIC, F SWIVEL) to the fitting at the cylinder. **DO NOT OVER TIGHTEN.**
- Connect the other end of the flexible hydraulic hose (3/8" JIC, F SWIVEL) to the flow control on the powerpack.

4.5 ELECTRICAL CONNECTIONS

CAUTION: ALL ELECTRICAL CONNECTIONS SHOULD BE MADE BY A QUALIFIED ELECTRICIAN.

Refer to Figure 6, Electrical Diagram for electrical connections.

Electrical Breaker Size Recommendation: 20Amps

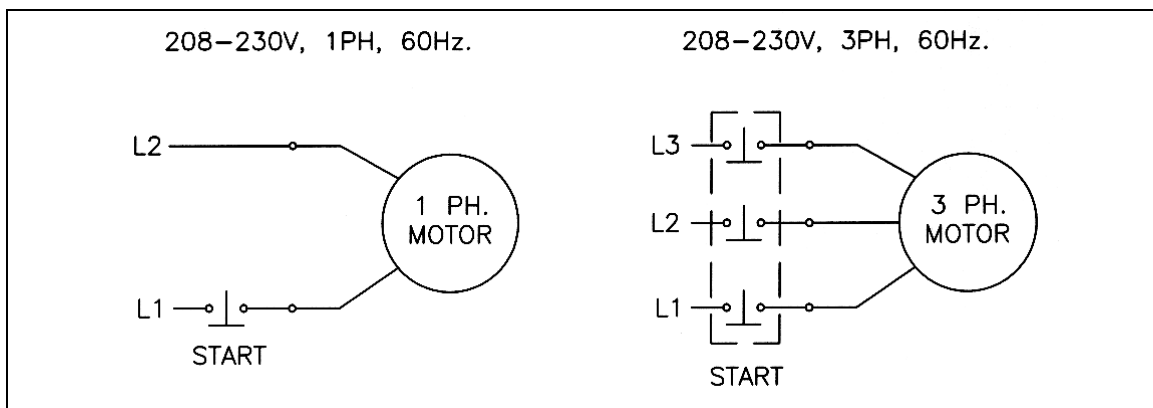


Figure 6. Electrical diagram for 230V/1 ph

4.6 CABLE INSTALLATION

- Remove the hydraulic cap from the fitting at the base of the hydraulic cylinder.
- Depress the lowering lever on the powerpack, while using an air chuck to blow air into the breather hole at the base of the cylinder to extend the rod.
- Extend the rod until it reaches its full stroke.
- Fill the reservoir on the powerpack with ISO 32 (10 Hydraulic Weight) hydraulic fluid.
- Install the threaded stud end of the cables to the tower top plates using the 7/8" Flat Washer, and two (2) 7/8"-14UNF Hex Nuts with Cable Spacers as required (see Figure 3). The Hex Nuts, Washers and Cable Spacers are located in polybag "A" (cables).

4.7 AIR INSTALLATIONS

NOTE: FOR ALL AIR INSTALLATIONS REFER TO THE HYDRAULIC AND AIR KITS DIAGRAM IN THE PARTS MANUAL.

- Install the air valve and filter assembly (found in the accessory box) to the mounting bracket on the power post. To do this pull off the pushbutton and unscrew the plastic nut. Slide the assembly into the mounting bracket and re-fasten the plastic nut so that the assembly is attached to the top hole. Replace the pushbutton by pressing it firmly back onto the air valve and filter assembly.

NOTE: MOST OF THE 1/4" AND 3/8" POLYTUBE CONNECTIONS HAVE BEEN MADE IN THE FRONT AND REAR CROSSMEMBER ASSEMBLIES. THE 1/4" AND 3/8" POLYTUBES THAT RUN THE LENGTH OF THE DECK ARE ALSO INSTALLED. THE 1/4" POLYTUBE IS USED FOR THE AIR CYLINDER LOCKS, THE 3/8" POLYTUBE IS USED FOR THE AIR OUTLETS TO THE JACKING BEAMS.

- Connect all of the 1/4" polytubes, coming out of the front left and rear left crossmember assemblies and the front and rear of the left side deck, to the 1/4" pushlock cross and tee fittings – As shown in Views "D" and "E" of the Hydraulic and Air Kit Diagram (Page 35).
- Connect the 1/4" polytube from the hose guard (i.e. supply line) to the 1/4" pushlock cross at the front of the left side deck assembly. Connect the opposite end to the Air Valve and Filter assembly on the front left tower.
- Connect the 3/8" polytube from the hoseguard to the 3/8" fitting at the front of the left deck assembly (jacking beam air bracket). Connect the opposite end to the Air Valve and Filter assembly on the front left tower.

NOTE: FOR THOSE UNITS EQUIPPED WITH JACKING BEAMS, THIS IS THE APPROPRIATE TIME TO INSTALL THEM. CONSULT THE JACKING BEAM INSTRUCTION MANUALS FOUND IN EACH JACKING BEAM BOX.

- Hook up an air supply to the inlet of the water trap on the Air Valve and Filter Assembly located on the front left post.
- Check for air leaks.
- Check the operation of the air cylinder locks by pressing the pushbutton on the Air Valve and Filter Assembly on the front left post. This should cause the safety shoes to be pulled into the crossmembers, releasing the lift from the safety racks.
- The pneumatics are now completely installed. Press the "UP" button on the power pack and continue until the lift is fully supported by the cables.

NOTE: MAKE CERTAIN THAT THE MECHANICAL SAFETY LOCKS AND CABLE ROLLERS ARE WORKING PROPERLY.

4.8 ANCHOR INSTALLATION

- Check all layout dimensions in the General Specifications (pg. 4) and Figure 1 before continuing with anchor installation.
 1. Refer to Figure 7 while reading through these instructions.

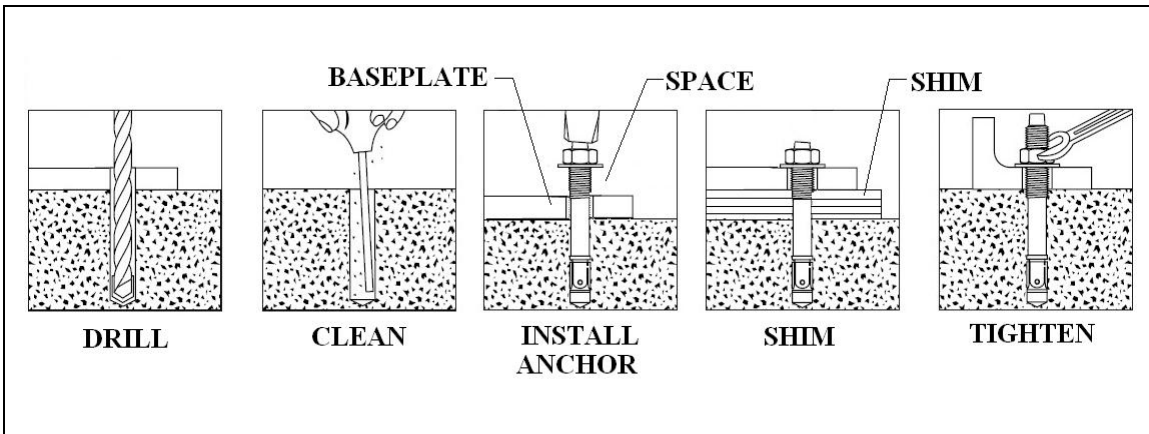


Figure 7. Anchor installation

2. Ensure that the lift is fully supported by the cables and is at a level just above the work stands.
3. Prior to installing anchors, assemble the nut and washer onto anchors. A minimum of six threads must be visible below the surface of the nut.
4. Using a 3/4" concrete drill bit and rotary hammer drill, drill through the concrete floor in the anchor holes positioned on the base of each post. (In case longer anchors are required, supplied anchors can be hammered through concrete).
5. Using a hammer, drive each anchor into floor leaving space for shimming.
6. Use a 4' level, to level the posts. Refer to Figure 9.
7. Shim as required and hammer anchors till they make contact with Baseplate. Do not tighten anchors.
8. Check the distance from the top of the anchor to the floor. If this dimension exceeds 2 1/4" due to floor slope, **DO NOT** use the supplied anchors. Longer anchor must be used (see #2 above).
9. Tighten all anchor bolts to a torque of 150 ft. lbs. Recheck and adjust the level of post(s) and cable(s) if necessary.

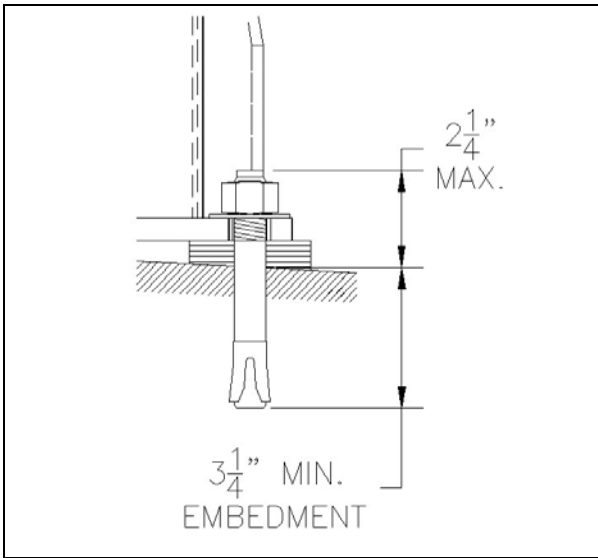


Figure 8. Floor slope

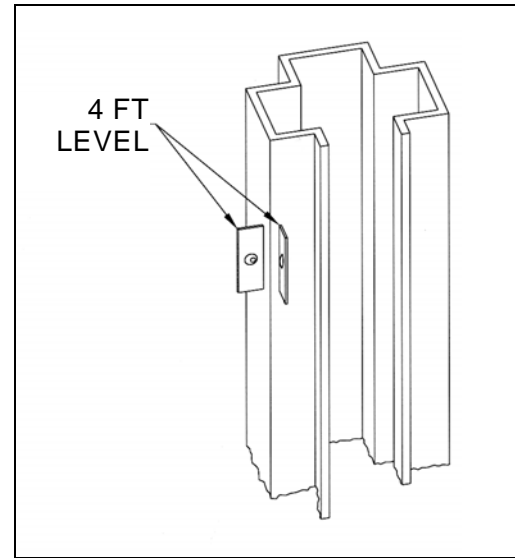


Figure 9. Post leveling

NOTE: THE 3/4" × 5 1/2" LG. WEDGE ANCHOR BOLTS SUPPLIED MUST HAVE A MINIMUM EMBEDMENT OF 3 1/4" INTO CONCRETE FLOOR.

NOTE: IN CASES WHERE THE FLOOR IS EXTREMELY OUT OF LEVEL, THE MECHANICAL SAFETIES MAY NOT ENGAGE ON THE SAME LOCK.

4.9 DECK LEVELING PROCEDURE

- Raise the lift so that it is fully supported by the cables and is not resting on the safety ladders.
- Using a 4' level, check the level of the decks front to rear and side to side as shown in Figure 10.
- Lower the lift onto the nearest safety
- Adjust the cable lengths by tightening or loosening the two (2) 7/8"-14UNF hex nuts attached to each cable at the tower top plate to raise or lower each corner.
- Repeat the preceding steps until the lift is completely level when supported by the cables.
- Raise the lift so that the deck is supported by the cables and is not resting on the safety ladders.
- Loosen the 3/8"-16 UNC × 1" LG. hex bolts at the bottom and top of each safety ladder (on the back side of the tower) and pull the safety ladders up until they come into full contact with each safety shoe on the crossmember assemblies.

- When flush with the safety shoe, tighten the two (2) 5/8"-11 UNC hex nuts at the top of each safety ladder and the 3/8"-16 UNC x 1"LG hex bolts at the bottom and top of each safety ladder (on the back side of the tower).
- Raise the lift and check that the ladders engage evenly.

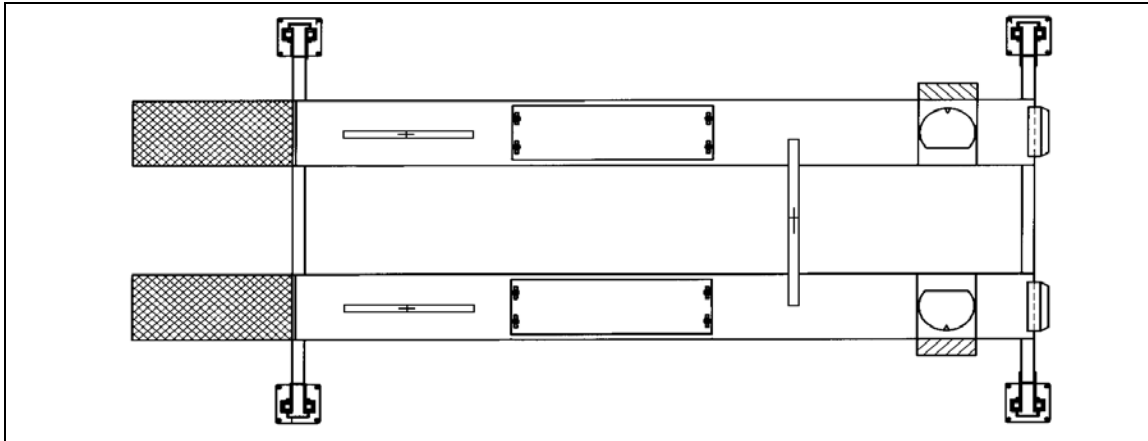


Figure 10. Deck leveling

- Raise the lift to its full height and check for full operating height of 72". This measurement is taken from the top of the decks to the floor.
- Install the approach ramps using the ramp pins, 1/8" x 2"LG cotter pins, 1/2" washers, and approach ramps provided. The ramps and ramp pins are located in the accessory box, the cotter pins and washers are found in polybag "E" (Misc.). Ensure the proper operation of the ramps.
- Install the front wheel stops using the 1/2"-13 UNC x 1"LG hex bolts and 1/2" lockwashers found in polybag "E" (Misc.).
- Install the (4) sheave covers over the sheaves in the crossmember assembly. These are found in the accessory box.
- Cycle the lift several times to check proper operation of the cables, safety lock, air locks, etc.

STOP IMMEDIATELY IF THE LIFT IS NOT OPERATING PROPERLY.

- Make any necessary adjustments and check again for proper operation.

4.10 FINAL CHECK OF ASSEMBLED LIFT

1. Final dimension check after anchoring. _____
2. Check for air and hydraulic leaks. _____
3. Ensure cables are properly routed and free from obstructions. _____
4. Ensure all safety lock mechanism are working correctly. _____
5. Re-check level of post and decks. _____
6. Makes sure ramps are secured correctly with cotter pins and washers. _____
7. Check all fasteners, tighten if necessary. _____
8. Check direction of flow control (arrow pointed toward power unit). _____
9. If jack beams are supplied, ensure keeper bracket are installed. _____
10. Check jam nuts on cables and safety ladders are tightened. _____
11. Ensure cable flange clamp is installed correctly and tighten. _____
12. Ensure cylinder shaft Jam Nuts are installed as per instructions. _____
13. Ensure wheelstops are installed. _____
14. Ensure wheel chocks are provided. _____
15. Operate lift to full stroke then lower to ground while checking for proper functionality. _____
16. Ensure Customer Care Kit is complete and given to operator. _____
 - a. Operation Manual _____
 - b. ANSI / ALI Lift It Right Manual _____
 - c. ANSI / ALI Safety Tip Card _____
 - d. ANSI / ALI ALIS Safety Requirements for Installation and Service of Automotive Lifts _____
 - e. ANSI / ALI Quick Reference Guide _____
17. Train end user on operation of the lift. _____

4.11 OPERATION TEST WITH VEHICLE

1. Lower lift to ground.
2. Drive vehicle on to lift, install wheel chocks.
3. Raise lift to and lower onto 3-4 lock positions during full rise to ensure all locks are working correctly.
4. Double check level of runways, front to rear and side to side while on locks.
5. Re-adjust cables if necessary while vehicle is on.
6. Check lowering speed and smooth decent rate.
7. Lower lift to ground, remove wheel chocks and drive vehicle off lift.

If any problems occur during the final checkout or operation of the lift please contact customer service at 1-800-268-7959

5.0 SAFETY AND OPERATING INSTRUCTIONS

1. **Inspect** the lift daily. Do not operate if malfunctions occur or damaged parts have been found.
2. **Never** attempt to **overload** the lift. The manufacturer's rated capacity is shown on the serial number tag on the power post.
3. **DO NOT OVERRIDE** the safeties. The mechanical safeties are designed to engage automatically on the way up. Press the up button on the power pack to go up. When the desired height is reached, release the power pack up button and lower the lift onto the safety. To lower the lift, raise off of the safety locks, then press the air release valve button and the lowering release lever at the same time.
4. **Only trained** and authorized personnel should operate the lift. Do not allow customers or bystanders to operate the lift or be in the lift area.
5. **Caution.** Never work under the lift unless the mechanical safety locks are engaged.
6. **Before driving** vehicle on, make sure lift is in the fully down position.
7. **Before removing** the vehicle from the lift, make sure the lift is in the fully down position and ensure that all tools have been removed from the deck surfaces.
8. **Always keep** the lift area free from debris. Grease and oil spills should always be cleaned up immediately. **Never leave** any tools or parts laying on the decks.
9. **Never operate** lift with passengers in vehicle.
11. **Always** raise the lift off safety locks before lowering.

NOTE: DO NOT ATTEMPT TO OPERATE THIS LIFT IF ANY PART IS NOT WORKING PROPERLY OR YOU HAVE NOT READ THE COMPLETE OPERATING INSTRUCTION MANUAL.

NOTE: DO NOT RAISE OR LOWER THE LIFT WITH THE VEHICLE ON THE JACKING BEAM.

Installation shall be performed in accordance with ANSO/ALI ALIS, Safety Requirements for Installation and Service of Automotive Lifts

For additional safety instructions regarding lifting, lift types, warning labels, preparing to lift, vehicle spotting, vehicle lifting, maintaining load stability, emergency procedures, vehicle lowering, lift limitations, lift maintenance, good shop practices, installation, operator training and owner/employer responsibilities, please refer to "Lifting It Right" (ALI/SM) and "Safety Tips" (ALI/ST).

For additional instruction on general requirements for lift operation, please refer to "Automotive Lift-Safety Requirements For Operation, Inspection and Maintenance" (ANSI/ALI ALOIM).

6.0 SAFETY AWARENESS

AUTOMOTIVE LIFT INSTITUTE (ALI)

⚠ CAUTION	⚠ CAUTION
	
Lift to be used by trained operator ONLY.	Authorized personnel only in lift area.

The messages and pictographs shown are generic in nature and are meant to generally represent hazards common to all automotive lifts regardless of specific style.

Funding for the development and validation of these labels was provided by the Automotive Lift Institute, PO Box 85 Cortland, NY 13045.

Replacement label sets may be obtained from the original lift manufacturer and ALI's member companies. They are protected by copyright.

www.autolift.org ©1992 by ALI, Inc. ALI/WL200c

SAFETY INSTRUCTIONS	SAFETY INSTRUCTIONS
	
Read operating and safety manuals before using lift.	Proper maintenance and inspection is necessary for safe operation.

SAFETY INSTRUCTIONS	<p>The messages and pictographs shown are generic in nature and are meant to generally represent hazards common to all automotive lifts regardless of specific style.</p> <p>Funding for the development and validation of these labels was provided by the Automotive Lift Institute, PO Box 85 Cortland, NY 13045.</p> <p>Replacement label sets may be obtained from the original lift manufacturer and ALI's member companies. They are protected by copyright.</p> <p>www.autolift.org</p>
	<p>Do not operate a damaged lift.</p> <p>© 1992 by ALI, Inc. ALI/WL200s</p>

⚠ WARNING	⚠ WARNING
	
Clear area if vehicle is in danger of falling.	Remain clear of lift when raising or lowering vehicle.

⚠ WARNING	⚠ WARNING
	
Keep clear of pinch points when lift is moving.	Keep feet clear of lift while lowering.

⚠ WARNING	⚠ WARNING
	
Do not override self-closing lift controls.	Chock wheel to prevent vehicle movement.

The messages and pictographs shown are generic in nature and are meant to generally represent hazards common to all automotive lifts regardless of specific style.

Funding for the development and validation of these labels was provided by the Automotive Lift Institute, PO Box 85 Cortland, NY 13045.

Replacement label sets may be obtained from the original lift manufacturer and ALI's member companies. They are protected by copyright.

www.autolift.org ©1992 by ALI, Inc. ALI/WL200w

7.0 RECOMMENDED MAINTENANCE

DAILY

1. Check general operation of lift.
2. Check operations of mechanical safety locks.
3. Check operation of air release valve for air leaks.
4. Check operation of cables and pulleys.
5. Check and drain water trap filter bowl.

MONTHLY

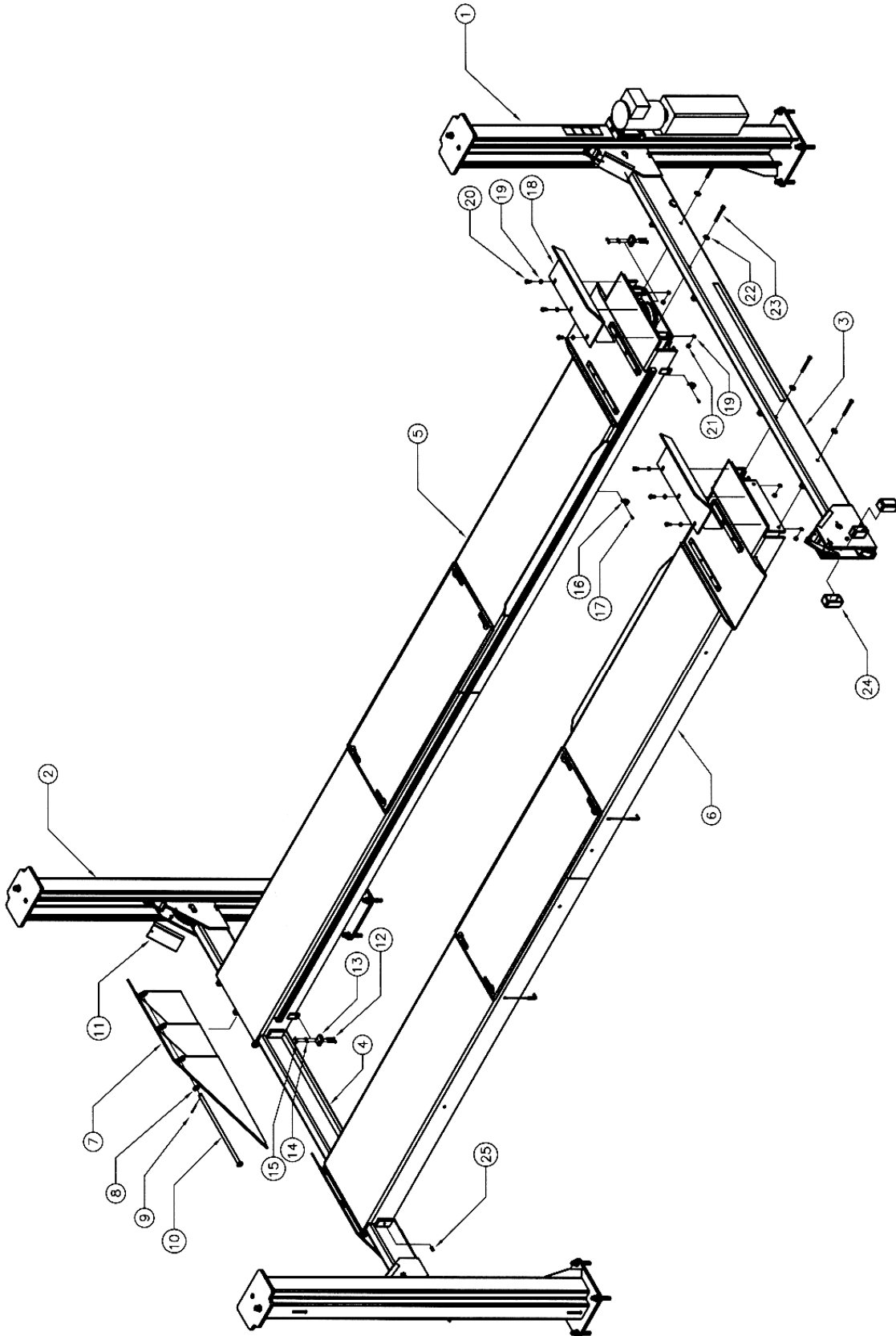
1. Check anchor bolts (if loose re-torque to 150 ft. lbs.). Replace concrete if anchors continue to loosen.
2. Check all air and hydraulic hoses, fittings and cylinders for leaks.
3. Check level of oil in power pack reservoir when lift is in the lowered position. Add if required.
4. Check lifting cables for wear, separation or breaks. If found, replace cables immediately. Lubricate cables with oil or a light grease.
5. Check and adjust cables if lifting is uneven. Make adjustments with weight on lift.
6. Check all fasteners and tighten as required.
7. Check all pulleys on crossmember assembly and under the runways for wear or play. Replace immediately. Pulley pins are held in place by a 3/8" - 16 x 1" lg. Hex Hd Bolt. Make certain that this bolt is in position and tight.
8. Check and adjust safety racks if lift is not level on safety, or if safeties do not engage properly.
9. Check and clean full floating rear steer plates. Lubricate with oil or light grease.
10. Lubricate all safety shoes and locks.

QUARTERLY SLIP PLATE MAINTENANCE

1. Remove top Slip Plate covers by first removing the four (4) shoulder bolts on each cover.
2. Remove polyethylene bearing cages insuring that all the delrin bearings remain in the cages. Additional delrin bearings may be purchased if required.
3. Clean runway surface and touch up any paint wear with a rust resistant paint. Allow paint to dry thoroughly.
4. To obtain optimum performance, the position of the slip plate bearing cage should be rotated every quarter to change the wear pattern. With the first quarter maintenance, flip the bearing cage over to the opposite side. With the second quarter maintenance, rotate the bearing cage end-to-end. With the third quarter maintenance, flip bearing cage over to the opposite side. Fourth quarter maintenance should see the bearing cage rotated back to the original position.
5. Quarterly maintenance will optimize performance and contribute to longer slip plate life.

8.0 PARTS LIST

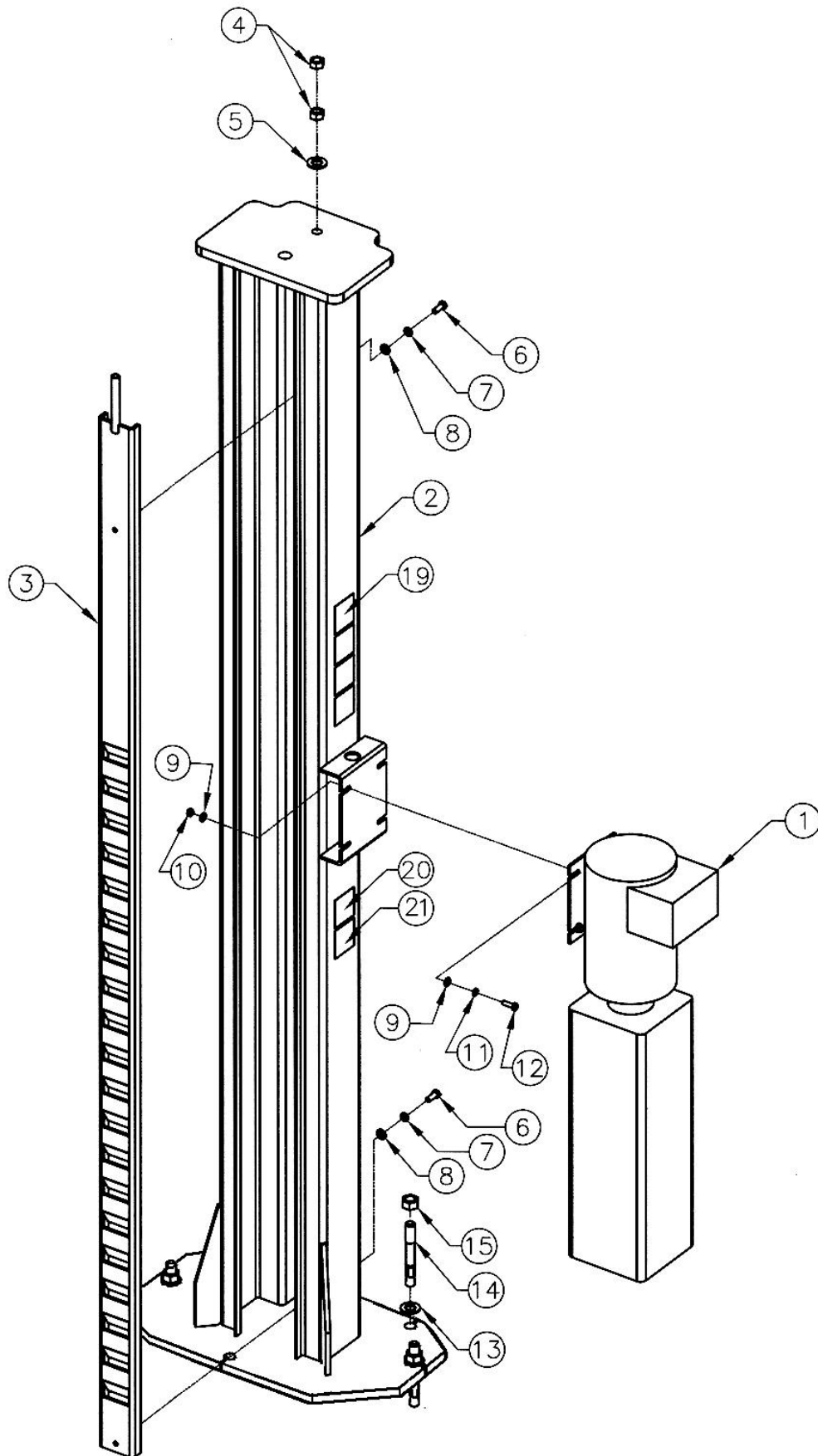
8.1 LIFT ASSEMBLY



8.2 PARTS LIST – LIFT ASSEMBLY

ITEM	QTY.	DESCRIPTION	PART #
1	1	TOWER WELDMENT - POWER POST	4-0636
2	3	TOWER WELDMENT	4-0630
3	1	FRONT CROSSMEMBER WELDMENT	4-0627
4	1	REAR CROSSMEMBER WELDMENT	4-0626
5	1	DECK WELDMENT - L.S. (ALIGNMENT)	4-0629
	1	DECK WELDMENT – L.S. (SERVICE)	4-0916
6	1	DECK WELDMENT - R.S. (ALIGNMENT)	4-0628
	1	DECK WELDMENT – R.S. (SERVICE)	4-0917
7	2	APPROACH RAMP WELDMENT	3-0680
8	2	FLAT WASHER, 3/4"ID	6-0738
9	2	COTTER PIN, 1/8" x 2"LG	6-0115
10	2	APPROACH RAMP PIN	2-1381
11	4	SHEAVE COVER	2-1379
12	4	HEX HD BOLT, 1/4"-20UNC x 2"LG	6-0177
13	2	MANIFOLD	1-1057
14	4	LOCKWASHER, 1/4"ID	6-0056
15	4	HEX NUT, 1/4"-20UNC	6-0032
16	2	HOSE CLAMP, 3/4"	6-1683
17	2	SELF THREADING SCREW, #10 x 3/4"LG	6-0297
18	2	FRONT WHEELSTOP	2-0998
19	14	LOCKWASHER, 1/2"ID	6-0059
20	6	HEX HD BOLT, 1/2"-13UNC x 1"LG	6-0045
21	8	HEX NUT, 1/2"-13UNC	6-0035
22	8	FLAT WASHER, 1/2"ID	6-0063
23	8	HEX HD BOLT, 1/2" x 4 1/2"	6-1694
24	8	GLIDE BEARING	2-0772
25	4	SET SCREW, 1/2"-13UNC x 1"LG	6-0726

8.3 TOWER ASSEMBLY

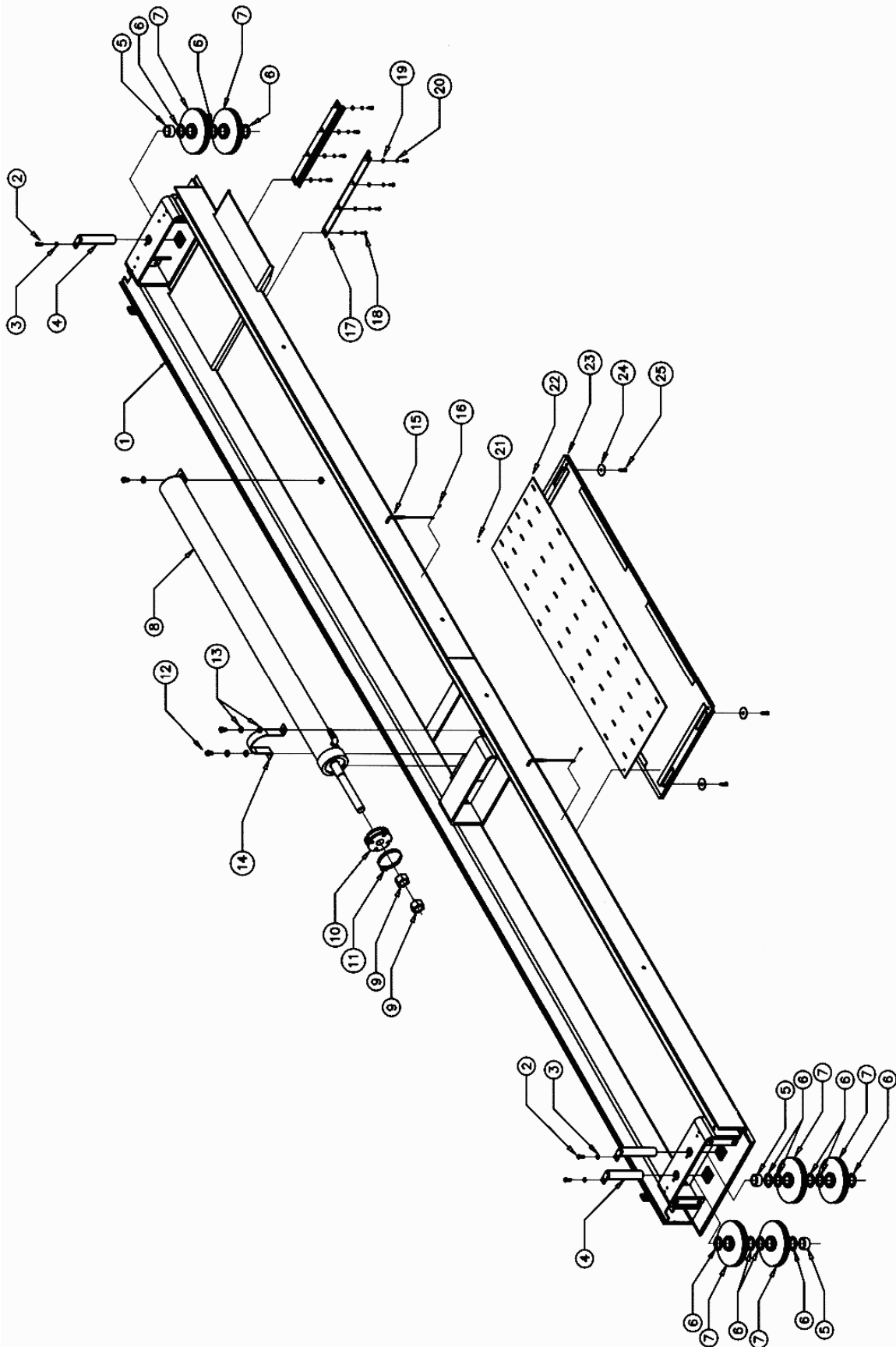


8.4 PARTS LIST – POWER TOWER ASSEMBLY

ITEM	QTY.	DESCRIPTION	PART #
1	1	POWER PACK, 230V/1PH	6-1695
	1	POWER PACK, 230V/3PH	6-2615
2	1	POWER POST WELDMENT	4-0636
3	1	SAFETY RACK WELDMENT	3-0581
4	2	HEX NUT, 5/8"-11UNC, GR8	6-0673
5	1	FLAT WASHER, 3/4" I.D.	6-0738
6	2	HEX HD. BOLT, 3/8"-16UNC X 1"LG., GR.8	6-0668
7	2	LOCK WASHER, 3/8" I.D.	6-0058
8	2	FLAT WASHER, 3/8" I.D.	6-0625
9	8	FLAT WASHER, 5/16" I.D.	6-0295
10	4	HEX NUT, 5/16"-18UNC, GR.8	6-0294
11	4	LOCK WASHER, 5/16" I.D.	6-0674
12	4	HEX HD BOLT, 5/16"-18UNC X 1"LG., GR.8	6-0293
13	5	FLAT WASHER, 3/4" I.D.	6-0738
14	5	WEDGE ANCHOR, 3/4"-10UNC X 5 1/2"LG.	6-1379
15	5	HEX NUT, 3/4"-10UNC	6-0737
19	1	"ATTENTION" DECAL	6-1637
20	1	SERIAL TAG	
21	1	DECAL SET, ALI/WL 200	6-0988

NOTE: Refer to section 8.1 for other Tower Weldment part numbers.

8.5 DECK ASSEMBLY (LEFT SIDE)

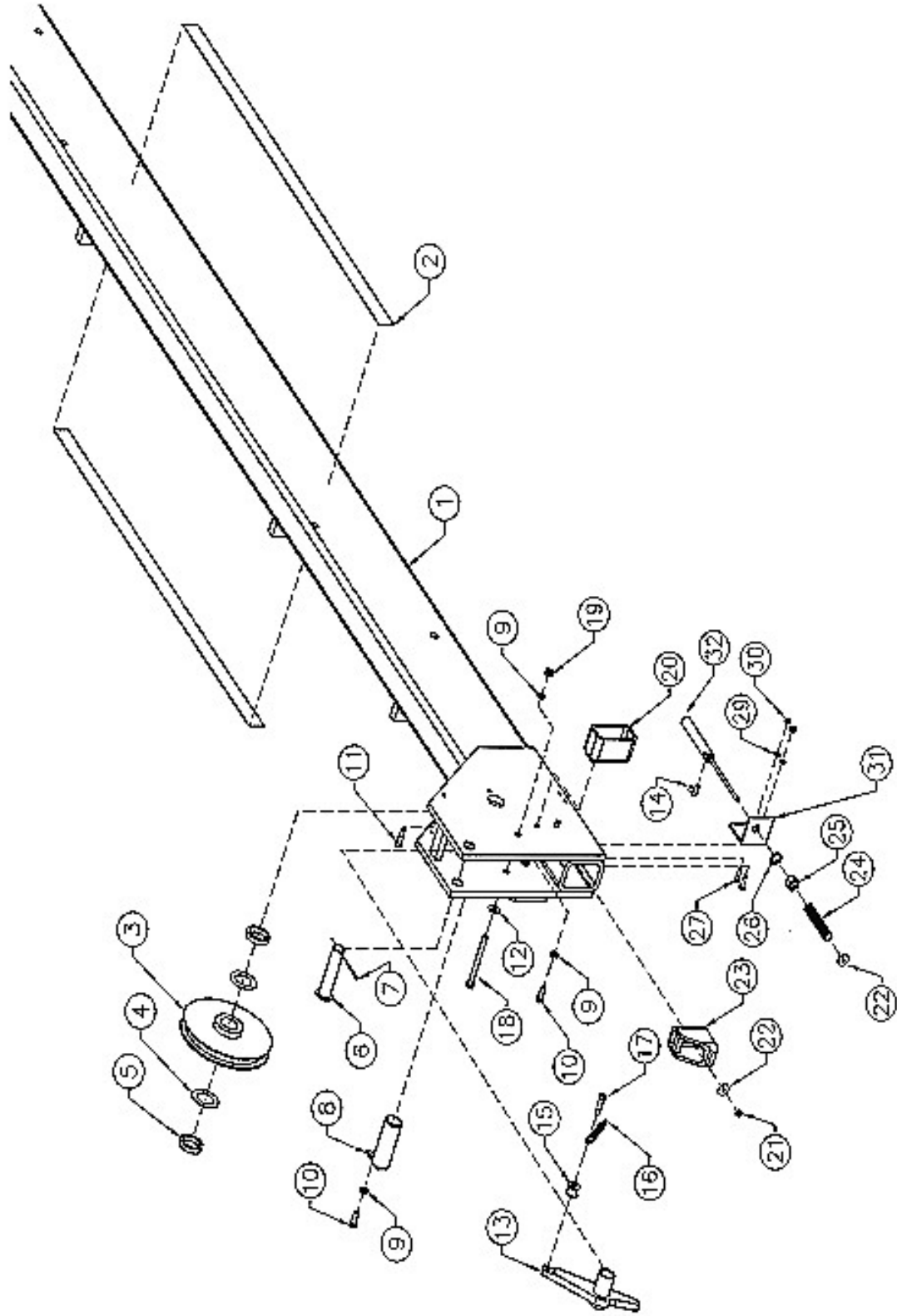


8.6 PARTS LIST – DECK ASSEMBLY (LEFT SIDE)

ITEM	QTY.	DESCRIPTION	PART #
1	1	DECK WELDMENT - L.S. (ALIGNMENT)	4-0629
	1	DECK WELDMENT - L.S. (SERVICE)	4-0916
2	3	HEX HD BOLT, 3/8"-16UNC x 1" LG	6-0668
3	3	LOCKWASHER, 3/8"	6-0058
4	3	DECK SHEAVE PIN WELDMENT	2-1355
5	3	SHEAVE SPACER, 1"	1-1697
6	12	NYLON THRUST WASHER	1-0757
7	6	SHEAVE ASSEMBLY	2-1377
8	1	CYLINDER ASSEMBLY - 4" BORE	3-0681
9	2	HEX NUT, 1 3/8"-12UNF	6-1644
10	1	CABLE FLANGE (18K 4POST)	2-1432
11	1	HOSE CLAMP, 4 1/2" DIA	6-0665
12	3	HEX HD BOLT, 1/2"DIA x 3/4" LG	6-0044
13	5	WASHER, 1/2"ID	6-0248
14	1	CYLINDER SLING	1-1747
15	2	LOCKING PIN ASSEMBLY	2-0637
16	2	SELF TAPPING SCREW, #10 x 1/2" LG	6-0505
17	2	RETAINING BAR	2-1391
18	8	HEX HD BOLT, 1/4"-20UNC x 3/4" LG	6-0128
19	8	WASHER, 1/4" ID	6-0060
20	8	LOCKWASHER, 1/4" ID	6-0056
21	1	1/4" BALL BEARING (1 PACKET)	6-0829
22	1	BEARING CAGE	3-0196
23	1	REAR SLIP PLATE (FULL FLOATING)	3-0197
24	4	FLAT WASHER, 2" OD x 13/32" ID	6-0426
25	4	SHOULDER BOLT, 3/8" x 5/8" LG	6-0069

NOTE: Refer to section 8.1 for Right Side Deck Weldment part numbers.

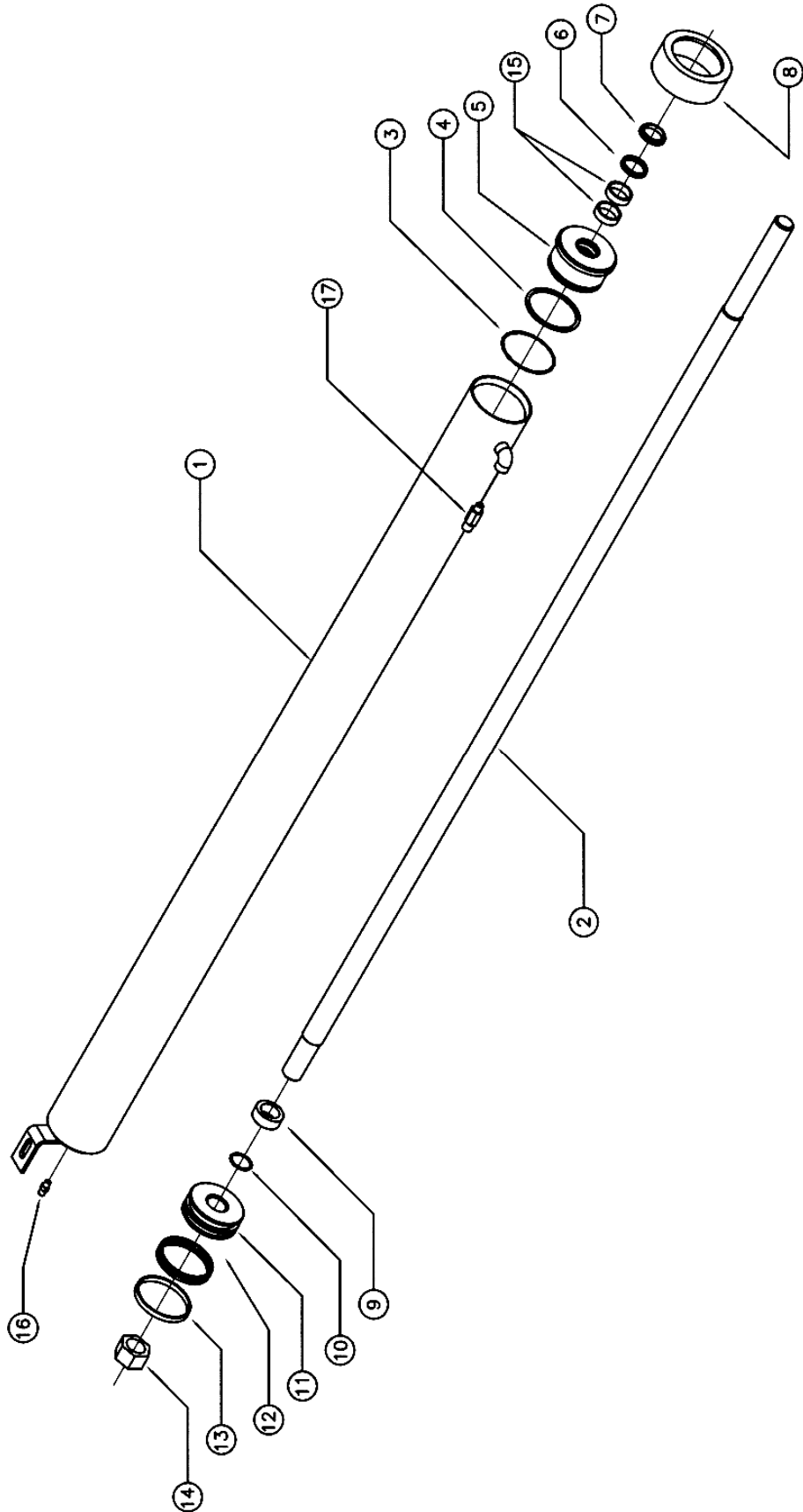
8.7 CROSSMEMBER ASSEMBLY



8.8 PARTS LIST – CROSSMEMBER ASSEMBLY

ITEM	QTY.	DESCRIPTION	PART #
1	1	FRONT CROSSMEMBER WELDMENT	4-0627
	1	REAR CROSSMEMBER WELDMENT	4-0626
2	2	"CAUTION" TAPE, 40" LONG	6-1125
3	2	SHEAVE ASSEMBLY	2-1377
4	4	NYLON THRUST WASHER	1-0757
5	4	SHEAVE SPACER, 3/8" LONG	1-0786
6	2	LOCK SAFETY PIN WELDMENT	1-1744
7	2	COTTER PIN, 1/8" x 2" LG	6-0115
8	2	CROSSMEMBER SHEAVE PIN WELDMENT	2-1356
9	12	LOCKWASHER, 3/8" I.D.	6-0058
10	10	HEX BOLT, 3/8"-16UNC x 1" LG	6-0668
11	2	SHOULDER BOLT, 3/8" x 5/8" LG	6-0069
12	2	FLAT WASHER, 3/8"	6-0625
13	2	LOCK SAFETY	2-1424
14	2	90 ELBOW, 1/8"NPT x 1/4" POLYTUBE	6-0709
15	2	CABLE ROLLER	1-0766
16	4	TENSION SPRING	1-0768
17	2	SHOULDER BOLT, 3/8" x 1 1/2" LG	6-0801
18	2	HEX BOLT, 3/8"-16UNC x 4 1/2" LG	6-1693
19	2	HEX NUT, 3/8"-16UNC	6-0034
20	4	SLIDER BLOCK WELDMENT	2-1376
21	2	HEX NYLON LOCKNUT, 1/4"-28UNF	6-1563
22	4	FENDER WASHER, 1/4" I.D.	6-0626
23	2	SAFETY SHOE WELDMENT	2-1378
24	2	COMPRESSION SPRING	1-0767
25	2	HEX NUT, 5/8"-18UNF	6-0662
26	2	INTERNAL TOOTH LOCKWASHER, 5/8"ID	6-0663
27	4	HEX BOLT, 1/4"-20UNC x 1" LG	6-0008
29	4	LOCKWASHER, 1/4" I.D.	6-0056
30	4	HEX NUT, 1/4"-20UNC	6-0032
31	2	AIR CYLINDER BRACKET	1-1712
32	2	AIR CYLINDER	6-0651

8.9 CYLINDER ASSEMBLY



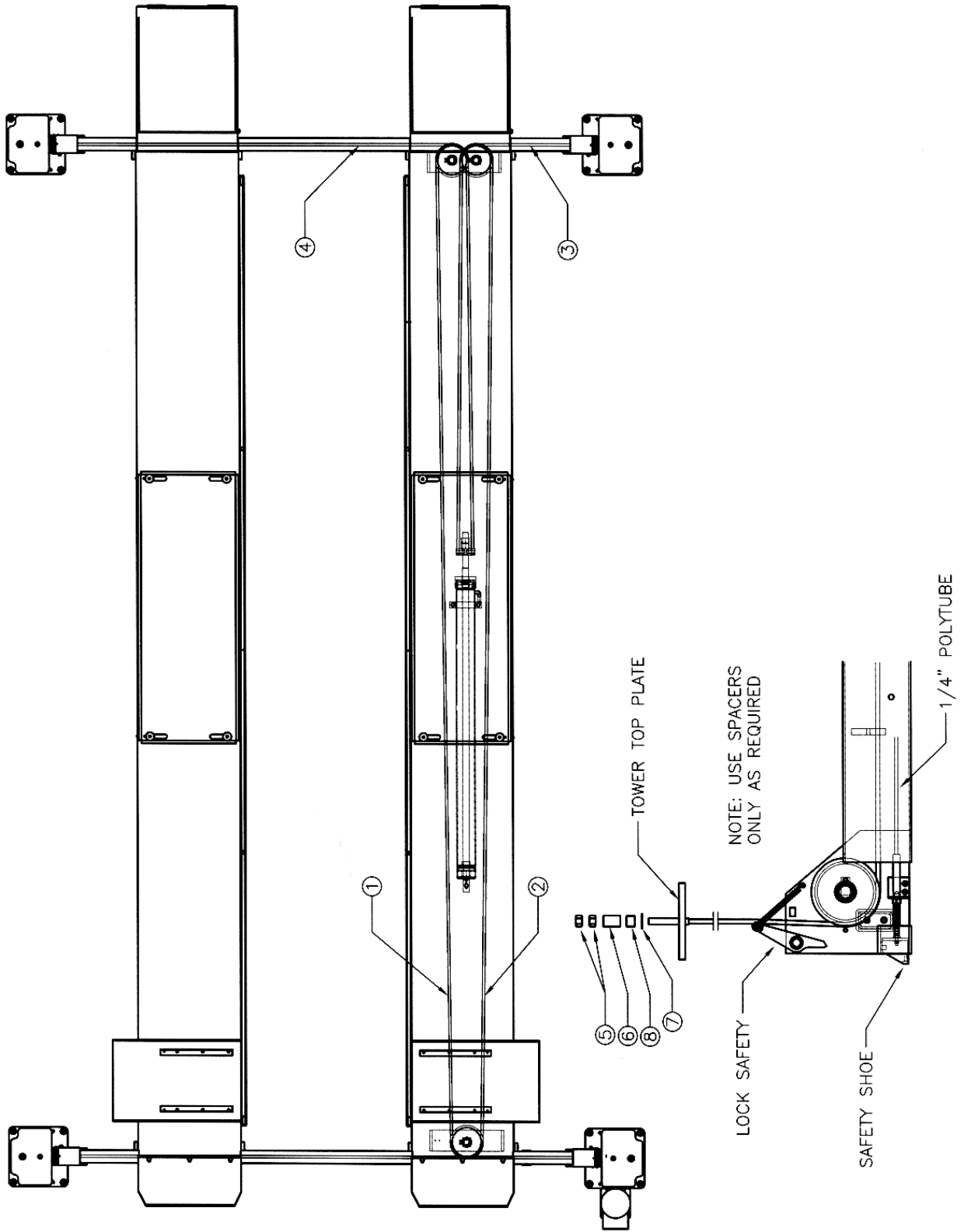
8.10 PARTS LIST – CYLINDER ASSEMBLY

ITEM	QTY.	DESCRIPTION	PART #
1	1	CYLINDER TUBE WELDMENT 4" BORE	2-1345
2	1	PISTON ROD - MACHINED	2-1340
3	1	ORING, 4"OD x 1/8"C/S	6-1633
4	1	BACKUP RING	6-1634
5	1	GLAND	3-0673
6	1	ROD SEAL, 1½"ID x 1 7/8"OD x 1/4"	6-1892
7	1	ROD WIPER, 1½"ID x 1 7/8"OD x 3/16"	6-0001
8	1	TUBE NUT	2-1343
9	1	KEEPER WASHER	1-1689
10	1	ORING, 1 3/8"ID x 1/8"C/S	6-1632
11	1	PISTON	2-1344
12	1	ROD SEAL, 4"OD x 3½"ID	6-1636
13	1	WEAR RING, 4"OD x 3/8"WIDE x 1/8"THK	6-1635
14	1	LOCKNUT, 1 3/8"-12UNF	6-1645
15	2	WEAR RING, 1 3/4"OD x ½"WIDE x 1/8"THK	6-1686
16	1	ADAPTOR, 1/8"NPT-M TO 1/4"JIC-M	6-0280
17	1	VELOCITY FUSE - 8GPM	6-1684

8.12 PARTS LIST – HYDRAULIC AND AIR KIT

ITEM	QTY.	DESCRIPTION	PART #
1	8	90° ELBOW, 1/8" NPT x 1/4" POLYTUBE	6-0709
2	4	AIR CYLINDER	6-0651
3	10FT	1/4" DIA. POLY TUBE	6-1396
4	3	ADAPTER, 3/8" POLY TUBE x 1/4" NPT	6-0710
5	2	TERMINAL BOLT, 3/4"	6-0713
6	2	PLUG, 1/4" NPT	6-0282
7	3	1/4" NPT STREET TEE	6-0014
8	1	1/4" NPT STREET ELBOW	6-0015
9	10FT	3/8" DIA. POLY TUBE	6-1400
10	1	FLOW CONTROL	6-1691
11	4FT	HOSE GUARD	6-0714
12	1	POWER PACK 230V/1 PH	6-1695
	1	POWER PACK 230V/3 PH	6-2615
13	1	HYD.HOSE ASS'Y, 3/8" JIC FEMALE, 16FT LONG	6-1692
14	3	CABLE TIE	6-0731
16	1	"NOTICE" DECAL	6-0594
17	1	90° ELBOW, 1/4" NPT M x 3/8" NPT F	6-0796
18	1	ADAPTER, 1/4" POLY x 1/8" NPT	6-0708
19	1	3-WAY AIR VALVE	6-1775
20	1	AIR FILTER ASSEMBLY	6-0772
	1	AIR FILTER ELEMENT, (REPLACEMENT)	6-0180
21	1	AIR VALVE FITTING KIT	0-0405
22	1	VELOCITY FUSE 8GPM	6-1684
24	1	1/4" PUSHLOCK CROSS	6-3869
25	1	1/4" PUSHLOCK TEE	6-2971
29	1	"LIFT OPERATION" DECAL	6-0593
30	1	ADAPTER, 1/8" NPT M X 1/4" JIC M	6-0280
31	1	AIR VALVE PUSHBUTTON KIT	6-1777
32	1	RECOIL HOSE	6-0337
*		AIR VALVE & FILTER ASSEMBLY – COMPLETE	2-1394

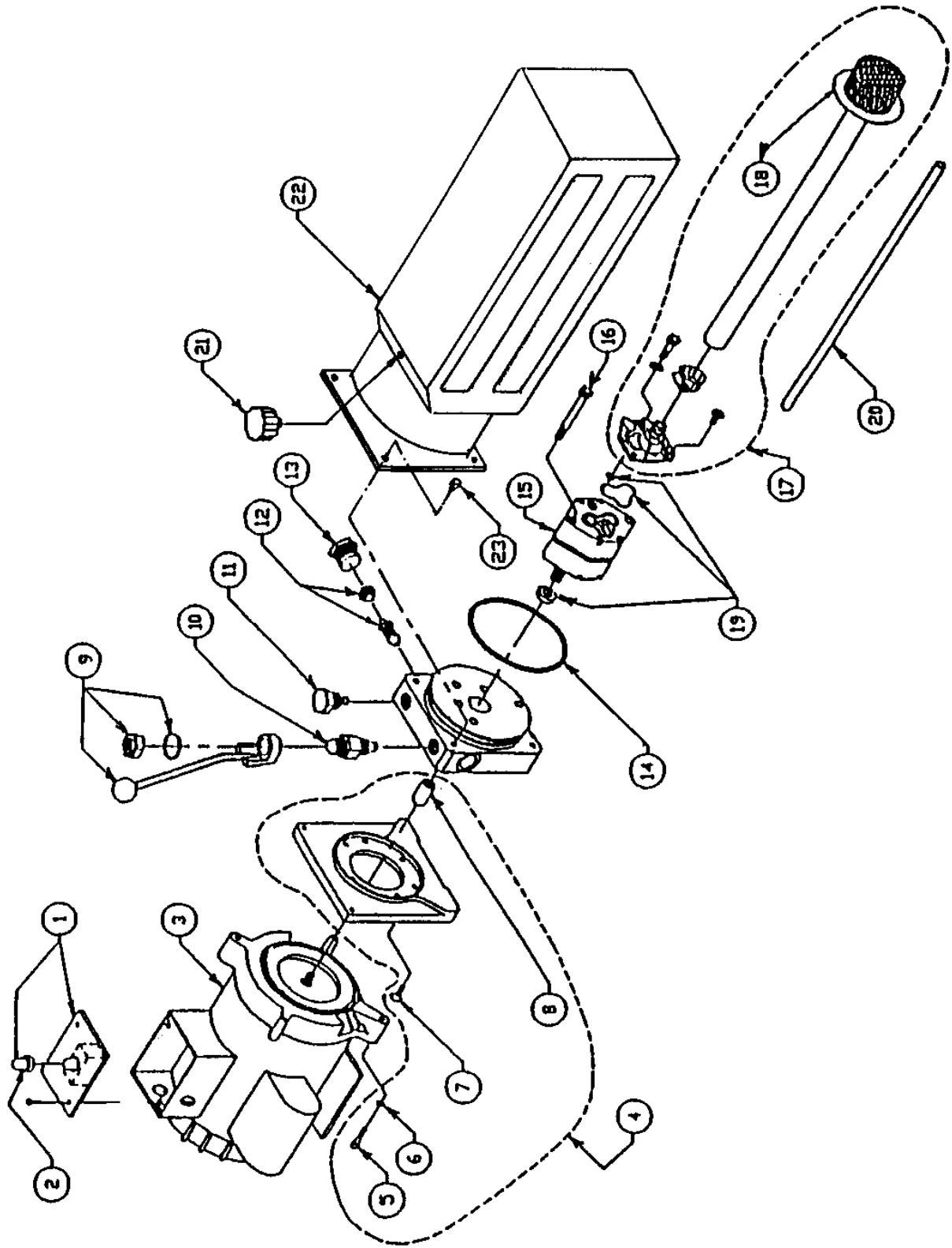
8.13 CABLE ROUTING



8.14 PARTS LIST – CABLE ROUTING

ITEM	QTY.	DESCRIPTION	PART #
1	1	CABLE ASSY. 407.5" - FRONT LEFT	2-1360
2	1	CABLE ASSY. 473.5" - FRONT RIGHT	2-1361
3	1	CABLE ASSY. 162" - REAR LEFT	2-1362
4	1	CABLE ASSY. 228" - REAR RIGHT	2-1363
5	8	HEX NUT, 7/8"-14UNF GR5	6-0724
6	4	CABLE SPACER, 2"LG	1-0800
7	4	FLAT WASHER, 7/8"ID	6-0725
8	4	CABLE SPACER, 1"LG	1-0801

8.15 POWER PACK ASSEMBLY



8.16 PARTS LIST – POWER PACK

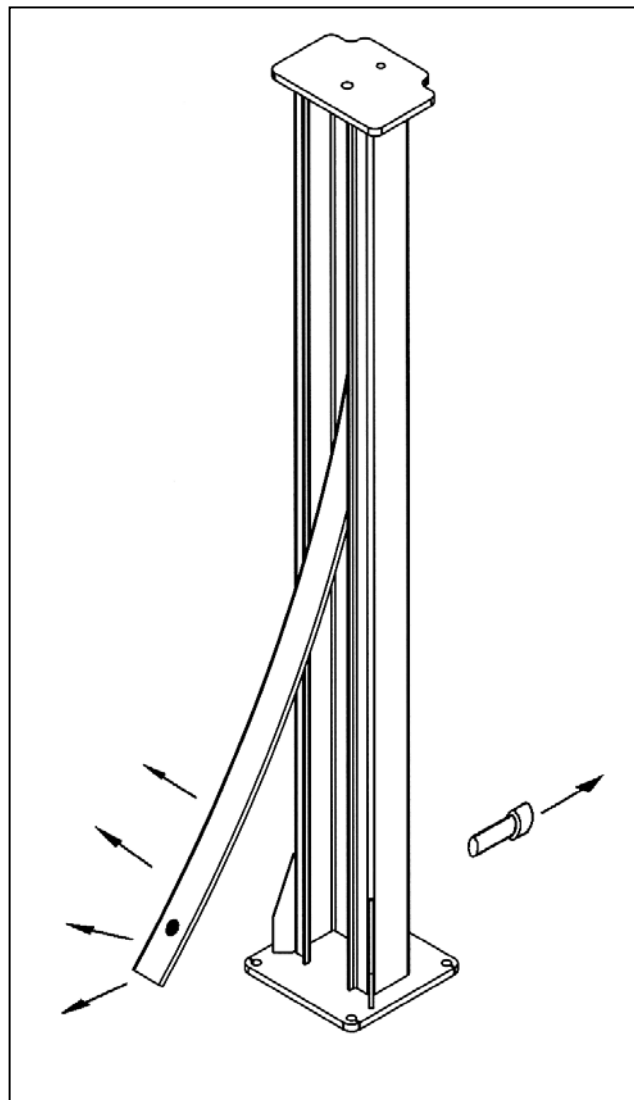
ITEM	QTY.	DESCRIPTION	PART #
1	1	MICROSWITCH AND WIRING ASSEMBLY, 1PH	6-0881
	1	MICROSWITCH AND WIRING ASSEMBLY, 3PH	6-0918
2	1	MICROSWITCH BOOT	6-1084
3	1	MOTOR, 230V AC, 1 PHASE, 60 HERTZ 3HP	6-1959
	1	MOTOR, 230V AC, 3 PHASE, 60 HERTZ	6-1079
4	1	MOTOR ADAPTER KIT	0-0197
5	4	SOCKET HD.CAP SCW. 1/4"-20UNC X 1 5/8"LG.	6-1085
6	4	LOCK WASHER, 1/4" I.D.	6-0056
7	4	ALLEN FLAT HD.SCW. 1/4"-20UNC X 3/4"LG.	6-1086
8	1	COUPLING	6-0774
9	1	RELEASE BRACKET & HANDLE ASSEMBLY	6-0776
10	1	VALVE CARTRIDGE RELEASE	6-0880
11	1	VALVE CARTRIDGE CHECK	6-1087
12	1	FIXED RELIEF VALVE ASSEMBLY (RV 19)	6-1319
13	1	RELIEF VALVE CAP	6-1089
14	1	RESERVOIR "O" RING	6-0875
15	1	PUMP ASSEMBLY	6-1688
16	2	PUMP MOUNTING BOLT	6-1090
17	1	INLET PLUMBING KIT	0-0198
18	1	INLET HOSE / FILTER ASSEMBLY	6-0786
19	1	PUMP "O" RING KIT	0-0199
20	1	RETURN TUBE	6-0783
21	1	BREATHING FILLER CAP	6-0784
22	1	RESERVOIR	6-2828
23	4	RESERVOIR SCREW	6-1091

CAUTION



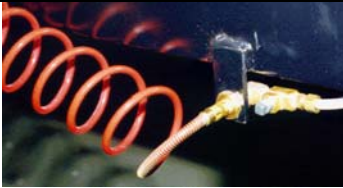




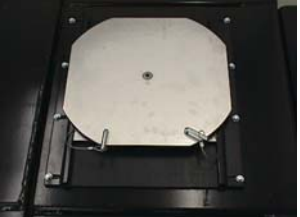
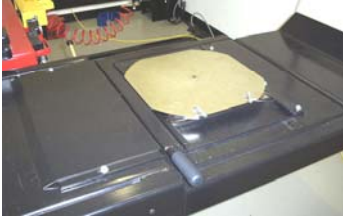



ALL SAFETY LADDERS USED ON 4-POST LIFTS ARE PRELOADED.

REMOVING THE BOLT HOLDING THE BOTTOM PORTION OF THE SAFETY LADDER WITHOUT PROPER PRECAUTIONS CAN RESULT IN INJURY.

PLEASE CONTACT CUSTOMER SERVICE FOR PROPER REMOVAL INSTRUCTIONS.



9.0 AVAILABLE ACCESSORIES

Hydraulic Jack Beams			
	Premium Air / Hydraulic Jack Beam		Standard Air / Hydraulic Jack Beam
4500 lb, 6000 lb, 7000 lb		6000 lb, 7000 lb	
Other Accessories			
	Drive-On Ramp Extension for Low Profile Vehicle (set of 2)		Air Outlet Kit (Factory Installed)
	Sliding Waste Collection Oil Tank 26 gal.		Drive-thru Kit (Quad Rack)
	Front Turning Radius Plates (set of 2)		Alignment Pan Cover, 4-Post
	Stainless Steel Turnplates		Rollback Kit (for Stainless Steel Turnplates)
	Air / Electric Service Station for 2-Post & 4-Post		Rear Slip Plate Refurb Kit - Stainless Steel Base (24" Decks Only - set of 2)
NO PICTURE AVAILABLE	Roll Forward Kit (4-Post)		Tsunami Kit (in-line compressed air dryer)

Accessories may not be available for all models. Contact supplier for availability and part numbers.