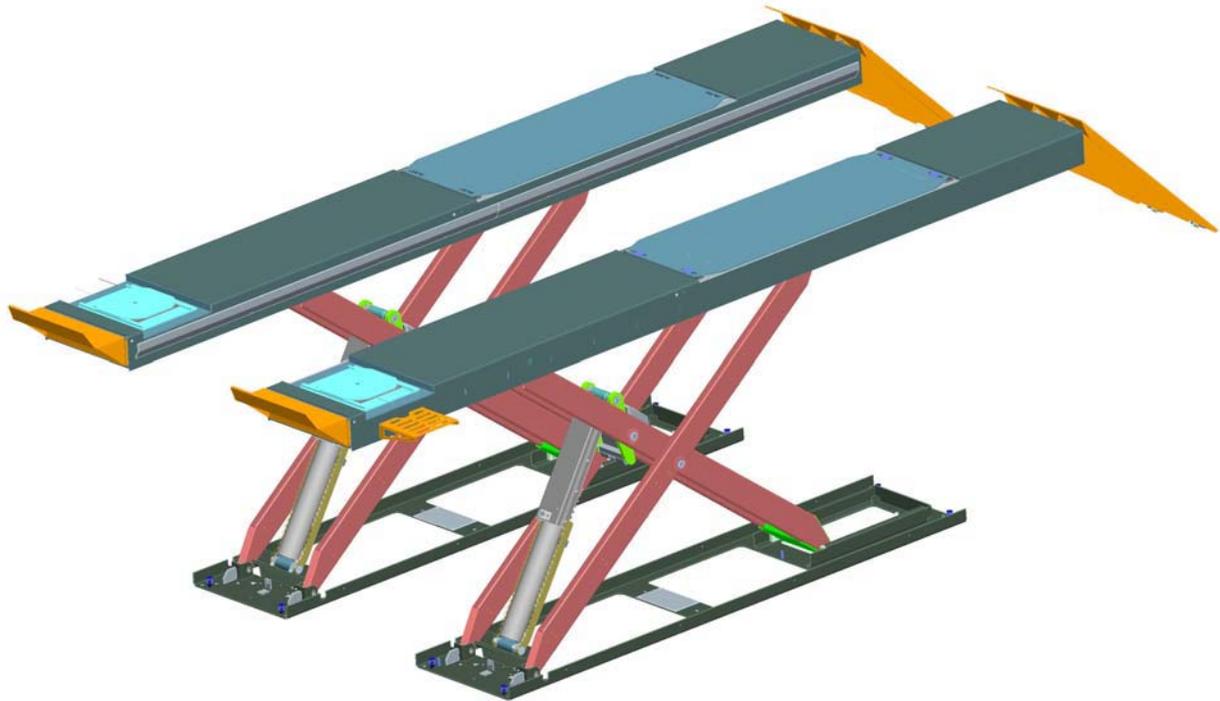




INSTALLATION and OPERATION MANUAL



10K SCISSOR LIFT MODEL: EELR3__A (58/59/60/61)

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



Snap-On Tools Corporation
1-800-268-7959

MAR 2008 REV.- 6-3635

Table of Contents

1.0 SAFETY INSTRUCTIONS	3
2.0 SAFETY WARNING DECALS	5
3.0 SPECIFICATIONS	6
4.0 CONTENTS	7
5.0 TOOLS REQUIRED FOR INSTALL	7
6.0 INSTALLATION INSTRUCTIONS	8
6.1 Bay Layout	9
6.2 Unpacking the Lift	12
6.3 Electrical Connection	13
6.4 Hydraulic Connections	14
6.5 Air Safety and Auxiliary Air Connection	15
6.6 Bleeding Procedure	16
6.7 Level and Support	17
6.8 Anchoring Procedure.....	18
6.9 Grouting Procedure (Optional)	20
7.0 ACCESSORY INSTALLATION	21
8.0 FINAL PROCEDURES	24
8.1 Check of Assembled Lift	24
8.2 Operation Test With Vehicle	25
9.0 LIFT OPERATION	26
9.1 Raising the Lift	26
9.2 Lowering the Lift	26
10.0 RECOMMENDED MAINTENANCE	27
10.1 Kicker Greasing Procedure.....	27
10.2 Maintenance Schedule	28
11.0 TROUBLE SHOOTING	29
12.0 LIFT ASSEMBLY	30
12.1 Lift Parts List	31
13.0 HYDRAULIC/AIR PARTS ASSEMBLY	33
13.1 Hydraulic/Air Parts List	34
14.0 CONSOLE ASSEMBLY	35
14.1 Console Parts List	36
15.0 POWER PACK ASSEMBLY	38
15.1 Power Pack Parts List	39
16.0 AVAILABLE ACCESSORIES	40

1.0 SAFETY INSTRUCTIONS

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

- 1 Read all instructions and safety information in this manual and on the lift thoroughly before installing, operating, servicing, or maintaining the lift.
- 2 Inspect the 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 side of the deck. Do not override the operating controls or safety devices.
- 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 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 a vehicle with passengers inside.
- 8 Always chock vehicle wheels before raising or lowering the lift.
- 9 Before lowering check the area for any obstructions including people.
- 10 To protect against risk of fire, do not operate the lift in the vicinity of open containers of flammable liquids.
- 11 Adequate ventilation should be provided when working on internal combustion engines.
- 12 Never open hydraulic lines under pressure.

READ AND SAVE THESE INSTRUCTIONS

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).

ATTENTION! THIS LIFT IS INTENDED FOR INDOOR INSTALLATION ONLY. IT IS PROHIBITED TO INSTALL THIS PRODUCT OUTDOORS. FAILURE TO ADHERE WILL RESULT IN LOSS OF WARRANTY AND POSSIBLE DAMAGE TO THE EQUIPMENT.

+ 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.

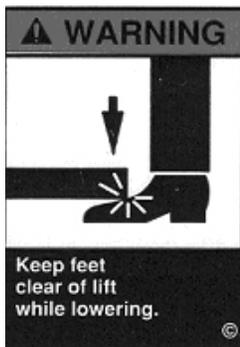
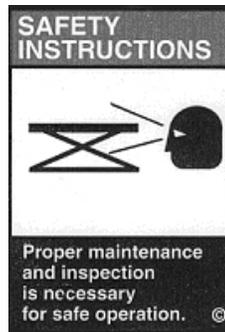
www.autolift.org

©2007 by ALI, Inc.

ALI / WLSIA01

2.0 SAFETY WARNING DECALS

Be sure the operator is aware and understands all safety warning labels and follows them accordingly.



3.0 SPECIFICATIONS

Maximum Capacity:	10 000 lbs	4 536 kg
Overall Width (min-max):	92-1/2 - 94-1/2 Inches	2350-2400 mm
Overall Length:	265-3/8 Inches(max)	6741mm
	255-3/8 Inches(min)	6486mm
Maximum Raised Height:	73-3/8 Inches	1861 mm
Minimum Lowered Height:	9 Inches	229 mm
Runway Width	26 Inches	660 mm
Lifting Time:	85 seconds at max. capacity	
Power Requirements:	220V, 1 Ph, 60 Hz, 25A	
Air Supply requirements:	90 to 120 psi	
Hydraulic Oil Capacity:	Tank size: 4.0 gal	Lift uses: 3.0 gal
Oil Type:	ISO 32 (10 weight) hydraulic oil	

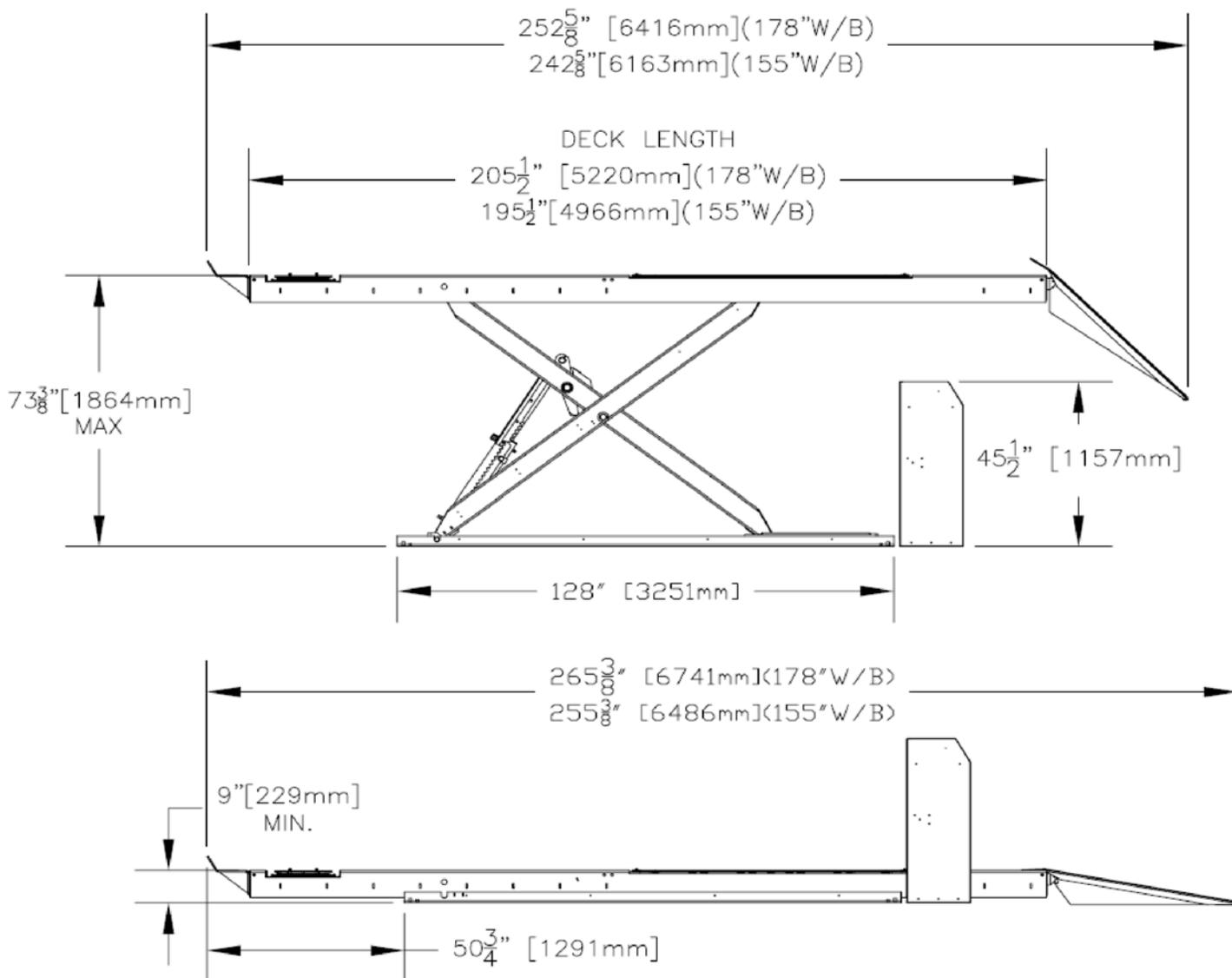


Figure 1 Lift Dimensions

4.0 CONTENTS

The complete lift is contained in two (2) packages:

1. The main structural components are pre-assembled and packaged on top of each other.
2. The remaining parts are packed in a console/accessory box. Refer to the packing slip inside for a list of contents.

Components include:

- 1pc. – Left Side Main Frame Assembly: Runway, Scissors and Base Frame
- 1pc. – Right Side Main Frame Assembly: Runway, Scissors and Base Frame
- 1pc. – Console and accessory box. (See accessory box list for contents)
- 1pc – Grout container
- 1pc. – Customer care kit including manuals

5.0 TOOLS REQUIRED FOR INSTALL

- ✓ Hammer Drill or similar, 1/4" and 1/2" Concrete Drill Bits
- ✓ 4' Level
- ✓ SAE Wrenches and Sockets
- ✓ Hammer
- ✓ Pry Bar – 5' Long
- ✓ Chalk Line
- ✓ Tape Measure
- ✓ Side Cutters
- ✓ Screw Drivers
- ✓ Hydraulic Fluid ISO 32 (10 weight hydraulic oil) - 15 liters/4 Gallons
- ✓ Funnel
- ✓ Utility Knife
- ✓ Torque Wrench

Recommended:

- ✓ Laser Leveler
- ✓ Plumb Bob
- ✓ Impact Gun
- ✓ Boom and/or Engine Hoist
- ✓ 8' Sling
- ✓ Engine Crane
- ✓ Apply LOCTITE #242 on required fasteners where symbol is shown. If fasteners are removed reapply LOCTITE before re-installing.



6.0 INSTALLATION INSTRUCTIONS

When the lift arrives on site, please read the Installers manual completely. Check the contents to make sure no parts are missing before starting installation. Gather all of the tools listed and make sure that the instructions are fully understood before commencing with the installation.



IMPORTANT: It is the user's responsibility to provide a satisfactory installation area for the lift. Lifts should only be installed on a level concrete floor with a minimum thickness of four and a quarter inches (4¼") or 108 mm. Concrete must have a minimum strength of 3000 psi or 21 MPa and should be aged thirty (30) days prior to installation. Please consult the architect, contractor or engineer if doubt exists as to the strength and feasibility of the floor to enable proper lift installation and operation.



IMPORTANT: It is the user's responsibility to provide all wiring for electrical hook-up prior to installation and to ensure that the electrical installation conforms to local building codes. Where required, it is the user's responsibility to provide an electrical isolation switch located in close proximity to the lift that will enable emergency stop capability and isolate electrical power from the lift for any servicing requirements.



WARNING: The floor surface must be inspected and the below requirements must be met.

NO Drains.

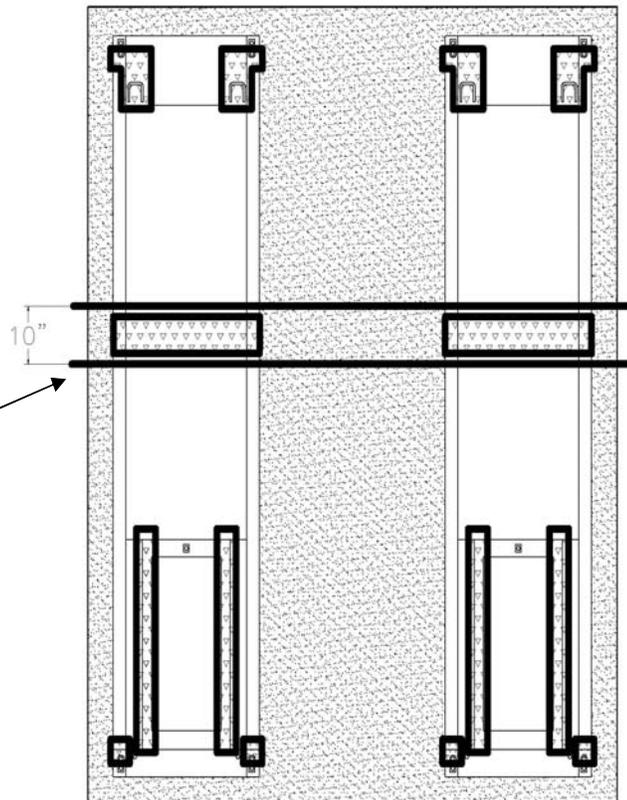
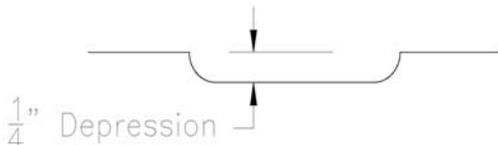
NO Depressions.

NO Holes or Pits.

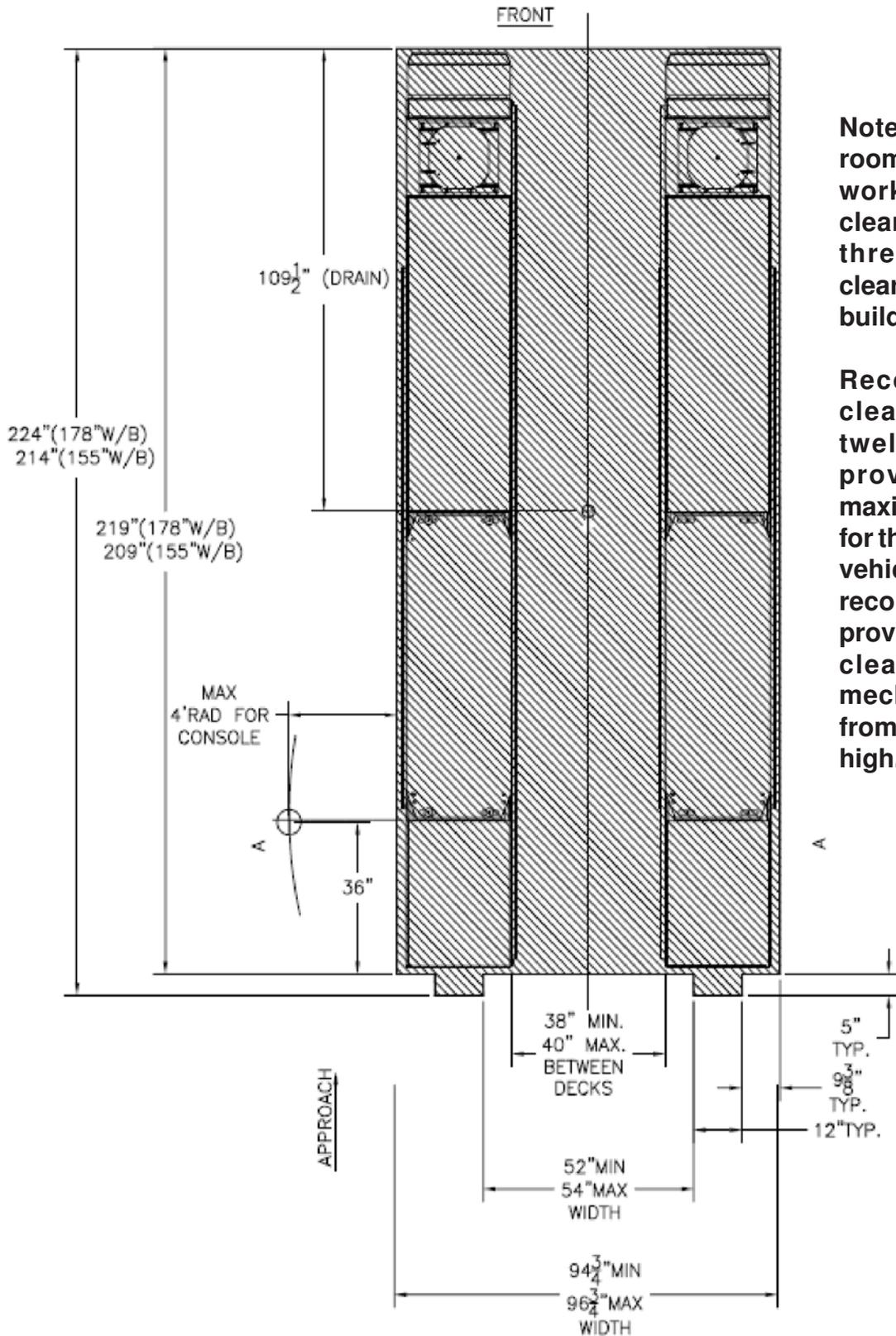
In shaded area around lift.

Kicker Area

If more than ¼" depression in the kicker area (10" span), this area must be filled and leveled.



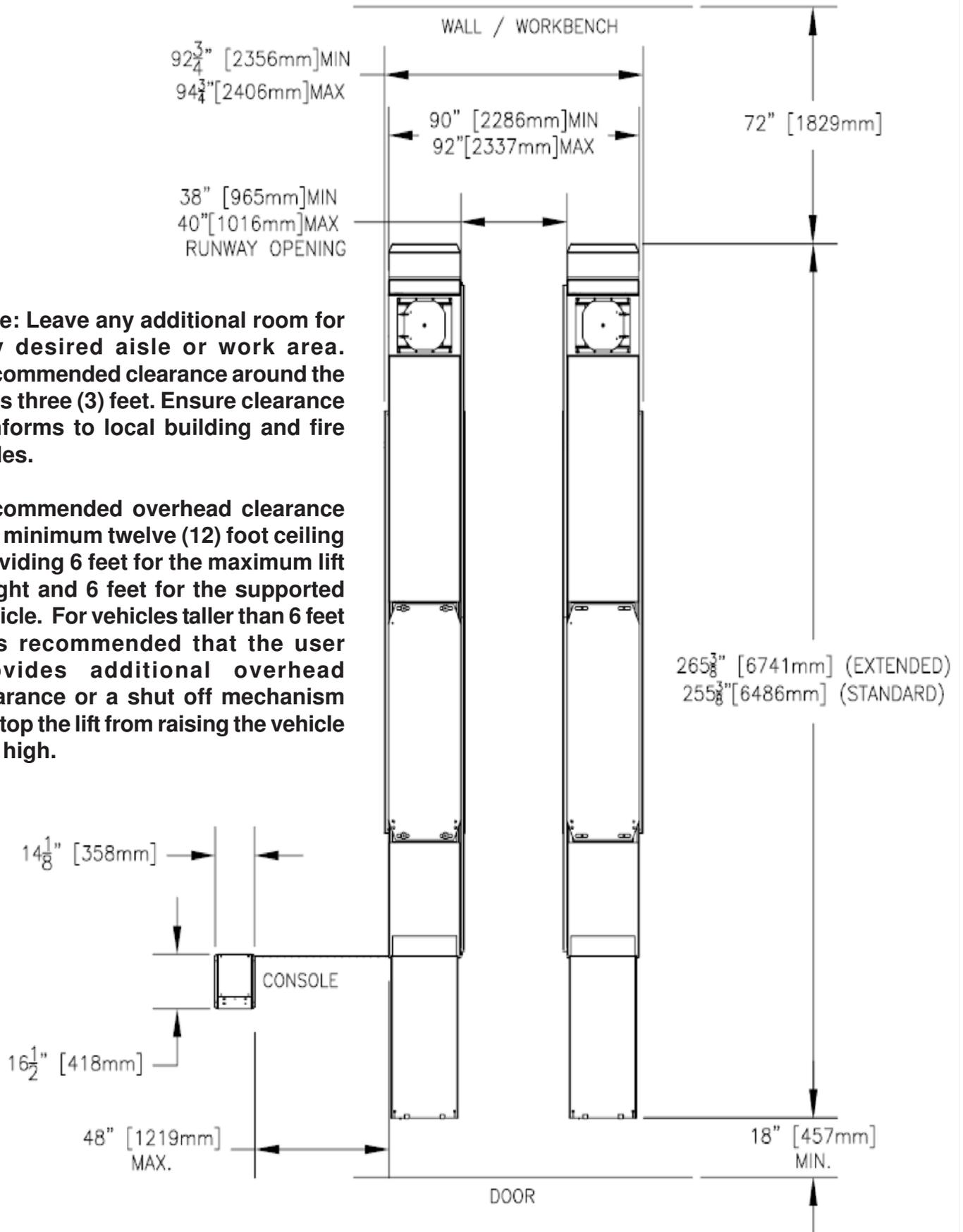
6.1 Bay Layout



Note: Leave any additional room for any desired aisle or work area. 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.

Figure 2 - Typical Bay Layout (Flush Mount)



Note: Leave any additional room for any desired aisle or work area. 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.

Figure 3 - Typical Bay Layout (Surface Mount)

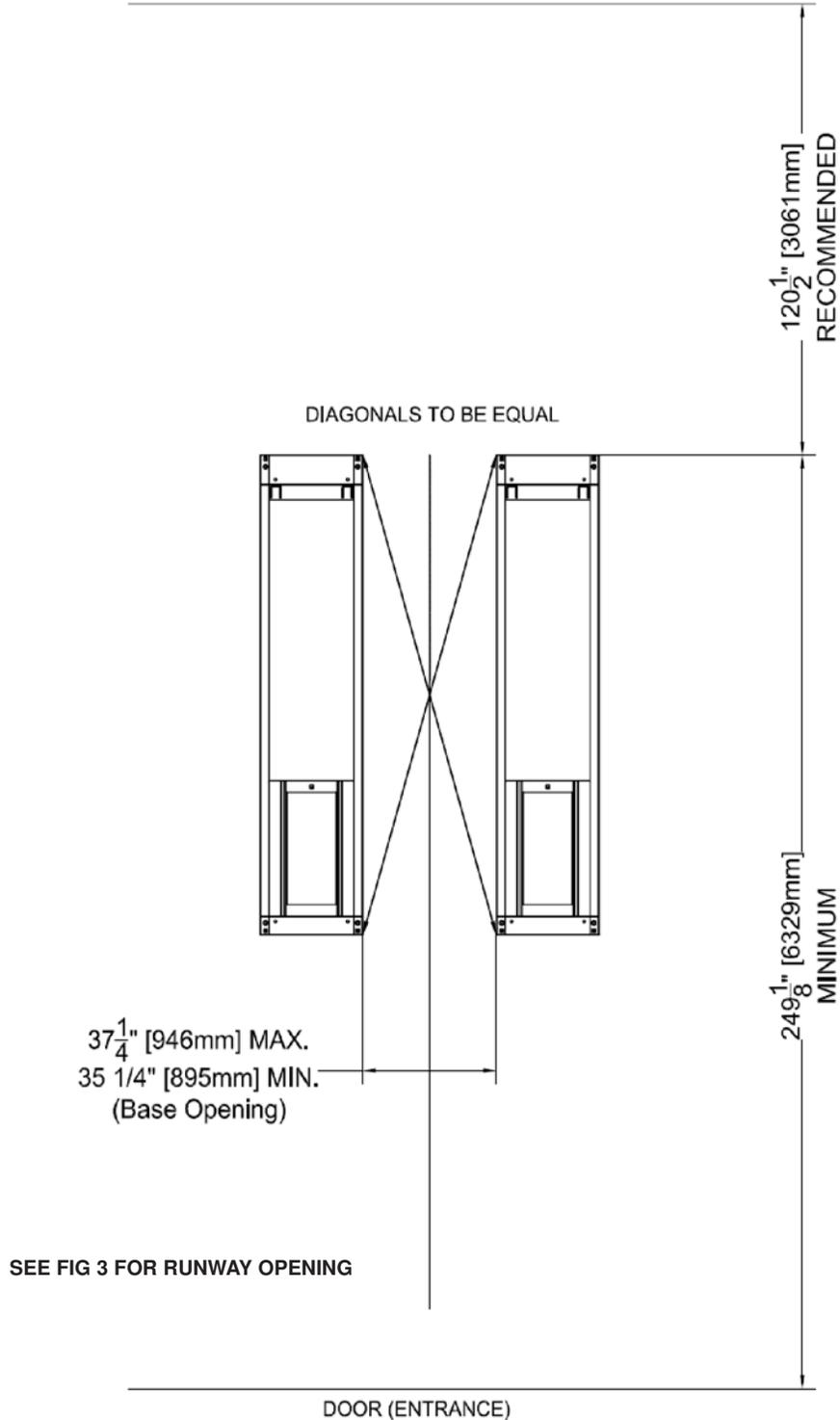


Figure 4 : Baseframe Locations

IMPORTANT: DO NOT CUT THE SHIPPING STRAPS HOLDING EACH SCISSOR ASSEMBLY TOGETHER UNTIL INSTRUCTED TO DO SO.

1. With reference to **Figure 3**, the installer should locate the most suitable location in the shop for the lift.
 2. Snap a chalk line for the centerline of the lift ensuring that it matches the centerline of the bay door.
- * **See Section 6.0 Installation Instructions for the floor surface requirements.**

3. Measure and snap two (2) parallel chalk lines on either side the centerline for the inside edges of the baseframes. Refer to **Figure 4** for the dimensions necessary to provide the desired width between the two runways. A distance of 35 1/4" (895mm) between the baseframes will provide the standard width of 38" between the inside of the runways.
4. Measure and snap a chalk line parallel to the shop door for the front of the baseframes, a minimum distance of 249 1/8" (6328mm) is recommended.
5. Before proceeding, ensure that once the runways are installed adequate workspace will remain in front of the lift.

⚠️ Refer to the minimum requirements listed in the installation and operation manual of any alignment equipment as needed.

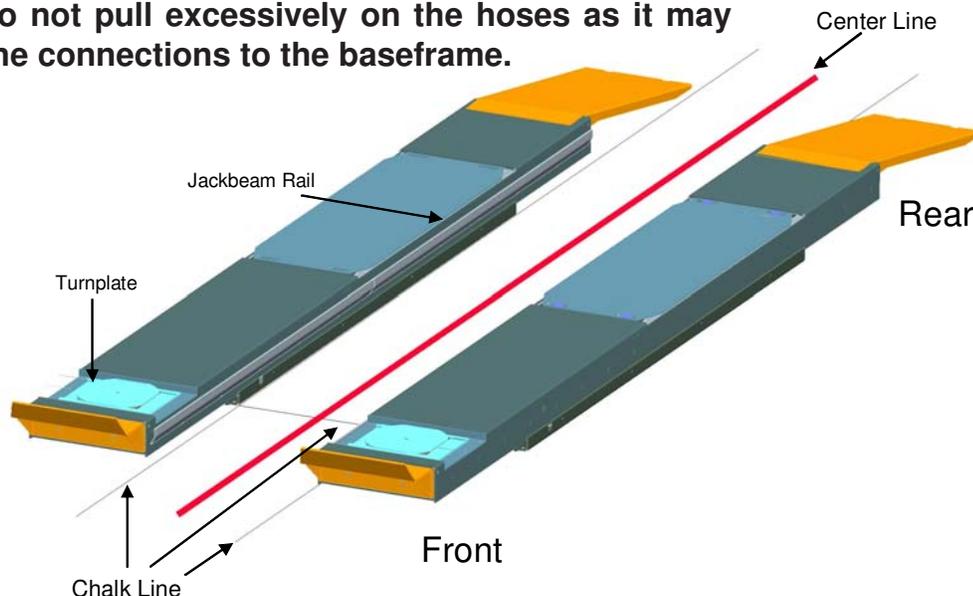
6.2 Unpacking the Lift

1. Unpack the console and place it in the desired location at the rear of the lift. The console can be placed on either the left or right hand side of the lift. The console must be located so the operator is always facing the lift.
2. Unpack the runways and lay each baseframe along the chalk lines.

⚠️ Do not remove the individual strapping on the runways until they have been positioned on the chalk lines.

3. Position the baseframes on chalk lines, and ensure that the runways are parallel. Before complete positioning of the last scissor be sure to remove the shipping tubes. Ensure that both the inside dimensions (front and back) of the baseframes as well as the diagonal distances are equal.
4. Remove the remaining packing straps, and remove the hydraulic hoses and polytubes from under the runway. Hoses are located under the rear portion of the runway and are factory pre-installed

Note: do not pull excessively on the hoses as it may strain the connections to the baseframe.



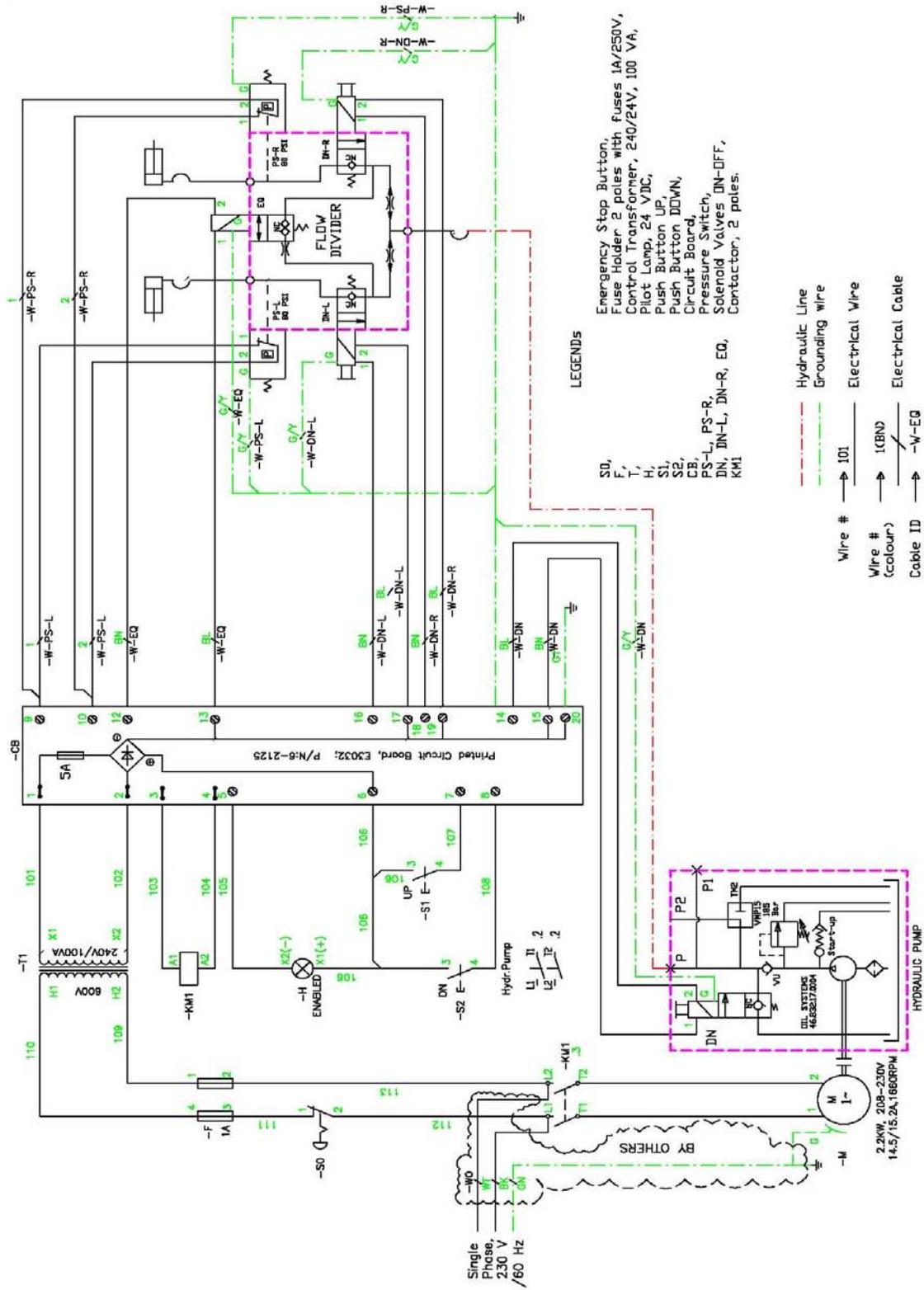
Ensure that the turnplate pockets are at the front, and that Jack Beam rails for each runway face each other.

⚠️ Ensure there are no holes, depressions, or drains inside the installation area. See Section 6.0 for requirements.

6.3 Electrical Connection



DANGER! ENSURE THAT ELECTRICAL CONNECTIONS ARE COMPLETED BY A LICENSED ELECTRICIAN! ELECTRICAL SHOCKS CAN CAUSE SERIOUS INJURY OR EVEN DEATH.



NOTE: Overload fuse does not come with single phase power unit

Figure 5 - Electrical Connections

6.4 Hydraulic Connections

1. Open the rear access covers of the console.
2. Unravel all hoses and air lines from each runway and connect the hydraulic lines as shown in **Figure 6**.



- **Always make sure that the connections are clean to avoid contaminating the hydraulic system.**
- **Do not kink hydraulic hoses or air lines.**
- **Do not remove hydraulic fittings while under pressure..**

3. Connect the cylinder hoses (2-2177) to the pump manifold.

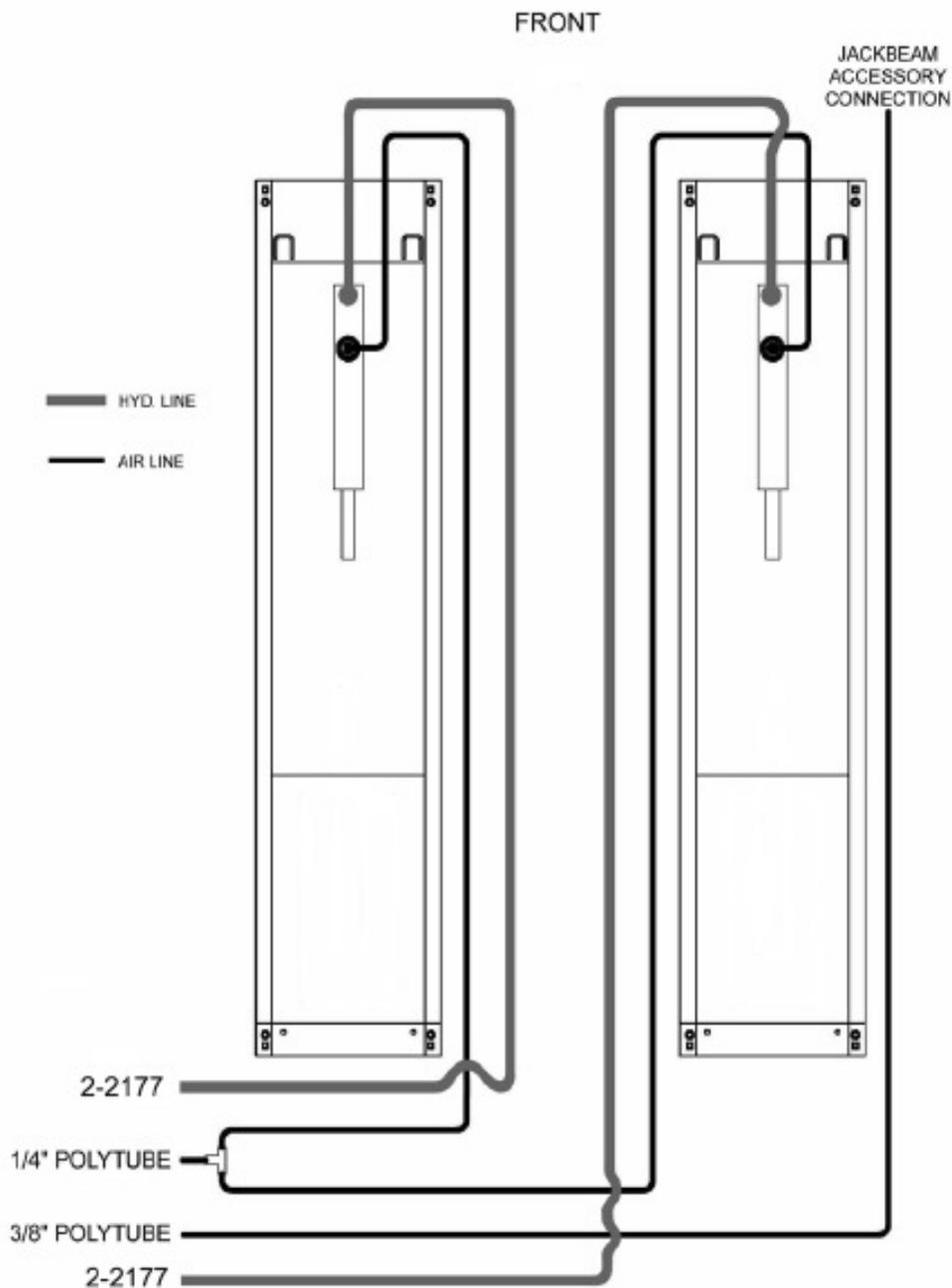


Figure 6 - Air Safety, Auxiliary Air and Hydraulic Connections

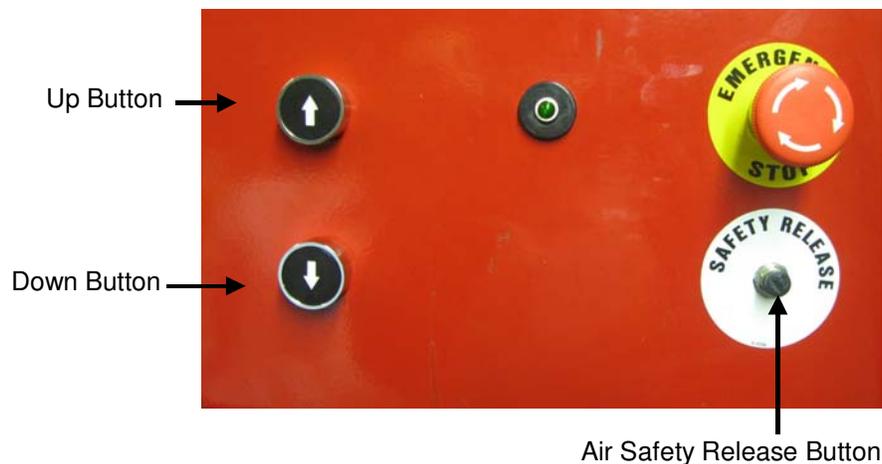
6.5 Air Safety and Auxiliary Air Connection

WARNING! WEAR SAFETY GOGGLES AND PRACTICE CAUTION WHILE WORKING WITH COMPRESSED AIR.



1. The 1/4" polytube in the control console is already connected to the manual pushbutton release valve. The polytube should be uncoiled, cut to size and connected to the "T" inside the console.
2. The 3/8" polytube for the auxiliary air connections is coiled under the right side runway. Route this hose to the console and connect it to the union inside the console where the shop air is connected.
3. Connect the compressed air line from the shop to the 1/4" NPT port on the back of the console.
A regulator (**supplied by customer**) set at 90-120 psi should be used to control the supply of air to the lift.
An air line filter and water separator should be installed on the air supply (**supplied by customer**). *Failure to ensure a clean air supply can result in the premature wear of air cylinders and valves.
4. Press up button to raise lift off mechanical safety locks.

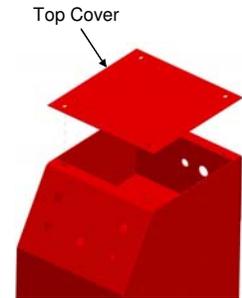
While holding the air safety release button, press the down button and lower the lift completely to the ground.
5. Check the air system for any leaks.



6.6 Bleeding Procedure

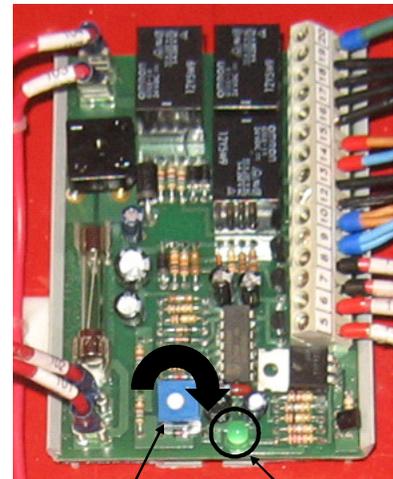
1. Once the main electrical power supply has been connected remove console top cover.

2. Using a funnel with a screen filter, add 15 litres/ 4 gallons hydraulic fluid ISO 32 to the power pack reservoir.
(10 Weight Hydraulic Oil).



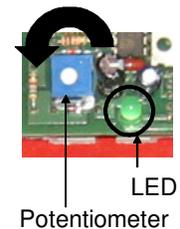
3. Turn the potentiometer adjustment fully clockwise. **Do not use excessive force to turn screw.** The potentiometer adjustment is located on the PCB board.

4. Press the up control button  until the LED illuminates.
(Approximately 12"-14" high)



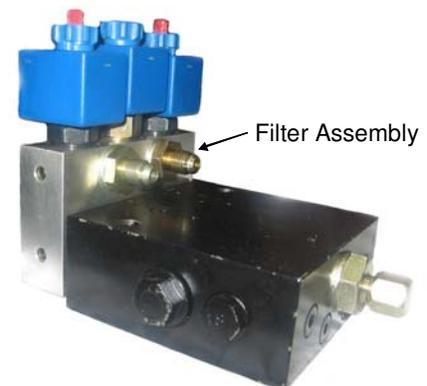
5. Press the Safety Release Button and the Down Button to lower the lift to the ground and hold until the LED light goes off. This will release air from the hydraulic system. ● + 
Note: If the LED is not illuminated the lift will not lower – press the up button and raise the lift until the LED comes on. Once the LED is illuminated, the lift can be lowered.

6. Repeat these steps 5-6 times to completely bleed the system of air. Check the lift for hydraulic leaks at all connections. When complete, turn the potentiometer adjustment fully counter clockwise.



7. After bleeding, it is recommended that the fitting assemblies located on the flow divider valve, where hydraulic hoses from lift attached be cleaned.

Note: Place the fitting on a workbench and use an air gun to blow through the filter in the opposite direction to flow from the lift.



8. Reinstall fitting assemblies and connect hydraulic hoses.

6.7 Level and Support

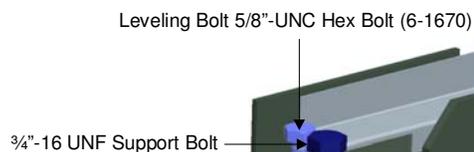
NOTICE



CORRECT LEVELING IS IMPORTANT TO ENSURE THE PROPER OPERATION OF THE LIFT. TAKE PRECAUTIONS TO ENSURE ACCURATE LEVEL READINGS WHEN PERFORMING THIS PROCEDURE.

Side-to-side leveling measurements should be taken off the baseframe, and measurements should be taken on each baseframe as well as between the two baseframes. Front-to-back level measurements should be taken on the runways.

1. Press the up button  and raise the lift to the fully extended operating position. Check the location of the baseframes compared to **Figure 4**, and make minor adjustments as required.
2. Level the baseframes using the 5/8" leveling bolts provided at each of the four (4) corners.



3. Use shims provided to support under glide block area, kicker area of baseframe and under front hinges. See **Figure 7**.
See section 6.0 Installation Instructions for floor requirements.

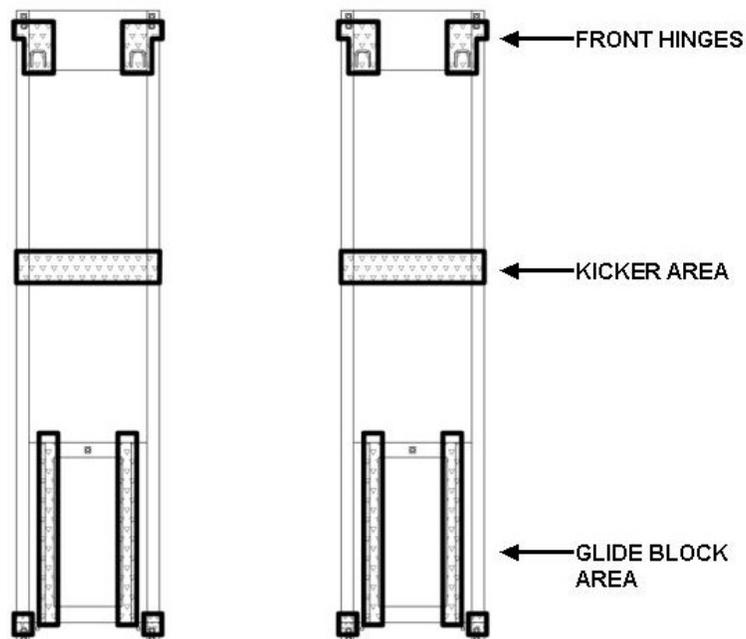
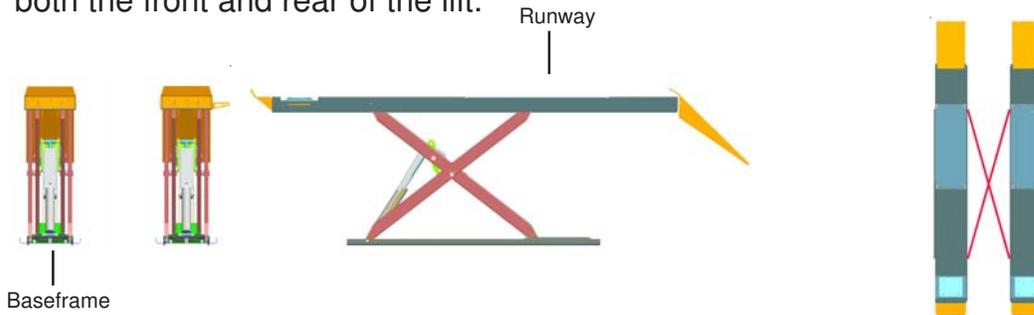


Figure 7 - Shimming

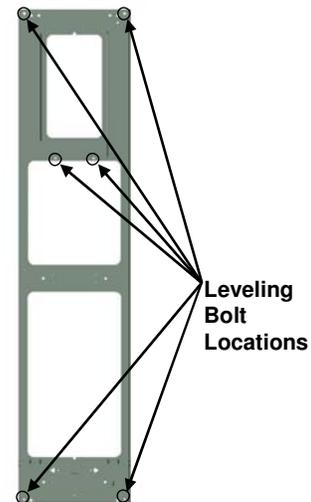
- Verify that the baseframes are level side-to-side and that the runways are level front-to-back. The front turnplate and rear slip plate are the areas of interest. Check that the spacing between the runways is as desired, and that this spacing is equal at both the front and rear of the lift.



*Check that the diagonal measurements between opposite corners of the baseframes are equal. **Lower and raise the lift and repeat these measurements.**

- Once lift is level, back off 5/8" leveling bolts so that the base is firmly sitting on the shims. Re-check to make sure the lift is still level and shims are holding properly.

Note: These bolts must be removed once the shims are installed under the base correctly.



6.8 Anchoring Procedure

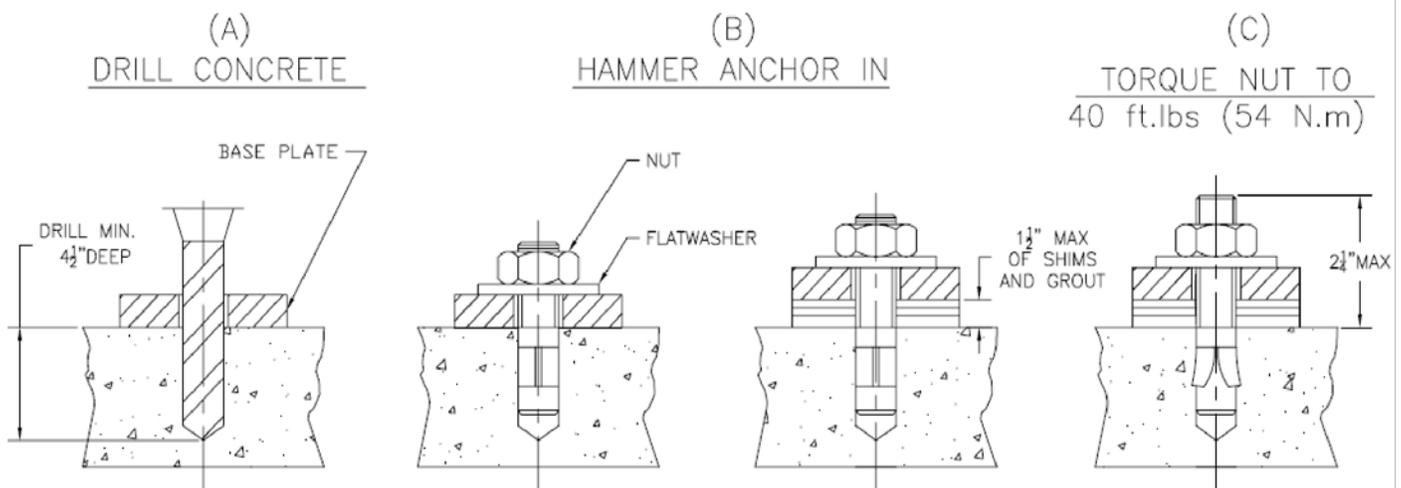
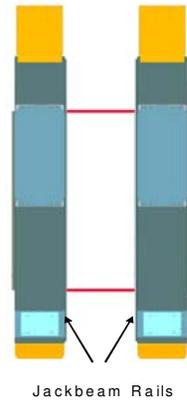


Figure 8 - Anchoring

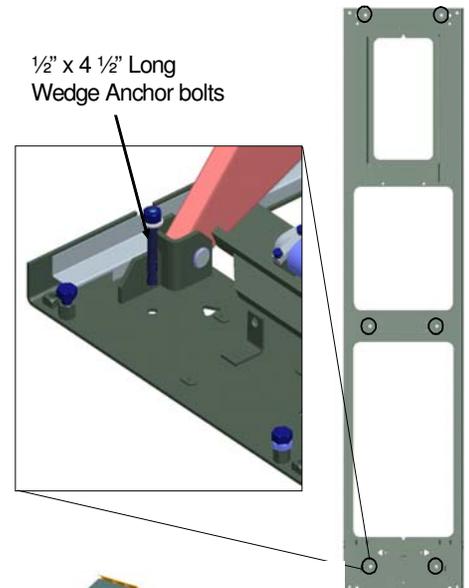
1. Lower the lift and measure the distance between the Jackbeam rails at front and rear of the lift.
2. Raise the lift to full height and repeat the measurements, and ensure there are no differences.
3. Using a hammer drill and a 1/2" concrete bit, drill through the floor at each of the six (6) anchor bolt locations on each of the base frames. Make sure that the 1/2" concrete drill bit is in good condition. Refer to baseframe figure to the right.



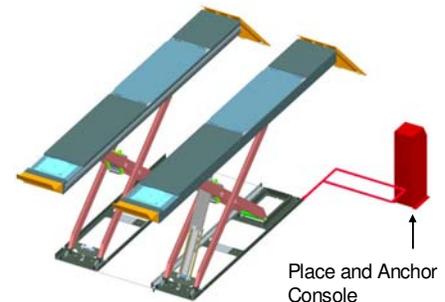
4. Assemble the nuts and washers on the 1/2" x 4 1/2" long wedge anchor bolts supplied ensuring a minimum of six threads are visible below the nut, and hammer in the anchors leaving space for shimming.
5. Use shims provided to support around anchor position and hammer anchors until they make contact with the baseplate.
6. Torque all anchor bolts to 40 ft- lbs (54 N.m).

NOTE: The 1/2" x 4 1/2" long wedge anchor bolts supplied must have a maximum of 2 1/4" exposed above the concrete.

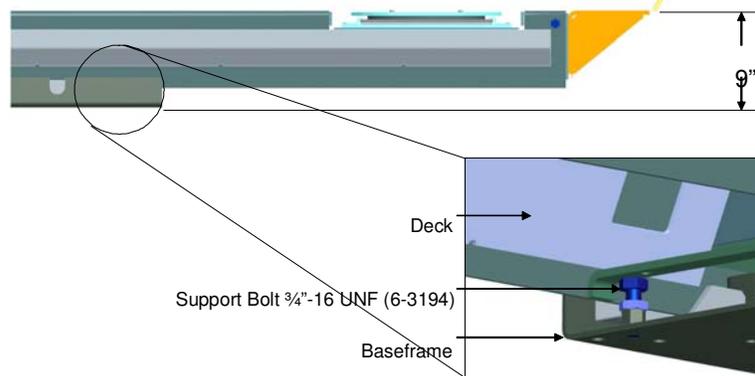
NOTE: The wedge anchor must be a minimum of 6 1/8" away from any cracks, edges and joints



7. Position the console in the final desired location. Refer to **Figure 3**. Using a hammer drill and a 1/4" concrete bit, drill and anchor the console to the floor using the **Nail in Anchors** located in the hardware kit.



8. Check that the 3/4" support bolts on the four (4) corners of the baseframes are adjusted to ensure that the runway is level at fully collapsed position. (9 inches).



9. Clean kicker area and grease kicker using a multipurpose, extreme pressure grease such as Dynalife L-EP, NLGI Grade 2 or equivalent. Refer to Maintenance Section 10.1 for procedure.

6.9 Grouting Procedure (Optional)

1. Pour grouting under the load area of each base frame as shown in **Figure 9**. Ensure that grout is evenly distributed under the frame and finish the edges with a 45 degree chamfer. Refer to specific grouting instructions on the package. Leave a drain area to allow any liquids to escape.
2. **GROUTING MUST FULLY CURE BEFORE PROCEEDING.** Do not operate the lift while grout is curing. Refer to instructions on the package for recommended cure times. [Non-Shrink Grout (3000psi min. in 24hrs, 7000psi min. in 30 days)]

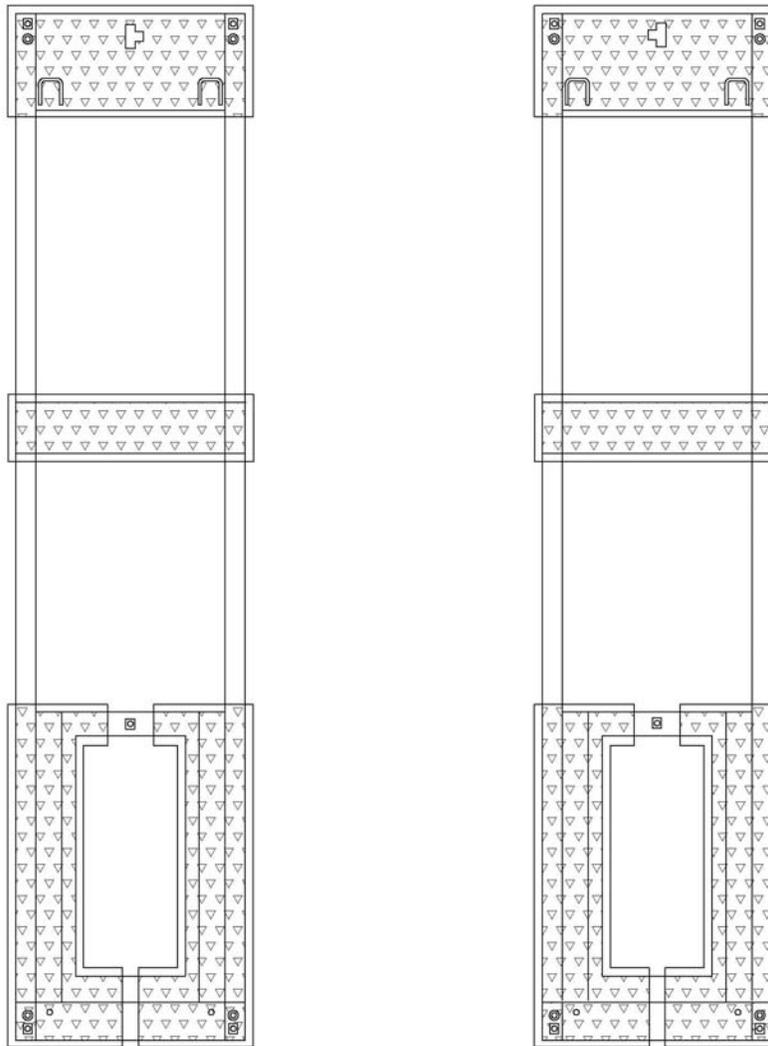
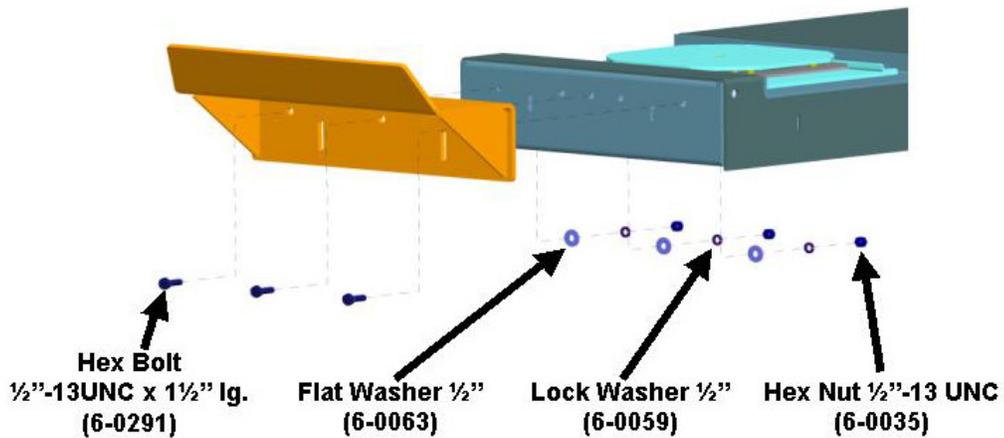


Figure 9 - Grouting Locations

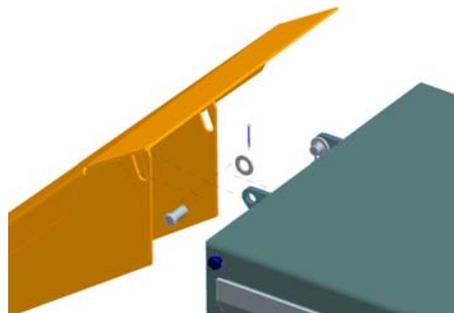
7.0 ACCESSORY INSTALLATION

1. Install the front Wheelstops located in the accessory box using the ½” Hex Bolts, Washers, Lockwashers, and Hex Nuts located in the hardware kit.



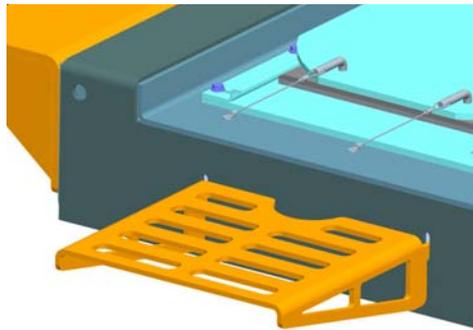
The runway stops are designed as a secondary means to restrain a vehicle from inadvertently rolling off the runways. Property damage and physical injuries may occur if this warning is not adhered to.

2. Install the rear approach ramps using the Approach Ramp Pins located in the accessory box, and the Flatwashers and Cotter Pins located in the hardware kit.



3. Install Jackbeams with reference to the Jackbeam user manual.

4. Position the moveable workstep in the desired location. There are slots along the span of each runway where the workstep can be mounted. When not in use, the workstep can be stored under the front section of the runway.

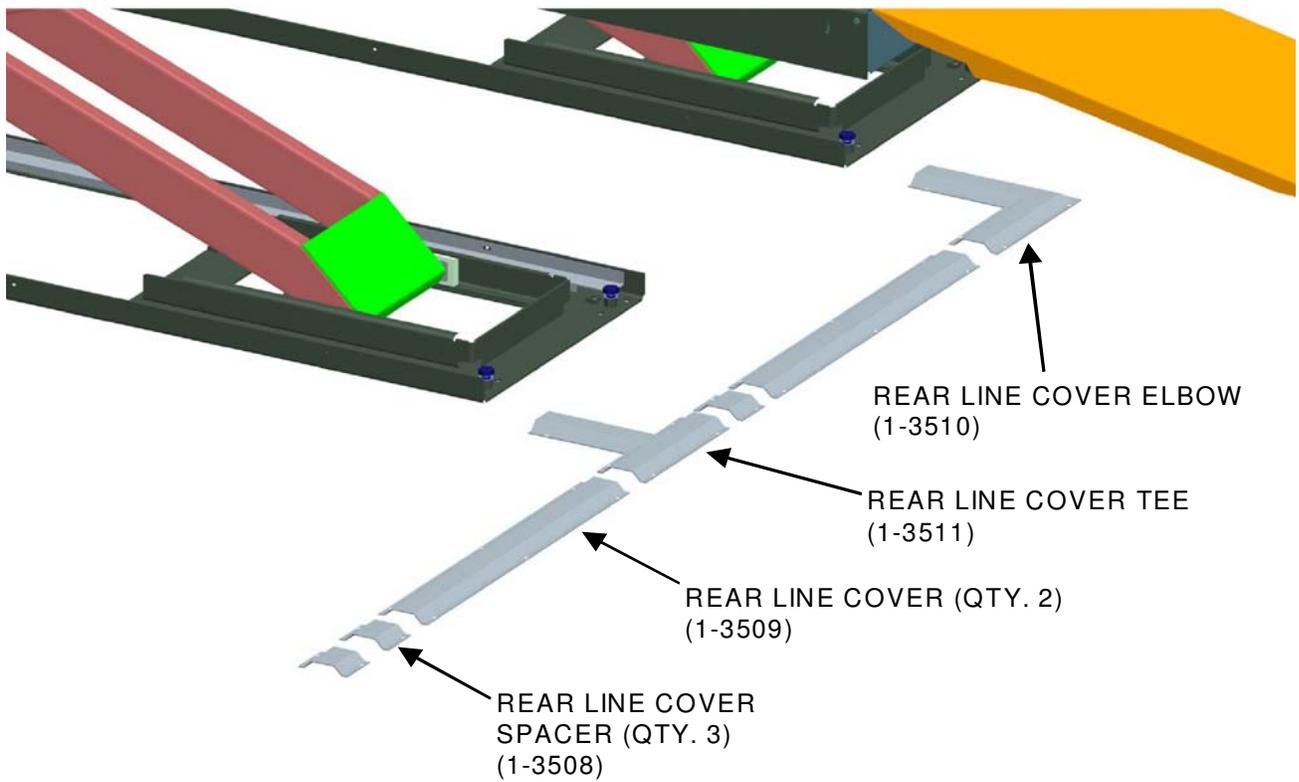


WARNING! ENSURE WORKSTEP IS FULLY ENGAGED PRIOR TO USE. IF MORE THAN ONE WORKSTEP IS IN USE, DO NOT TRY TO STEP ACROSS OR JUMP FROM ONE STEP TO ANOTHER. NEVER USE THE WORKSTEP WHILE THE LIFT IS IN OPERATION. SERIOUS INJURY COULD RESULT FROM IMPROPER USAGE OF THE WORKSTEPS.

WARNING! WORKSTEP MAXIMUM CAPACITY IS 250 LBS.

WARNING! FOR FLUSHMOUNT INSTALLATIONS ENSURE WORKSTEP IS REMOVED BEFORE RAISING OR LOWERING THE LIFT.

5. Install line covers once console is installed and hydraulic lines are routed. Use supplied 1/4" x 1" long nail in anchors (6-0141) to secure line covers. See below for arrangement.



8.0 FINAL PROCEDURES

8.1 Check of Assembled Lift

1. Final dimension check after anchoring. _____
2. Check for air and hydraulic leaks. _____
3. Re-check level of decks, front to rear , side to side. _____
4. Check all fasteners, tighten if necessary. _____
5. Operate lift to full stroke then lower to ground while checking for proper functionality. _____
6. 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 _____
7. Train end user on operation of lift. _____

8.2 Operation Test With Vehicle

- 1. Lower lift to the ground. (Make sure Green Light is OFF) _____
- 2. Drive vehicle on to lift. _____
- 3. Raise lift to and lower onto 3-4 lock positions during full rise to ensure all locks are working correctly. _____
- 4. Check lowering speed and smooth decent rate. _____
- 5. Lower lift to the ground and drive vehicle off lift. _____

If any problems occur during the final checkout or operation of the lift please contact customer service at 1-800-225-5786

9.0 LIFT OPERATION

9.1 Raising the Lift

1. If the lift is equipped with sliding Jack Beam(s), be sure that the Beam(s) are positioned at the front or mid travel of the lift, fully down, and with the risers removed and stored. Never store Jack Beams at the rear of the lift.
2. Ensure that the lift is fully lowered before attempting to load or unload a vehicle.
3. Ensure that locking pins are in the front turnplates and rear slip plates before driving a vehicle onto the lift.
4. Position the vehicle on the lift ensuring the resulting load on the deck is distributed as evenly as possible. Under no circumstances should a vehicle be lifted if the weight distribution is unbalanced by more than 10% on either side.

NOTE: THE VEHICLE IS POSITIONED CORRECTLY WHEN THE DISTANCE FROM THE CENTER OF THE TIRES TO THE INSIDE EDGE OF THE RUNWAYS IS EQUAL ON BOTH RUNWAYS, FOR BOTH THE FRONT AND REAR TIRES.

6. Chock the vehicle using the wheel chocks provided.
7. Check that there are no obstructions above the lift that could damage the lift or vehicles.
8. Raise the lift by pressing the up button on the control console. Raise the lift until the green light is illuminated. (The lift can only be lowered if the green light is on).
9. Lower the lift onto a mechanical safety lock by pressing the down button. Continue to hold the down button until the green light goes off. (Approx. 3-10 sec).

WARNING: NEVER WORK UNDER A VEHICLE OR THE LIFT UNLESS IT IS POSITIONED ON BOTH MECHANICAL SAFETIES!

9.2 Lowering the Lift

NOTE: The lift can only be lowered if the green light is on. If the light is not on, raise the lift until the light turns on. If the lift is at its maximum lifting height, a change in tone may be noticed while raising the lift (This change is the pump working at max relief pressure). Only press the up button until the green light comes on.

1. Lower the vehicle from the Jack beams and remove lift pads and store. If removing the vehicle from the lift, slide Jack Beams to their appropriate position, at the front or mid section of the lift. Check that there are no other obstructions under the lift or vehicle.
2. Raise the lift by pressing the up button until both runways are clear of their mechanical safety locks.
3. Press the air safety release button to release the mechanical safeties.
4. While holding the air safety release button, press the down button and lower the lift to the completely collapsed position.
5. Remove wheel chocks and ensure that locking pins are in the front turnplates and rear slip plates before driving a vehicle off the lift.
6. Be certain that the lift is completely lowered before removing the vehicle from the lift.

ATTENTION: THE OPERATOR MUST ALWAYS KEEP THEIR ATTENTION ON THE OPERATION OF THE LIFT WHILE RAISING OR LOWERING. IF AN OBSTRUCTION IS SEEN, RELEASE BOTH THE AIR SAFETY RELEASE BUTTON AND THE DOWN BUTTON TO STOP THE LIFT.

10.0 RECOMMENDED MAINTENANCE

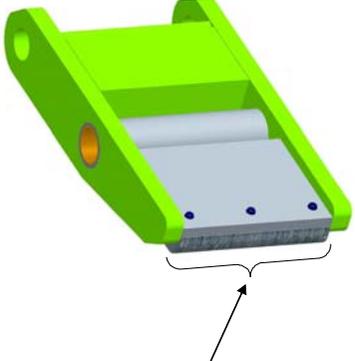
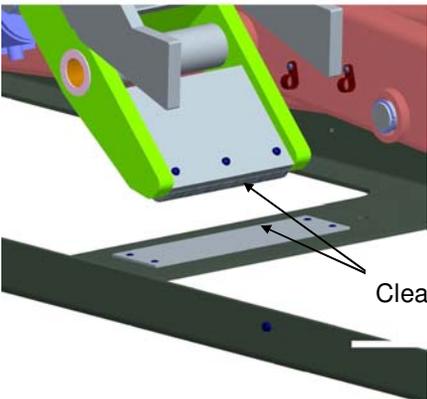
The following maintenance schedule is recommended for ensuring the operation of the lift. A record of maintenance performed should be maintained and any items that resulted in additional service should be noted.

Schedule	Maintenance Required
Daily	Check that the upper and lower glide tracks are clean and free of debris. This area should be checked before raising or lowering the lift.
	Inspect the operation of the lift by raising and lowering the lift fully.
	Check for the proper engagement and release of mechanical safety locks. If bolts are removed for maintenance re-apply LOCTITE #242 before re-assembly
	Check hydraulic lines for leaks and fraying. Frayed hoses must be replaced immediately.
Weekly	Check the fluid level in the reservoir with the lift fully lowered. Top up reservoir with ISO 32 (10 weight) hydraulic oil as needed.
Monthly	Check anchor bolts for tightness. Torque to 40 ft-lbs if needed.
	Inspect the electrical and mechanical operation of all switches.
	Clean kicker plate and re-grease. See Section 10.1 for procedure and grease requirements. (See Figure 7 for kicker area).
	Inspect runway stop fasteners monthly.
5 Year	Change the hydraulic fluid every five years. Use only ISO 32 (10 weight) hydraulic oil.

NOTE: FAILURE TO FOLLOW RECOMMENDATION MAY AFFECT WARRANTY OF LIFT

10.1 Kicker Greasing Procedure

1. Clean both the kicker and the kicker area on the baseframe.
2. Grease kicker using a multipurpose, extreme pressure grease such as Dynalife L-EP, NLGI Grade 2 or equivalent.
3. Locations to be cleaned and greased are as shown below:

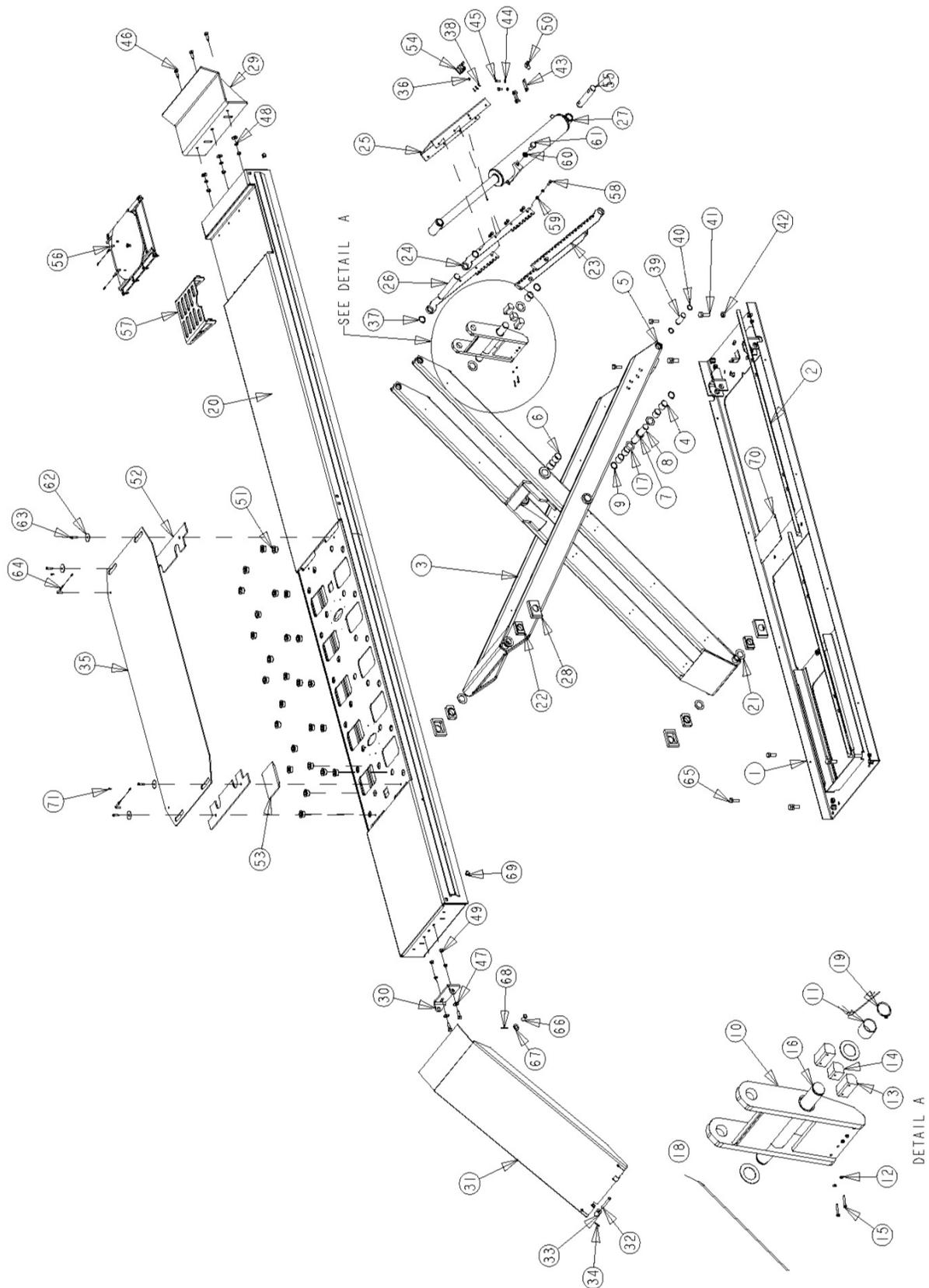


Grease across span of glide block

11.0 TROUBLE SHOOTING

PROBLEM	REASON	SOLUTION
Motor does not run.	Bad fuse or circuit breaker.	Replace fuse or reset breaker.
	Incorrect voltage to motor.	Provide proper voltage to motor.
	Incorrect wiring.	Have certified electrician check
	Motor switch is malfunctioning	Replace motor switch.
	Motor burned out	Replace motor.
Motor runs but lift doesn't go up.	Low oil level	Fill reservoir with proper hydraulic oil.
	Wrong rotation	Check for oil flow & reverse electrical leads
Lift doesn't come down .	Dirt in hydraulic lines Check power to hydraulic lines	*Secure vehicle on lift, and clean hydraulic lines.
	No power to solenoids	Check power to solenoids
Safety doesn't disengage.	Lift not raised high enough for disengagement	Press Up button for longer period of time.
	Air not supplied to air cylinder	Check if supply line has air.
	Air cylinder malfunctioning	Replace air cylinder.
Lift goes up unlevel.	Flow divider defective	Reverse hydraulic connections
	Blockage in hydraulic hose	Remove & inspect flow through line
Anchor Bolts do not stay tight	Holes are to large.	Relocate lift using proper drill size.
	Incorrect concrete floor specification. (Thickness and Strength)	Concrete should be replaced by an appropriate concrete pad. (Consult Product Manufacturer / Supplier for further details)
Noise	Squeeking noise during first few inches of rise	Clean kicker and area. Grease kicker (see Section 10.1 for Greasing Procedure)

12.0 LIFT ASSEMBLY

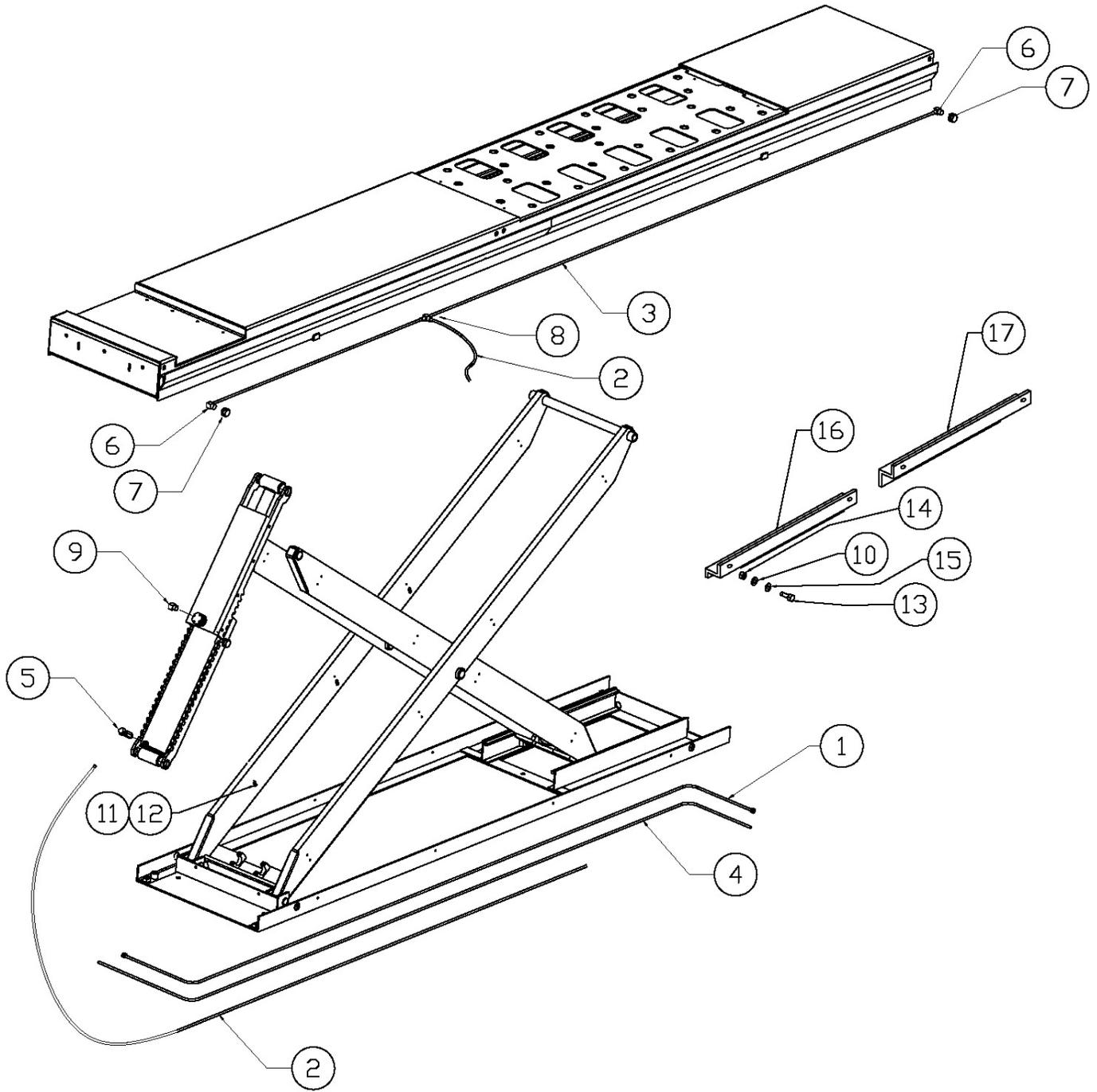


12.1 Lift Parts List

Item#	Part #	Description	Qty.
1	3-0978	BASEFRAME WELDMENT	1
2	2-2301	BASE FRAME COVER (L)	2
3	4-1152	WELDMENT, SCISSOR	1
4	6-2899	BUSHING, PIVOT, 1-1/2" ID, 24TH24	2
5	6-3087	BUSHING 1-1/4"	2
6	6-3419	1-5/8 SELF-LUBRICATING BUSHING, 26TH24	2
7	1-2795	SCISSOR SPACER	2
8	1-2791	SCISSOR PIN	2
9	6-0233	SNAP RING, #5100-150	4
10	2-2470	KICKER ASSEMBLY	1
11	6-3419	1-5/8 SELF-LUBRICATING BUSHING, 26TH24	2
12	6-0816	Flat Washer, #10	5
13	1-3224	BEARING BLOCK, OUTER	2
14	1-3223	BEARING BLOCK, INNER	1
15	6-1523	SCREW, #10 X 1-1/2, SELF-TAP	5
16	1-3185	KICKER PIVOT PIN	1
17	1-0757	NYLON THRUST WASHER	4
18	1-3171	THRUST WASHER	8
19	6-3418	SNAP RING, #5100-163	2
20	4-1181	DECK WELDMENT, LH (173")	1
	4-1191	DECK WELDMENT, RH (173")	1
	4-1227	DECK WELDMENT, LH (155")	1
	4-1228	DECK WELDMENT, RH (155")	1
21	1-3171	THRUST WASHER	4
22	1-3047	INNER SLIDER BLOCK ASSEMBLY	4
23	2-2111	SAFETY BAR BOTTOM (LASER CUT)	2
24	2-2112	SAFETY BAR, TOP (LASER CUT)	2
25	2-2183	SCISSOR SAFETY COVER	1
26	1-3186	KICKER CLEVIS PIN	1
27	4-1171	CYLINDER ASSEMBLY	1
28	1-2792	SLIDER BLOCK	4
29	2-2117	WHEELSTOP WELDMENT	1
30	1-3159	ADAPTOR PLATE	1
31	3-0905	APPROACH RAMP ASSEMBLY (SURFACE MOUNT)	1
	3-0698	APPROACH RAMP ASSEMBLY (FLUSH MOUNT)	1
32	1-1099	CLEVIS PIN	2
33	1-3062	RAMP ROLLER	2
34	6-0267	Cotter Pin, 1/8" Dia. x 1" LG.	2
35	2-2505	REAR SLIP PLATE	1
36	2-1733	ROD END	1
37	6-0233	SNAP RING, #5100-150	2
38	6-2281	PHILIPS SCREW #6	4
39	1-2788	HINGE PIN	2
40	6-0340	CIRCLIP TRU-ARC #5100-125	4
41	6-3468	HEX HEAD GR5 BOLT, 3/4-16 UNF X 1 3/4 LG	4
42	80259000	HEXJAM NUT, 3/4"-NF	4

43	1-2793	CYLINDER RETAINER	2
44	6-0058	LOCK WASHER, 3/8"	12
45	6-0067	HEX BOLT, 3/8" NC X 1" LG	4
46	6-0291	Hex Bolt, 1/2"-13UNC X 1 1/2 LG.	5
47	6-0063	Flat Washer, 1/2"	5
48	6-0059	Lock Washer, 1/2"	5
49	6-0035	NUT, 1/2-13 UNC, HEX	5
50	6-3008	90 HYD ELBOW FORGD 3/8 NPT - 3/8 JIC (FUSE)	1
51	6-2940	BALL BEARINGS	26
52	1-3033	SLIDER PLATE	2
53	1-3032	SLIDER PLATE INSERT	10
54	3-0812	AIR CYLINDER ASSEMBLY	1
55	1-2789	CYLINDER PIN	1
57	2-2119	WORKSTEP	1
58	6-0666	HEX BOLT 3/8 UNC X 1-1/4 LG, GR8	8
59	6-0034	HEX NUT, 3/8" NC	8
60	6-0259	LOCK WASHER, 3/4	2
61	6-2936	HHCS, 3/4-16 UNF X 1-1/2 LG	2
62	6-0426	FLAT WASHER	4
63	6-0206	Shoulder Bolt, 3/8" DIA. X 1" LG.	4
64	2-0637	LOCKING PIN ASSEMBLY	2
65	6-1670	HEX BOLT, 5/8"-NC x 2" LG	5
66	1-1887	HEADED PIN	2
67	6-0738	FLAT WASHER 3/4" SAE	2
68	6-0978	Cotter Pin, 1/8" DIA. X 1 1/2" LG.	2
69	6-0044	Hex HD Bolt, 1/2" x 1/2"	2
70	2-2409	WEAR PLATE	1
71	6-1134	SELF TAPPING SCREW, #12 X 1/2" LG	2
OPTIONS			
56	4-1101	TURNPLATE ASSEMBLY	1
* NOTE: QUANTITIES LISTED ARE ONLY FOR SINGLE SIDE.			
(LEFT ASS'Y 4-1192) (RIGHT SIDE ASS'Y 4-1193).			
OPPOSITE SIDES ARE SYMMETRICAL			

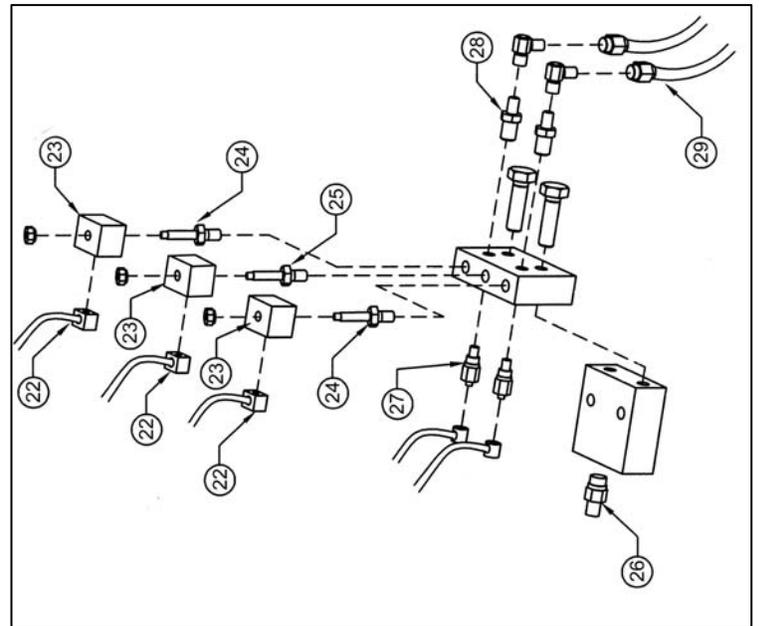
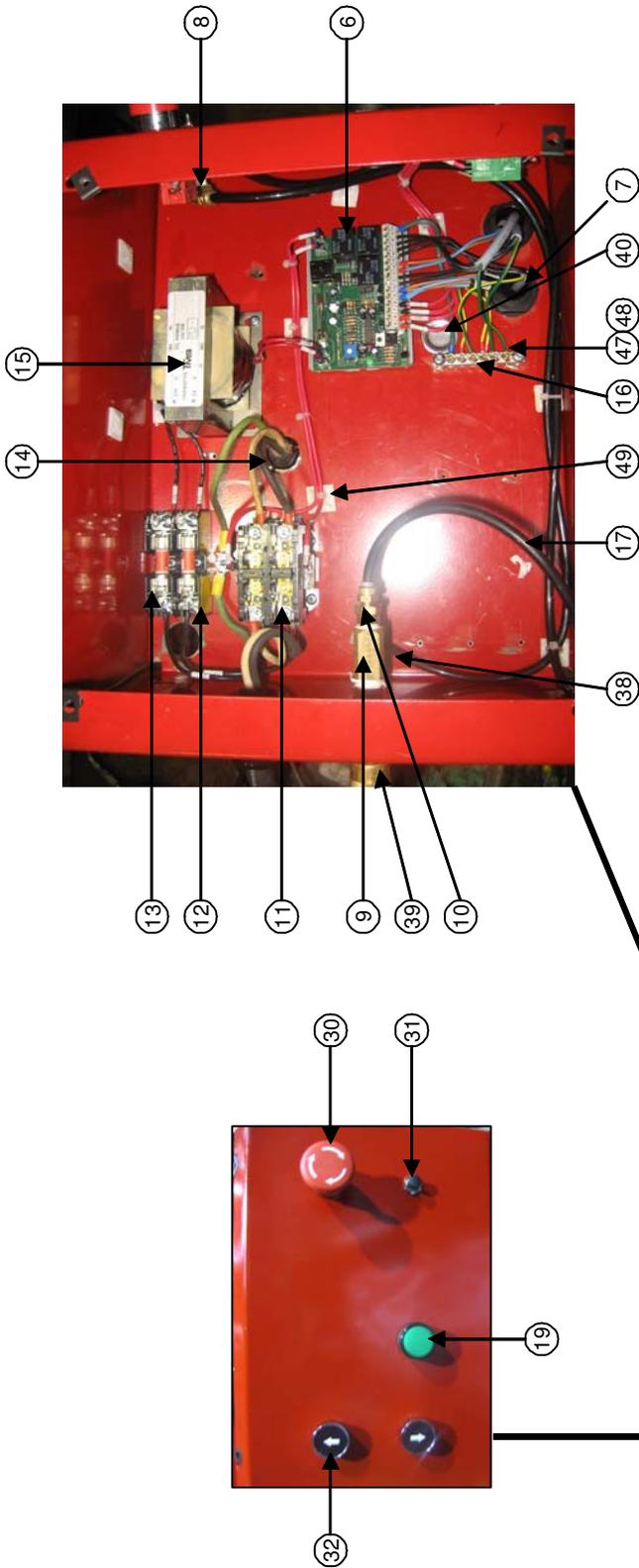
13.0 HYDRAULIC/AIR PARTS ASSEMBLY



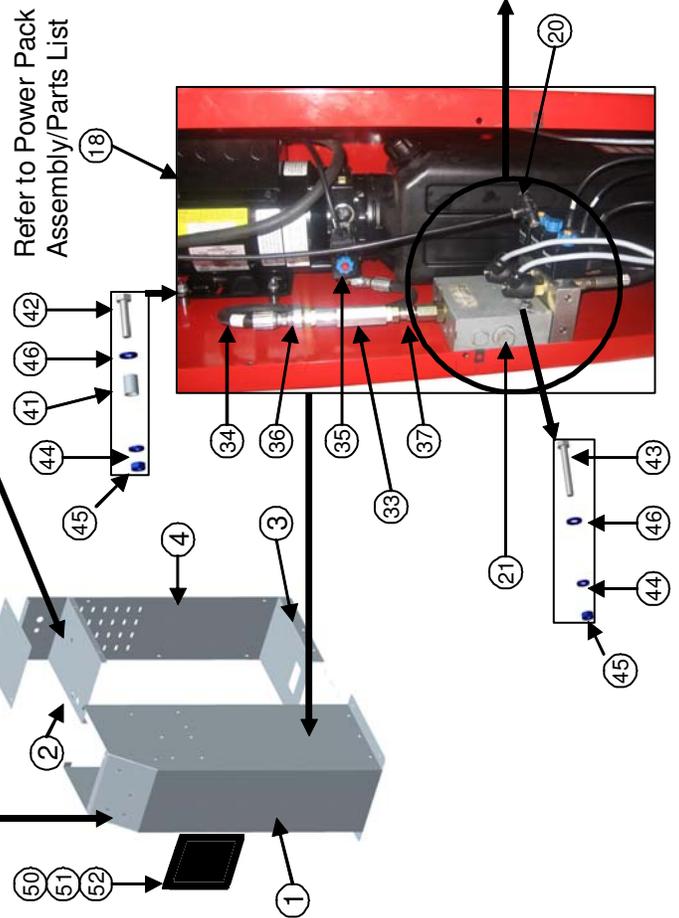
13.1 Hydraulic/Air Parts List

Item	Part #	Description	Qty
1	2-2177	3/8" Hydraulic Hose	2
2	6-3009	3/8" Polytube, 215" LG	1
3	6-3019	3/8" Polytube, 480" LG	1
4	6-3020	1/4" Air Hose, 350" LG	2
5	6-2956	Velocity Fuse	1
6	6-3010	90 DEG Elbow, 1/4" NPT-M, 3/8" Polytube	1
7	6-0167	Terminal Bolt, 3/4"	1
8	6-3011	Tee Fitting, 3/8" Polytube	1
9	6-0709	90 DEG Elbow, 1/8" NPT, 1/4" Polytube	1
10	6-0056	Lockwasher, 1/4"	7
11	6-0170	Pipe Clamp, 3/8"	8
12	6-1134	Self Threading Screw	8
13	6-0008	1/4" Hex HD Bolt	4
14	6-0032	1/4" Nut PL	4
15	6-0060	1/4" SAE, Flat Washer	4
16	2-2519	Baseframe, Line Cover Rear	1
17	2-2520	Baseframe, Line Cover Front	1

14.0 CONSOLE ASSEMBLY

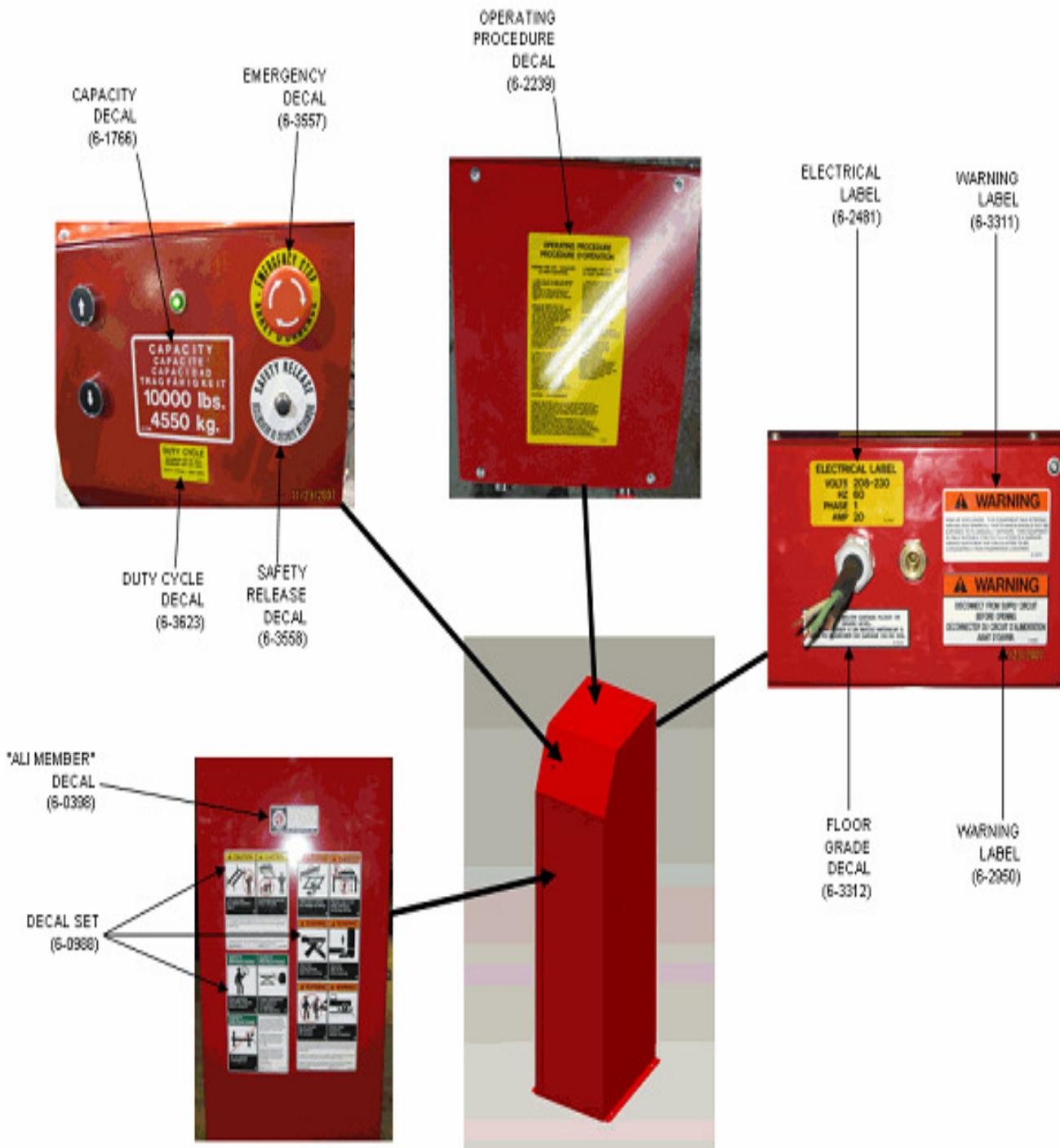


Refer to Power Pack Assembly/Parts List

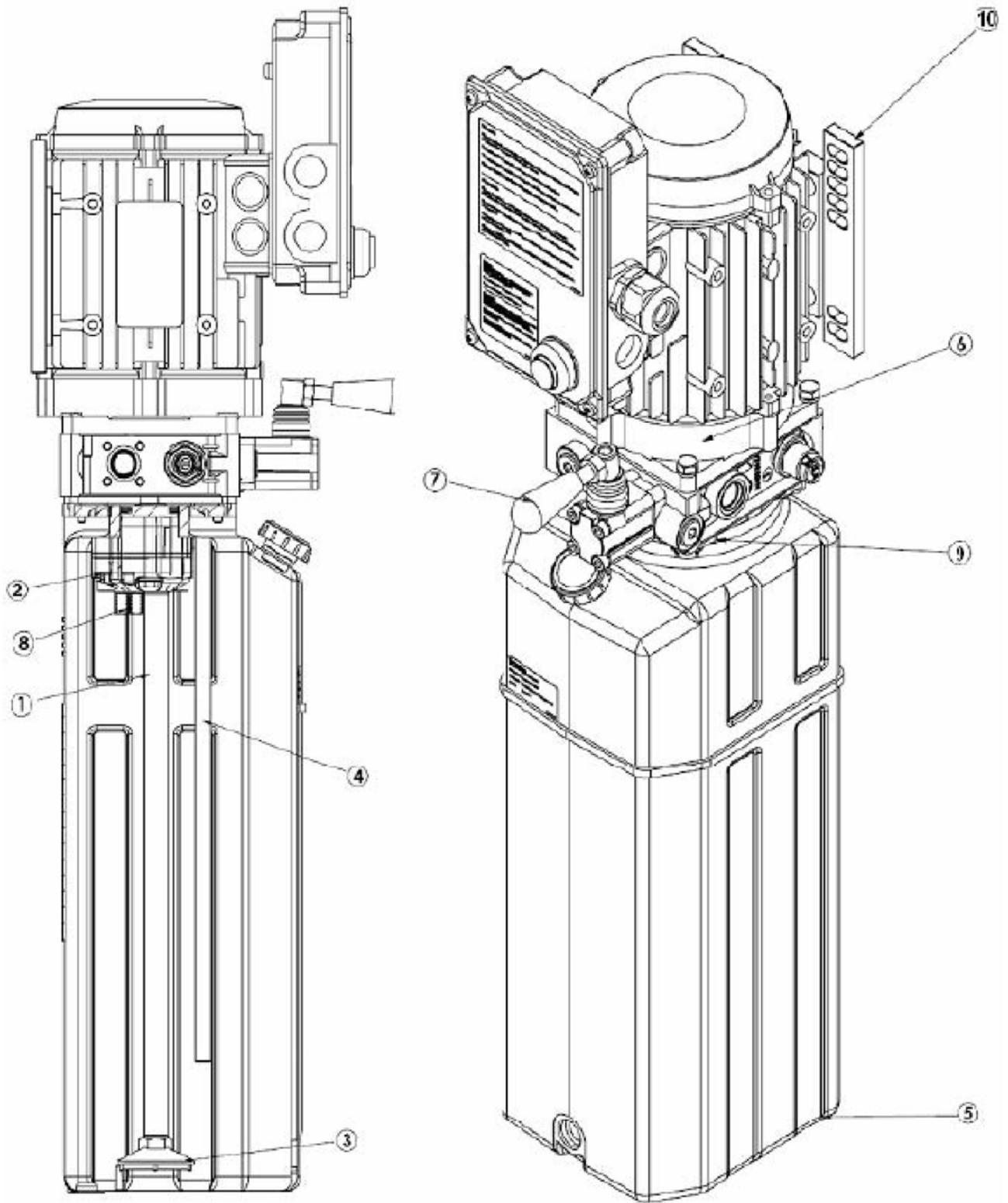


14.1 Console Parts List

Item	Part #	Description	Qty
1	3-0973	Front Side Panel	1
2	3-0974	Back Electrical Plate Cover	1
3	2-2511	Power Pack Step	1
4	2-2512	Rear Cover	1
5	2-2513	Top Cover	1
6	6-2125	Printed Circuit Board	1
7	6-3409	Multihole, 3 holes x 7 mm 189.637	2
8	6-0709	Elbow, 90 deg.	1
9	6-0014	Tee, 1/4" NPT	1
10	6-0710	Adapter 3/8" x 1/4" Polytube	1
11	6-3406	Contactora Tayco P/N 3100-20	1
12	6-3266	Fuse Holder 2-Pole Open Style	1
13	6-3597	Fuse, 1A 250V	2
14	6-3410	Bushing Heyco P/N 184.175	1
15	6-2126	Transformer	1
16	6-3415	Grounding Bar	1
17	8-0141	1/4" Polytube, 2 ft.	1
18	6-3720	PowerPack Assy. 230V/1PH/60Hz	1
19	6-3580	Green LED pilot lamp	1
20	6-2971	1/4" Polytube Tee Pushlock	1
21	6-3665	Flow Divider c/w Solenoids	1
22	6-3684	Din Connector High Body Small Conduit	4
23	6-2128	Coil S8 24VDC	4
24	6-2129	Cartridge Valve N/C with manual override	3
25	6-1364	Cartridge Valve Equalize VEI DT	1
26	6-2553	Filter fitting 1/2 BSP #6 JIC c/w Bonded Seal	1
27	6-3684	Pressure SW 80 psi	2
28	6-2127	Filter fitting 3/8 BSP #6 JIC c/w Bonded Seal	2
29	2-2177	Hydraulic Hose	2
30	6-2922	Emergency Pushbutton Contact	1
31	6-1055	Air Release Button	1
32	6-1247	Pushbutton	2
33	6-0090	Flow Control	1
34	2-2592	Hydraulic Hose Ass'y	1
35	6-0804	Elbow, 90 deg.	1
36	6-0011	Adapter, 3/8" M NPT x 3/8" M JIC	1
37	6-0797	Adapter 3/8" NPT M x 3/8"	1
38	6-0710	Adapter 3/8" x 3/8" Polytube	1
39	6-0713	Terminal Bolt, 3/4" (Short)	1
40	6-2314	Electrical Knockout Plug	1
41	1-3282	Power Pack mounting spacer	4
42	6-3421	Screw BHCS 5/16"-18 x 1 1/2"	4
43	6-3422	Screw BHCS 5/16"-18 x 2 1/2"	2
44	6-0674	Washer, Lock 5/16" ID	6
45	6-0294	Nut, 5-16" - 18 UNC Hex	6
46	6-0295	Washer, Flat 5/16" SAE	6
47	6-3423	Screw Pan Sq. SEFL 8 x 1/2" Zinc	15
48	6-3424	Screw 10 x 3/4" Zinc	3
49	6-3305	Hold Down Adhesive Mount Base	5
50	6-0988	Decal Set, ALI/WL 200	1
51	6-2481	Decal, Elec 208 - 230, 60 Hz 1PH 20A	1
52	6-1766	Decal, Capacity 10000lb/4550kg	1



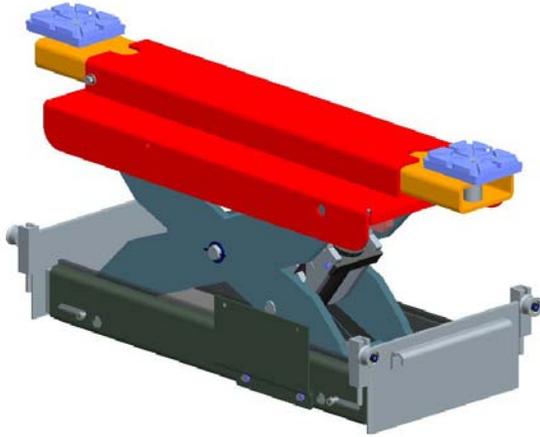
15.0 POWER PACK ASSEMBLY



15.1 Power Pack Parts List

Item	Part#	Description	Qty
1	6-3442	PUMP 6.7G, 17 GEAR	1
2	6-3443	SUCTION PIPE 3/8"	1
3	6-3444	SUCTION FILTER 3/8" FEMALE 15 L/MIN	1
4	6-3445	RETURN PIPE	1
5	6-3446	PLASTIC TANK 12L	1
6	6-3447	MOTOR SHAFT COUPLING PUMP	1
7	6-3448	MANUAL VALVE	1
8	6-3452	START UP VALVE	1
9	6-3449	TANK BRACKET WITH SCREWS	1
10	6-3450	MOTOR BRACKETS	1

16.0 AVAILABLE ACCESSORIES



5000 lb max capacity each

5K Jackbeam

- Air/Hydraulic Pump
- 2 Safety locking Positions
- 3" & 6" Adapter
- Adjustable width

**Contact supplier for availability and part numbers.
Max capacity is for 10,000 Lb Lifts.**