


WHEELTRONIC LTD.

INSTALLATION and OPERATION MANUAL



14K SCISSOR LIFT

14605AF

**READ and SAVE THIS
INSTRUCTION MANUAL**


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1 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.
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.

READ AND SAVE THESE INSTRUCTIONS

SPECIFICATIONS

Maximum Capacity:

Overall Width:

Overall Length:

Maximum Raised Height:

Minimum Lowered Height:

Lifting Time:

Power Requirements:

Air Supply requirements:

Shipping Weight:

14 000 lbs	6 363 kg
94.5 Inches	2400 mm
270 Inches	6858 mm
72 inches	1829mm
10 Inches	254 mm
89 seconds at max. capacity	
230V, 1 Ph, 60 Hz, 20A	
90 to 120 psi	
4 870 lbs	2 209 kg

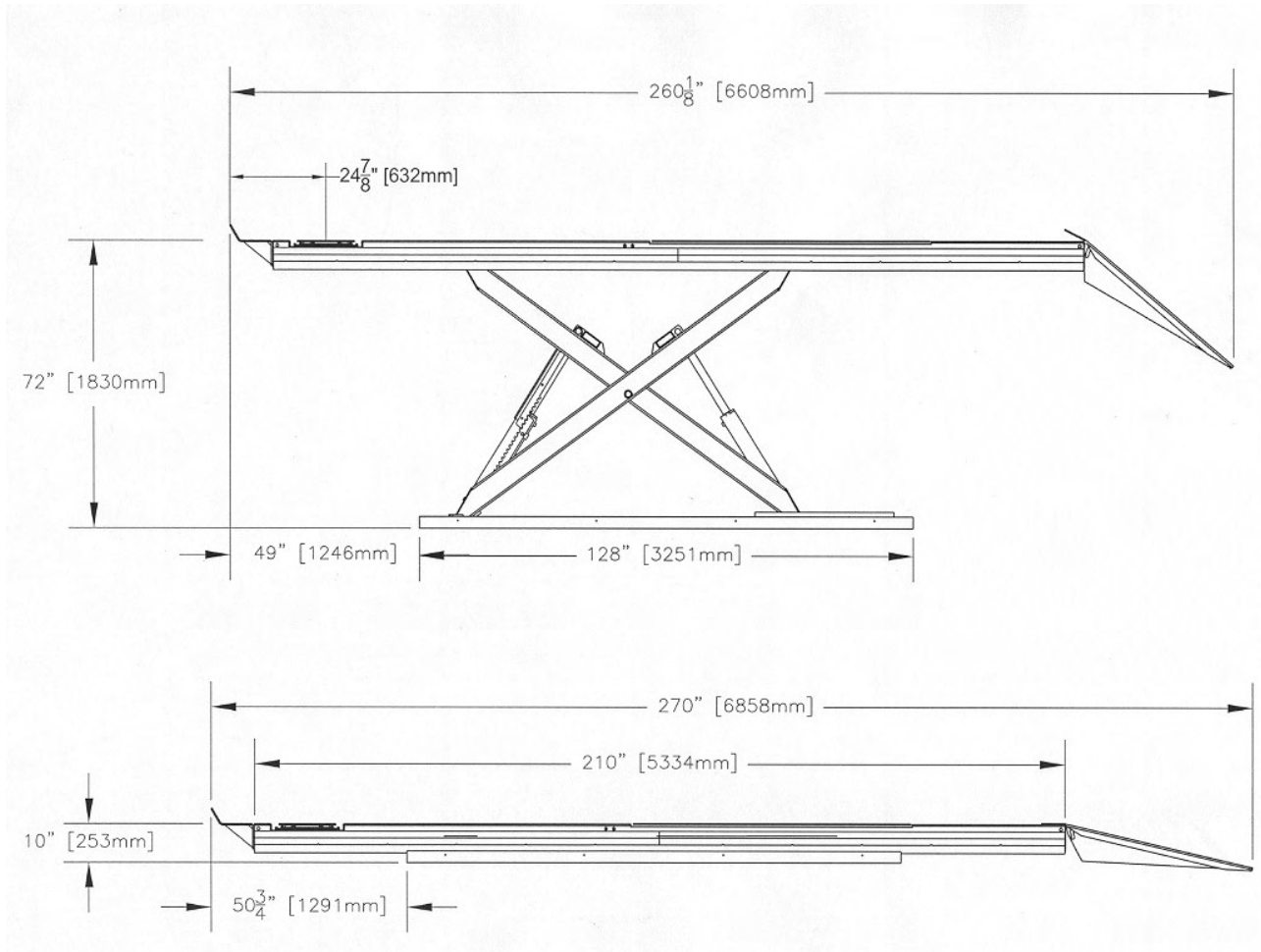


Figure 1 - Lift Dimensions

2 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, including the console are packed in two accessory boxes. Refer to the packing slip inside the accessory box for a list contents.

The Main Structural Components include:

1pc. – Left Side Main Frame Assembly: Runway, Scissors and Base Frame

1pc. – Right Side Main Frame Assembly: Runway, Scissors and Base Frame

3 TOOLS REQUIRED FOR INSTALLATION OF LIFT

- ✓ Rotary Hammer Drill or similar, 1/4" and 5/8" Concrete Drill Bits
- ✓ 4' Level
- ✓ SAE Wrenches and Sockets
- ✓ Hammer
- ✓ Pry Bar
- ✓ Chalk Line
- ✓ Tape Measure
- ✓ Side Cutters
- ✓ Screw Drivers
- ✓ Hydraulic Fluid ISO 32 (10 weight hydraulic oil) - 25 liters/6.5 Gallons
- ✓ Trowel and Float
- ✓ Mixing Pail

Recommended:

- ✓ Laser Leveler
- ✓ Plumb Bob
- ✓ Impact Gun
- ✓ Boom and/or Engine Hoist

4 INSTALLATION INSTRUCTIONS

When the lift arrives on site, please read the owner's installation and operation 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 five (5) inches or 130 mm. Concrete must have a minimum strength of 4000 psi or 30 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.

4.1 Bay Layout

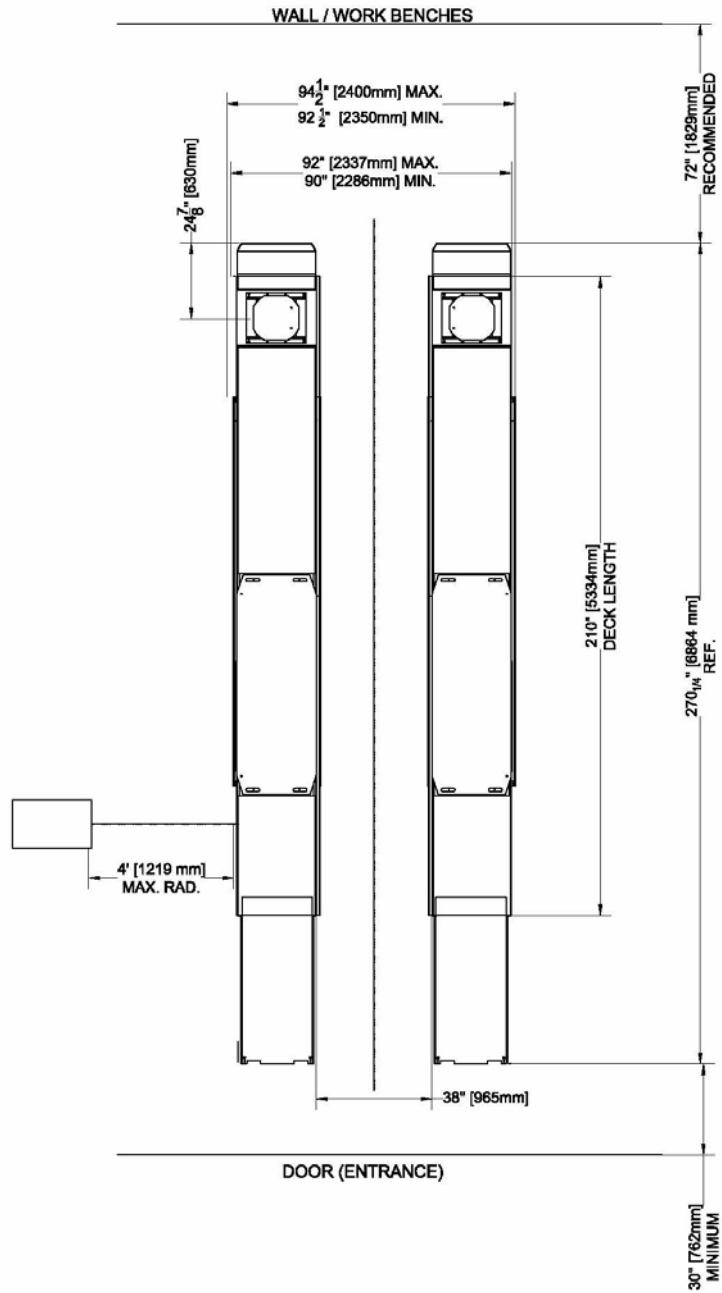


Figure 2 - Typical Bay Layout (Surface Mount)

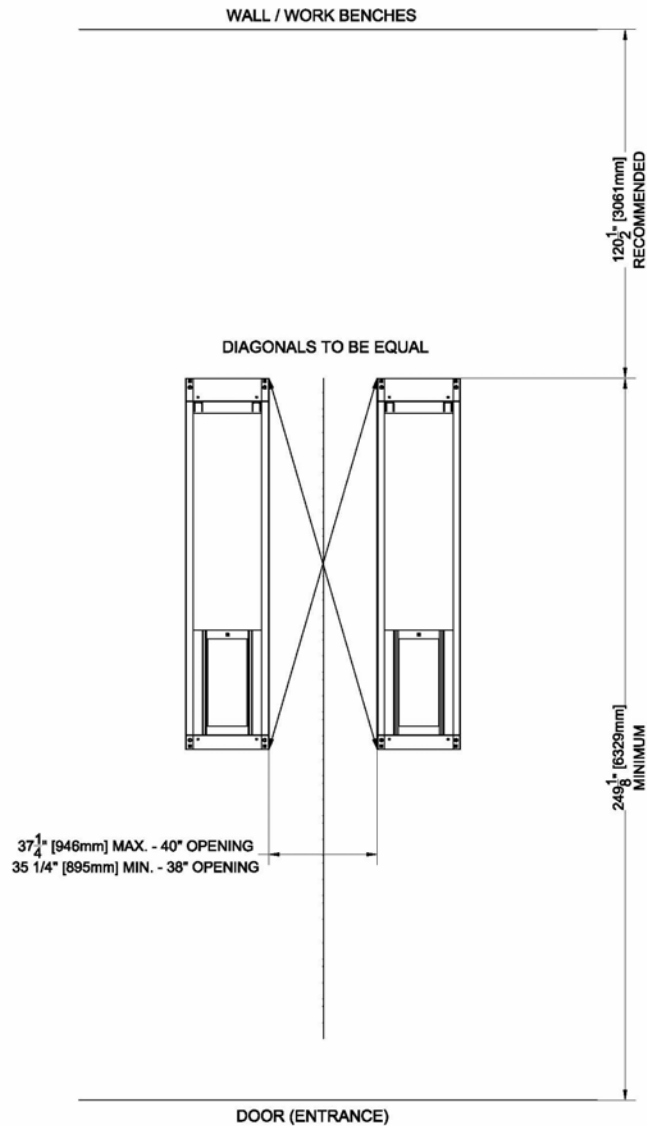


Figure 3 – Baseframe Locations

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

1. With reference to **Figure 2**, 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.

3. Measure and snap two (2) parallel chalk lines on either side the centerline for the inside edges of the baseframes. Refer to **Figure 3** for the dimensions necessary to provide the desired width between the two runways. A distance of 35 ¼" (895mm) 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" (6329mm) 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.

4.2 Unpacking the Lift

1. 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. Ensure that the turnplate pockets are at the front, and that Jack Beam rails for each runway face each other.
2. Position the baseframes on chalk lines, and ensure that the runways are parallel. Ensure that both the inside dimensions (front and back) of the baseframes as well as the diagonal distances are equal.
3. Remove the remaining packing straps, and remove the hydraulic hoses, polytube and proximity switch wires from under the deck. Hoses and wiring are located under the rear portion of the deck and are factory pre-installed – do not pull excessively on the hoses and wiring as it may strain the connections to the baseframe.
4. 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.

4.3 Hydraulic Connections

1. Open the front and rear access covers of the console.
2. Unravel the hoses and wiring from each runway and connect the hydraulic lines as shown in **Figure 4**. Do not kink hydraulic hoses or air lines.
3. The primary supply lines and equalizing lines from each runway are marked CL / CR and EQL / EQR respectively. (C – Cylinder, EQ – Equalize, L – Left, R – Right). These hoses should be connected to their respective connections on the pump manifold. Do not overtighten hydraulic connections. One supply line hose and one equalizing hose will be longer than the others and excess hose should be coiled inside the console, secured with a cable tie from the hardware kit, and stored in the area below the reservoir.
4. The 3/8" polytube return lines in the baseframes should be joined inside the console using a 3/8" "T" from the hardware kit. The 3/8" polytube return line (located in the accessory box) should be connected to the "T",

and the opposite end should be connected to the pump connection marked T (Tank).

5. The feed lines for the secondary cylinders are joined by connecting the hose from the left side baseframe (straight male fitting) to the hose on the right side baseframe (swivel female fitting). Repeat the process by connecting the hose from the right side baseframe (straight male fitting) to the hose on the left side baseframe (swivel female fitting).

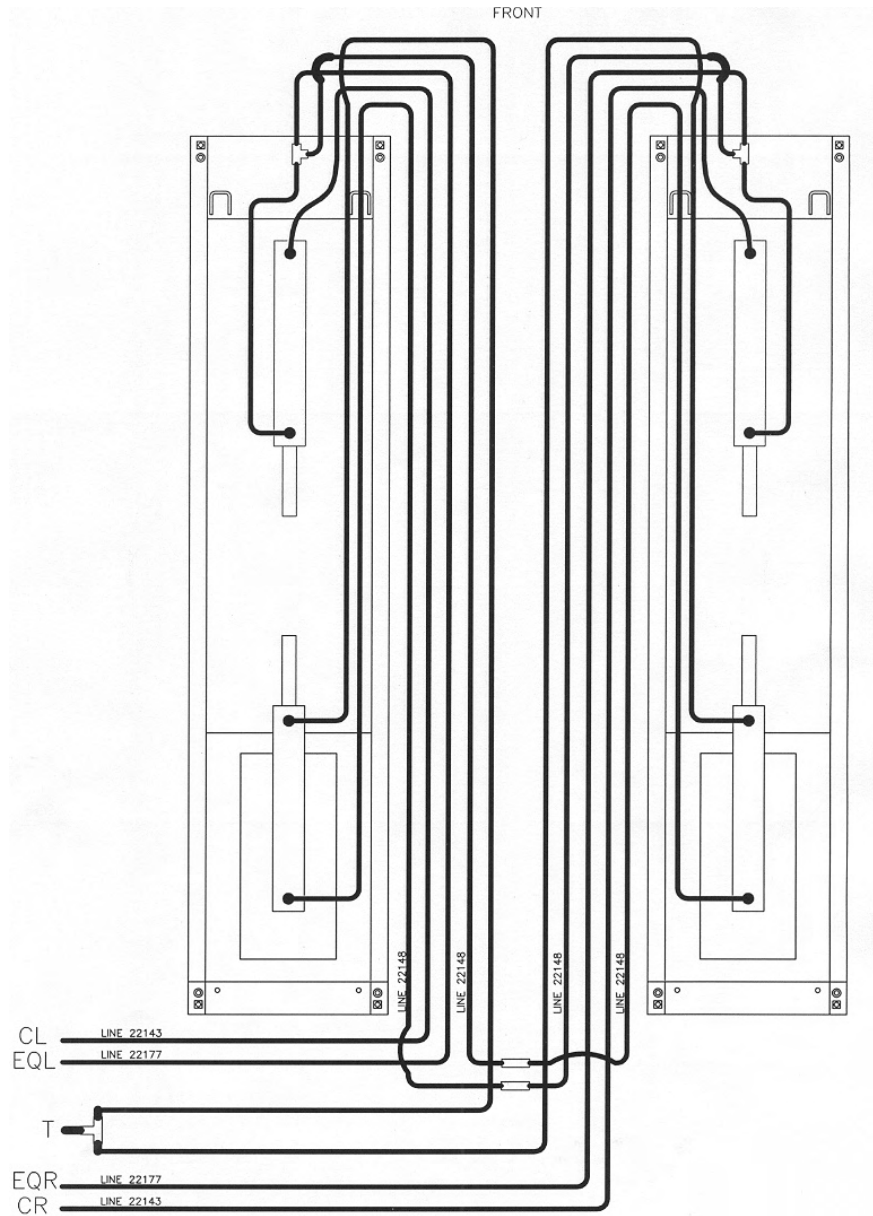


Figure 4 – Hydraulic Connections

4.4 Proximity Sensor Connections

Connect the proximity switch wires from the right side runway to the quick connections on the back of the console as shown in **Figure 5**. Ensure that the upper and lower proximity switch wires are connected to the upper and lower connections respectively.



Figure 5 – Proximity Switch Connections

4.5 Electrical Connections



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

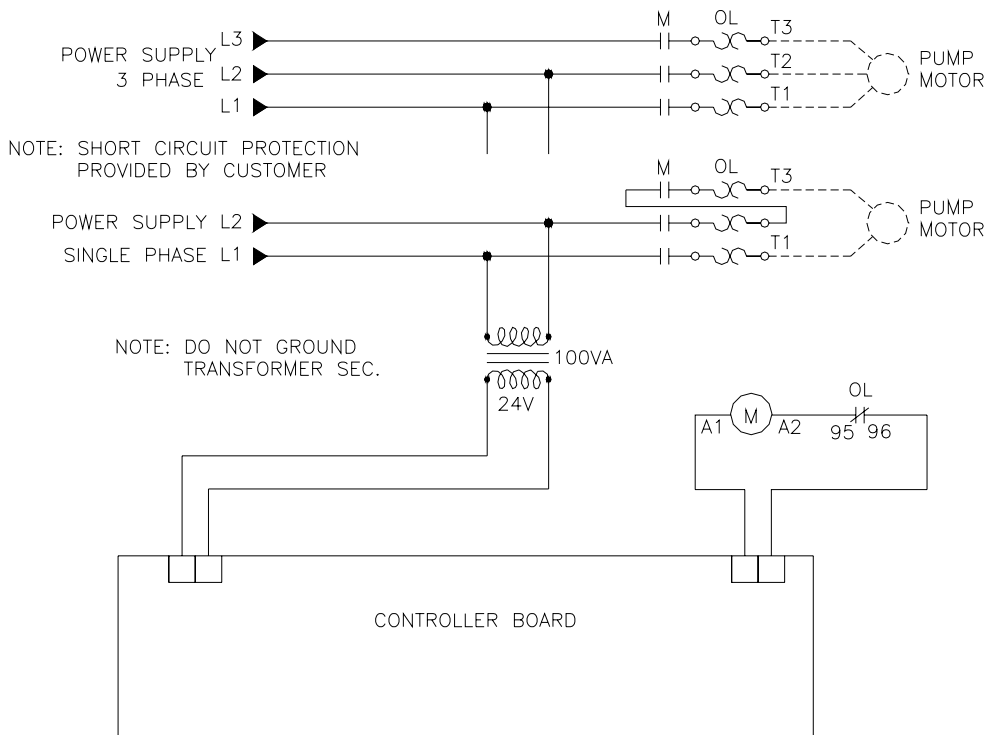


Figure 6 – Electrical Connections

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

NOTICE

THIS APPARATUS IS INTRINSICALLY SAFE AND PROVIDES INTRINSICALLY SAFE CIRCUIT EXTENSIONS FOR USE IN CLASS I, DIVISION I, GROUPS C&D, HAZARDOUS (CLASSIFIED) LOCATIONS WHEN CONNECTED PER PANEL CONTROL DRAWING 2-2167.

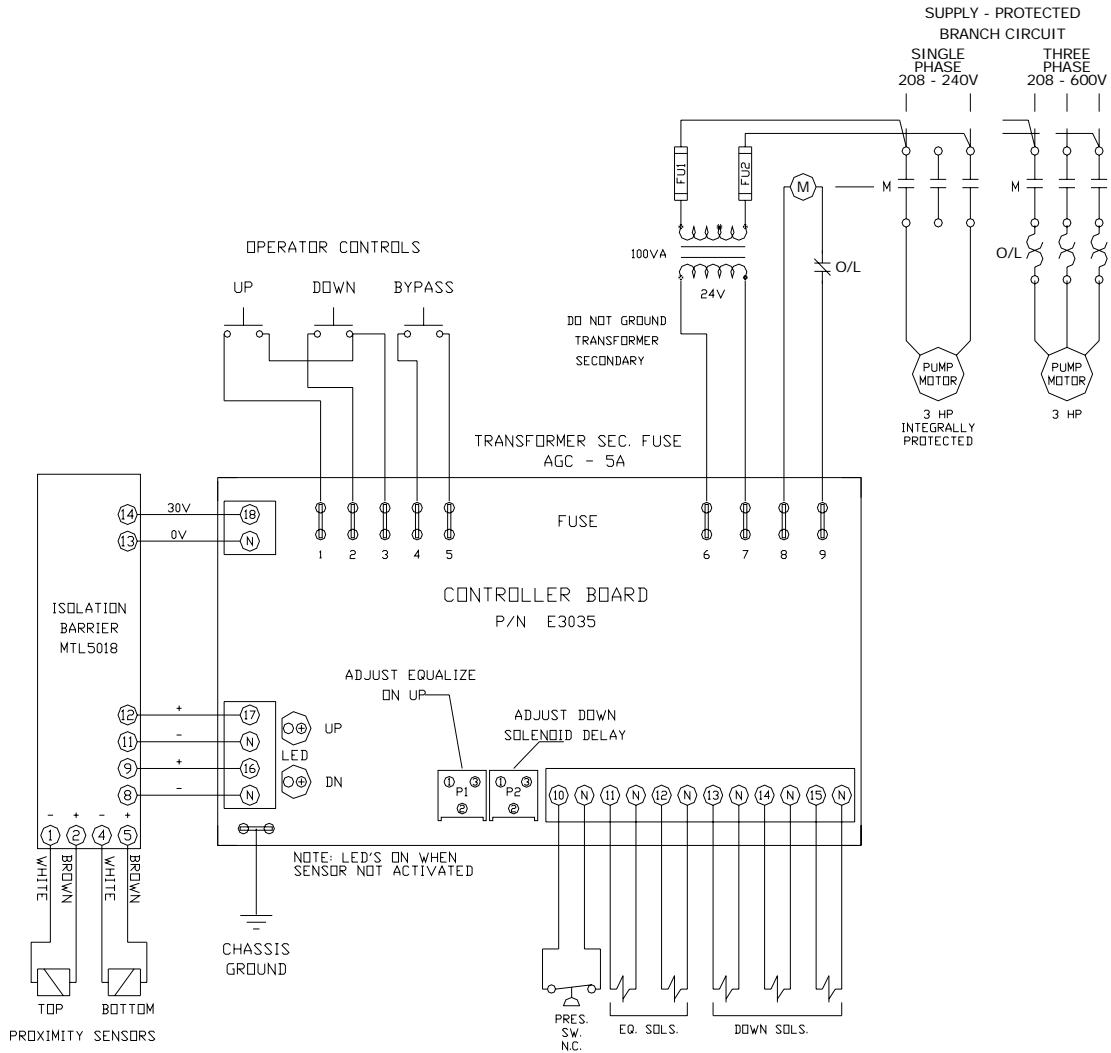


Figure 7 – Circuit Connections

NOTE: Optional Voltage and Phase power units will include separate wiring diagrams.

4.6 Bleeding Procedure

1. Remove the cap from the hydraulic reservoir and fill with ISO 32 (10 weight) hydraulic oil.
2. Open the rear access cover of the console and locate the by-pass button. The by-pass button is only used for bleeding, and is mounted on the plate directly above the motor.

3. Press the by-pass button to raise the lift to full stroke allowing oil to fill the primary and secondary cylinders, while pushing air back to tank through the return line.
4. There will not be enough oil in the reservoir to completely fill the cylinders. Once the reservoir is close to empty, add an additional 7 litres (1.85 gallon) of hydraulic oil. Do not completely fill the tank a second time as this will result in overflow when the lift is lowered.
5. Continue pressing the by-pass button. Run the power unit for 2 to 3 minutes at full stroke, pausing 2 to 3 times to allow any air pockets to rise. This will completely bleed the entire system.
6. Check all hydraulic connections for leaks.

4.7 Air Safety and Auxiliary Air Connections

1. The ¼" polytube in the baseframes should be joined in between the runways using a ¼" "T" from the hardware kit as shown in **Figure 8**. The ¼" 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".
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 "T" inside the console where the shop air is connected.
3. Connect the compressed air line from the shop to the ¼" 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 and is the owners responsibility to provide. 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. Check that the reservoir is almost full, and top up with hydraulic oil if needed.
5. Check the air system for any leaks.

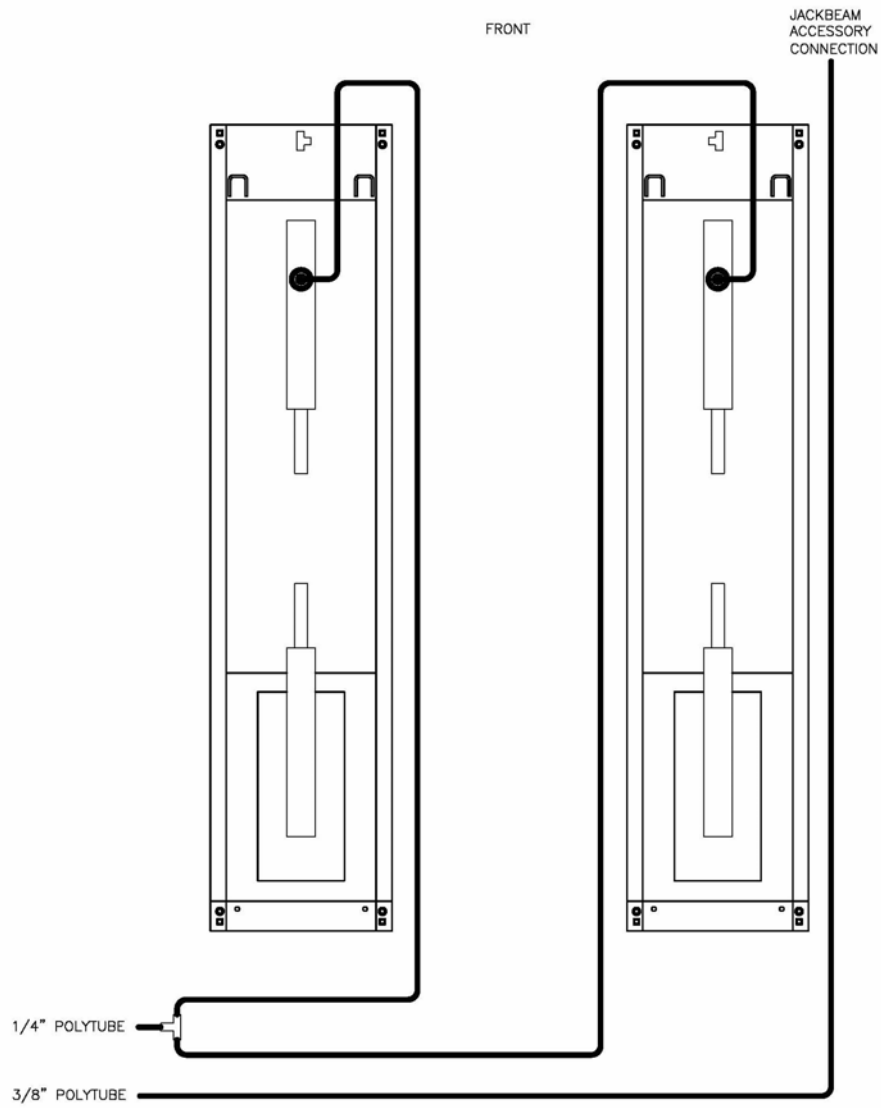


Figure 8 – Air Safety & Auxiliary Air Connections



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

4.8 Proximity Sensor Adjustment

1. Raise lift to full height by pressing the up button (do not press the by-pass button).
2. The limit switch that is located on the right hand scissor should automatically stop the lift once the 72" working height (floor to top of runway) is reached. If necessary, an adjustment can be made by turning the cam towards the proximity switch.

NOTICE

The limit switch should never allow the working height to be above 72". If the automatic stop height is above 72", damage or failure of the hydraulic seals in the cylinder can occur.

3. If a stop height is desired that is below 72", adjust the sensor cam so that contact is made with the proximity sensor at the maximum desired working height.
4. Install Front Covers supplied in accessory box with the console to the front of both baseframes.
5. Lower the lift to collapsed position. The proximity sensor under the right side deck should come within 2-4 mm of the baseframe front cover. This will open the equalize valves and purge excess fluid out of the system.
6. The green LED on controller board in console should appear off when lift is fully collapsed.
7. If this does not occur, adjust proximity sensor under the deck accordingly until green LED appears off.
8. Close the back, front, and top covers of the console making sure that all hoses are routed through the hole located on the bottom plate of the console.

4.9 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 3**, and make minor adjustments as required.

2. Level the baseframes using the 5/8" leveling bolts provided at each of the four (4) corners. A minimum gap of 1/2" under the baseframe is needed in all places for grouting.
3. Use shims provided to support under glide block area of baseframe and under front hinges. See **Figure 9**.

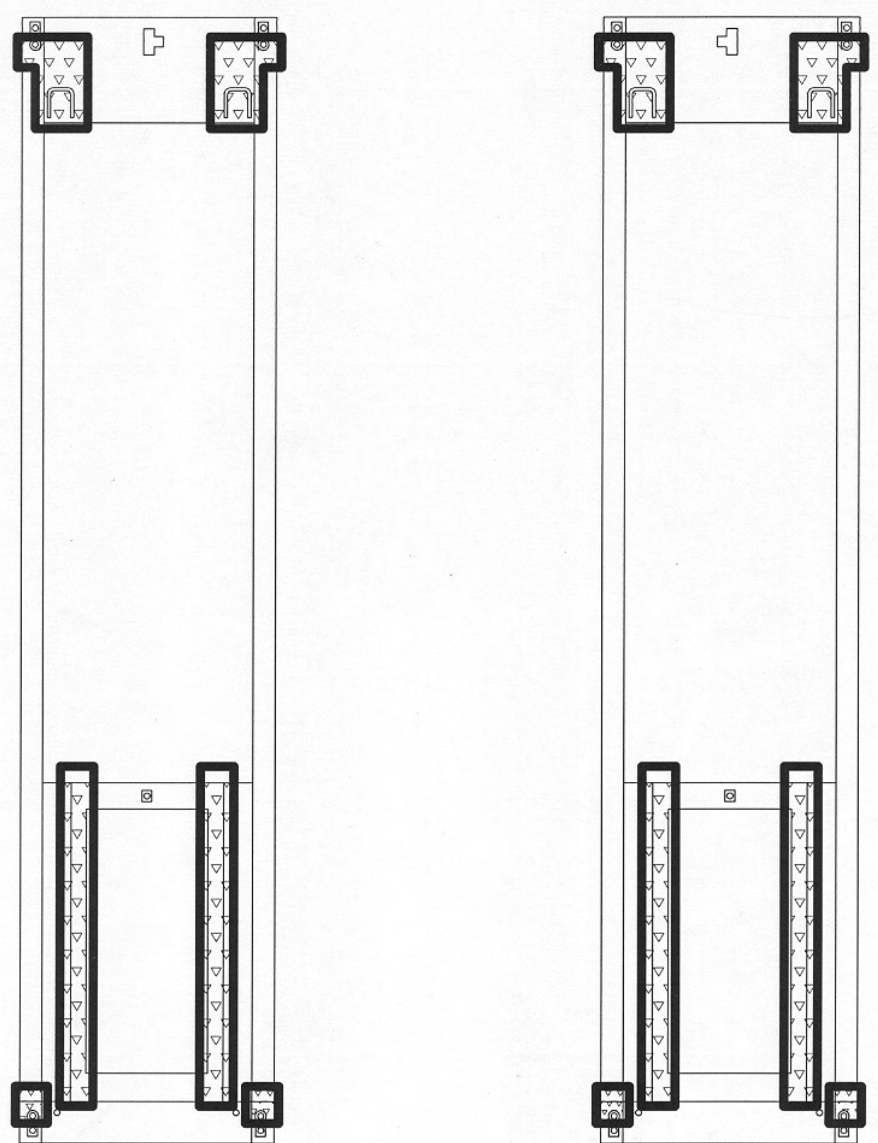


Figure 9 - Shimming

4. 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.

5. Adjust the 3/4" support bolts on the four (4) corners of the baseframes to level the runway at fully collapsed position.

4.10 Anchoring Procedure



CAUTION! WEAR SAFETY GOGGLES AND PRACTICE CAUTION WHILE DRILLING CONCRETE.

NOTICE

DO NOT TORQUE ANCHOR BOLTS UNTIL AFTER GROUT HAS FULLY CURED (SEE SECTION 4.11)

MAXIMUM GROUT THICKNESS OF 1 1/2" IS PERMITTED UNDER THE BASEFRAMES. IF GROUT THICKNESS IS GREATER THAN 1 1/2" DUE TO FLOOR CONDITIONS, CONTACT THE MANUFACTURER FOR INSTRUCTION

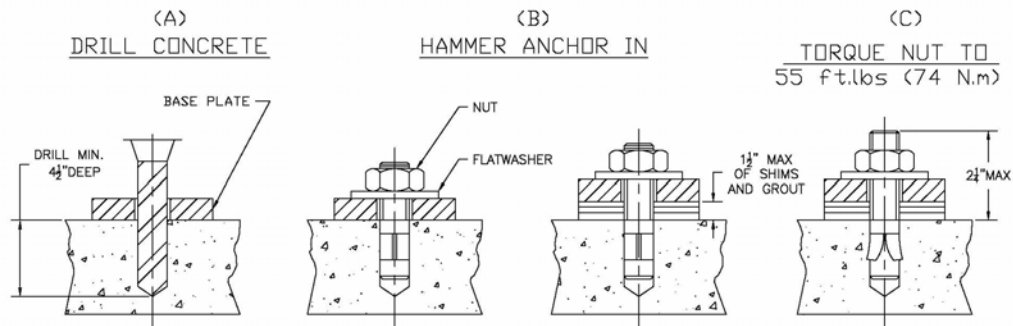


Figure 10 - Anchoring

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 rotary hammer drill and a 1/2" concrete bit, drill through the floor at each of the four (4) anchor bolt locations on each of the base frames. Make sure that the 1/2" concrete drill bit is in good condition. Refer to **Figure 10**.
4. Insert the 1/2" x 4 1/2" long wedge anchor bolts supplied, and place a flat washer and nut on each anchor. Tighten securely by hand.
5. Use shims provided to support around anchor position.
6. Proceed with Grouting procedure 4.11 before completing anchoring.
7. Position the console in the final desired position. Using a rotary 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. Use the line covers to protect all cables, hoses, and wiring running to the lift. Using a rotary hammer drill and a 1/4" concrete bit, drill and anchor the line covers using the nail in anchors located in the hardware kit.

4.11 Grouting Procedure

1. Pour grouting under the load area of each base frame as shown in **Figure 11**. 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)]
3. Torque all anchor bolts to 55 ft-lbs.

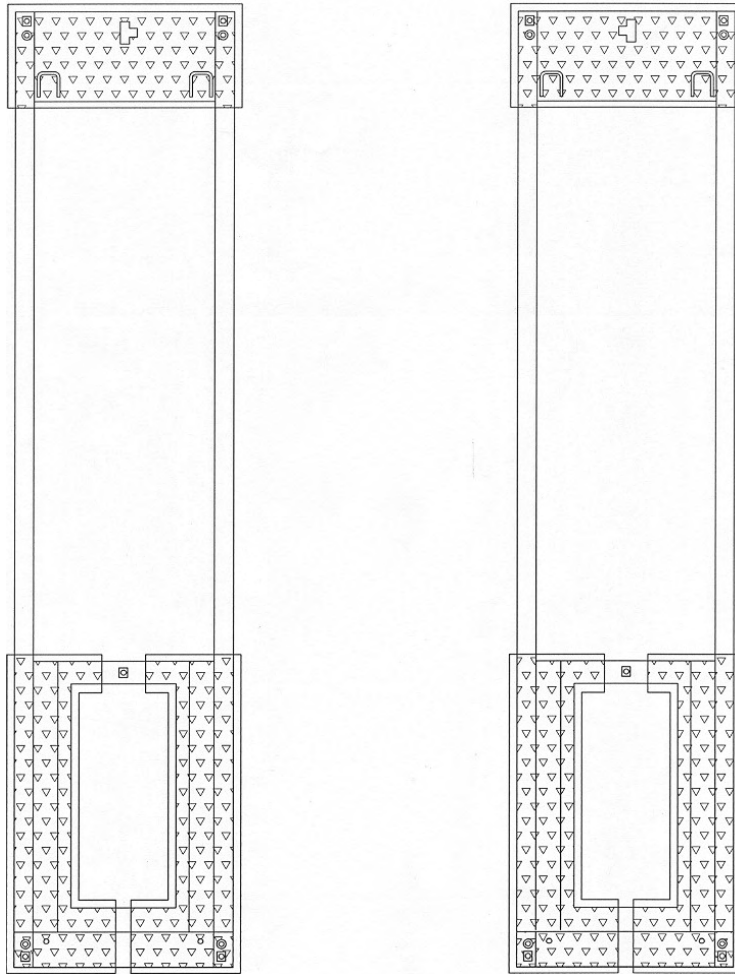


Figure 11 – Grouting Locations

5 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.
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.



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.

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.

6 LIFT OPERATION

6.1 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.

ATTENTION: 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.

5. Chock the vehicle using the wheel chocks provided.
6. Check that there are no obstructions above the lift that could damage the lift or vehicles.
7. Raise the lift by pressing the up button on the control console. Raise the lift past the desired working height until both mechanical safeties are heard engaging. Press the down button to lower the lift down onto both of the mechanical safeties.



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

6.2 Lowering the Lift

1. Check that there are no obstructions under the lift or vehicle. Be sure that the sliding Jack Beams are fully lowered and positioned at the front or mid section of the lift.
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.

7 RECOMMENDED MAINTENANCE

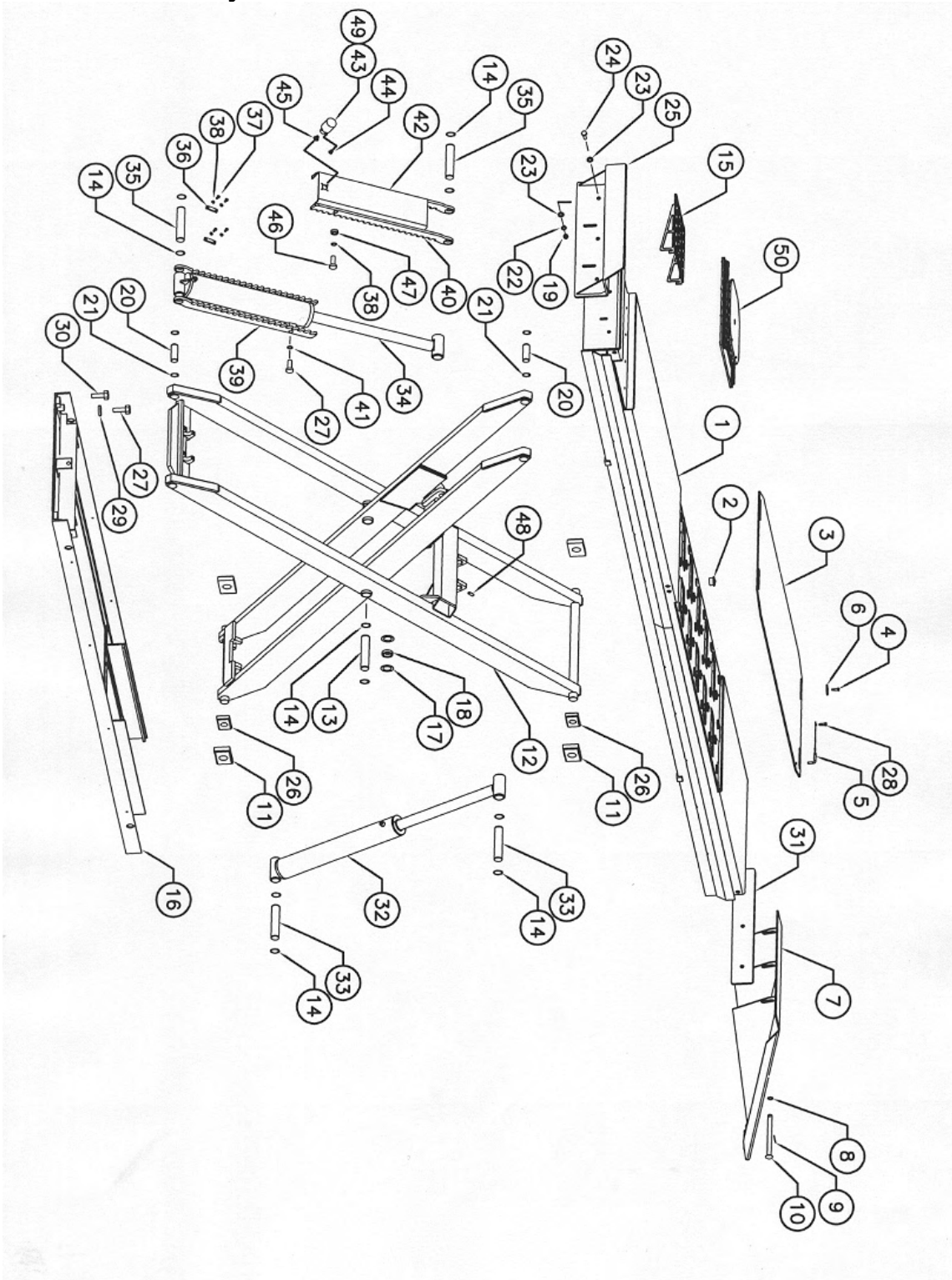
The following maintenance schedule is recommended for ensuring the operation of the lift. A record of maintenance performed should be maintained and any items that resulted in additional service should be noted.

Schedule	Maintenance Required
Daily	<ul style="list-style-type: none">• 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.• Check hydraulic lines for leaks and fraying. Frayed hoses must be replaced immediately.
Weekly	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• Check anchor bolts for tightness. Torque to 85 ft-lbs if needed.• Inspect the electrical and mechanical operation of all switches.
5 Year	<ul style="list-style-type: none">• Change the hydraulic fluid every five years. Use only ISO 32 (10 weight) hydraulic oil.

9 Safety Warning Decals

<p>⚠ WARNING</p>  <p>Clear area if vehicle is in danger of falling.</p> <p>©</p>	<p>⚠ WARNING</p>  <p>Remain clear of lift when raising or lowering vehicle.</p> <p>©</p>	<p>SAFETY INSTRUCTIONS</p>  <p>Read operating and safety manuals before using lift.</p> <p>©</p>	<p>SAFETY INSTRUCTIONS</p>  <p>Proper maintenance and inspection is necessary for safe operation.</p> <p>©</p>
<p>⚠ WARNING</p>  <p>Keep clear of pinch points when lift is moving.</p> <p>©</p>	<p>⚠ WARNING</p>  <p>Keep feet clear of lift while lowering.</p> <p>©</p>	<p>SAFETY INSTRUCTIONS</p>  <p>Do not operate a damaged lift.</p> <p>©</p>	<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 33116 Indialantic, FL 32903.</p> <p>They are protected by copyright. Set of labels may be obtained from ALI or its member companies.</p> <p>© 1992 by ALI, Inc. ALI/WL200s</p>
<p>⚠ WARNING</p>  <p>Do not override self-closing lift controls.</p> <p>©</p>	<p>⚠ WARNING</p>  <p>Chock wheel to prevent vehicle movement.</p> <p>©</p>	<p>⚠ CAUTION</p>  <p>Lift to be used by trained operator ONLY.</p> <p>©</p>	<p>⚠ CAUTION</p>  <p>Authorized personnel only in lift area.</p> <p>©</p>
<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 33116 Indialantic, FL 32903</p> <p>They are protected by copyright Set of labels may be obtained from ALI or its member companies</p> <p>© 1992 by ALI, Inc. ALI/WL200w</p>		<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 33116 Indialantic, FL 32903</p> <p>They are protected by copyright Set of labels may be obtained from ALI or its member companies</p> <p>© 1992 by ALI, Inc. ALI/WL200c</p>	

10 PARTS LIST
10.1 Lift Assembly

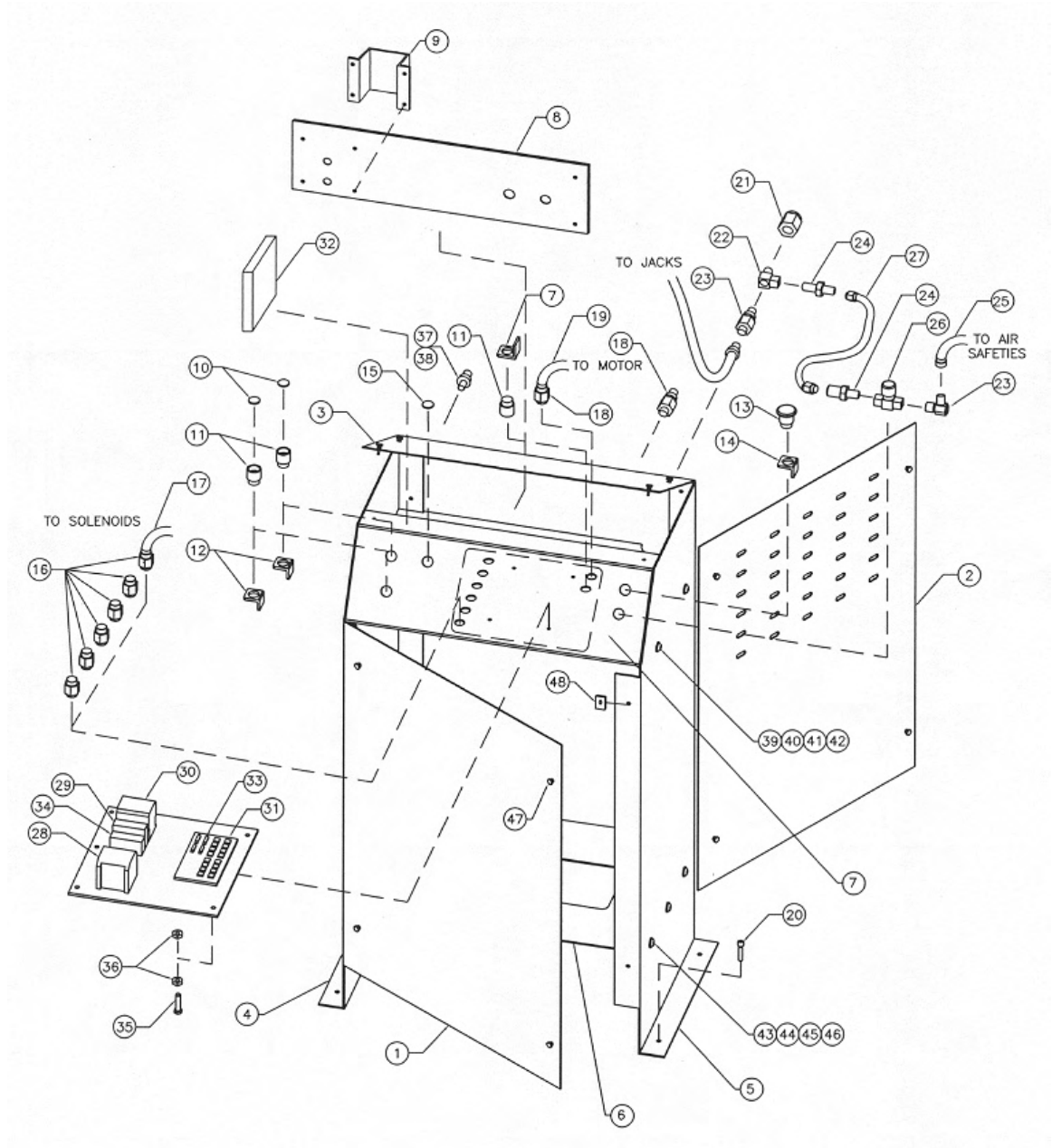


10.2 Lift Assembly Parts List

ITEM NO.	QTY.	DESCRIPTION	PART NO.
1	1	DECK WELDMENT RHS	4-1091
	1	DECK WELDMENT LHS	4-1090
2	54	BALL BEARING	6-2940
3	2	REAR SLIP PLATE	2-2088
4	8	SHOULDER BOLT 3/8" X 1.0"LG	6-0206
5	4	LOCKING PIN ASSEMBLY	2-0637
6	8	FLAT WASHER	6-0426
7	2	APPROACH RAMP WELDMENT	3-0905
8	2	WASHER 3/4" FLAT ZINC PLATED	6-0808
9	2	COTTER PIN, 1/8"DIAMETER X 2" LONG	6-0115
10	2	APPROACH RAMP PIN	1-0095
11	8	SLIDER BLOCK	1-2792
12	2	SCISSOR WELDMENT	4-1081
13	4	SCISSOR PIN	1-2791
14	24	SNAP RING #5100-150	6-0233
15	2	WORKSTEP WELDMENT	2-2119
16	2	BASE FRAME WELDMENT	3-0902
17	8	THRUST WASHER - NYLON 1/16" THICK	1-0757
18	4	SCISSOR SPACER	1-2795
19	12	HEXAGON NUT 1/2"-13UNC, ZINC PLATED	6-0035
20	8	HINGE PIN	1-2788
21	16	SNAP RING #5100-125	6-0340
22	12	LOCK WASHER 1/2"	6-0059
23	24	FLAT WASHER 1/2"	6-0063
24	12	HEX BOLT 1/2"-NC X 1 1/2" LONG	6-0291
25	2	WHEELSTOP WELDMENT	2-2117
26	8	INNER SLIDER BLOCK	1-2884
27	12	HEX BOLT, 3/4"-NF x 1 1/2" LG	6-2936
28	4	SELF TAPPING SCREW, #10 x 1/2" LG	6-0505
29	8	HEX JAM NUT, 3/4"-NF	80259000
30	10	HEX BOLT, 5/8"-NC x 2" LG	6-1670
31	2	ADAPTER PLATE	1-2319
32	2	CYLINDER ASSEMBLY, SECONDARY	3-0897
33	4	CYLINDER PIN, SECONDARY	1-2790
34	2	CYLINDER ASSEMBLY, PRIMARY	3-0896
35	4	CYLINDER PIN, PRIMARY	1-2789
36	8	CYLINDER RETAINER	1-2793
37	16	HEX BOLT, 3/8"-NC x 1" LG	6-0067
38	32	LOCKWASHER, 3/8"	6-0058
39	4	SAFETY BAR, BOTTOM	2-2171
40	4	SAFETY BAR, TOP	2-2172
41	4	LOCKWASHER, 3/4"	6-0259
42	2	SAFETY COVER	2-2183
43	2	AIR CYLINDER	3-0812
44	2	ROD END, CYLINDER	2-1733
45	8	PHILIPS SCREW, #6-32 x 3/4" LG	6-2281

46	16	HEX BOLT, 3/8"-NC x 1 1/2" LG	6-0203
47	16	HEX NUT, 3/8"-NC	6-0034
48	8	SET SCREW, 3/8"-NC x 1" LG	6-3061
49	2	BREATHER, 1/8" NPT	6-0183
50	2	STAINLESS STEEL TURNPLATE ASSEMBLY (OPTIONAL)	4-1101

10.3 Console Assembly



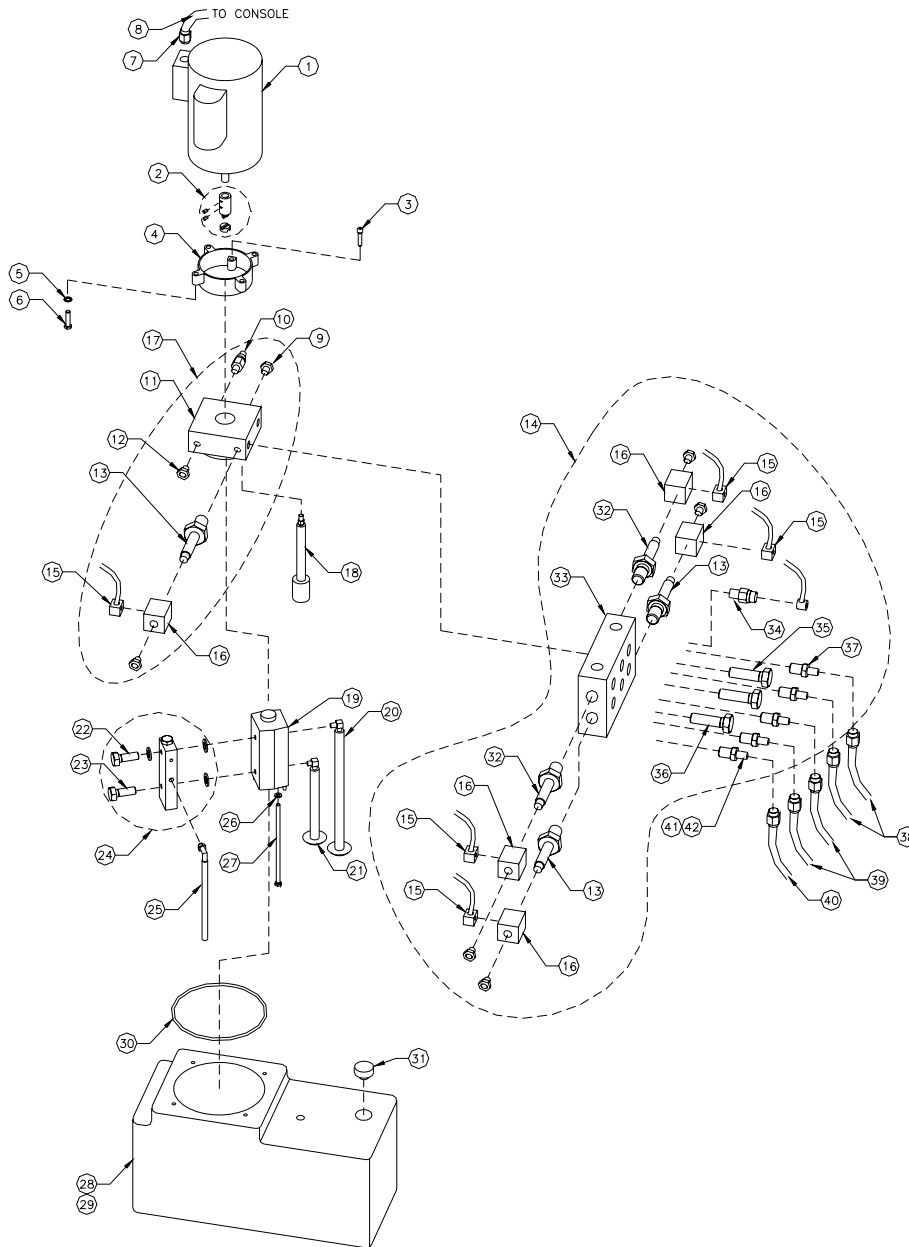
10.4 Console Parts List

ITEM	QTY	DESCRIPTION	PART #
1	1	CONSOLE FRONT COVER	2-2126
2	1	CONSOLE REAR COVER	2-2127
3	1	CONSOLE TOP COVER	2-2128
4	1	LHS PANEL	2-2122
5	1	RHS PANEL	2-2125
6	1	BOTTOM POWER PACK STEP	2-2123
7	1	ELECTRICAL HOUSING	2-2124
8	1	ELECTRICAL BACK PANEL	3-0900
9	1	PROXIMITY COVER CHANNEL	1-2903
10	2	PUSHBUTTON PLATE (UP/DOWN ARROW)	6-1251
11	3	PUSHBUTTON	6-1247
12	3	PUSHBUTTON CONTACTS	6-1248
13	1	EMERGENCY STOP PUSHBUTTON W/ RESET	6-2921
14	1	EMERGENCY PUSHBUTTON CONTACT	6-2922
15	1	ELECTRICAL KNOCKOUT PLUG	6-2314
16	6	STRAIN RELIEF, 1/4"	6-0092
17	24FT	COIL/PRESSURE SWITCH CABLE	8-0306
18	2	STRAIN RELIEF, 1/2" (1 PHASE)	6-1370
	2	STRAIN RELIEF, 1/2" (3 PHASE)	6-0094
19	4FT	MOTOR CABLE (1 PHASE)	8-0030
	4FT	MOTOR CABLE (3 PHASE)	8-0189
20	4	CONCRETE NAIL, 1/4" X 1" LG.	6-0141
21	1	BULKHEAD, 1/4"NPT	6-0713
22	1	TEE 1/4" NPT	6-0014
23	1	ADAPTER, 1/4" NPT TO 3/8" POLYTUBE	6-0710
24	2	ADAPTER, 1/4" NPT TO 1/4" POLYTUBE	6-1347
25	30FT	1/4" POLYTUBE	8-0141
26	1	MANUAL SAFETY RELEASE VALVE	6-1055
27	1 FT	3/8" POLYTUBE	8-0142
28	1	TRANSFORMER, 220V	6-2978
	1	TRANSFORMER, 460V	6-2171
	1	TRANSFORMER, 575V	6-2147
29	1	THERMAL OVERLOAD, 1.8A-2.8A (575V, 3PHASE)	6-2174
	1	THERMAL OVERLOAD, 2.7A-4.2A (460V, 3PHASE)	6-2175
	1	THERMAL OVERLOAD, 6.0A-9.2A (220V, 3PHASE)	6-2176
30	1	CONTACTOR (1PH, 24V COIL)	6-2979
	1	CONTACTOR (3PH, 24V COIL)	6-2601
31	1	PRINTED CIRCUIT BOARD	6-2958
32	1	INTRINSIC SAFETY BARRIER	6-2981
33	1	FUSE, 5A	6-2962
34	2	FUSE, 1A	6-2982
35	4	BOLT, #8-32NC X 1" LG.	6-1094
36	8	NUT, #8-32NC	6-1095
37	1	QUICK CONNECTOR MALE	6-2964
38	1	QUICK CONNECTOR FEMALE	6-2975
39	8	SCREW, 1/4" -20 UNC	6-0588
40	8	WASHER,FLAT,1/4 SAE PLT #140-0	6-0060
41	8	NUT 1/4-20 HEX PL	6-0032
42	8	WASHER,LOCK,1/4"ID	6-0056
43	6	BHCS 3/8-16UNC x 1.0"LG	6-3037
44	6	WASHER,FLAT,3/8"ID,SAE	6-6062
45	6	NUT,3/8"-16UNC,GR5,PL,HEX	6-0034

46	6	WASHER,LOCK,3/8"ID	6-0058
47	16	SCREW 10-24 PHILLIPS 5/8"LG	6-3075
48	16	U-TYPE FASTENER	6-3074

NOTE: Console Assembly is Part # 3-0901

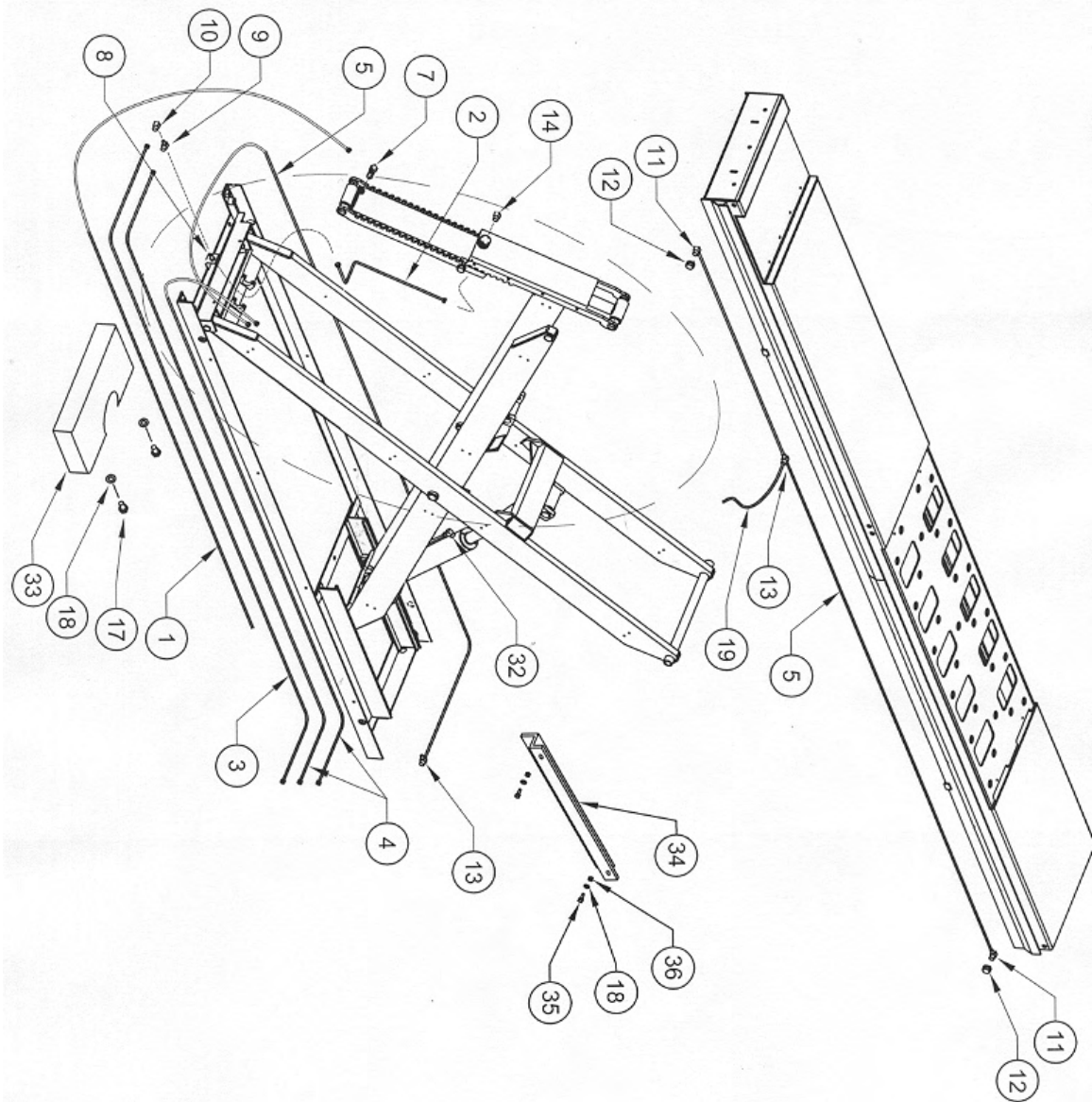
10.5 Powerpack Assembly

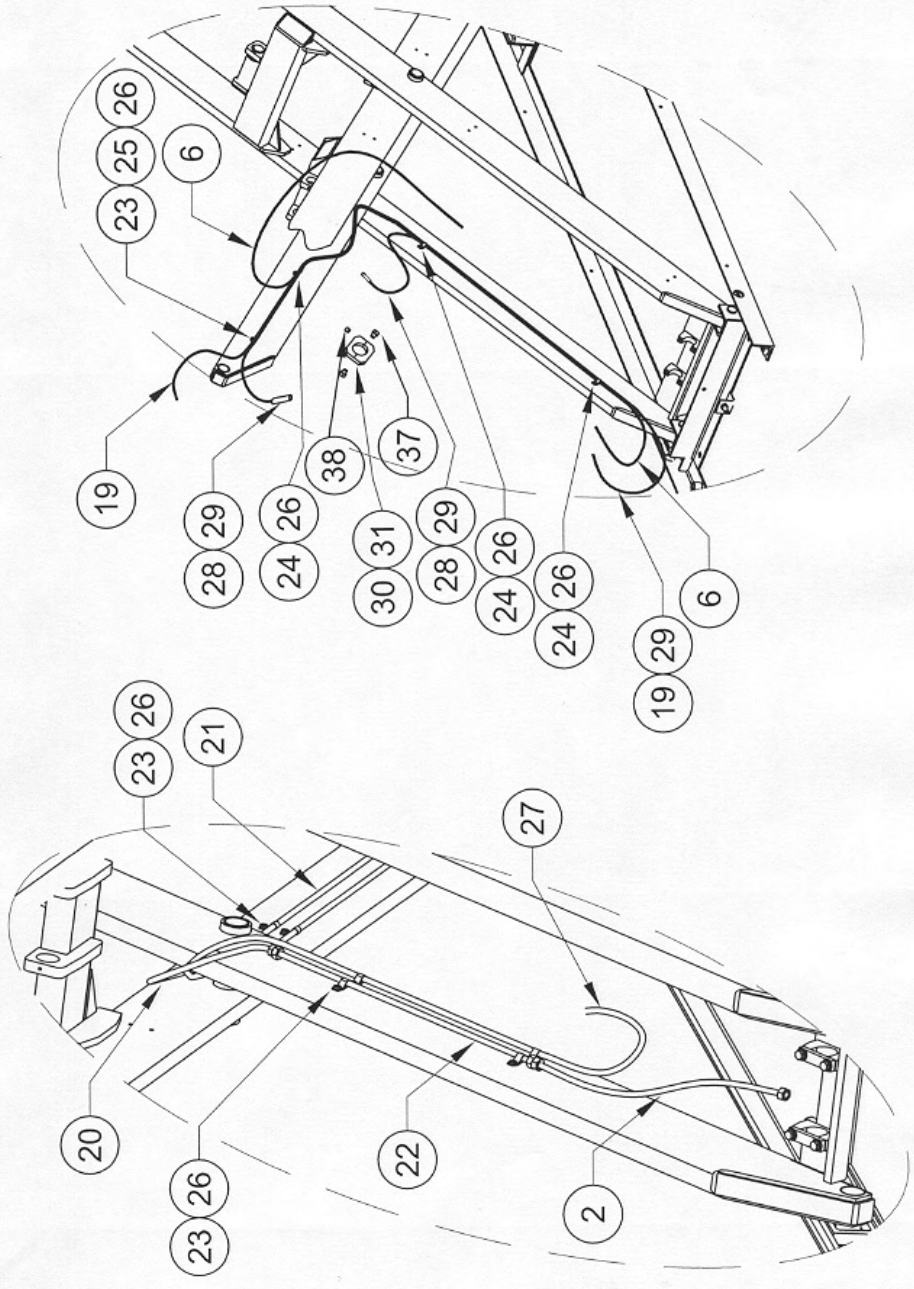


10.6 Powerpack Parts List

ITEM NO.	QTY.	DESCRIPTION	PART NO.
1	1	MOTOR, 220V (1 PHASE)	6-0087
	1	MOTOR, 220V (3 PHASE)	6-0446
	1	MOTOR, 575V (3 PHASE)	6-0447
2	1	MOTOR COUPLER	6-2537
3	2	CAP SCREW, M6x20	6-2984
4	1	BELLHOUSING	6-2507
5	4	LOCKWASHER, INTERNAL TOOTH, 3/8"	6-2547
6	4	CAP SCREW, HEX HEAD, 3/8"-16UNC x 1 1/2" LG	6-2558
7	1	1/2" STRAIN RELIEF CONNECTOR (1 PHASE)	6-1370
	1	1/2" STRAIN RELIEF CONNECTOR (3 PHASE)	6-0094
8	1	MOTOR CABLE (1 PHASE)	1-0104
	1	MOTOR CABLE (3 PHASE)	1-1824
9	1	CHECK VALVE	6-2985
10	1	RELIEF VALVE (4500 PSI)	6-2986
11	1	MAIN BODY	6-2987
12	1	FLOW CONTROL	6-2988
13	3	SPOOL VALVE (C/W MANUAL OVERRIDE)	6-2129
14	1	MANIFOLD ASSEMBLY	6-3002
15	5	DIN CONNECTOR (24V)	6-2236
16	5	SQUARE COIL (24V)	6-2128
17	1	MAINBODY ASSEMBLY	6-2989
18	1	RETURN FILTER ASSEMBLY	6-2990
19	1	TANDEM PUMP	6-2991
20	1	LONG INLET STRAINER ASSEMBLY	6-2992
21	1	SHORT INLET STRAINER ASSEMBLY	6-2993
22	1	BANJO BOLT (INCLUDES 2 WASHER SEALS)	6-2525
23	1	BANJO BOLT (INCLUDES 2 "O"-RINGS AND 1	6-2526
24	1	UNLOADING MANIFOLD ASSEMBLY	6-2555
25	1	RETURN TUBE ASSEMBLY	6-2532
26	4	LOCKWASHER, 5/16"	6-0674
27	2	CAP SCREW, HEX HEAD, 5/16"-18UNC x 6 1/2" LG	6-2533
28	1	OIL TANK 15L	6-2994
29	2	OIL TANK BRACKET	6-2995
30	1	OIL TANK ORING	6-2996
31	1	FILLER / BREATHER CAP	6-2997
32	2	SPOOL VALVE (RESQUARE)	6-1364
33	1	MANIFOLD	6-2998
34	1	PRESSURE SWITCH (INCLUDES BONDED SEAL)	6-2548
35	2	BOLT, M8x65	6-2999
36	1	BOLT, M6x65	6-3000
37	4	ADAPTER SAE#6 TO 3/8" JIC	6-3001
38	2	PRIMARY HYDRAULIC HOSE	2-2143
39	2	EQUALIZING HYDRAULIC HOSE	2-2177
40	2	3/8" POLYTUBE RETURN LINES	6-3082
41	1	ADAPTER SAE#6 TO 3/8" NPT	6-3066
42	1	90 DEG ELBOW 3/8" NPT TO 3/8" POLYUBE	6-3058
***NOTE		PUMP ASSY. INCLUDING MANIFOLD ASSY.	6-2957

10.7 Hydraulic & Air Assembly





10.8 Line Routing Parts List

ITEM	QTY	DESCRIPTION	PART #
1	2	3/8" HYDRAULIC HOSE – PRIMARY	2-2143
2	4	3/8" HYDRAULIC HOSE – SHORT (PRIMARY)	2-2145
3	2	3/8" HYDRAULIC HOSE – EQUALIZE	2-2177
4	4	3/8" HYDRAULIC HOSE – CROSSOVER	2-2148
5	1	3/8" POLYTUBE, 215" LG	6-3009
6	1	1/4" AIR HOSE, 350" LG	6-3020
7	2	VELOCITY FUSE	6-2956
8	2	ADAPTER, WITH JAM NUT	6-0013
9	2	TEE FITTING, 3/8" JIC	6-1372
10	2	90 DEG ELBOW, 3/8" JIC-M, 3/8" JIC-F	6-0813
11	2	90 DEG ELBOW, 1/4" NPT-M, 3/8" POLYTUBE	6-3010
12	2	TERMINAL BOLT, 3/4"	6-0167
13	2	TEE FITTING, 3/8" POLYTUBE	6-3011
14	2	90 DEG ELBOW, 1/8" NPT, 1/4" POLYTUBE	6-0709
15	1	TEE FITTING, 1/4" POLYTUBE	6-2971
16	2	FRONT COVER	2-2185
17	4	HEX BOLT, 1/4" NC x 3/4" LG	6-0178
18	16	LOCKWASHER, 1/4"	6-0056
19	1	3/8" POLYTUBE, 480" LG	6-3019
20	2	JUMPER HOSE 3/8"	2-2144
21	2	RIGID PIPE, 42"	2-2149
22	2	RIGID PIPE, 22"	2-2189
23	17	PIPE CLAMP, 3/8"	6-0170
24	5	PIPE CLAMP, 1/2"	6-0536
25	2	PIPE CLAMP, 1/4"	6-3059
26	24	SELF THREADING SCREW	6-1134
27	2	POLYTUBE RETURN LINE 3/8" - 400" LG	6-3082
28	2	PROXIMITY SENSOR	6-2960
29	2	PROXIMITY SENSOR CABLE	6-2961
30	1	SENSOR CAM INNER	1-2900
31	1	SENSOR CAM OUTER WELD	1-2902
32	2	90 DEG ELBOW, 3/8" NPT-M, 3/8" POLYTUBE	6-3058
33	2	FRONT COVER	2-2185
34	9	BASEFRAME LINE COVER	2-2151
35	12	HEX HD BOLT 1/4"	6-0008
36	12	NUT PL 1/4"	6-0032
37	2	BINDER HD SCR #10-24 UNCx3/8LG	6-0815
38	1	SET SCREW, 1/4" x 3/4" LG	6-0438
***NOTE		LINE COVERS NOT SHOWN:	
	3	SHORT LINE COVER	1-2799
	3	REAR LINE COVER	1-2800
	2	LINE COVER ELBOW	1-2806
	2	LINE COVER TEE	1-2807