

PLEASE READ THE ENTIRE CONTENTS OF THIS MANUAL PRIOR TO INSTALLATION AND OPERATION. BY PROCEEDING YOU AGREE THAT YOU FULLY UNDERSTAND AND COMPREHEND THE FULL CONTENTS OF THIS MANUAL. FORWARD THIS MANUAL TO ALL OPERATORS. FAILURE TO OPERATE THIS EQUIPMENT AS DIRECTED MAY CAUSE INJURY OR DEATH.

REV B 09-15-08

#### **INSTALLATION AND OPERATION MANUAL**

## PARKING LIFT WITH DECK

## Models PL-6SP / PL-6SPX



Keep this operation manual near the machine at all times. Make sure that <u>ALL USERS</u> read this manual.

#### **SHIPPING DAMAGE CLAIMS**

When this equipment is shipped, title passes to the purchaser upon receipt from the carrier. Consequently, claims for the material damaged in shipment must be made by the purchaser against the transportation company at the time shipment is received.

#### **BE SAFE**

Your new lift was designed and built with safety in mind. However, your overall safety can be increased by proper training and thoughtful operation on the part of the operator. DO NOT operate or repair this equipment without reading this manual and the important safety instructions shown inside.



1645 Lemonwood Dr. Santa Paula, CA. 93060, USA Toll Free 1-800-253-2363

Tel: 1-805-933-9970 Fax: 1-805-933-9160 www.bendpak.com

## PARKING LIFT WITH DECK

This instruction manual has been prepared especially for you.

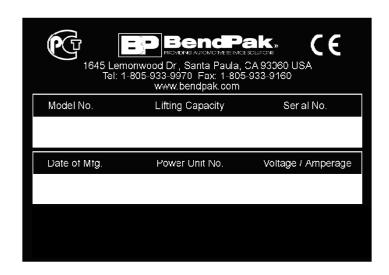
Your new lift is the product of over 35 years of continuous research, testing and development; it is the most technically advanced lift on the market today.

#### READ THIS ENTIRE MANUAL BEFORE INSTALLATION & OPERATION BEGINS.

RECORD HERE THE LIFT AND
POWER UNIT INFORMATION WHICH IS
LOCATED ON THE SERIAL NUMBER
DATA PLATES ON THE LIFT AND
ON THE POWER UNIT

Power Unit Model #	
Power Unit Date Of Mfg.	
Power Unit Serial #	

This information is required when calling for parts or warranty issues.



#### PRODUCT WARRANTY

BendPak 2-Post Lifts are covered under warranty for one year on equipment structure, to be free of defects in material and workmanship. Power units, hydraulic cylinders, and all other assembly components such as turnplates, slip plates, cables, chains, valves, switches etc. are covered under warranty for one year against defects in material or workmanship under normal use. BendPak Inc. shall repair or replace at their option for the warranty period those parts returned to the factory freight prepaid which prove upon inspection to be defective. BendPak Inc. will pay labor costs for the first 12 months only on parts returned as previously described.

The warranty does not extend to...

- defects caused by ordinary wear, abuse, misuse, shipping damage, improper installation, voltage or lack of required maintenance;
- ♦ damages resulting from purchaser's neglect or failure to operate products in accordance with instructions provided in the owner's manual(s) and/or other accompanying instructions supplied;
- normal wear items or service normally required to maintain the product in a safe operating condition;
- any component damaged in shipment;
- other items not listed but may be considered general wear parts;
- damage caused by rain, excessive humidity, corrosive environments or other contaminants.

THESE WARRANTIES DO NOT EXTEND TO ANY COSMETIC DEFECT NOT INTERFERING WITH EQUIPMENT FUNCTIONALITY OR ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE, OR MALFUNCTION OF A BENDPAK INC. PRODUCT OR THE BREACH OR DELAY IN PERFORMANCE OF THE WARRANTY.

## WARRANTY IS NOT VALID UNLESS WARRANTY CARD IS RETURNED.

#### IMPORTANT NOTICE

Do not attempt to install this lift if you have never been trained on basic automotive lift installation procedures. Never attempt to lift components without proper lifting tools such as forklift or cranes. Stay clear of any moving parts that can fall and cause injury. These instructions must be followed to insure proper installation and operation of your lift. Failure to comply with these instructions can result in serious bodily harm and void product warranty. Manufacturer will assume no liability for loss or damage of any kind, expressed or implied resulting from improper installation or use of this product.

### PLEASE READ ENTIRE MANUAL PRIOR TO INSTALLATION.

### DEFINITIONS OF HAZARD LEVELS

Identify the hazard levels used in this manual with the following definitions and signal words:



#### **DANGER!**

Watch for this symbol: It Means: Immediate hazards which will result in severe personal injury or death.



#### WARNING!

Watch for this symbol: It Means: Hazards or unsafe practices which could result in severe personal injury or death.



#### **CAUTION!**

Watch for this symbol: It Means: Hazards or unsafe practices which may result in minor personal injury, product or property damage.

#### **OWNER'S RESPONSIBILITY**

To maintain the lift and user safety, the responsibility of the owner is to read and follow these instructions:

- ♦ Follow all installation and operation instructions.
- Make sure installation conforms to all applicable Local, State, and Federal Codes, Rules, and Regulations; such as State and Federal OSHA Regulations and Electrical Codes.
- Carefully check the lift for correct initial function.
- ♦ Read and follow the safety instructions. Keep them readily available for machine operators.
- Make certain all operators are properly trained, know how to safely and correctly operate the unit, and are properly supervised.
- Allow unit operation only with all parts in place and operating safely.
- Carefully inspect the unit on a regular basis and perform all maintenance as required.
- ♦ Service and maintain the unit only with authorized or approved replacement parts.
- Keep all instructions permanently with the unit and all decals on the unit clean and visible.

#### **BEFORE YOU BEGIN**

#### Receiving:

The shipment should be thoroughly inspected as soon as it is received. The signed bill of lading is acknowledgement by the carrier of receipt in good condition of shipment covered by your invoice. If any of the goods called for on this bill of lading are shorted or damaged, do not accept them until the carrier makes a notation on the freight bill of the shorted or damaged goods. Do this for your own protection.

**NOTIFY THE CARRIER AT ONCE** if any hidden loss or damage is discovered after receipt and request the carrier to make an inspection. If the carrier will not do so, prepare a signed statement to the effect that you have notified the carrier (on a specific date) and that the carrier has failed to comply with your request.

IT IS DIFFICULT TO COLLECT FOR LOSS OR DAMAGE AFTER YOU HAVE GIVEN THE CARRIER A CLEAR RECEIPT. File your claim with the carrier promptly. Support your claim with copies of the bill of lading, freight bill, invoice, and photographs, if available. Our willingness to assist in helping you process your claim does not make BendPak responsible for collection of claims or replacement of lost or damaged materials.

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## INSTALLER / OPERATOR PLEASE READ AND FULLY UNDERSTAND. BY PROCEEDING YOU AGREE TO THE FOLLOWING.

- ♦ I have visually inspected the site where the lift is to be installed and verified the concrete to be in good condition and free of cracks or other defects. I understand that installing a lift on cracked or defective concrete could cause lift failure resulting in personal injury or death.
- ♦ I understand that a level floor is required for proper installation and level lifting.
- ♦ I understand that I am responsible if my floor is of questionable slope and that I will be responsible for all charges related to pouring a new level concrete slab if required and any charges.
- ♦ I understand that the lifts are supplied with concrete fasteners meeting the criteria of the American National Standard "Automotive Lifts Safety Requirements for Construction, Testing, and Validation" ANSI/ALI ALCTV-1998, and that I will be responsible for all charges related to any special regional structural and/or seismic anchoring requirements specified by any other agencies and/or codes such as the Uniform Building Code (UBC) and/or International Building Code (IBC).
- ♦ I will assume full responsibility for the concrete floor and condition thereof, now or later, where the above equipment model(s) are to be installed. Failure to follow danger, warning, and caution instructions may lead to serious personal injury or death to operator or bystander or damage to property.
- ♦ I understand that Bendpak lifts are designed to be installed in indoor locations only. Failure to follow installation instructions may lead to serious personal injury or death to operator or bystander or damage to property or lift.



Failure to follow danger, warning, and caution instructions may lead to serious personal injury or death to operator or bystander or damage to property.



Please read entire manual prior to installation.
Do not operate this machine until you read and understand all the dangers, warnings and cautions in this manual. For additional copies or further information, contact:

#### BendPak Inc. / Ranger Products

1645 Lemonwood Dr. Santa Paula, CA. 93060 1-805-933-9970 www.bendpak.com

### INSTALLER / OPERATOR PROTECTIVE EQUIPMENT

Personal protective equipment helps makes installation and operation safer, however, it does not take the place of safe operating practices. Always wear durable work clothing during any installation and/or service activity. Shop aprons or shop coats may also be worn, however loose fitting clothing should be avoided. Tight fitting leather gloves are recommended to protect technician hands when handling parts. Sturdy leather work shoes with steel toes and oil resistant soles should be used by all service personnel to help prevent injury during typical installation and operation activities.

Eye protection is essential during installation and operation activities. Safety glasses with side shields, goggles,

or face shields are acceptable. Back belts provide support during lifting activities and are also helpful in providing worker protection. Consideration should also be given to the use of hearing protection if



service activity is performed in an enclosed area, or if noise levels are high.



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH IF NOT FOLLOWED COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OR YOURSELF AND OTHERS AND CAN CAUSE PERSONAL INJURY OR DEATH. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE THIS MACHINE.

#### INTRODUCTION

- 1. Carefully remove the crating and packing materials. **CAUTION!** Be careful when cutting steel banding material as items may become loose and fall causing personal harm or injury.
- 2. Check the voltage, phase and proper amperage requirements for the motor shown on the motor plate. Wiring should be performed by a certified electrician only.

#### IMPORTANT SAFETY INSTRUCTIONS

Read these safety instructions entirely!

#### **IMPORTANT NOTICE**

Do not attempt to install this lift if you have never been trained on basic automotive lift installation procedures. Never attempt to lift components without proper lifting tools such as forklift or cranes.

Stay clear of any moving parts that can fall and cause injury.

- 1. **READ AND UNDERSTAND** all safety warning procedures before operating lift.
- 2. **KEEP HANDS AND FEET CLEAR**. Remove hands and feet from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points.
- 3. **KEEP WORK AREA CLEAN**. Cluttered work areas invite injuries.
- 4. Consider work area environment. Do not expose equipment to rain. **DO NOT** use in damp or wet locations. Keep area well lighted.
- 5. **ONLY TRAINED OPERATORS** should operate this lift. All non-trained personnel should be kept away from work area. Never let non-trained personnel come in contact with, or operate lift.
- 6. **USE LIFT CORRECTLY**. Use lift in the proper manner. Never use lifting adapters other than what is approved by the manufacturer.
- 7. **DO NOT** override self-closing lift controls.
- 8. **REMAIN CLEAR** of lift when raising or lowering vehicle.
- CLEAR AREA if vehicle is in danger of falling.
- 10. **ALWAYS INSURE** that the safeties are engaged before any attempt is made to work on or near vehicle.
- 11. **DRESS PROPERLY**. Non-skid steel-toe footwear is recommended when operating lift.

- 12. **GUARD AGAINST ELECTRIC SHOCK**. This lift must be grounded while in use to protect the operator from electric shock. Never connect the green power cord wire to a live terminal. This is for ground only.
- 13. **DANGER!** The power unit used on this lift contains high voltage. Disconnect power at the receptacle before performing any electrical repairs. Secure plug so that it cannot be accidentally plugged in during service.
- 14. **WARNING! RISK OF EXPLOSION**. This equipment has internal arcing or sparking parts which should not be exposed to flammable vapors. This machine should not be located in a recessed area or below floor level.
- 15. **MAINTAIN WITH CARE**. Keep lift clean for better and safer performance. Follow manual for proper lubrication and maintenance instructions. Keep control handles and/or buttons dry, clean and free from grease and oil.
- 16. **STAY ALERT**. Watch what you are doing. Use common sense. Be aware.
- 17. **CHECK FOR DAMAGED PARTS**. Check for alignment of moving parts, breakage of parts or any condition that may affect its operation. Do not use lift if any component is broken or damaged.
- 18. **NEVER** remove safety related components from the lift. Do not use lift if safety related components are damaged or missing.

#### **TOOLS REQUIRED**

- ♦ Rotary Hammer Drill or Similar
- ♦ 3/4" Masonry Bit
- ♦ Hammer
- ♦ 4 Foot Level
- ♦ Open-End Wrench Set: 7/16" 1-1/8"
- ♦ Socket And Ratchet Set: 7/16" 1-1/8"
- Hex-Key / Allen Wrench Set

- Large Crescent Wrench
- Large Pipe Wrench
- ♦ Crow Bar
- ♦ Chalk Line
- ♦ Medium Flat Screwdriver
- ♦ Tape Measure: 25 Foot Minimum
- ♦ Needle Nose Pliers

#### **IMPORTANT NOTICE!**

These instructions must be followed to insure proper installation and operation of your lift. Failure to comply with these instructions can result in serious bodily harm and void product warranty. Manufacturer will assume no liability for loss or damage of any kind, expressed or implied resulting from improper installation or use of this product.

#### PLEASE READ ENTIRE MANUAL PRIOR TO INSTALLATION.

#### STEP 1

(Selecting Site)

Before installing your new lift, check the following.

- 1. **LIFT LOCATION**: Always use architects plans when available. Check layout dimension against floorplan requirements making sure that adequate space if available.
- 2. **OVERHEAD OBSTRUCTIONS**: The area where the lift will be located should be free of overhead obstructions such as heaters, building supports, electrical lines etc.
- 3. **DEFECTIVE FLOOR**: Visually inspect the site where the lift is to be installed and check for cracked or defective concrete.



- 4. **OPERATING TEMPERATURE.** Operate lift only between temperatures of 41° -104° F.
- 5. Lift is designed for **INDOOR INSTALLATION ONLY.**

#### STEP 2

(Floor Requirements)



This lift must be installed on a solid level concrete floor with no more than 3-degrees of slope. Failure to do so could cause personal injury or death. A level floor is suggested for proper use and installation and level lifting. If a floor is of questionable slope, consider a survey of the site and/or the possibility of pouring a new level concrete slab.



- ♦ **DO NOT** install or use this lift on any asphalt surface or any surface other than concrete.
- ◆ DO NOT install or use this lift on expansion seams or on cracked or defective concrete.
- ♦ **DO NOT** install or use this lift on a second / elevated floor without first consulting building architect.
- ♦ **DO NOT** install or use this lift outdoors.

#### **CONCRETE SPECIFICATIONS**

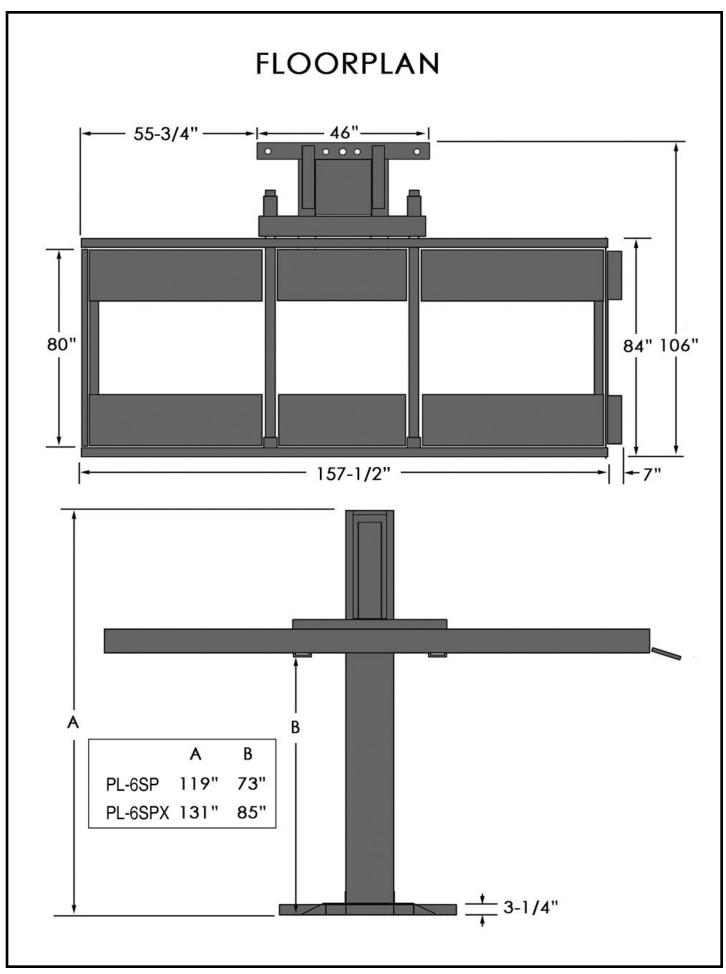
LIFT MODEL CONCRETE REQUIREMENTS

PL-6SP 4" Min. Thickness / 3,000 PSI PL-6SPX 4" Min. Thickness / 3,000 PSI



#### DANGER!

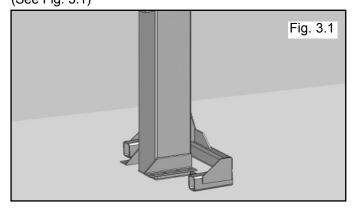
All models MUST be installed on 3000 PSI concrete only conforming to the minimum requirements shown above. New concrete must be adequately cured by at least 28 days minimum.



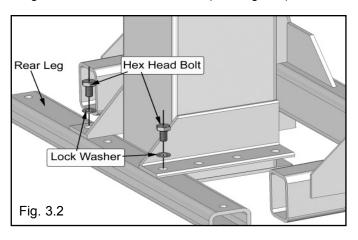
#### STEP 3

( Assembling The Lift Column )

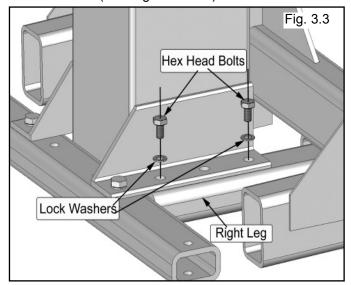
1. Stand the main Column at the selected location making sure to support by a Lifting Chain or safety strap. (See Fig. 3.1)

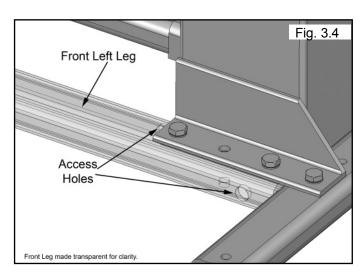


- Before proceeding, make certain the lift is positioned with clearances around and overhead.
- 3. Attach the Rear Leg to the backside of the lift Column using the 3/4" bolts and washers. (See Fig. 3.2)



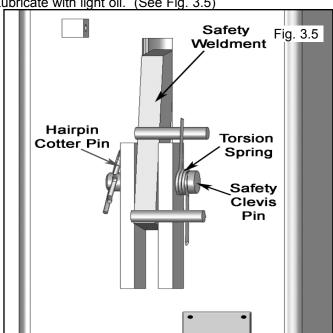
5 Attach the Front Legs to the side(s) of the Lift Column using the 3/4" Bolts and Washers. Install with Hose Access Hole as shown. (See Fig. 3.3 & 3.4)



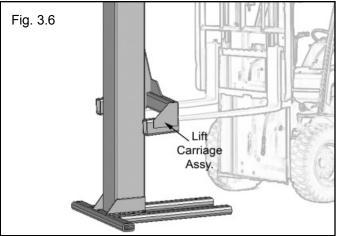


6. Install and lubricate the Column Safety lock on the side of the lift Column. The Safety Lock MUST move freely.

Lubricate with light oil. (See Fig. 3.5)



7. Raise the lift Carriage assembly with a forklift until the Carriage reaches the first safety lock position. MAKE A VISUAL INSPECTION OF THE SAFETY LOCK AND MAKE SURE IT IS ENGAGED BEFORE WORKING ON OR NEAR LIFT. (See Fig. 3.6)

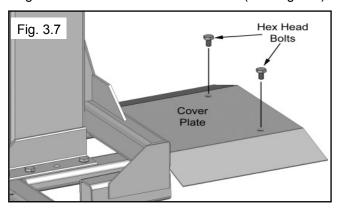




## DANGER! VISUALLY CONFIRM THAT ALL PRIMARY SAFETY LOCKS ARE ENGAGED BEFORE ENTERING WORK AREA.

Suspension components us on this lift are intended to raise and lower lift only and are not meant to be load holding devices. Remain clear of elevated lift unless visual confirmation is made that all primary safety locks are fully engaged and the lift is LOWERED onto the safety locks, Refer to installation /operation manual for proper safety lock procedures and /or further instruction.

8. Attach the Cover Pan to the Front Legs of the lift Column using the Hex Head Bolts and Washers. (See Fig. 3.7)



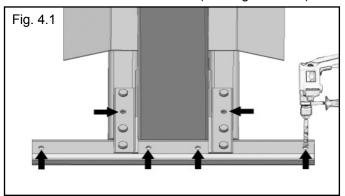
#### STEP 4

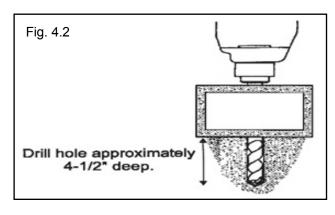
( Anchoring The Lift Column )

#### **IMPORTANT NOTE**

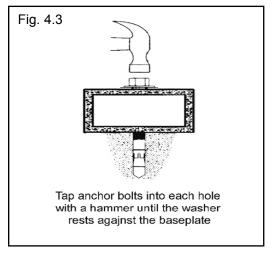
A level floor is suggested for proper installation. Small differences in floor slope may be compensated for by proper shimming. Any major slope changes will affect the units level lifting performance. If a floor is of questionable slope, consider pouring a new concrete slab.

1. Drill through the Leg holes (six holes total / see arrows) into the concrete approximately 4-1/2" deep using a rotary hammer drill and 3/4"concrete drill-bit. Do not ream the hole or allow the drill to wobble. (See Fig. 4.1 - 4.2)

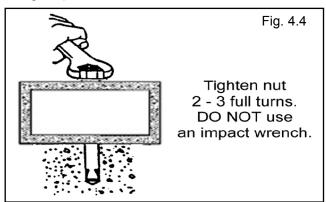




- 2. After drilling the anchor holes, remove the dust thoroughly from each hole using compressed air and/or wire brush. ALWAYS WEAR SAFETY GOGGLES.
- 3. Assemble the Washers and Nuts on the Anchors then tap into each hole with a hammer until the Washer rests against the tube. Be sure that if shimming is required, enough threads are left exposed. (See Fig. 4.3)



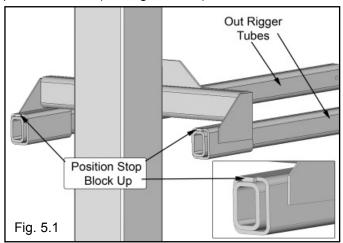
- 4. If shimming is required, insert the shims as necessary around each Anchor Bolts.
- 5. With the Anchor Bolts in place, tighten approximately 2-3 turns. DO NOT use an impact wrench for this procedure. (See Fig. 4.4)

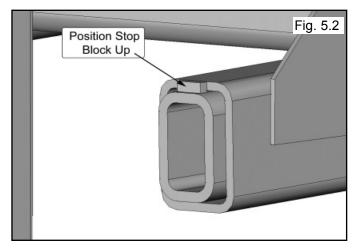


#### STEP 5

(Installing the Out Rigger Tubes)

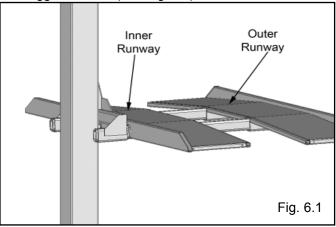
1.Install the two Out Rigger Tubes by inserting the ends though the back side of the receiver tube. MAKE SURE the Stop Block welded to the end of the Out Rigger Tubes are positioned UP. (See Fig. 5.1 - 5.2)



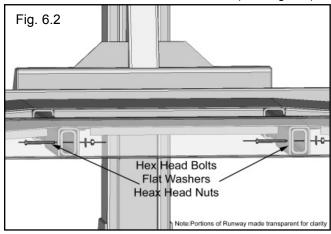


### **STEP 6** (Installing The Inner and Outer Runways)

1. Install the Inner & Outer Runways over the ends of the Out Rigger Tubes. (See Fig. 6.1)



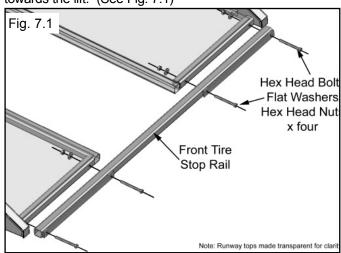
2. Secure both runways to the Out Rigger Tubes using 8 1/2" x 5" Hex Bolts, Nuts and Washers. (See Fig. 6.2)



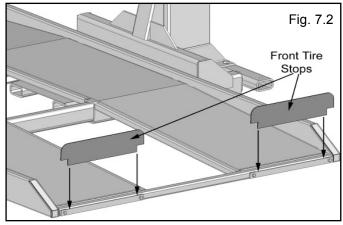
#### STEP 7

(Installing The Front Tire Stop Rail and Rear Approach Ramp Rail)

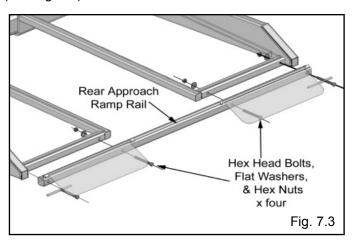
1. Bolt on the Front Tire Stop Rail with the spacers facing towards the lift. (See Fig. 7.1)



2. Install the Front Tire Stops as shown. They simply drop into place for easy removal. (See Fig. 7.2)



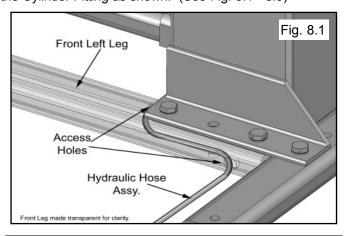
3. Bolt on the Rear Approach Ramp Rail as shown below. (See Fig. 7.3)

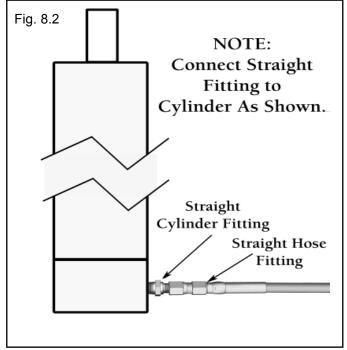


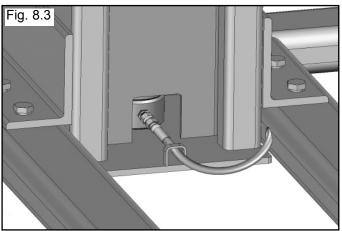
STEP 8

( Hose Connections )

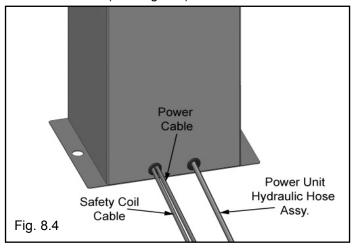
1. Route the Hydraulic Hose Assy. through the side of the Front Leg then route through the entry side and connect to the Cylinder Fitting as shown. (See Fig. 8.1 -8.3)



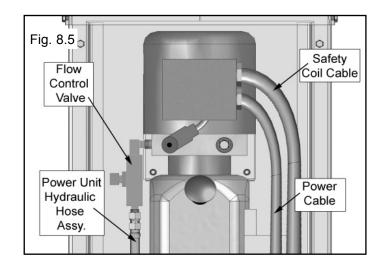




2 .Remove the Front panel cover on the Power Console. Route the Hydraulic Line, Power Cable and Safety Coil Cable through the access holes on the back of the Power Console cabinet. (See Fig. 8.4)



3. Connect the Hydraulic Hose to the Flow Control Valve on the Power Unit fitting. It is not necessary to use Teflon tape on JIC fittings. DO NOT OVER-TIGHTEN. (See Fig. 8.5)

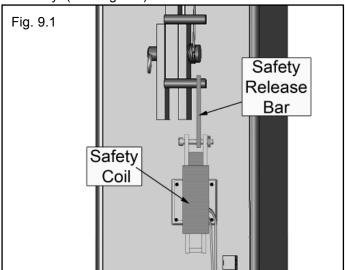


Refer to pages 14-15 for Power and Safety Coil wiring instructions.

#### STEP 9

(Installing The Safety Release Coil)

1. Install the 110-volt Safety Release Coil to the side of the lift Column. Connect the Safety Release Bar to the Safety assembly. (See Fig. 9.1)

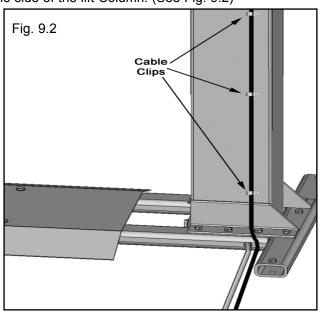




#### **WARNING!**

The safety lock coil is powered by 110-volt. Wrap wires carefully to avoid electric shock. Make sure wires are kept clear of safety lock device and moving components.

- 2. Connect the two wires of the Safety Coil Cable to the terminals on the Safety Lock Coil. Make sure the wires are secure.
- 3. Route the Safety Coil Cable through the three Clips on the side of the lift Column. (See Fig. 9.2)



#### STEP 10

( Power-Unit Hook Up )





#### **DANGER!**

DO NOT PERFORM ANY MAINTENANCE OR INSTALLATION OF ANY COMPONENTS WITH OUT FIRST ENSURING THAT ELECTRICAL POWER HAS BEEN DISCONNECTED AT THE SOURCE OR PANEL AND CANNOT BE RE-ENERGIZED UNTIL ALL MAINTENANCE AND/OR INSTALLATION PROCEDURES ARE COMPLETED.

All wiring must be performed by a certified electrician only.

### IMPORTANT POWER-UNIT INSTALLATION NOTES

- DO NOT run power unit with no oil. Damage to pump can occur.
- The power unit must be kept dry. Damage to power unit caused by water or other liquids such as detergents, acid etc., is not covered under warranty.
- Improper electrical hook-up can damage motor and will not be covered under warranty.
- Motor can not run on 50HZ without a physical change in motor
- Use a separate breaker for each power unit.
- Protect each circuit with time delay fuse or circuit breaker.
- For 208-230 volt, single phase, use a 25 amp fuse.
- For 208-230 volt, three phase, use a 20 amp fuse.
- For 380-440 volt, three phase, use a 15 amp fuse.

DO NOT attempt to raise vehicle until a thorough operation check has been completed.



#### DANGER! RISK OF EXPLOSION!

This equipment has internal arcing or parts that may spark and should not be exposed to flammable vapors. Motor should not be located in a recessed area or below floor level.

NEVER expose motor to rain or other damp environments.

DAMAGE TO MOTOR CAUSED BY WATER IS NOT COVERED UNDER WARRANTY.

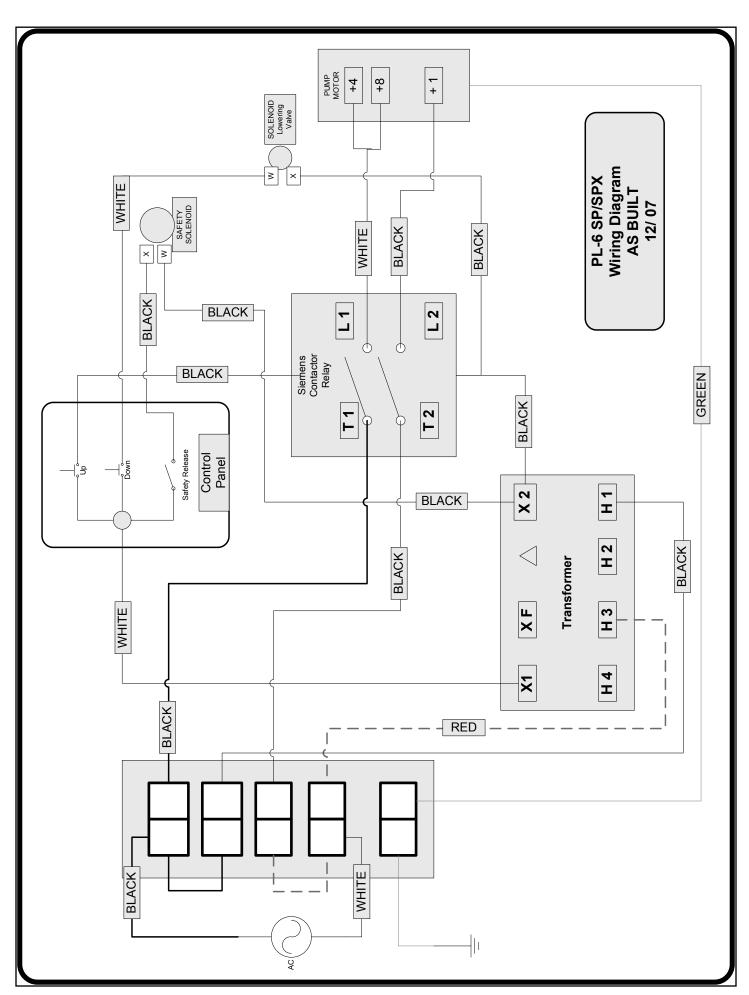
#### **IMPORTANT NOTE:**

DO NOT USE 110 VOLT POWER SUPPLY for this power unit. Damage to motor will occur which is not covered under warranty. You must use a separate circuit breaker for each lift.

1. Have a certified electrician run the power supply to motor. Refer to the data plate found on the motor for proper power supply and wire size. 2. The Power Console comes available in either 110 volt or 220 volt operation. REFER TO THE DATA PLATE BEFORE CONNECTING POWER. Have a certified electrician run either 110 volts or 208 - 230 volt single phase 60 HZ power supply to motor. (If you ordered optional three phase power or 50HZ, refer to the data plate found on the motor for proper power supply.) Be sure to size wire for a 25 amp circuit.

#### **IMPORTANT NOTE:**

CAUTION Never operate the motor on line voltage less than 208V. Motor damage may occur which is not covered under warranty. Have a certified electrician run appropriate power supply to motor. Size wire for 25 amp circuit. See Motor Operating Data Table. IMPORTANT: Use separate circuit for each power unit. Protect each circuit with time delay fuse or circuit breaker. For single phase 208-230V, use 25 amp fuse. Three phase 208-240V, use 25 amp fuse. For three phase 400V and above, use 15 amp fuse. All wiring must comply with NECK and all local electrical codes.



#### STEP 11

(Lift Start Up)



#### **CAUTION!**

During the START-UP procedure, observe all operating components and check for proper installation and adjustment. DO NOT attempt to raise vehicle until a thorough operational check has been completed.

- 1. Make sure the power unit reservoir is full with 12 quarts of 10-WT hydraulic oil or Dexron-III automatic transmission fluid.
- 2. Lubricate all friction points on the lift with a 90-WT Gear Oil.
- 3. Test the power unit by depressing the push-button switch. If the motor sounds like it is operating properly, raise lift and check all hose connections for leaks. IF MOTOR GETS HOT OR SOUNDS PECULIAR, STOP IMMEDIATELY AND RE-CHECK ELECTRICAL CONNECTIONS.

#### To Raise Lift

Position vehicle with front tires at front stop bar.

- 1. Set parking brake or use wheel chock to hold vehicle in position.
- 2. Before raising vehicle, be sure all personnel are clear of the lift and surrounding area. Pay careful attention to overhead clearances.
- 3. Raise the lift to the desired height by pressing the push button on the Power Console.



## VISUALLY CONFIRM THAT ALL PRIMARY SAFETY LOCKS ARE ENGAGED BEFORE ENTERING WORK AREA.

Suspension components us on this lift are intended to raise and lower lift only and are not meant to be load holding devices. Remain clear of elevated lift unless visual confirmation is made that all primary safety locks are fully engaged and the lift is LOWERED onto the safety locks, Refer to installation /operation manual for proper safety lock procedures and /or further instruction.

4. Check to make sure the safety is engaged BEFORE ENTERING work area.

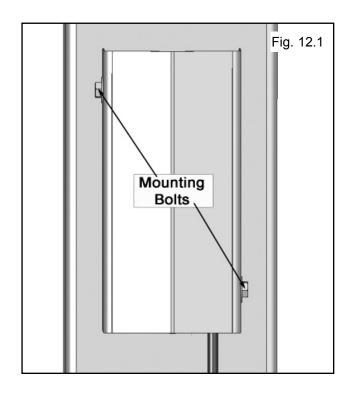
#### To Lower Lift

- 1. Raise the lift off the safety lock by pressing the UP push button on the power unit. Make sure you raise the lift by at least one inch to allow adequate clearance for the lock to clear.
- 2. Before lowering the lift PAY CAREFUL ATTENTION that all personnel and objects are kept clear. ALWAYS keep a visual line of site on the lift AT ALL TIMES.
- 3. Press and hold the DOWN / SAFETY LOCK RELEASE button.
- 4. Push the LOWERING HANDLE on the power unit until the lift has descended completely.

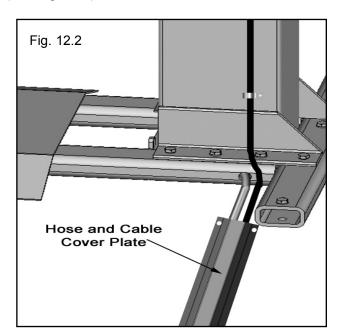
#### **STEP 12**

(Installing Safety and Hose Covers)

1. After the lift has been checked for proper operation, install the Safety Lock Cover using the Mounting Bolts. (See Fig. 12.1)



2. Install the Hose and Cord Cover as shown. Attach to the floor using concrete screws or concrete nails. (See Fig. 12.2)



### REQUIRED MONTHLY MAINTENANCE

- 1. Check all bolts and pins to insure proper mounting.
- 2. Visually inspect all safeties for proper operation.
- 3. Lubricate all rollers with 90 wt. gear oil or equivalent.
- 4. Lubricate all pivot pins with grease.
- 5. Inspect all anchor bolts and retighten if necessary.
- 6. Check frames for squareness and plumb.
- 7. Inspect lift pads, replace if necessary.
- 8. Inspect all cutoff switch's for proper operation.
- 9. Inspect emergency shutoff switch for proper operation.



- If a cement anchor bolt becomes loose or any component of the lift is found to be defective, DO NOT USE THE LIFT until repairs are made!
- DO NOT USE LIFT if any component is found to be defective or worn.
- 3. Never operate ( raise or lower ) the lift with any person or equipment below.
- 4. Never exceed the rated capacity.
- 5. Always insure the safety is engaged before approaching raised vehicle.
- 6. Never leave the lift in an elevated position unless the safety is engaged.
- 7. Do not permit the electric control unit to get wet! Motor damage caused by dampness is not covered under
- 8. ALWAYS STAND CLEAR of lift when lowering or raising.

#### TO RAISE LIFT

- Read operating and Safety manuals before using lift.
- Always lift a vehicle according to the manufacturer's recommended lifting points.
- Position vehicle between columns.
- Adjust swing arms so that the vehicle is positioned with the center of gravity midway between pads.
- Raise the vehicle by depressing button until the vehicle just lifts off the ground. Recheck to make sure the vehicle is secure and all locking pins are lock in place.
- Raise vehicle to desired height. Lower vehicle onto nearest safety.
- Always ensure safeties are engaged before any attempt is made to work on or near vehicle.

#### TO LOWER THE LIFT

- First raise the lift clear to the safeties.
- Release safeties by pulling on the safety handle.
- Be sure tool trays, stands or personnel are cleared from under the vehicle.
- ♦ Lower vehicle by activating lowering handle on power unit.
- ♦ Before removing vehicle from lift; positon lift arms and supports to provide an unobstructed exit.
- ♦ **NEVER**, Drive over lift arms.

#### REQUIRED MONTHLY MAINTENANCE

- ♦ Check all arm adjusting locks for proper operation.
- Check all cables connections, bolts and pins to insure proper mounting and torque.
- ♦ Visually inspect safeties for proper operation.
- Lubricate columns with grease.
- Inspect all anchors bolts and retighten if necessary.
- ♦ Check all columns for squareness and plumb.
- Inspect all pivot arms pins making sure they are properly secure.
- ♦ Check equalizer cable tension, and adjust if necessary.
- ♦ If lift is equipped with over head cut-off switch, check for proper operation.
- WARNING: If cement anchor bolts are loose or any component of the lift is found to be defective, DO NOT USE THE LIFT!!
- 2, Never operate the lift with any person or equipment below the vehicle.
- 3. Never exceed the rated lift capacity.
- 4. Always insure the safeties are engaged before any attempt is made to work on or near the vehicle.
- 5. Never leave lift in elevated position unless the safeties are engaged.
- 6. Do not permit electric motor to get wet! Motor damage caused by dampness is not covered under warranty.



NEVER LIFT ANY VEHICLE IN ANY MANNER WITHOUT
THE VEHICLES FOUR TIRES CENTERED ON THE RUNWAYS.
NEVER LIFT A VEHICLE WITH AN AXLE WEIGHT
GREATER THAN HALF THE RATED LIFT CAPACITY.

## SAFETY INSTRUCTIONS



Read operating and safety manuals before using lift.

## AFETY VSTRUCTIONS



Do not operate a damaged lift.

SAFETY INSTRUCTION



Proper maintenance and inspection is necessary for safe operation.

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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

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ALI/WL1018

## THE MAXIMUM LIFTING CAPACITY FOR THIS LIFT IS DESCRIBED BELOW

Maximum Lifting Capacity 6000 Lbs. / 2722 Kg.

Maximum Lifting Capacity / Front Axle 3000 Lbs. / 1361 Kg.

Maximum Lifting Capacity / Rear Axle(s) 3000 Lbs. / 1361 Kg.

Exceeding the weight capacity of this lift can damage lift and/or property and may cause personal harm, injury or death to operators and/or bystanders. All vehicles MUST be positioned on lift with CENTER OF GRAVITY midway between adapters and/or centered on runways. Damage to lift due to overloading or misuse IS NOT covered under warranty.

P/N 5905400

### **A** CAUTION



Lift to be used by trained operator only.

#### **A** CAUTION



Authorized personnel only in lift area.

# WARNING

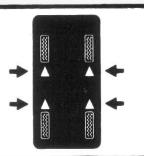
Clear area if vehicle is in danger of falling.



Position vehicle with center of gravity midway between adapters.

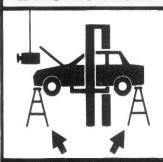
#### **A** CAUTION

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Use vehicle manufacturer's lift points.

#### **A** CAUTION



Always use safety stands when removing or installing heavy components. ©

#### **WARNING**



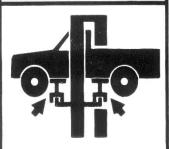
Remain clear of lift when raising or lowering vehicle.

#### **A WARNING**



Avoid excessive rocking of vehicle while on lift.

#### **A** CAUTION



Use height extenders when necessary to ensure good contact.

#### **A** CAUTION



Auxiliary adapters may reduce load capacity.

**A WARNING** 



Do not override self-closing lift controls.

**A WARNING** 



Keep feet clear of lift while lowering.

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#### Safe Lift Operation

Automotive and truck lifts are critical to the operation and profitability of your business. The safe use of this and other lifts in your shop is critical in preventing employee injuries and damage to customer's vehicles. By operating lifts safely you can insure that your shop is profitable, productive and safe.

Safe operation of automotive lifts requires that only trained employees should be allowed to use the lift.

#### TRAINING SHOULD INCLUDE, BUT NOT LIMITED TO:

- ♦ Proper positioning of the vehicle on the runway. (See manufacturers minimize wheel base loading requirements.)
- Use of the operating controls.
- Understanding the lift capacity.
- Proper use of jack stands or other load supporting devices.
- Proper use, understanding and visual identification of safety lock devices and their operation.
- Reviewing the safety rules.
- ♦ Proper housekeeping procedures (lift area should be free of grease, oil, tools, equipment, trash, and other debris)
- ♦ A daily inspection of the lift should be completed prior to its use. Safety devices, operating controls, lift arms and other critical parts should be inspected prior to using the lift.
- ♦ All maintenance and repairs of the lift should be completed by following the manufacturer's requirements. Lift repair parts should meet or exceed OEM specifications. Repairs should only be completed by a qualified lift technician.
- ♦ The vehicle manufacturer's recommendations should be used for spotting and lifting the vehicle.

#### LIFT OPERATION SAFETY

- ♦ It is important that you know the load limit. Be careful that you do not overload the lift. If you are unsure what the load limit is, check the data plate found on one of the lift columns or contact the manufacturer.
- The center of gravity should be followed closely to what the manufacturer recommends.
- ♦ Always make sure you have proper overhead clearance. Additionally, check that attachments, (vehicle signs, campers antennas, etc.) are not in the way.
- Be sure that prior to the vehicle being raised, the doors, trunk, and hood are closed securely
- Prior to being raised, make sure there is no one standing closer than six feet from the lift
- ♦ After positioning the vehicle on the lift runways, set the emergency brake, make sure the ignition is off, the doors are closed, overhead obstructions are cleared, and the transmission is in neutral.
- ♦ Double check that the automatic chock devices are in position and then when the lift is raised, observe the chocks
- Put pads or adapters in the right position under the contact points that have been recommended
- ♦ The lift should be raised just until the vehicle's wheels are about one foot off the ground. If contact with the vehicle is uneven or it appears that the vehicle is not sitting secure, carefully lower the lift and readjust.
- ♦ Always consider potential problems that might cause a vehicle to slip, i.e., heavy cargo, undercoating, etc.
- ♦ Pay attention when walking under a vehicle that is up on the hydraulic lift.



- ♦ **DO NOT** leave the controls while the lift is still in motion.
- ♦ DO NOT stand directly in front of the vehicle or in the bay when vehicle is being loaded or driven into position.
- DO NOT Go near vehicle or attempt to work on the vehicle when being raised or lowered.
- ♦ **REMAIN CLEAR** of lift when raising or lowering vehicle.
- DO NOT rock the vehicle while on the lift or remove any heavy component from vehicle that may cause excessive weight shift.
- ◆ DO NOT lower the vehicle until people, materials, and tools are clear
- ♦ ALWAYS INSURE that the safeties are engaged and lowered on to the safety ladders before any attempt is made to work on or near vehicle.
- Some vehicle maintenance and repair activities may cause the vehicle to shift. Follow the manufacturer's guidelines when performing these operations. The use of jack stands or alternate lift points may be required when completing some repairs.
- ♦ READ AND UNDERSTAND all safety warning procedures before operating lift.
- ♦ **KEEP HANDS AND FEET CLEAR**. Remove hands and feet from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points.
- ONLY TRAINED OPERATORS should operate this lift. All non-trained personnel should be kept away from work area. Never let non-trained personnel come in contact with, or operate lift.
- ♦ **USE LIFT CORRECTLY**. Use lift in the proper manner. Never use lifting adapters other than what is approved by the manufacturer.
- ◆ DO NOT override self-closing lift controls.
- ♦ CLEAR AREA if vehicle is on danger of falling.
- ♦ STAY ALERT. Watch what you are doing. Use common sense. Be aware.
- ♦ CHECK FOR DAMAGED PARTS. Check for alignment of moving parts, breakage of parts or any condition that may affect its operation. Do not use lift if any component is broken or damaged.
- NEVER remove safety related components from the lift. Do not use lift if safety related components are damaged or missing.
- ♦ When the lift is being lowered, make sure everyone is standing at least six feet away.
- ♦ Be sure there are no jacks, tools, equipment, left under the lift before lowering.
- Always lower the vehicle down slowly and smoothly.

#### **LIFT WILL NOT RAISE**

- 1. Air in oil, (1,2,8,13)
- 2. Cylinder binding, (9)
- 3. Cylinder leaks internally, (9)
- 4. Motor run backward under pressure, (11)
- 5. Lowering valve leaks, (3,4,6,10,11)
- 6. Motor runs backwards, (7,14,11)
- 7. Pump damaged, (10,11)
- 8. Pump won't prime, (1,8,13,14,3,12,10,11)
- 9. Relief valve leaks, (10,11)
- 10. Voltage to motor incorrect, (7,14,11)

	EMEDY Check for proper oil level	INSTRUCTION  The oil level should be up to the bleed screw in the reservoir with the lift all the way down.
2.	Bleed cylinders	See Installation Manual
3.	Flush- Release valve to get rid of possible contamination	. Hold release handle down and start unit allowing it to run for 15 seconds.
4.	Dirty oil	. Replace oil with clean Dexron ATF.
5.	Tighten all fasteners	. Tighten fasteners to recommended torques.
6.	Check for free movement of release	. If handle does not move freely, replace bracket or handle assembly.
7.	Check motor is wired correctly	. Compare wiring of motor to electrical diagram on drawing.
8.	Oil seal damaged or cocked	.Replace oil seal around pump shaft.
9.	See Installation Manual	. Consult Lift Manufacturer.
10	. Replace with new part	.Replace with new part.
11	. Return unit for repair	. Return unit for repair.
12	. Check pump-mounting bolts	Bolts should be 15 to 18 ft. lbs.
13	. Inlet screen clogged	. Clean inlet screen or replace.
14	. Check wall outlet voltages and wiring	Make sure unit and wall outlet are wired properly.

#### **MOTOR WILL NOT RUN**

#### **POSSIBLE CAUSE**

- 1. Fuse blown, (5,2,1,3,4)
- 2. Limit switch burned out, (1,2,3,4)
- 3. Microswitch burned out, (1,2,3,4)
- 4. Motor burned out, (1,2,3,4,6)
- 5. Voltage to motor incorrect, (2,1,8)

REMEDY		INSTRUCTION	
1.	Check for correct voltage	Compare supply voltage with voltage on motor nametag. Check that the wire is sized correctly. N.E.C. table 310-12 requires AWG 10 for 25 Amps.	
2.	Check motor is wired correctly	Compare wiring of motor to electrical diagram on drawing.	
3.	Don't use extension cords	.According to N.E.C.: "The size of the conductors should be such that the voltage drop would not exceed 3% to the farthest outlet for power" Do not run motor at 115 VAC – damage to the motor will occur.	
4.	Replace with new part	.Replace with new part.	
5.	Reset circuit breaker/fuse	.Reset circuit breaker/fuse.	
6.	Return unit for repair	Return unit for repair.	
7.	See Installation Manual	.See Installation Manual.	
8.	Check wall outlet voltage and wiring	. Make sure unit and wall outlet is wired properly. Motor must run at 208/230 VAC.	

#### LIFT LOWERS SLOWLY OR NOT AT ALL

- 1. Cylinders binding, (1)
- 2. Release valve clogged, (5,4,2,3)
- 3. Pressure fitting too long, (6)

<b>RE</b> 1.	MEDY See Installation Manual	INSTRUCTION . Consult Lift Manufacturer.
2.	Replace with new part	Replace with new part.
3. 4.	Return for repair	
5. (	Clean release valve	. Wash release valve in solvent and blow out with air.
6. I	Replace fitting with short thread lead	. Replace fitting with short thread lead.

#### **WILL NOT RAISE LOADED LIFT**

- 1. Air in oil, (1,2,3,4)
- 2. Cylinder binding, (5)
- 3. Cylinder leaks internally, (5)
- 4. Lift overloaded, (6,5)
- 5. Lowering valve leaks, (7,8,1,5,9)
- 6. Motor runs backwards, (10,12,9)
- 7. Pump damaged, (5,9)
- 8. Pump won't prime, (1,2,3,4,5,11,9)
- 9. Relief valve leaks, (8,5,9)
- 10. Voltage to motor incorrect, (10,12,5)

REMEDY  1. Check oil level	<ul><li>INSTRUCTION</li><li>The oil level should be up to the bleed screw in the reservoir [with the lift all the way down.]</li></ul>
2. Check/Tighten inlet tubes	. Replace inlet hose assembly.
3. Oil seal damaged or cocked	. Replace oil seal and install.
4. Bleed cylinders	. See Installation Manual.
5. See Installation Manual	Consult Lift Manufacturer.
6. Check vehicle weight	. Compare weight of vehicle to weight limit of the lift.
7. Flush release valve	Hold release handle down and start unit allowing it to run for 15 seconds.
8. Replace with new part	Replace with new part.
9. Return unit for repair	Return unit for repair.
10. Check motor is wired correctly	Compare wiring of motor to electrical diagram on power unit drawing.
11. Inlet screen clogged	. Clean inlet screen or replace.
12. Check wall outlet voltage and wiring	. Make sure unit and wall outlet is wired properly.

#### LIFT WILL NOT STAY UP

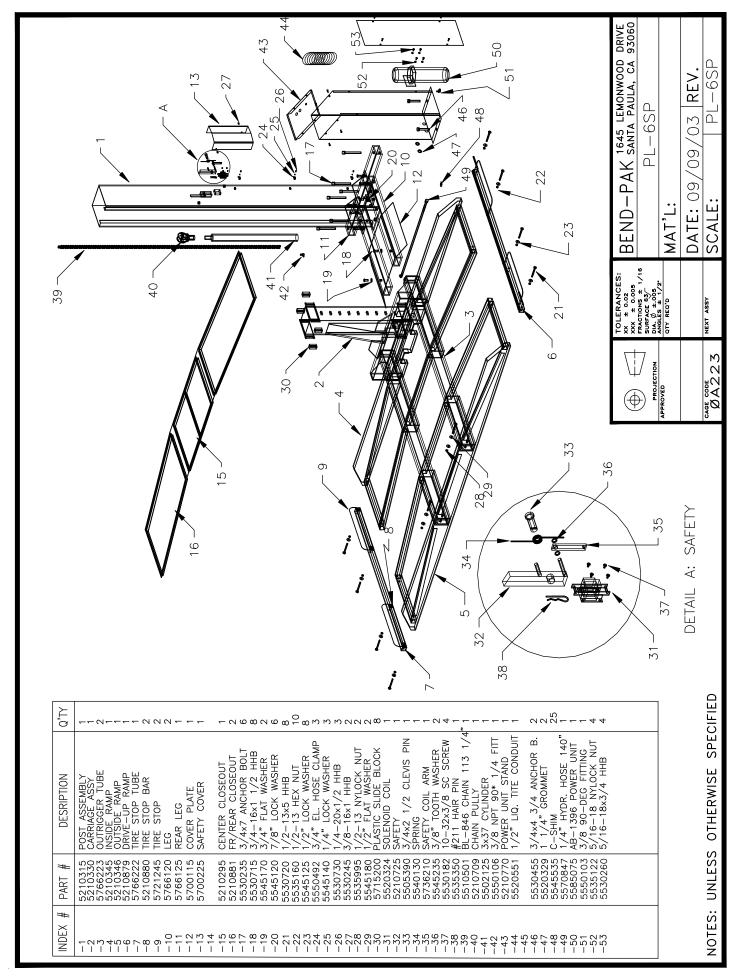
- 1. Air in oil, (1,2,3)
- 2. Check valve leaks, (6)
- 3. Cylinders leak internally, (7)
- 4. Lowering valve leaks, (4,5,1,7,6)
- 5. Leaking fittings, (8)

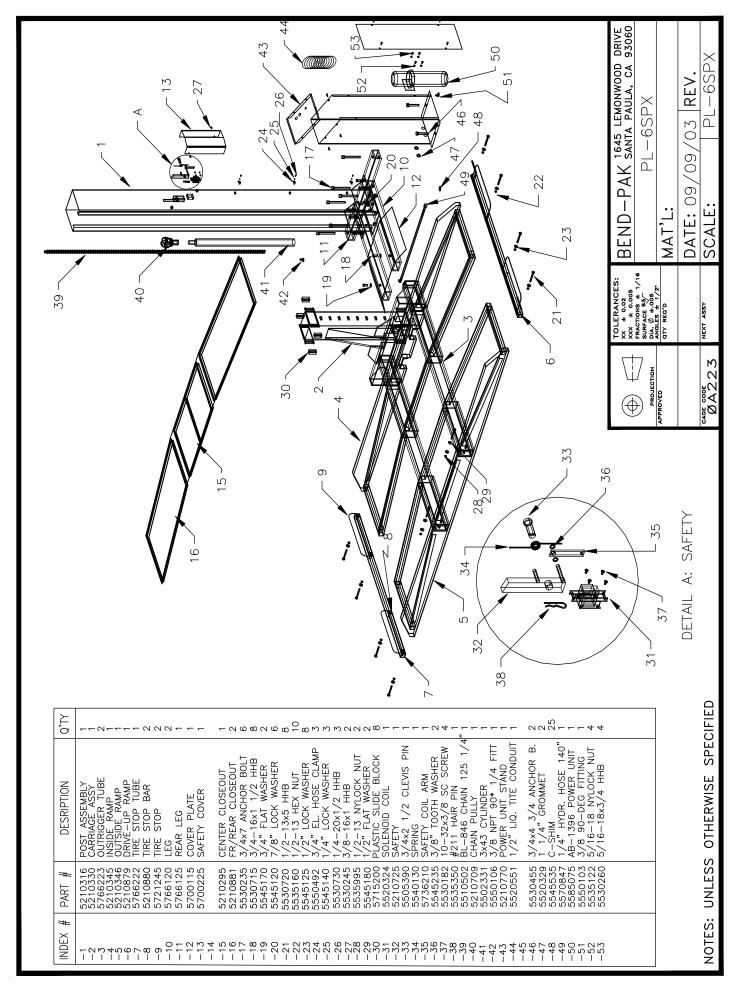
REMEDY  1. Check oil level	INSTRUCTION .The oil level should be up to the bleed screw in the reservoir with the lift all the way down.
2. Oil seal damaged and cocked	. Replace oil seal around pump shaft.
3. Bleed cylinder	.Refer to Installation Manual.
4. Flush release valve	. Hold release handle down and start unit allowing it to run for 15 seconds.
5. Replace with new valve	. Replace with new valve.
6. Return unit for repair	. Return unit for repair.
7. See Installation Manual	.Consult Lift Manufacturer.
8. Check complete hydraulic system for leaks	.Tighten all hydraulics fittings and inspects all hoses.

MAINTENANCE RECORDS		
		<del> </del>
, <del></del>		

#### **INSTALLATION FORM**

Customer Name: Date of Installation:			
Company Name:			
Street Address:			
City:	State:		Zip:
Phone:		Fax:	
	Pre-In	stall Agreement	
I, (the undersigned) acting as the owner of the business listed above assume responsibility for any permits required, either state or county mandated, related to the installation and/or operation of this equipment. I assume responsibility for the concrete floor and condition thereof, now or later, where the above equipment model(s) are installed. I will assume all liability for losses, damages (including loss of use), expenses, demands, claims, and judgments in connection with or arising out of any personal injury or alleged damage to property, sustained or alleged to have been sustained in connection with, or to have arisen out of the condition and/or drilling of the concrete near or adjacent to the equipment model(s) listed above. If my employee(s) offer assistance of any kind during installation of the above equipment model(s) I hold the manufacturer and installation company harmless of all liability for losses, damages, expenses, claims, and judgments in connection with or arising out of any personal injury or alleged damage to property, sustained or alleged to have been sustained in connection with the installation of the above equipment model(s).			
I understand that the lifts above are supplied with concrete fasteners meeting the criteria of the American National Standard "Automotive Lifts - Safety Requirements for Construction, Testing, and Validation" ANSI/ALI ALCTV-1998, and that I will be responsible for all charges related to any special regional structural and/or seismic anchoring requirements specified by any other agencies and/or codes such as the Uniform Building Code (UBC) and/or International Building Code (IBC).			
Customer Signature:	Print	Name:	Date:
	Post-Inst	allation Check-Off	
☐ Base and Columns Properly Shimme	ed And Stable	Lubrication of Critical	Components
Anchor Bolts Tightened		Lift Adapters	
Runways Properly Attached and Secured			Obstructions
☐ Electric Power Supply Confirmed ☐ Runways Level			
☐ Cables / Chains Adjusted Properly ☐ All Screws, Bolts, and Pins Secured		d Pins Secured	
☐ Safety Locks Functioning Properly ☐ Surrounding Area and Lift Clean In Appearance		d Lift Clean In Appearance	
☐ Check For Hydraulic Leaks ☐ Proper Operation, Maintenance and Safety Explaine		aintenance and Safety Explained	
Oil Level	☐ Oil Level ☐ Operation and Safety Manual(s) Left at Site		
I, (the undersigned) confirm that the above installation procedure(s) were completed. I understand that I will be responsible for maintaining this equipment as outlined in the accompanied <i>Installation and Operation Manual</i> and <i>ANSI/ALI ALOIM Safety Requirements for Operation, Inspection and Maintenance</i> . I understand that personal injury and/or damage to property can occur if the above equipment model(s) are not maintained or used improperly and take full responsibility for training my employees on proper use and maintenance of this equipment. I hold the manufacturer and installation company harmless of all liability for losses, damages (including loss of use), expenses, demands, claims, and judgments in connection with or related to improper use, improper training, or lack of required maintenance. I understand that the warranty does not cover replacement of parts worn or damaged due to normal use or lack of required maintenance			
Customer Signature:	Print	Name:	Date:
Installer Signature:	Print Name:		Date:
Installer Company Name:			
Street Address:			
City:		State:	Zip:
Phone:		Phone ( Other ):	







For Parts Or Service Contact:

BendPak Inc. / Ranger Products 1645 Lemonwood Dr. Santa Paula, CA. 93060

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Fax: 1-805-933-9160

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