

#### IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

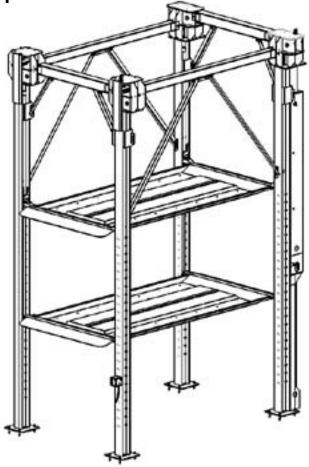
PLEASE READ THE ENTIRE CONTENTS OF THIS MANUAL PRIOR TO INSTALLATION AND OPERATION. BY PROCEEDING WITH LIFT INSTALLATION AND OPERATION YOU AGREE THAT YOU FULLY UNDERSTAND AND COMPREHEND THE FULL CONTENTS OF THIS MANUAL. FORWARD THIS MANUAL TO ALL OPERATORS. FAILURE TO OPER-ATE THIS EQUIPMENT AS DIRECTED MAY CAUSE INJURY OR DEATH. MAN REV A 01/04/12

P/N 5900223

#### INSTALLATION AND OPERATION MANUAL

14,000 POUND CAPACITY TRIPLE STACKER **PARKING LIFT** 

**MODELS:** PL-14000





#### **RECEIVING**

The shipment should be thoroughly inspected as soon as it Your new lift was designed and built with safety in mind. is received. The signed Bill of Lading is acknowledgement by the shipping carrier as receipt of this product as listed in your invoice as being in a good condition of shipment. If any of these goods listed on this Bill of Lading are missing or damaged, do not accept goods until the shipping carrier makes a notation on the freight bill of the missing or damaged goods. Do this for your own protection.

#### **BE SAFE**

However, your overall safety can be increased with 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. Keep this operation manual near the lift at all times. Make sure that ALL USERS read and understand this manual.



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

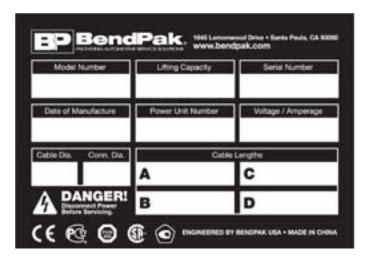
Tel: 1-805-933-9970 Fax: 1-805-933-9160 wwwbendpak.com

#### 14,000 POUND CAPACITY TRIPLE STACKER PARKING LIFTS

This instruction manual has been prepared specifically for you. Your new lift is the product of over 40 years of continuing research, testing and development; it is the most technically advanced lift on the market today.

READ THIS ENTIRE MANUAL BEFORE INSTALLATION & OPERATION BEGINS.

RECORD THE LIFT AND POWER UNIT INFORMATION HERE. YOU MAY FIND THIS INFORMATION LOCATED ON THE SERIAL NUMBER DATA PLATE AND POWER UNIT DATA PLATE



This information will be required when calling for parts or warranty issues.

Only replace parts with BendPak approved parts.

#### PRODUCT WARRANTY

BendPak parking lifts are covered under warranty for five years on equipment structure, to be free of defects in material and workmanship. Power units, hydraulic cylinders, and all other assembly components (such as cables, chains, valves, switches etc.) are warrantied for one year against defects in material or workmanship under normal use. BendPak Inc. shall repair or replace at its discretion, within 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, negligence, 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 a forklift or cranes. Stay clear of any moving parts that can fall and cause injury. These instructions must be followed to ensure 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 as it means: Immediate hazards which will result in severe personal injury or death.



#### **WARNING!**

Watch for this symbol as it means: Hazards or unsafe practices which could result in severe personal injury or death.



#### **CAUTION!**

Watch for this symbol as 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.

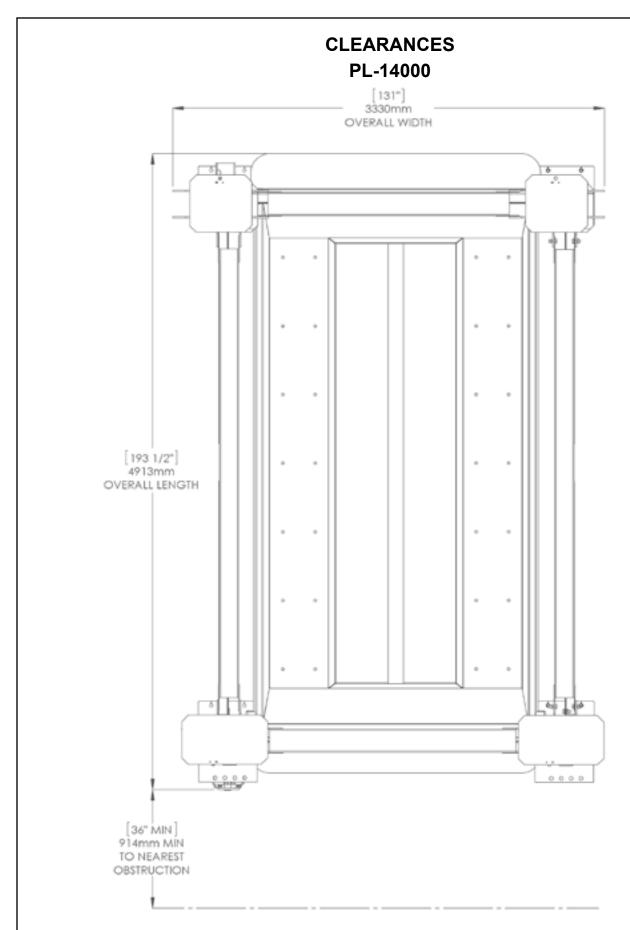
#### **BEFORE YOU BEGIN**

**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. Support claim with copies of the bill of lading, freight bill, invoice, and photographs, if available. BendPak's 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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LIFT HEIGHT CLEARNACE NOTE: There must be a 3" MIN distance from the top of the parking lift to the nearest obstruction or ceiling.

# 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 BendPak 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-2006, 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 is 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. Contact factory for outdoor use requirements. 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 the entire manual prior to installation.
Do not operate this machine until you have read and have understood all of the Danger, Warning and Caution alerts in this manual. For additional copies or further information, contact:

#### BendPak Inc.

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 the technician's hands when handling parts. Sturdy leather steel-toe work shoes 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. Electrical work should be performed only by a certified electrician.

#### **IMPORTANT SAFETY INSTRUCTIONS**

Read these safety instructions entirely. 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 may fall and cause injury. When using your garage equipment, basic safety precautions should always be followed, including the following:

- 1. Read and understand all instructions and all safety warnings before operating lift.
- 2. Care must be taken as burns can occur from touching hot parts.
- 3. Do not operate equipment with a damaged cord or if the equipment has been dropped or damaged until it has been examined by a qualified service person.
- 4. If an extension cord is necessary, a cord with a current rating equal to or more than that of the equipment should be used. Cords rated for less current than the equipment may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
- 5. Always unplug equipment from electrical outlet when not in use. Never use the cord to pull the plug from the outlet. Grasp plug and pull to disconnect.
- 6. To reduce the risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids (gasoline).
- 7. Adequate ventilation should be provided when working on operating internal combustion engines.
- 8. Keep hair, loose clothing, fingers, and all parts of body away from moving parts. Keep feet clear of lift when lowering. Avoid pinch points.
- 9. DANGER! To reduce the risk of electric shock, do not use on wet surfaces or expose to rain. The power unit used on this lift contains high voltage. Disconnect power at the receptacle or at the circuit breaker switch before performing any electrical repairs. Secure plug so that it cannot be accidentally plugged in during service, or mark circuit breaker switch so that it cannot be accidentally switched on during service.



- 10. Use only as described in this manual. Use only manufacturer's recommended attachments.
- 11. ALWAYS WEAR SAFETY GLASSES. Everyday eyeglasses only have impact resistant lenses, they are not safety glasses.
- 12. Consider work environment. Keep work area clean. Cluttered work areas invite injuries. Keep areas well lit.
- 13. Guard against electric shock. This lift must be grounded while in use to protect operator from electric shock. Never

- connect the green power cord wire to a live terminal. This is for ground only.
- 14. Only trained operators should operate this lift. All non-trained personnel should be kept away from the work area. Never let non-trained personnel come in contact with, or operate lift.
- 15. DO NOT override self-closing lift controls.
- 16. Clear area if vehicle is in danger of falling.
- 17. ALWAYS make sure the safeties are engaged before attempting to work on or near a vehicle.
- 18. 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



- 19. 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.
- 20. Check for damaged parts. Check for alignment of moving parts, breakage of parts or any condition that may affect operation of lift. Do not use lift if any component is broken or damaged.
- 21. NEVER remove safety related components from the lift. Do not use lift if safety related components are missing or damaged.
- 22. STAY ALERT. Use common sense and watch what you are doing. Remember, SAFETY FIRST.
- 23. Installation of this lift requires lifting of very heavy components. Be sure to use the correct lifting tools such as forklifts or cranes to position components. Pay attention to components position once components are lifted. Once lifted, components are falling hazards. Failure to use the correct lifting tools or to pay attention during lifting may result in personal injury or death. A minimum of a two person installation team is recommended for safe lifting practices.

#### SAVE THESE INSTRUCTIONS

#### **TOOLS REQUIRED**

- ♦ Rotary Hammer Drill or Similar
- ♦ 3/4" Masonry Bit
- ♦ Hammer
- ♦ 4 Foot Level
- ♦ Open-End Wrench Set: SAE/Metric
- ♦ Socket And Ratchet Set: SAE/Metric
- ♦ Hex-Key / Allen Wrench Set
- ♦ Large Crescent Wrench
- ♦ Large Pipe Wrench

- Crow Bar
- ♦ Chalk Line
- ♦ Medium Phillips Screwdriver
- ♦ Tape Measure: 25 Foot Minimum
- ♦ Needle Nose Pliers
- ♦ Tall Forklift
- ♦ Tall Crane
- ◆ Tall man lift: 18 Foot minimum rise

#### **IMPORTANT NOTICE**

THESE INSTRUCTIONS MUST BE FOLLOWED TO ENSURE 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 architectural plans when available. Check the layout dimension against the floor plan 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.

# 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** PL-14000 **CONCRETE REQUIREMENTS**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 FOR A MINIMUM OF 28 DAYS.

#### **IMPORTANT NOTE**

BendPak lifts are supplied with installation instructions and concrete fasteners meeting the criteria as prescribed by the American National Standard "Automotive Lifts - Safety Requirements for Construction, Testing, and Validation" ANSI/ALI ALCTV-2006. Lift buyers are responsible for 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).

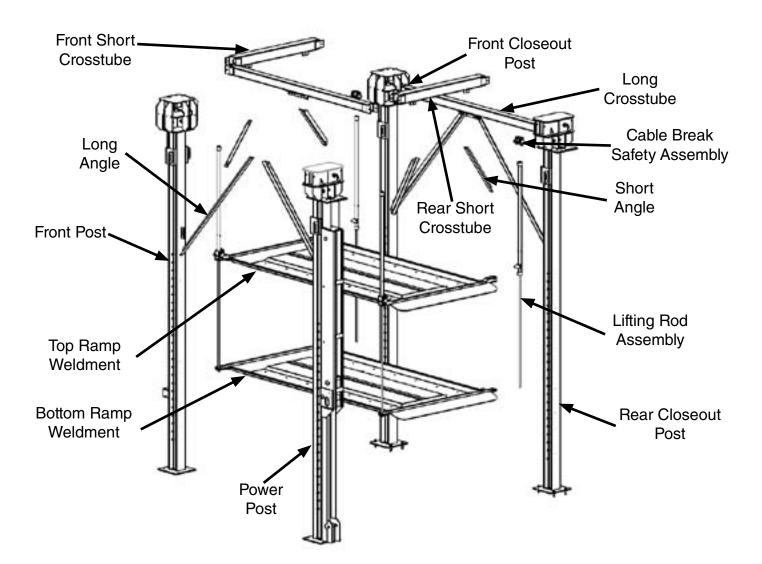


When removing the lift from shipping angles, pay close attention as the ramps and posts can slide and can cause injury. Prior to removing the bolts make sure the ramps and posts are held securely by a fork lift or some other heavy lifting device.

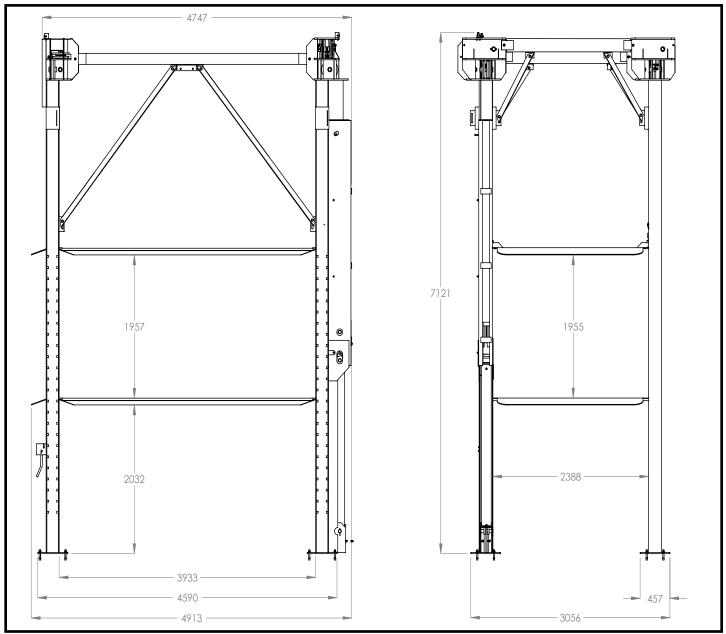
#### **PARTS INVENTORY**

Be sure to take a complete inventory of parts prior to beginning installation.

Description	Qty	Description	Qty
Power Post	1	Parts Bag (Packaged in Part Box)	1
Front Post	1	Lifting Rod Assembly	4
Front Closeout Post	1	Long Angle	4
Rear Closeout Post	1	Short Angle	4
Top Ramp Weldment	1	Cable Break Safety Assembly	4
Bottom Ramp Weldment	1		
Rear Short Crosstube	1		
Front Short Crosstube	1		
Long Crosstube	1		
Parts Box (Packing List Enclosed)	1		



#### FLOOR PLAN / GENERAL SPECIFICATIONS



PL-14000 GENERAL SPECIFICATIONS	
Lifting Capacity	14,000 lbs / 6,350 Kg.
Max capacity / Top Ramp	7,000 lbs. / 3,175 kg
Max capacity / Top Ramp Front Axle	3,500 lbs. / 1,588 kg
Max capacity / Top Ramp Rear Axle	3,500 lbs. / 1,588 kg
Max capacity / Bottom Ramp	7,000 lbs. / 3,175 kg
Max capacity / Bottom Ramp Front Axle	3,500 lbs. / 1,588 kg
Max capacity / Bottom Ramp Rear Axle	3,500 lbs. / 1,588 kg
Ramp Locking Positions	94
Lock Spacing	Every 6"/152mm
Lifting Time	45 Seconds
Standard Motor (**)	220 VAC / 60Hz 1 Ph.
** Special Voltages Available upon Request.	
The design, material and specifications are subject to change without notice.	

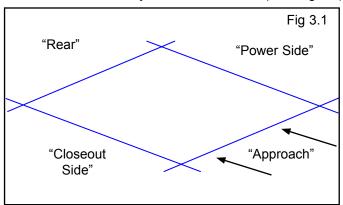
# STEP 3 (Closeout Side Post Installation)



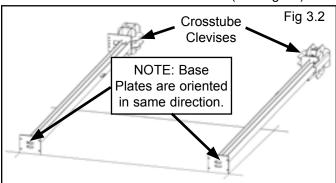
#### **WARNING!**

THIS STEP REQUIRES LIFTING OF VERY HEAVY COMPONENTS. BE SURE TO USE THE CORRECT LIFTING TOOLS SUCH AS FORKLIFTS OR CRANES TO POSITION COMPONENTS. PAY ATTENTION TO COMPONENTS POSITION ONCE COMPONENTS ARE LIFTED. ONCE LIFTED, COMPONENTS ARE FALLING HAZARDS. FAILURE TO USE THE CORRECT LIFTING TOOLS OR TO PAY ATTENTION DURING LIFTING MAY RESULT IN PERSONAL INJURY OR DEATH. A MINIMUM OF A TWO PERSON INSTALLATION TEAM IS RECOMMENDED FOR SAFE LIFTING PRACTICES.

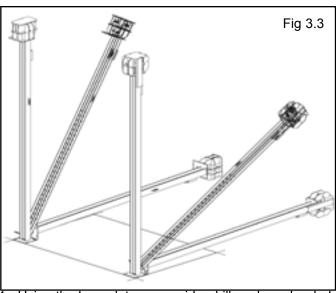
1. Place a chalk lines on the floor according to the floor plan layout. Be sure to take correct "Rear" clearance spacing into consideration for the Hydraulic Power Unit. (See Fig 3.1)



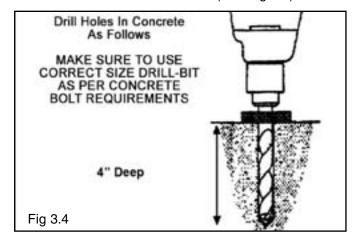
2. Locate the Front and Rear Closeout Posts. Using a forklift or crane lay them next to each other on the floor oriented so that the base plates are on the same side and the Crosstube Clevises are oriented inward. (See Fig 3.2)



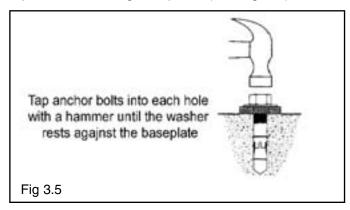
3. Using a forklift or crane, lift the Rear Closeout Post upright and place it into position on the "Rear - Closeout Side" using the chalk lines that were marked earlier in this step. DO NOT remove forklift or crane once post is upright. (See Fig 3.3)



4. Using the baseplate as a guide, drill each anchor hole in the concrete approximately 4" deep using a rotary hammer drill and 3/4" concrete drill-bit. (See Fig 3.4)



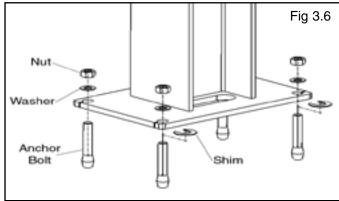
- 5. After drilling the anchor holes, remove the dust thoroughly from each hole using compressed air and/or wire brush.
- 6. Assemble the washers and nuts on the anchors then tap into each hole with a hammer until the washer rests against the base. Be sure that enough threads are left exposed, if shimming is required. (See Fig. 3.5)



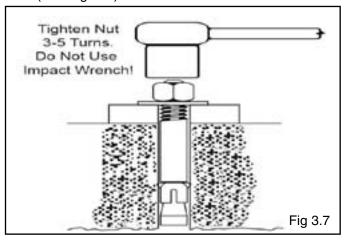
7. If shimming is required, insert the shims as necessary around each anchor bolt. (See Fig. 3.6)

#### **NOTE:**

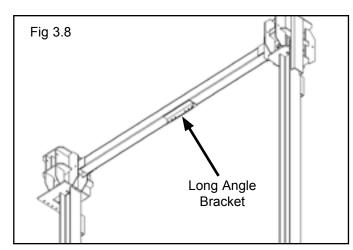
THE MAXIMUM SHIM THICKNESS RECOMMENDED BY THE FACTORY IS NO MORE THAN 1/2" PER COLUMN USING SHIMS AND ANCHORS PROVIDED WITH THE LIFT. A MAXIMUM SHIM THICKNESS OF 2" IS POSSIBLE BY ORDERING OPTIONAL SHIM PLATES. CONTACT YOUR AUTHORIZED BENDPAK DISTRIBUTOR FOR ORDERING INFORMATION.

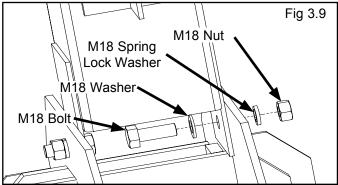


- 8. Using a three-foot level, make sure the Post is plumb.
- 9. With the shims and anchor bolts in place, and the post determined to be level, tighten nut three to five turns past finger tight. DO NOT use an impact wrench for this procedure. (See Fig. 3.7)

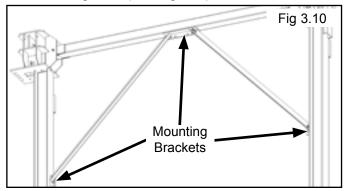


- 10. The forklift or crane may now be removed.
- 11. Repeat Steps 3 10 for the Front Closeout Post.
- 12. Locate one of the Long Crosstubes and slide the Crosstube Endplates in between the Crosstube Clevises and align the thru holes. Make sure the Long Angle Bracket faces towards the Base Plates. (See Fig. 3.8)
- 13. Install the supplied M18 bolts, washers, spring lock washers, and nuts to securely fasten the Long Crosstube to the Rear Closeout Post and Front Closeout Post. (See Fig. 3.9)

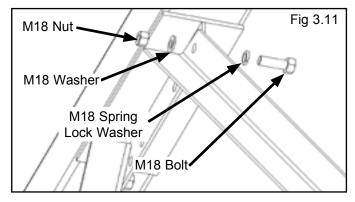




14. Place two Long Angles on to the Long Angle Brackets of the Posts and the Crosstube and align the Long Angle mounting holes with the Crosstube mounting holes and Post mounting slots. (See Fig 3.10)



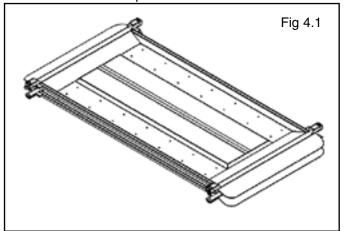
15. Install the supplied M18 bolts, spring lock washers, and nuts to securely fasten the Long Angles to the Close-out Side Posts and Long Crosstube. (See Fig. 3.11)



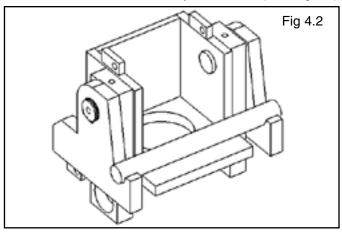
STEP 4 (Ramp Assembly)

1. Locate the Bottom and Top Ramp Weldments. Using a forklift, lift the Top Ramp Weldment and set the ramp down onto the Bottom Ramp Weldment. It may be helpful to set the ramps down on to wood blocks to help unload the ramps from the forklift. (See Fig 4.1)

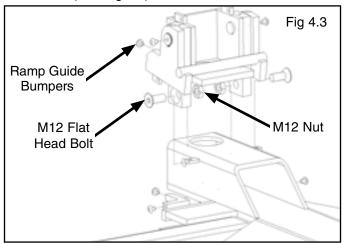
NOTE: When fully assembled the Top Ramp Weldment will fit into the Bottom Ramp Weldment.



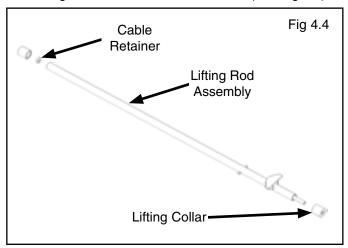
2. Locate the Cable Break Safety Assemblies. (See Fig 4.2)



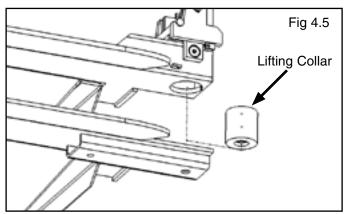
3. Align the mounting holes of the Cable Break Safety Assemblies with the mounting holes of the Top Ramp Weldment. Fasten the two components together using the provided M12 hardware. Insert the Ramp Guide Bumpers at this time. (See Fig 4.3)



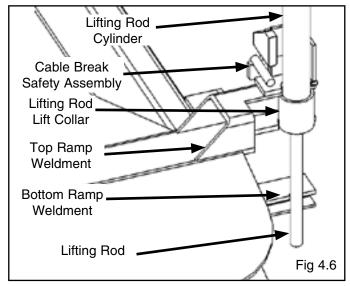
4. Locate the Lifting Rod Assemblies and disassemble the both Lifting Collars and the Cable Retainer. (See Fig 4.4)



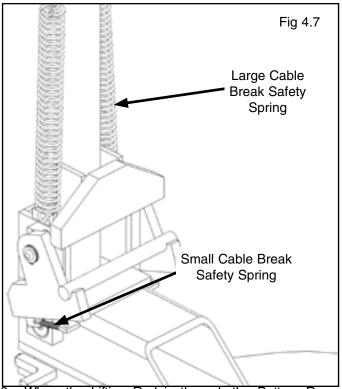
5. Insert the bottom Lifting Collars through the bottom of the Top Ramp Weldment. Align the thru holes of the Lifting Collars with the Connector Channel hole. (See Fig 4.5)



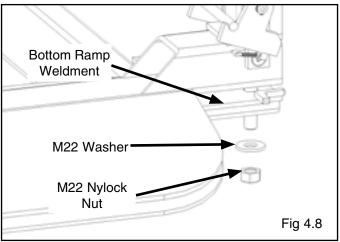
6. Take the Lifting Rod Assemblies that were disassembled in Item 5 and align the rod and cylinder with the thru holes of the Cable Break Safety Assembly and the two ramps. Hold the Lifting Collar in place as the Lifting Rod Cylinder is threaded on. (See Fig 4.6)



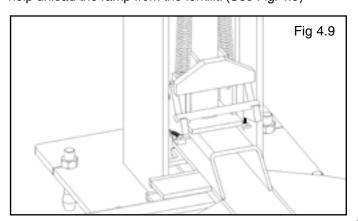
7. Attach the large and small Cable Break Safety Springs as shown in Fig 4.7.



8. When the Lifting Rod is through the Bottom Ramp Weldment fasten a nylock nut and washer to the end of each Lifting Rod. (See Fig 4.8)

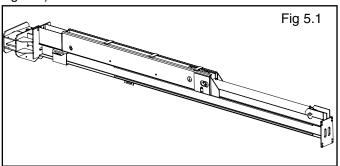


9. Using a forklift, lift the Ramp Weldments and move them so that the ends of the Ramp Weldments fit inside of the posts. It may be helpful to set the ramps on wood blocks to help unload the ramp from the forklift. (See Fig. 4.9)

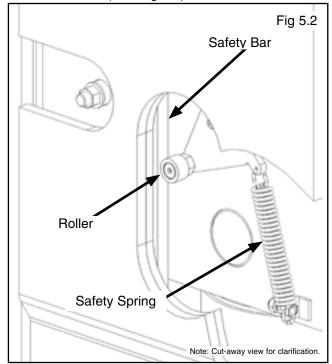


# STEP 5 (Power Side Post Installation)

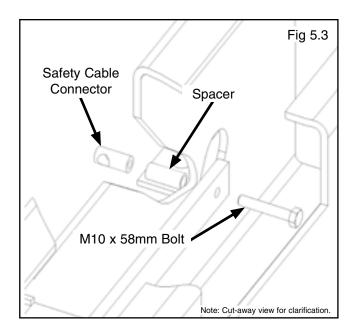
1. Locate the Power Post, easily identified by the cylinder assembled in the post or the Sheave Pullbox mounted inside of the post. Orient the Power Post so that the Sheave Pullbox Glide Channel is easily accessible. (See Fig. 5.1)



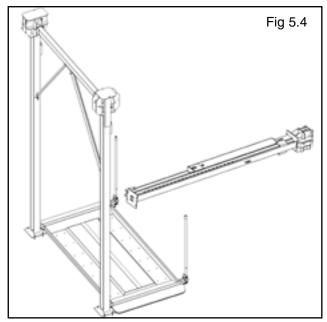
2. Inspect the ends of the Safety Spring inside the Sheave Pullbox as shown. Make sure the spring ends are secure at both ends. DO NOT ATTEMPT TO RAISE THE LIFT UNTIL THE SAFETY SPRING IS ATTACHED AND THE ROLLER IS PULLED TOWARDS THE SAFETY BAR BY THE SPRING. (See Fig 5.2)



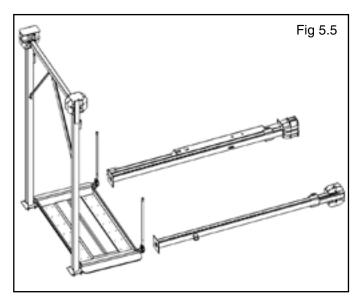
3. Locate the Safety Cable Connector, spacer and bolt in the parts bag. Assemble them through the top hole of the safety bar as shown in Figure 5.3.



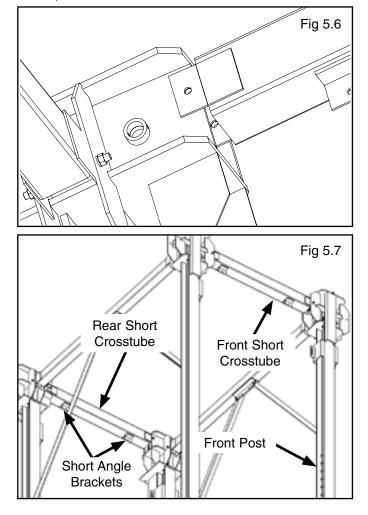
4. Position the Power Post so that the post is laying on its side with the cylinder side facing to the rear. It may be helpful to position this post relatively close to its final position to ease installation later. (See Fig. 5.4)



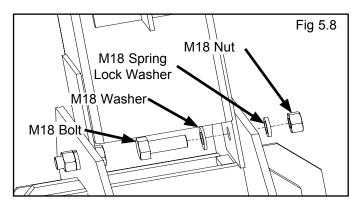
- 5. Position the Front Post so that the post is laying on its side with the Control Box facing to the Approach Side. It may be helpful to position this post relatively close to its final position to ease installation later. (See Fig. 5.5)
- 6. Follow procedures of Step 3 (Closeout Side Post Installation) for the Power Side Posts then continue to the next item.



7. Locate the Front and Rear Short Crosstubes and slide the Crosstube Endplates in between the Crosstube Clevises and align the thru holes. Make sure the Short Angle Bracket faces towards the Base Plates. (See Fig. 5.6-5.7)

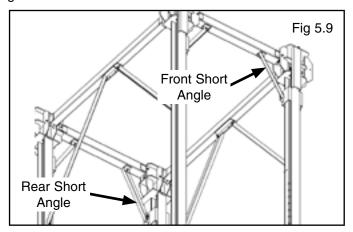


8. Install the supplied M18 bolts, washers, spring lock washers, and nuts to securely fasten the Short Crosstubes to the Power Post and Front Post. (See Fig. 5.8)

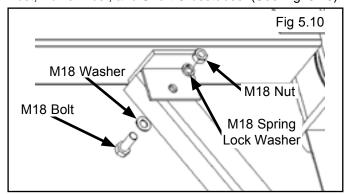


9. Place Short Angles on to the Short Angle Brackets of the Posts and the Crosstube and align the Short Angle mounting holes with the Crosstube mounting holes and Post mounting slots. (See Fig 5.9)

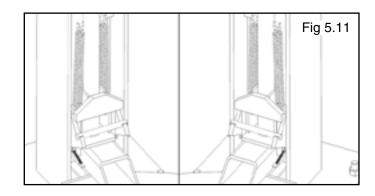
NOTE: There are two Front Short Angles and two Longer Rear Short Angles. Make sure that the Longer Short Angles are installed at the REAR of the lift.



10. Install the supplied M18 bolts, spring lock washers, and nuts to securely fasten the Short Angles to the Front Post, Power Post, and Short Crosstubes. (See Fig. 5.10)



11. Make sure both ramp tabs are aligned inside both posts. (See Fig 6.9)



- 14. Using a three-foot level, make sure the Power Side and Front Posts are plumb.
- 15. Using the base of the frame as a guide, drill each anchor hole and anchor the Power Side and Front Posts following the procedures at the end of Step 3 (pg 12-13). Shim posts if necessary.
- 16. The forklift or crane may now be removed.

# STEP 6 (Cable / Sheave Installation)



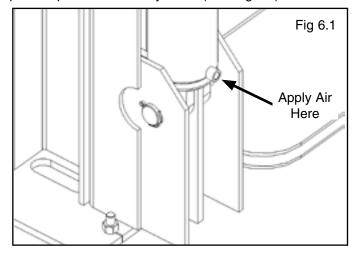
#### **WARNING!**

**DO NOT** EXCEED 50 PSI. IF CYLINDER DOES NOT MOVE IMMEDIATELY **STOP** AND USE A COME-ALONG OR OTHER PULLING DEVISE. KEEP HANDS CLEAR.

#### WARNING!

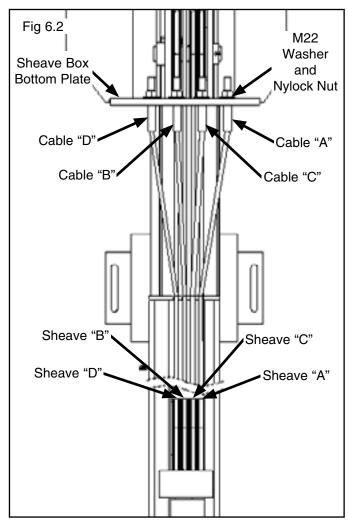
TAKE CARE TO NOT DAMAGE THE CHROME ROD DURING THIS STEP. DAMAGING THE CHROME ROD WILL VOID WARRANTY.

1. In order to install the cables, it is necessary to first extend the HYDRAULIC CYLINDER. Remove both cylinder port plugs, then use an rubber tipped air gun or ratcheting pull-strap to extend the cylinder. (See Fig 6.1)

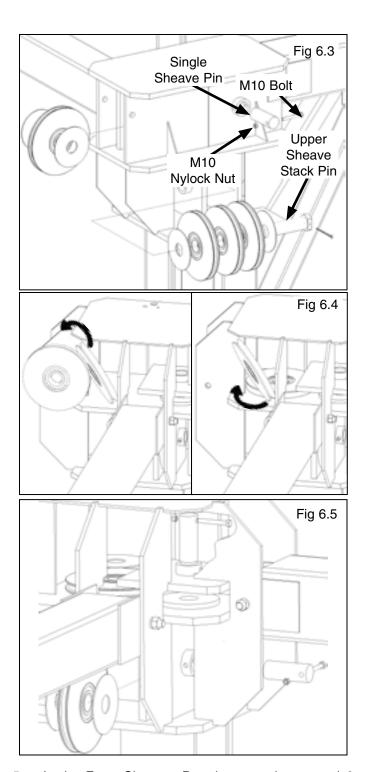


2. Once cylinder is extended, attach cables by anchoring the threaded end connectors through the Sheave Box Bottom Plate along with the provided M22 hardware. Use the diagram below to route the cables around the correct sheaves. Route cables from outside of sheave to inside post. (See Fig 6.2)

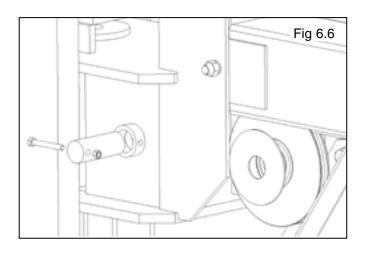
# NOTE: THE CABLES ARE NAMED IN ORDER FROM THE SHORTEST (A) TO THE LONGEST (D).

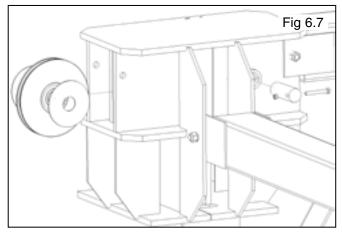


- 3. Before the cables can be installed the 8 sheaves must be installed. Insert 3 sheaves and 2 spacers into the bottom part of the Power Post Sheave Box and secure the sheaves with the Upper Sheave Stack Pin. Then insert 1 sheave and 2 spacers into the upper part of the Sheave Box and slide it towards the interior of the lift. Secure the top sheave with the Single Sheave Pin. Install the supplied M10 bolt and nylock nut to securely fasten the pin. (See Fig 6.3)
- 4. To install the horizontally oriented sheave in the Front Post Sheave Box tilt it at an angle as it is slid in and rotate it once it is inside the Sheave Box. Then insert 2 sheave spacers and install the Single Sheave Pin vertically and bolt in place. Insert the lower sheave through the back of the Sheave Box with 2 spacers and secure with Single Sheave Pin and hardware. (See Fig 6.4-6.5)



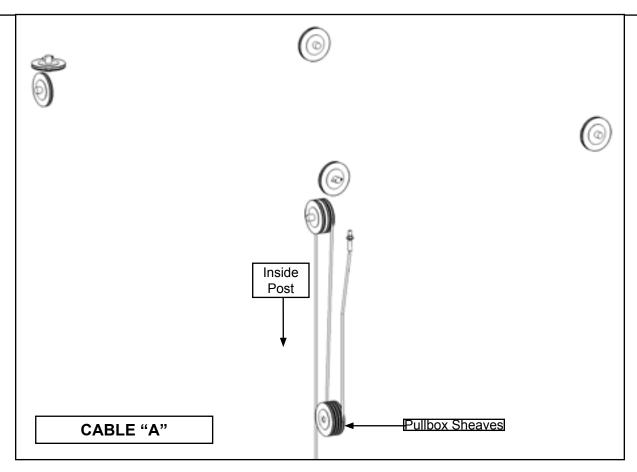
- 5. In the Front Closeout Post insert a sheave and 2 spacers into the lower part of the Sheave Box from the side of the Sheave Box and secure with a Single Sheave Pin and bolt in place. (See Fig 6.6)
- 6. In the Rear Closeout Post insert a sheave and 2 spacers into the upper part of the Sheave Box from the outside of the Sheave Box and slide it towards the interior of the lift. Secure with a Single Sheave Pin and bolt in place. (See Fig 6.7)

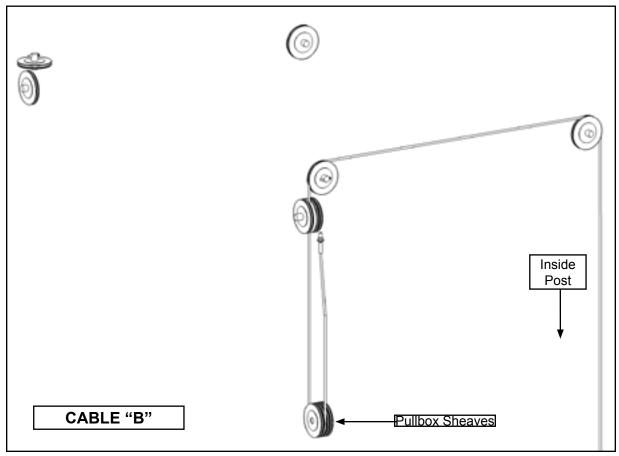




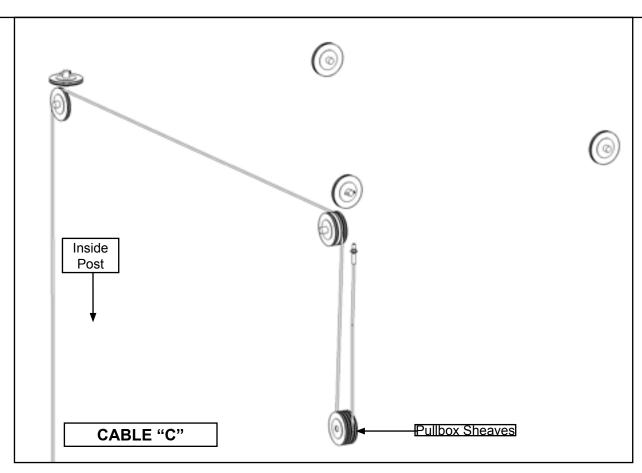
7. Once the Cables are anchored to the Power Post and the sheaves are installed in the correct positions, route the plug end of each cable over the sheaves in the Power Post Sheave Box and over the sheaves as indicated in the Lifting Cable Routing Diagram on the following pages.

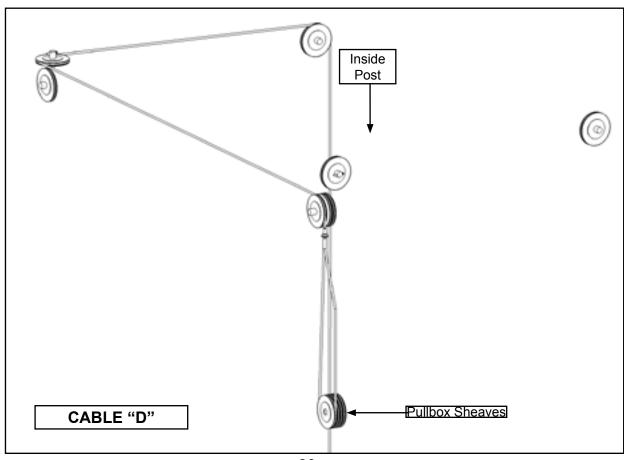
#### PL-14000 LIFTING CABLE ROUTING DIAGRAM



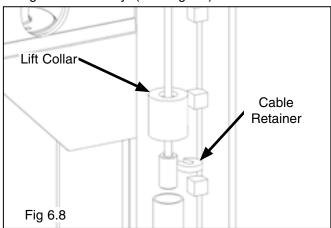


#### PL-14000 LIFTING CABLE ROUTING DIAGRAM CONTINUED

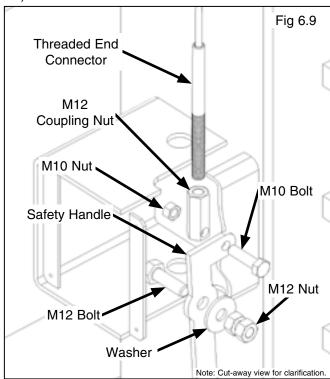




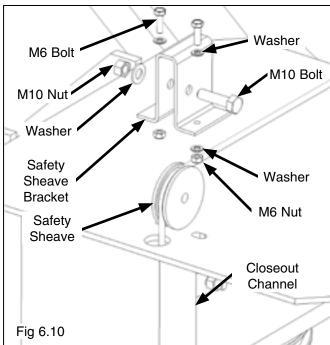
8. Locate the remaining top Lift Collars and Cable Retainers from the Lifting Rod Assemblies that were disassembled in Step 4: Ramp Assembly. Put the plug end of a lifting cable assembly through the small hole in a Lift Collar and place a Cable Retainer around the cable at the plug. Then thread the Lift Collar onto the top of the Lifting Rod Assembly. (See Fig 6.8)



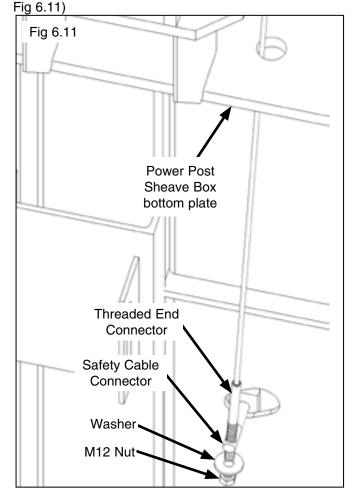
- 9. Repeat Item 8 for each cable.
- 10. Locate the remaining cable with two Threaded End Connectors. Assemble the Safety Handle in the Front Post Control Box as shown. Do not over tighten the fasteners. The Coupling Nut and Safety Handle must be able to rotate freely to ensure proper operation. (See Fig 6.9)



11. Attach a Safety Sheave Bracket and Safety Sheave to the top of the Front Post with the M6 and M10 hardware. Route the Safety Cable up the Front Post, through the Closeout Channel and around the Front Post Safety Sheave. (See Fig 6.10)



12. Attach a Safety Sheave Bracket and Safety Sheave to the top of the Power Post. Route the Safety Cable across the top of the Power Side Long Crosstube, down through the hole in the bottom plate of the Power Post Sheave Box, and through the Safety Cable Connector. Pull the Threaded End Connector through the cable connector so that any slack is taken out of the Safety Cable and secure it with an M12 nut and washer. (See

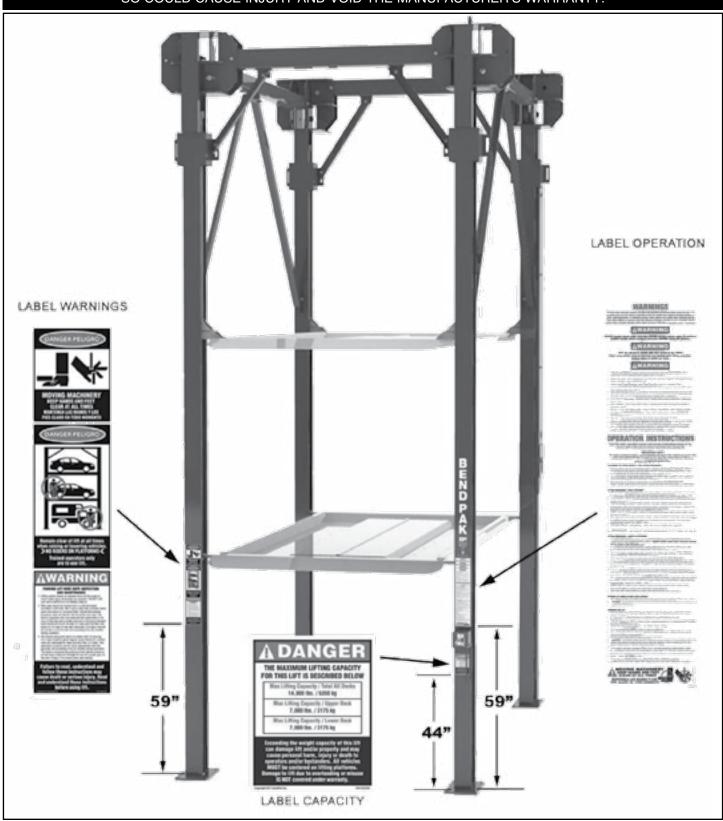


# FOUR-POST LIFT POWER POST SAFETY LABEL PLACEMENT GUIDELINES



#### **WARNING!**

DO NOT REMOVE LABELS. IF LABELS ARE REMOVED OR ILLEGIBLE, REPLACE IMMEDIATELY. FAILURE TO DO SO COULD CAUSE INJURY AND VOID THE MANUFACTURER'S WARRANTY.





#### **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.



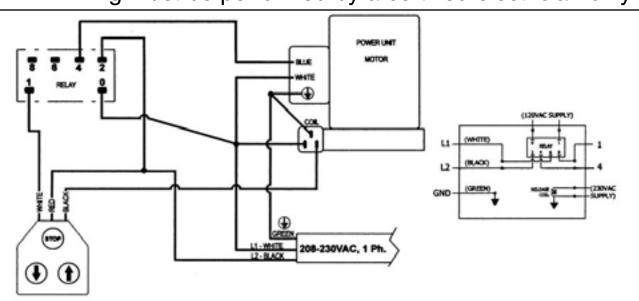
# IMPORTANT POWER-UNIT INSTALLATION NOTES

- DO NOT run power unit without 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 connection can damage motor and will not be covered under warranty.
- Motor can not run on 50HZ without a physical change in the 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.

#### Installation and adjustment.

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

#### All wiring must be performed by a certified electrician only.



SEE WIRING INSTRUCTIONS AFFIXED TO MOTOR FOR PROPER WIRING INSTRUCTIONS.

# STEP 7 (Power Unit Electrical Connection)



#### **DANGER!**

ALL WIRING MUST BE PERFORMED BY A LICENSED ELECTRICIAN.





#### **DANGER!**

DO NOT PERFORM ANY MAINTENANCE OR INSTALLATION OF ANY COMPONENTS WITHOUT 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.

1. Have a certified electrician run the power supply to motor and wire solenoids (where appropriate) and the Control Panel. Refer to the data plate found on the motor for proper power supply and wire size. SEE WIRING INSTRUCTIONS AFFIXED TO MOTOR FOR PROPER WIRING INSTRUCTIONS.



#### **WARNING!**

DO NOT RUN POWER UNIT WITHOUT OIL. DAMAGE TO POWER UNIT 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.

OPERATE LIFT ONLY BETWEEN TEMPERATURES OF 41 °- 104° F. 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 THE MOTOR.

USE A SEPARATE CIRCUIT BREAKER FOR EACH POWER UNIT. PROTECT EACH CIRCUIT WITH TIME DELAY FUSE OR CIRCUIT BREAKER.

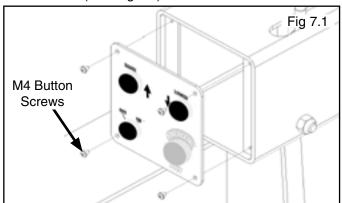
FOR 208-230 VOLT, SINGLE PHASE, USE A 25 AMP FUSE. FOR 208-230 VOLT, THREE PHASE, USE A 20 AMP FUSE. FOR 380-440 VOLT, THREE PHASE, USE A 15 AMP FUSE.



#### 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.

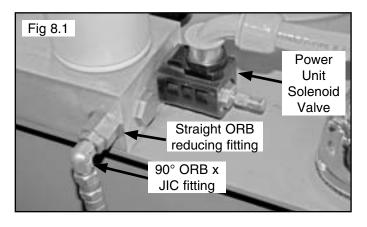
2. After Control Panel electrical connection the panel may be secured to the Front Post with the supplied button head screws. (See Fig 7.1)



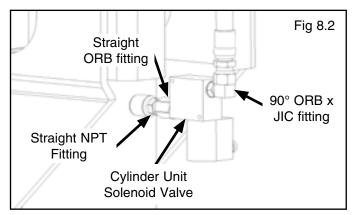
# STEP 8 (Hydraulic Fittings)

For a Multiple Unit installation -

- 1. Locate the hydraulic fittings and solenoid valves.
- 2. Connect the Hydraulic Hose, 90° ORB x JIC fitting, straight ORB reducing fitting and the power unit solenoid valve to the ports in the Power Unit. DO NOT USE TEFLON TAPE on the JIC flared end. (See Fig 8.1)

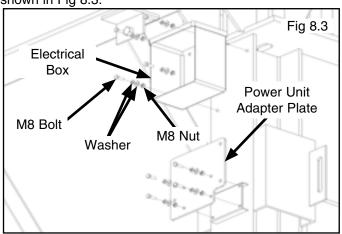


3. Connect the straight NPT fitting, straight ORB x NPT fitting, cylinder solenoid valve and 90° ORB x JIC fitting to the upper cylinder port. On the pipe thread (NPT) side of the Fitting it is recommended to use Teflon tape or pipe sealer. DO NOT USE TEFLON TAPE on the JIC flared end. (See Fig 8.2)

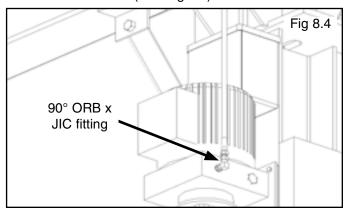


For a Single Unit installation -

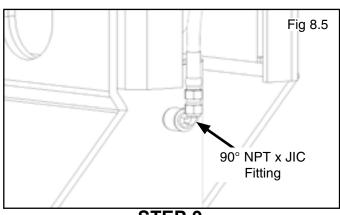
1. Attach the electrical box and power unit adapter plate to the Power Post using the provided M8 hardware as shown in Fig 8.3.



2. Connect the Hydraulic Hose and  $90^{\circ}$  ORB x JIC fitting to the port in the Power Unit. DO NOT USE TEFLON TAPE on the JIC flared end. (See Fig 8.4)



3. Connect the 90° NPT x JIC fitting to the upper cylinder port. On the pipe thread (NPT) side of the Fitting it is recommended to use Teflon tape or pipe sealer. DO NOT USE TEFLON TAPE on the JIC flared end. (See Fig 8.5)



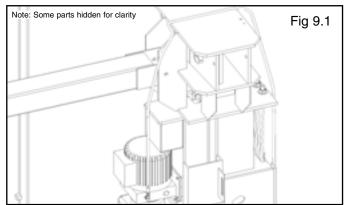
STEP 9 (Hydraulic Hose Routing)

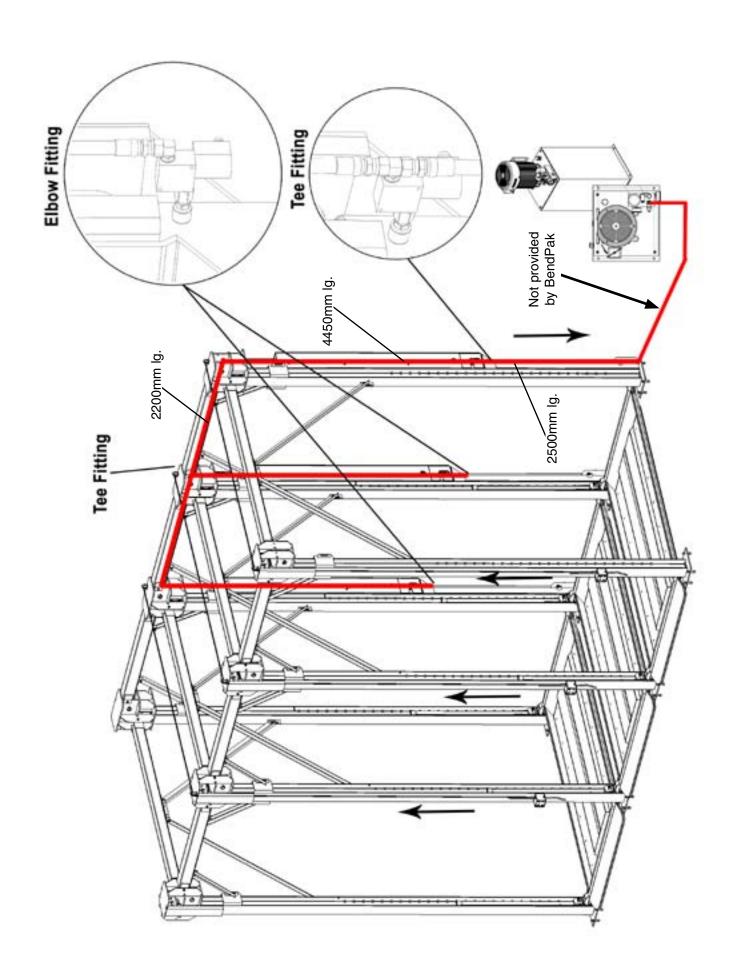
For a Multiple Unit installation -

1. See diagram on following page.

For a Single Unit installation -

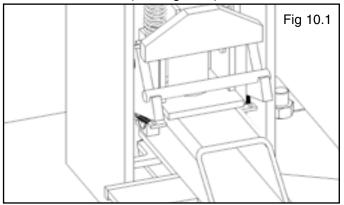
1. Rout the  $\emptyset$ 10 x 6680mm hydraulic hose over the top of the power post. (See Fig 9.1)



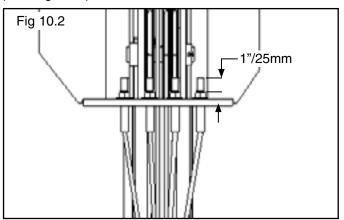


## STEP 10 (Lift Start Up / Final Adjustments)

- 1. Make sure the Power Unit reservoir is full with five (5) gallons of 10-WT hydraulic oil or Dexron-III automatic transmission fluid.
- 2. Spray the inside of the Sheave Pullbox Glide Channel where the Sheave Pullbox glides with a light spray-oil.
- 3. Test the Power Unit by turning the key switch to "ON" pressing the "RAISE" push button on the Control Panel. If the motor sounds like it is operating properly, raise the lift and check all hose connections for leaks. If the motor gets hot or sounds peculiar, stop and check all electrical connections.
- 4. Before proceeding, make sure all cables are properly positioned within the grooves of ALL sheaves. Make sure all Cable Sheave Pin Fasteners are secure.
- 5. Check to make sure that all Cable Break Safety locks are cleared and free. (See Fig. 10.1)



- 6. Continue pressing the "RAISE" button until the cables are taut and the lift starts to move.
- 7. Raise lift until the cylinder is fully retracted and the lift stops. Adjust each cable so that each corner of each ramp rests at 80" above the ground. It may be necessary to tighten or loosen each cable nut to reach the proper height. The cable nuts must be tightened until there is at least 1" of threading protruding from the top of the nut. (See Fig. 10.2)





#### DANGER!

VISUALLY CONFIRM THAT THE PRIMARY SAFETY ON THE BACK OF THE POWER POST IS ENGAGED BEFORE ENTERING WORK AREA. SUSPENSION COMPONENTS 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 THE PRIMARY SAFETY IS FULLY ENGAGED. REFER TO INSTALLATION / OPERATION MANUAL FOR PROPER SAFETY LOCK PROCEDURES AND / OR FURTHER INSTRUCTION.

#### STEP 11 (Bleeding the Cylinder)

- Lift must be fully lowered before changing or adding fluid.
- 2. Raise and lower lift six times. The cylinder is self-bleeding. After bleeding system, fluid level in Power Unit reservoir may be low. Add more fluid if necessary to raise lift to full height. It is only necessary to add fluid to raise lift to full height.
- 3. To pressure test, raise lift to full rise and run motor for approximately 3-seconds after lift stops. This will put pressure on the hydraulic system. Stop and check all fittings and hose connections. Tighten or reseal if required.

#### POST-INSTALLATION CHECKLIST

- Posts Properly Shimmed And Stable
- Anchor Bolts Tightened
- Pivot / Sheave Pins Properly Attached
- Electric Power Supply Confirmed
- Cables Adjusted Properly
- Safety Locks Functioning Properly
- Check For Hydraulic Leaks
- Oil Level
- Lubrication of Critical Components
- · Check For Overhead Obstructions
- Ramps Level
- · All Screws, Bolts, and Pins Secured
- Surrounding Area Clean
- Operation, Maintenance and Safety Manuals on Site

# STEP 12 (Operation)

#### To Raise Lift:

- 1. Position vehicle tires in the center of the lowest section of each ramp.
- Set parking brake.
- 3. Before raising vehicle, be sure all personnel are clear of the lift and surrounding area. Pay careful attention to overhead clearances.
- 4. Raise the lift to the desired height by pressing the RAISE push button on the Control Panel.
- 5. After vehicle is raised to the desired height, lower the lift until the primary safety engages. Do not allow cables to become slack. ALWAYS ENSURE THE SAFETY LOCK IS ENGAGED before entering work area.

#### To Lower Lift:

- 1. Before lowering vehicle, be sure all personnel are clear of the lift and surrounding area. Pay careful attention to overhead clearances. Ensure all tools and equipment have been cleared from under the lift.
- 2. Raise the lift off of the Safety Lock by pressing the RAISE push button on the Control Panel. Make sure you raise the lift by at least one inch to allow adequate clearance for the lock to clear.
- 3. Press the LOWER push button and HOLD.
- 4. Push the LOWER push button until the lift has descended completely.

#### **WEEKLY MAINTENANCE**

- 1. Lubricate all sheaves with general purpose spray-oil.
- 2. Check all cable connections, bolts, and pins to ensure proper mounting.
- Lubricate Safety Lock pivot points with general purpose spray-oil.

#### MONTHLY MAINTENANCE

- Check Safety Locks to ensure they are in good operating condition.
- 2. Check all cables for excessive signs of wear.
- Make a visual inspection of ALL MOVING PARTS and check for excessive signs of wear.
- 4. Replace ALL FAULTY PARTS before lift is put back into operation.
- NEVER EXCEED THE RATED CAPACITY of lift.
- DO NOT USE LIFT if any component is found to be defective or worn.
- NEVER OPERATE LIFT with any person or equipment below.
- ALWAYS STAND CLEAR of lift when lowering or raising.
- ALWAYS ENSURE SAFETY LOCKS ARE ENGAGED before entering work area.
- NEVER LEAVE LIFT IN ELEVATED CONDITION unless all four safety locks are engaged.

#### WIRE ROPE INSPECTION AND MAINTENANCE



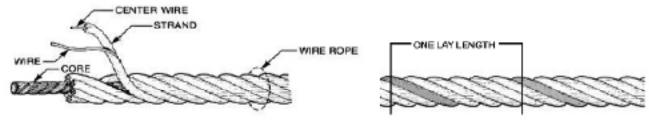
- ♦ Lifting cables should be replaced every three to five years or when visible signs of damage are apparent. **DO NOT USE LIFT WITH DEFECTIVE / WORN CABLES.**
- ♦ Lifting cables should be maintained in a well-lubricated condition at all times. Wire rope is only fully protected when each wire strand is lubricated both internally and externally. Excessive wear will shorten the life of the wire rope. The factory suggested wire rope lubricant that penetrates to the core of the rope and provides long-term lubrication between each individual strand is 90-WT gear oil or ALMASOL® Wire Rope Lubricant. In order to make sure that the inner layers of the rope remain well lubricated, lubrication should be carried out at intervals not exceeding three months during operation.
- ♦ All sheaves and guide rollers in contact with the moving rope should be given regular visual checks for surface wear and lubricated to make sure that they run freely. This operation should be carried out at appropriate intervals generally not exceeding three months during operation. For all sheave axles, the factory recommends standard wheel bearing grease. For all sheaves and/or guide rollers, the factory recommends 90-WT gear oil or similar heavy lubricant applied by any method including pump / spray dispensing, brush, hand and/or swabbing.

#### **HOW OFTEN TO INSPECT**

- ♦ Lifting cables should be visually inspected at least once each day when in use, as suggested by American Petroleum Institute (API) RP54 guidelines.
- Any lifting cable that has met the criteria for removal from service must be immediately replaced.

#### WHEN TO REPLACE LIFTING CABLES DUE TO BROKEN WIRES

♦ Lifting cables should be removed from service when you see six randomly distributed broken wires within any one lay length, or three broken wires in one strand within one lay length.



The three basic components of a typical wire rope.

#### OTHER REASONS TO REPLACE LIFTING CABLES

- ♦ Corrosion that pits the wires and/or connectors.
- ♦ Evidence of kinking, crushing, cutting, bird-caging or a popped core.
- ♦ Wear that exceeds 10% of a wire's original diameter.
- ♦ Evidence of heat damage.

#### **HOW TO FIND BROKEN WIRES**

- ♦ The first step is to relax your rope to a stationary position and move the pick-up points off the sheaves. Clean the surface of the rope with a cloth a wire brush, if necessary so you can see any breaks.
- Flex the rope to expose any broken wires hidden in the valleys between the strands.
- ♦ Visually check for any broken wires. One way to check for crown breaks is to run a cloth along the rope to check for possible snags.
- ♦ With an awl, probe between wires and strands and lift any wires that appear loose. Evidence of internal broken wires may require a more extensive rope examination.

#### 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 ensure 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.

#### Safe Lift Operation (Cont'd)



- ♦ **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 ENSURE** 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.

# A DANGER

# THE MAXIMUM LIFTING CAPACITY FOR THIS LIFT IS DESCRIBED BELOW

Max Lifting Capacity / Total All Decks 14,000 lbs. / 6350 kg

Max Lifting Capacity / Upper Deck 7,000 lbs. / 3175 kg

Max Lifting Capacity / Lower Deck 7,000 lbs. / 3175 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 centered on lifting platforms. Damage to lift due to overloading or misuse IS NOT covered under warranty.

Copyright 2011 BendPak Inc.

P/N 5935385

#### WARNINGS

and the order operation mental, survivings and operative instructions before using this Bit. If any archites achie as in the solidy or operation of this UK, certain your properly enough, hadding or lower affects of the control of the control order order. All any case audion when operating this bit, shows after of these or persons under the influence of these or about the case or maintain this Bit. Here in play, appropriate planning, and in order ones are all the Bits in impropriet word or maintained.

#### **∆WARNING**

AURENS double-check under clearunce BEFORE driving vehicle under 18t plufform. AURENS double-check overhood clearunce BEFORE relating 18t plufform.

#### AWARNING

REEP ALL OBJECTS, MANDS AND FIRST CLEAR AT ALL TIMES. place bands, arms or fact near any marring parts during operation. Serious injury or death case notice.

#### AWARNING

- eration manual, marrings and operation instructions before using this VII.
- NOSP resorbs iff unattended while purisity raised or lowered.
   Mesop use custom when operating the IRT. Never allow children or persons water the influence of these or also halfs use or marrier this 15.
- Seriosi Hjer, properly demage, and to shall can accor if this Hit is improperly used.
- Kesp hands and bed class. Remote hands and fortifican any moving parts. Yough set allow all MI safest learning. Acad parch points.
- Step training Anoth points;
   Step trained operation should operate this lift. All non-trained personnel about the legit away from uses area, from tot non-trained personnel come in contact with, or specials lift.
- Guard against static about. This HI must be provided while in use to protect the operator have
- Rub of explosion. This lift has internal acting or equating parts which should not be exposed to
- Mantan 88 with care, keep 97 dear for befor and safe performance, Follow manual for proper labituation and maintenance instructions. Keep control funding and/or further day, down and
- Stop steel with what you are being little corrector across and always be aware.
- Clock for descripting the Clock for alignment of moving parts, theretings of gather any condition that may affect such systems of the VE. Surviva are left any component is broken or designat.
   Now movement which restrict composite, instruction is a serving states. Do not use of if such years and the composite is received in the composite of moving.

#### OPERATION INSTRUCTIONS

#### IMPORTANT NOTE

The packed and lacked persists of the debensions the bright of the whiches that can be subsy-parted underworth the lift. Moles ause that you are using only whiches that are of the proper height for the parted and lacked ordings.

- PLACEMENT OF OPTIX REMILE. First CHING MOREOVER.

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  2. Direct of or may be in the case that cased profits or direct platform or until.

  3. Direct of or may, evapous which these, and plant the relativity pare velocities in high, it which is measured transversion, plant the transversion of the pure.

  4. What account Platform results of industriation will associate with the vertice long infant.

  5. Platform puredit withorness of the specialar currients and plant of all manning parts and peach purpose.

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   Survey operation, otherwise the electron content of the lift is exerned that are solely that the pear of the pear of
- ► IMPORTANT NOTE Action the ECO CHESCOLO STOP hadre to stop 15 specifies along line. ■

- LETTING PROCESSING / JAMES PLATFORMING)

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- Problem proved within reach of the operator controls and draw of all moving parts and pixels pixels, pixels to ensure that no objects are in the platform's way, and that no persons except for Mill specials
- are within 10 feet.

  A final and activities the 19900 ft hatter and hold with opper platforms reach the hood parked and following particular tradeout positions as excluding a stock from a highly disking sear of within it the search of the last flow regarding the lack-opposition.

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  So have well unter research platforms disciplination and other others banding virtuos.

#### REMOVAL OF LAWER PLANT LEVEL, VENCUE

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- character of the mechanists sale.

  Thissan the solidy so the pushing the Lucih Anissan Hands and hold.

  Area and actions the LEMERA II holdson to lover the platforms;

  When inversing it pushioms sharp for whether for diputs persons or animals that may wender under the lift putsion acting parties.

  Whether wassal contact with lift purties during oil operations.

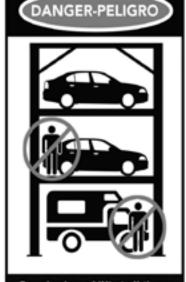
- 7. Washer visual contact-that if purharms during all questions.

  8. Machine in contact the lower is being as you have the LEMEN's) which are that contact all the second of the lower is being as you have the LEMEN's) which we chanted and the Lack.

  8. During descent, and when reconsery is park lift as a neit-test protect and including proteins, where the LEMEN's between treatment of the LEMEN's between t







Remain clear of lift at all times when raising or lowering vehicles. > NO RIDERS ON PLATFORMS **<** 

> Trained operators only are to use lift.



#### PARKING LIFT WIRE ROPE INSPECTION AND MAINTENANCE

- Lifting cables should be replaced every (5):
- when visible signs of damage are apparent. DO NOT USE LIFT WITH DEFECTIVE OR WORN CABLES. Were rope should be maintained in a well-subricated With rape should be maintained in a well-absociated condition at all times. When open is only fully protected when each wire strand is fubricated both internal and external. Exclassive wear will shorten the life of the wire rape. The factory suggests when one lifetiment that premises to the core of the rope and previoles long-form lubrication between each individual shrand. In order to make sure that the inner layers of the rope remain well barricated, burrication should be carried out at intervals not exceeding three (3) months device operating. during operation.
- All sheaves and guide rollers in contact with the mowith rape should be given regular visual stem on more participation with rape should be given regular visual shocks for surface were and lubricated to make sure that they run freely. This operation should be carried out at appropriate intervals penerally not exceeding three (3) moretise during operation. The factors recommends applying whee bearing operate similar heavy lubricand, through the use of a general gun, to the cork fittings of the sheave axies and sheaves.

Failure to read, understand and follow these instructions may cause death or serious injury. Read and understand these instructions before using lift.

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

#### POSSIBLE CAUSE

- 1. Air in oil, (1,2,8,12)
- 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, (7,13,11)
- 7. Pump damaged, (10,11)
- 8. Pump won't prime, (1,8,12,13,3,10,11)
- 9. Relief valve leaks, (10,11)
- 10. Voltage to motor incorrect, (7,13,11)

RE	MEDY	INSTRUCTION
1.	Check for proper oil level	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 if 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	. Contact BendPak Customer Support.
10.	Replace with new part	. Replace with new part.
11.	Return unit for repair	Return unit for repair.
12.	Inlet screen clogged	. Clean inlet screen or replace.
13.	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	

6. Return unit for repair . . . . . . . . . . . . . . . . . . Return unit for repair.

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

#### **POSSIBLE CAUSE**

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

REMEDY INSTRUCTION

I. See Installation Manual . . . . . . . . . . . . . . . . . . Contact BendPak Customer Support.

2. Replace with new part . . . . . . . . . . . . . . . . . . Replace with new part.

transmission fluid only. If ATF is contaminated, replace

with clean ATF and clean entire system.

6. Replace fitting with short thread lead . . . . . . . . . . . . . . . Replace fitting with short thread lead.

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

#### POSSIBLE CAUSE

- 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)

	MEDY Check oil level	INSTRUCTION The oil level should be up to the bleed screw in the
١.	Check on level	reservoir with the lift all the way down.
2.	Check/Tighten inlet tubes	Replace inlet hose assembly.
	Oil seal damaged or cocked	
	Bleed cylinders	
	See Installation Manual	• •
	Check vehicle weight	
7.	Flush release valve	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

## POSSIBLE CAUSE

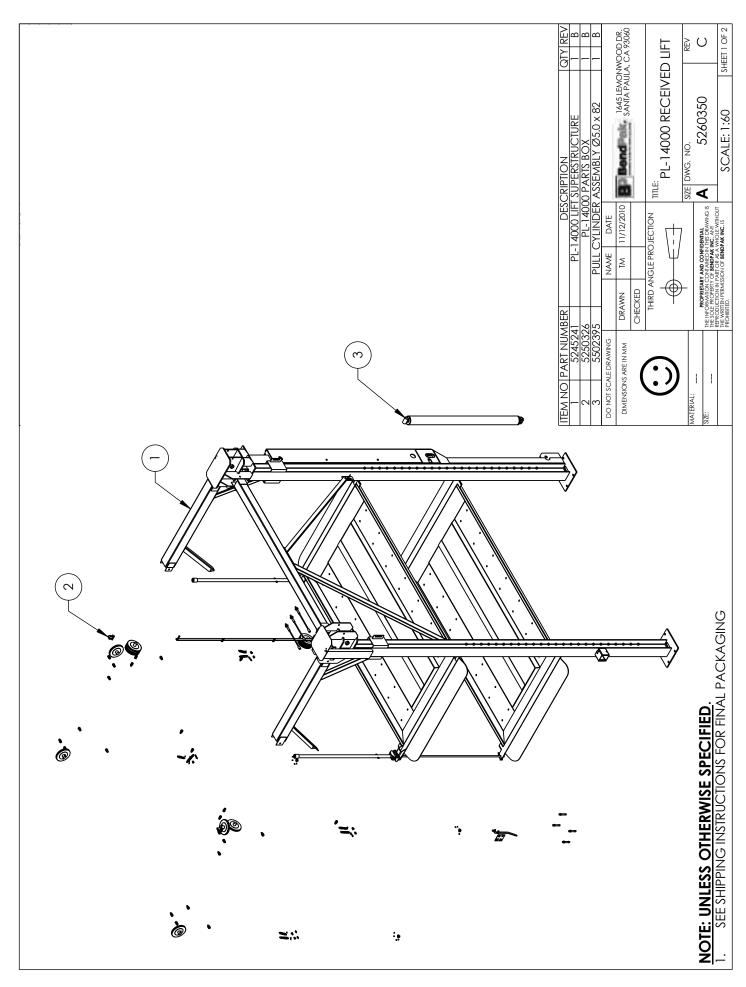
- 1. Air in oil, (1,2,3)
- 2. Check valve leaks, (6)
- 3. Cylinders leak internally, (7)4. Lowering valve leaks, (4,5,1,7,6)
- 5. Leaking fittings, (8)

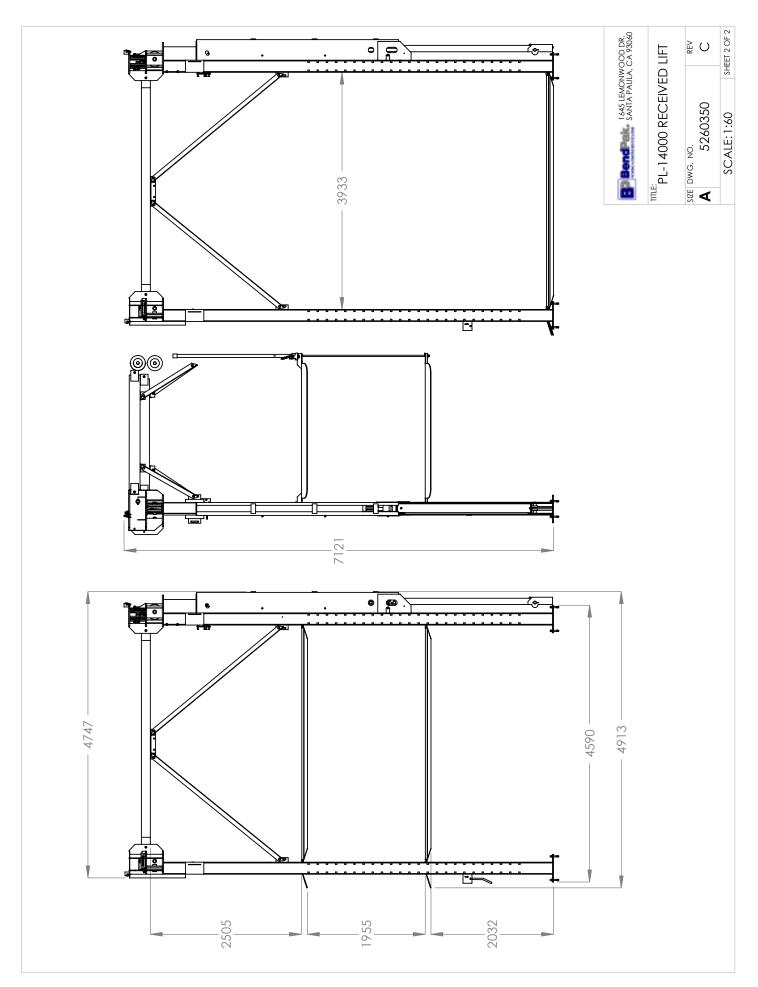
REMEDY  1. Check oil level	INSTRUCTION The oil level should be up to the bleed screw in the reservoir with the lift all the way down.
2. Oil seal damaged and cocked	. Replace oil seal around pump shaft.
3. Bleed cylinder	. Refer to Installation Manual.
4. Flush release valve	. Hold release handle down 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	. Contact BendPak Customer Support.
8. Check complete hydraulic system for leaks	Tighten all hydraulic fittings and inspect all hoses.

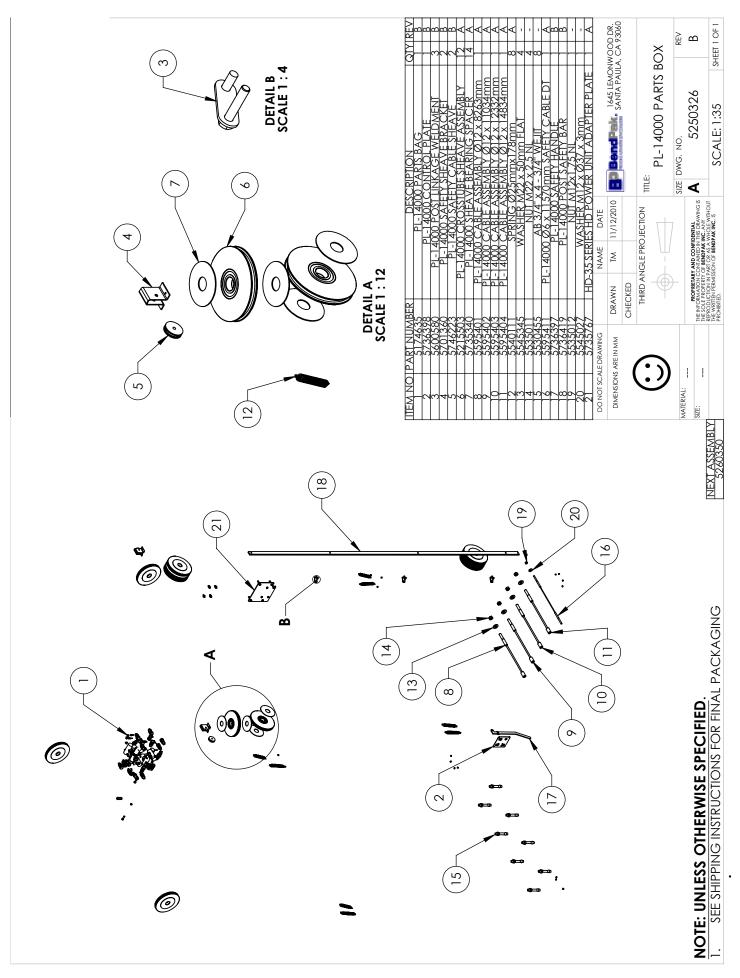
## **MAINTENANCE RECORDS**

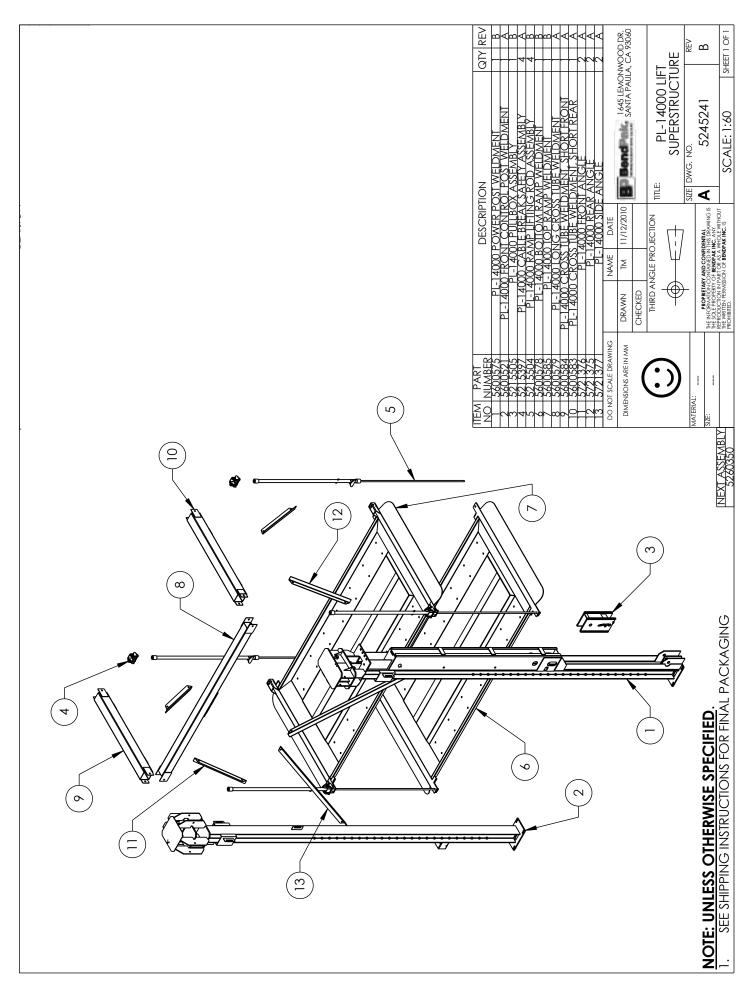

## INSTALLATION FORM

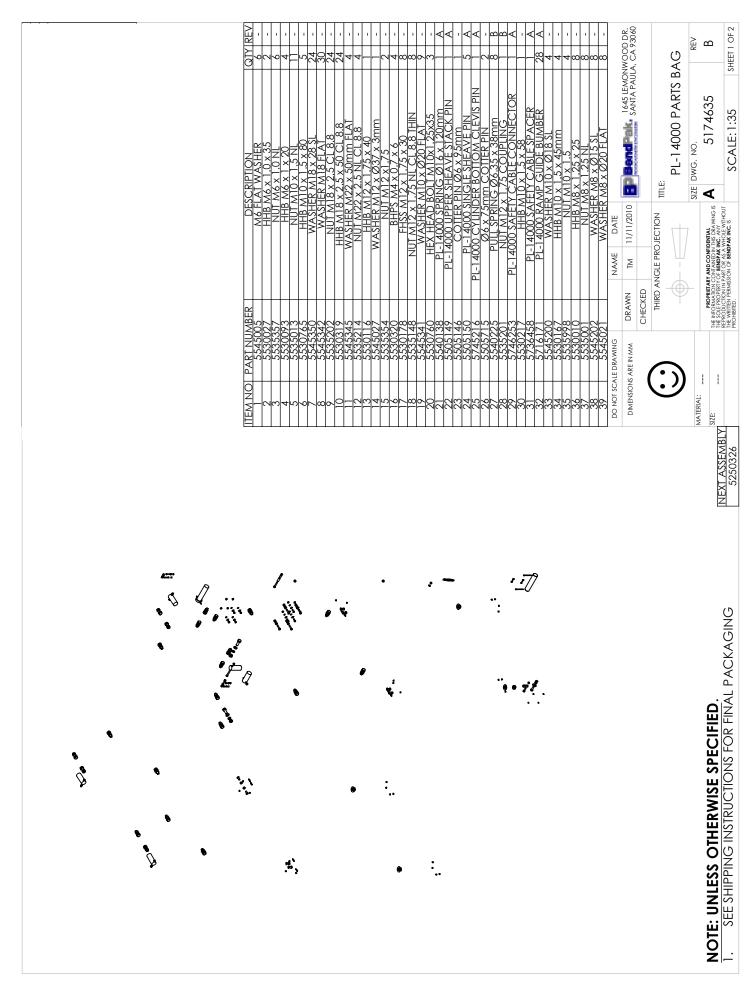
Customer Name: Date of Installation:			
Company Name:			
Street Address:			
City:	State:		Zip:
Phone:		Fax:	•
	Pre-In	stall Agreement	
state or county mandated, related to the floor and condition thereof, now or later, damages (including loss of use), expens injury or alleged damage to property, suc the condition and/or drilling of the concre assistance of any kind during installation harmless of all liability for losses, damage	installation and/or where the above of es, demands, clair stained or alleged ete near or adjacer of the above equi es, expenses, clair	r operation of this e equipment model(s ms, and judgments to have been susta nt to the equipment ipment model(s) I h ims, and judgments	responsibility for any permits required, either quipment. I assume responsibility for the concrete ) are installed. I will assume all liability for losses, in connection with or arising out of any personal sined in connection with, or to have arisen out of model(s) listed above. If my employee(s) offer sold the manufacturer and installation company in connection with or arising out of any personal sined in connection with the installation of the
I understand that the lifts above are supp "Automotive Lifts - Safety Requirements	for Construction, special regional s	Testing, and Valida structural and/or se	the criteria of the American National Standard tion" ANSI/ALI ALCTV-1998, and that I will be ismic anchoring requirements specified by any ir International Building Code (IBC).
Customer Signature:	Print	Name:	Date:
	Post-Ins	tallation Check-O	rr
Base and Columns Properly Shimmed	And Stable	Lubricatio	n of Critical Components
Anchor Bolts Tightened		Lift Adapters	
Runways Properly Attached and Secu	red	ed Check For Overhead Obstructions	
☐ Electric Power Supply Confirmed	Runways Level		
Cables / Chains Adjusted Properly	All Screws, Bolts, and Pins Secured		
Safety Locks Functioning Properly	Surrounding Area and Lift Clean In Appearance		
Check For Hydraulic Leaks		Proper Operation, Maintenance and Safety Explained	
Oil Level		Operation and Safety Manual(s) Left at Site	
maintaining this equipment as outlined in Requirements for Operation, Inspection occur if the above equipment model(s) a employees on proper use and maintenant liability for losses, damages (including to	n the accompanied on and Maintenar are not maintained noe of this equipm ass of use), expens of required mainte	d installation and once. I understand the or used improperly tent. I hold the man uses, demands, clair mance. I understand	repleted. I understand that I will be responsible for Operation Manual and ANSI/ALI ALOIM Safety hat personal injury and/or damage to property can and take full responsibility for training my ufacturer and installation company harmless of all ms, and judgments in connection with or related to d that the warranty does not cover replacement of
Customer Signature:	Print Name:		Date:
Installer Signature:	Print Name:		Date:
Installer Company Name:			
Street Address:		200	5-5-
City:		State:	Zip.
Phone:		Phone ( Other ):	

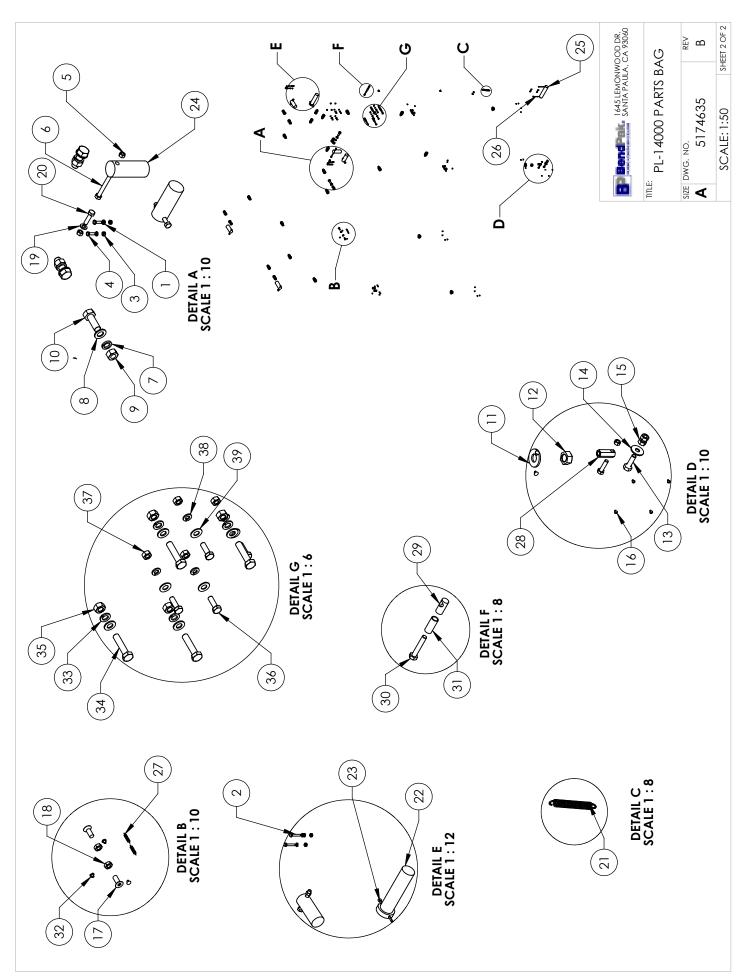


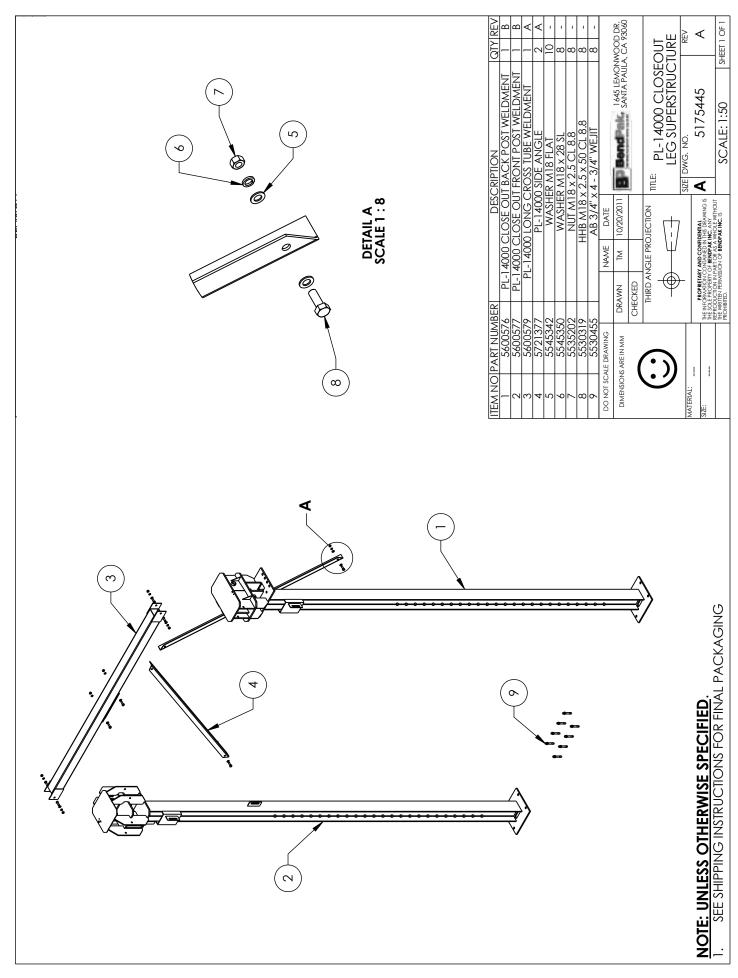


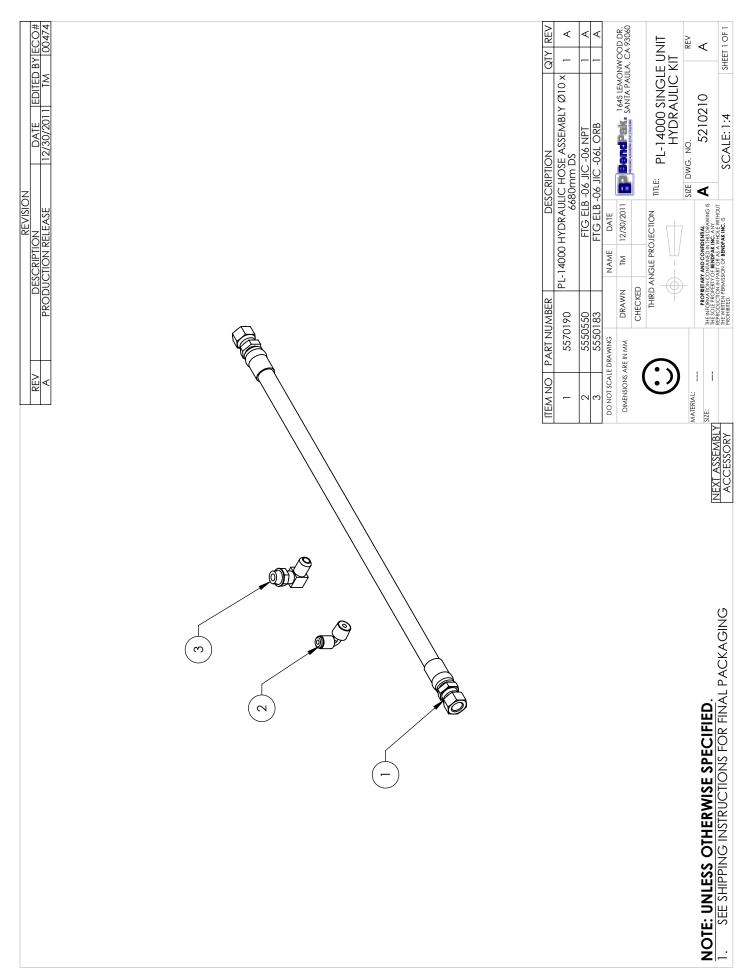


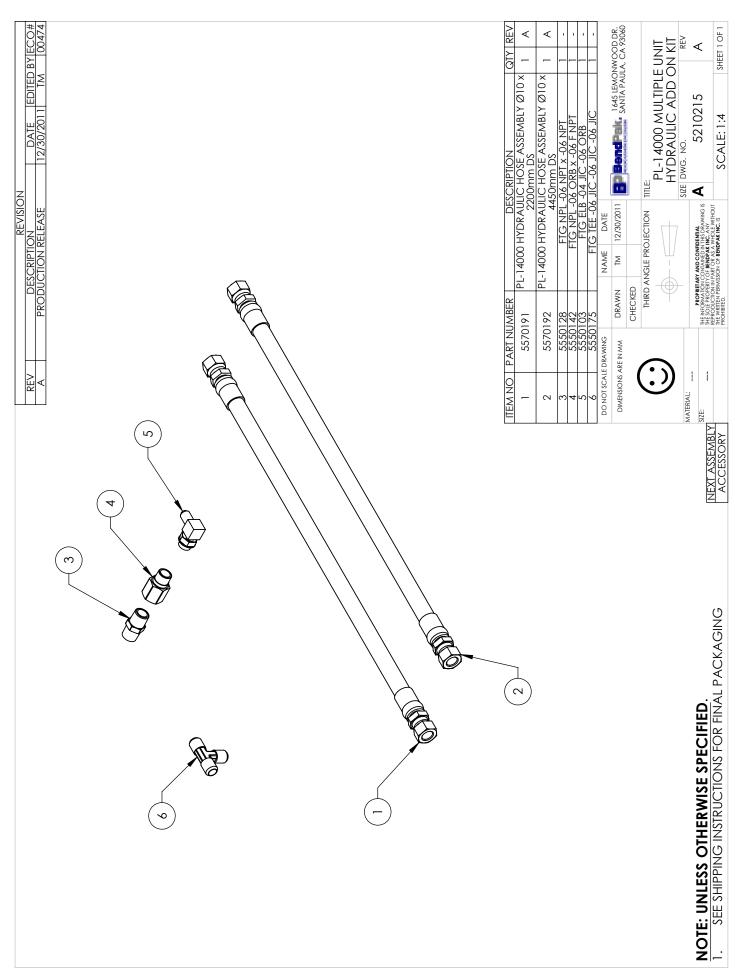


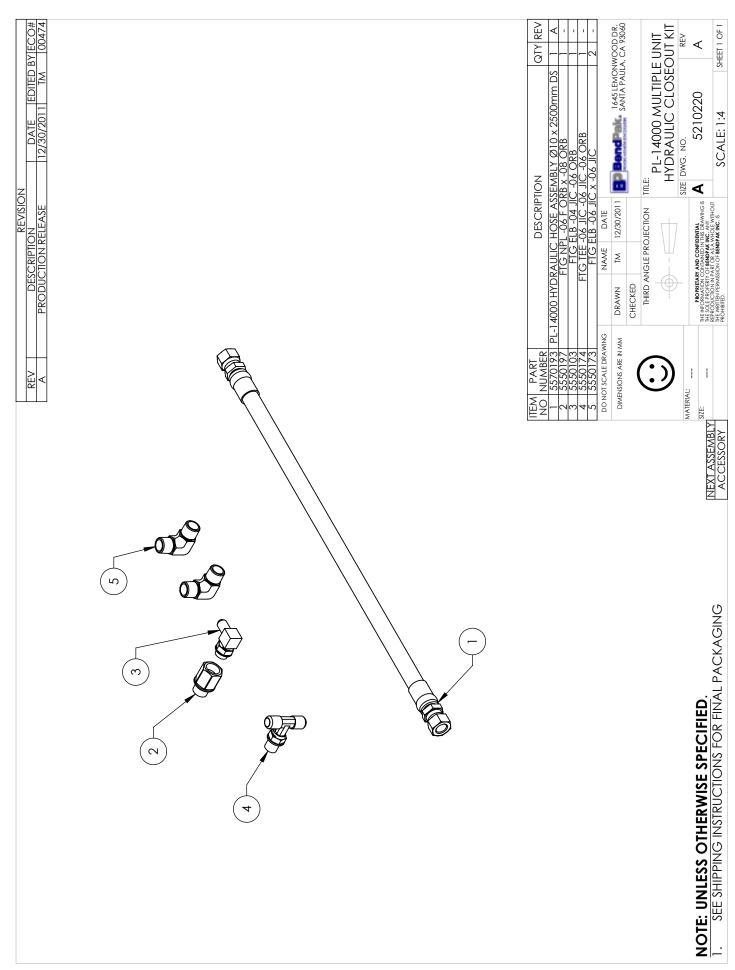














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p/n 5900223



