



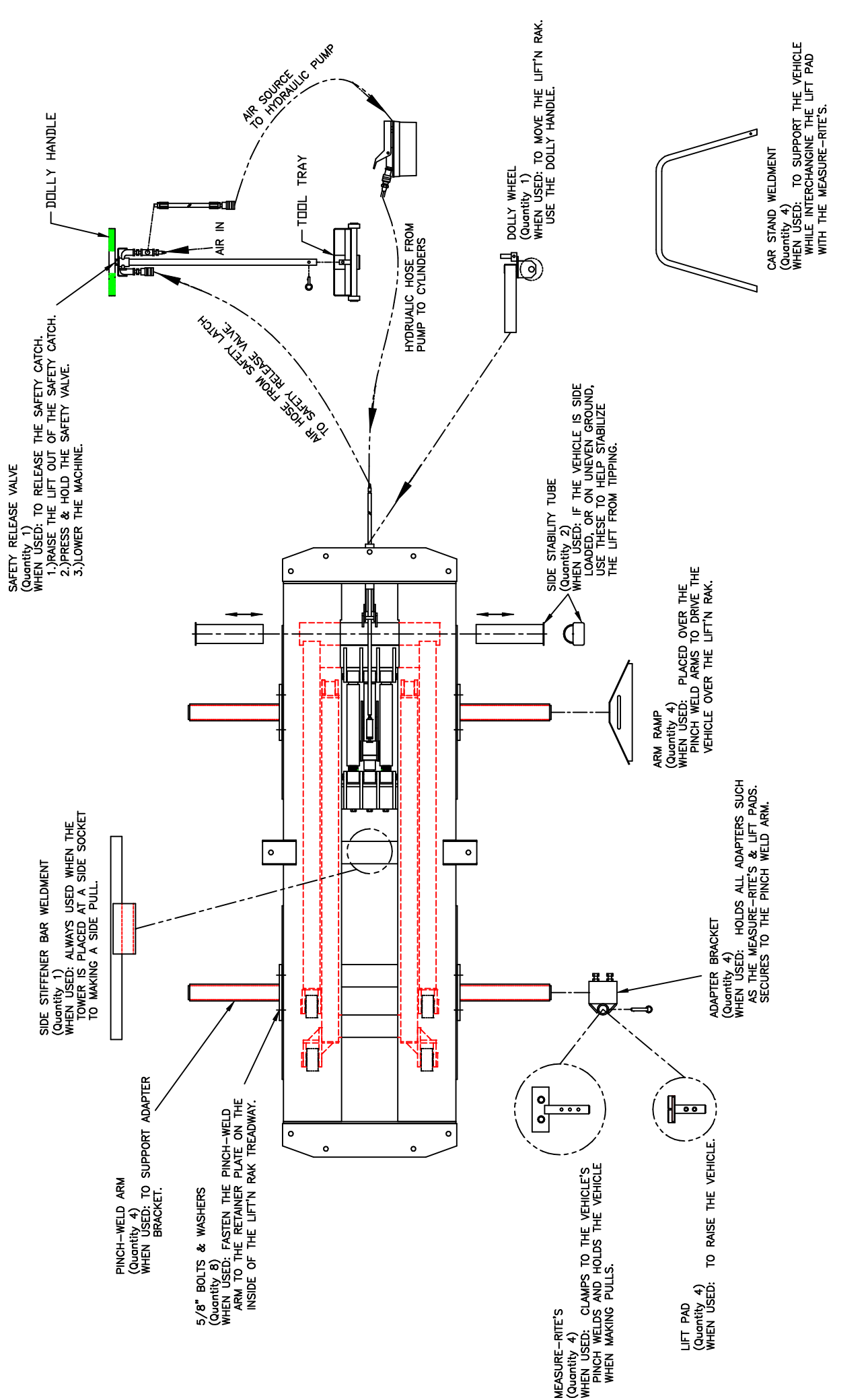
ISO COMPLIANT

# **LIFT'N RAK OPERATING & INSTALLATION GUIDE 6000 Lb. LIFT**

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**IMPORTANT:**  
READ THIS MANUAL BEFORE  
IN-STALLING, OPERATING OR  
MAINTAINING YOUR LIFT.

# MACHINE DESCRIPTION & SETUP



**SAFETY RELEASE VALVE**  
 (Quantity 1)  
 WHEN USED: TO RELEASE THE SAFETY CATCH.  
 1.) RAISE THE LIFT OUT OF THE SAFETY CATCH.  
 2.) PRESS & HOLD THE SAFETY VALVE.  
 3.) LOWER THE MACHINE.

**SIDE STIFFENER BAR WELDMENT**  
 (Quantity 1)  
 WHEN USED: ALWAYS USED WHEN THE TOWER IS PLACED AT A SIDE SOCKET TO MAKING A SIDE PULL.

**PINCH-WELD ARM**  
 (Quantity 4)  
 WHEN USED: TO SUPPORT ADAPTER BRACKET.

**5/8" BOLTS & WASHERS**  
 (Quantity 8)  
 WHEN USED: FASTEN THE PINCH-WELD ARM TO THE RETAINER PLATE ON THE INSIDE OF THE LIFT'N RAK TREADWAY.

**MEASURE-RITE'S**  
 (Quantity 4)  
 WHEN USED: CLAMPS TO THE VEHICLE'S PINCH WELDS AND HOLDS THE VEHICLE WHEN MAKING PULLS.

**LIFT PAD**  
 (Quantity 4)  
 WHEN USED: TO RAISE THE VEHICLE.

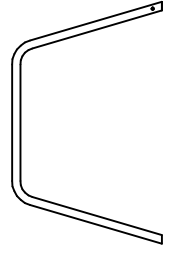
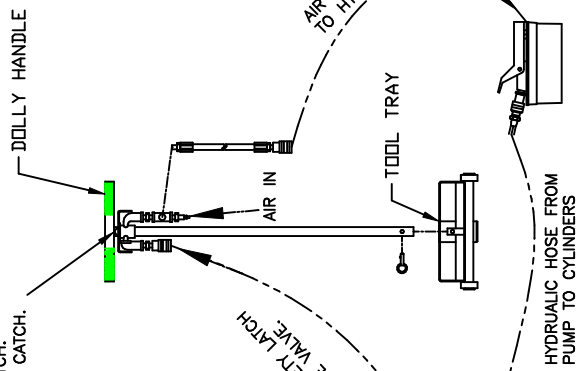
**ADAPTER BRACKET**  
 (Quantity 4)  
 WHEN USED: HOLDS ALL ADAPTERS SUCH AS THE MEASURE-RITE'S & LIFT PADS. SECURES TO THE PINCH WELD ARM.

**ARM RAMP**  
 (Quantity 4)  
 WHEN USED: PLACED OVER THE PINCH WELD ARMS TO DRIVE THE VEHICLE OVER THE LIFT'N RAK.

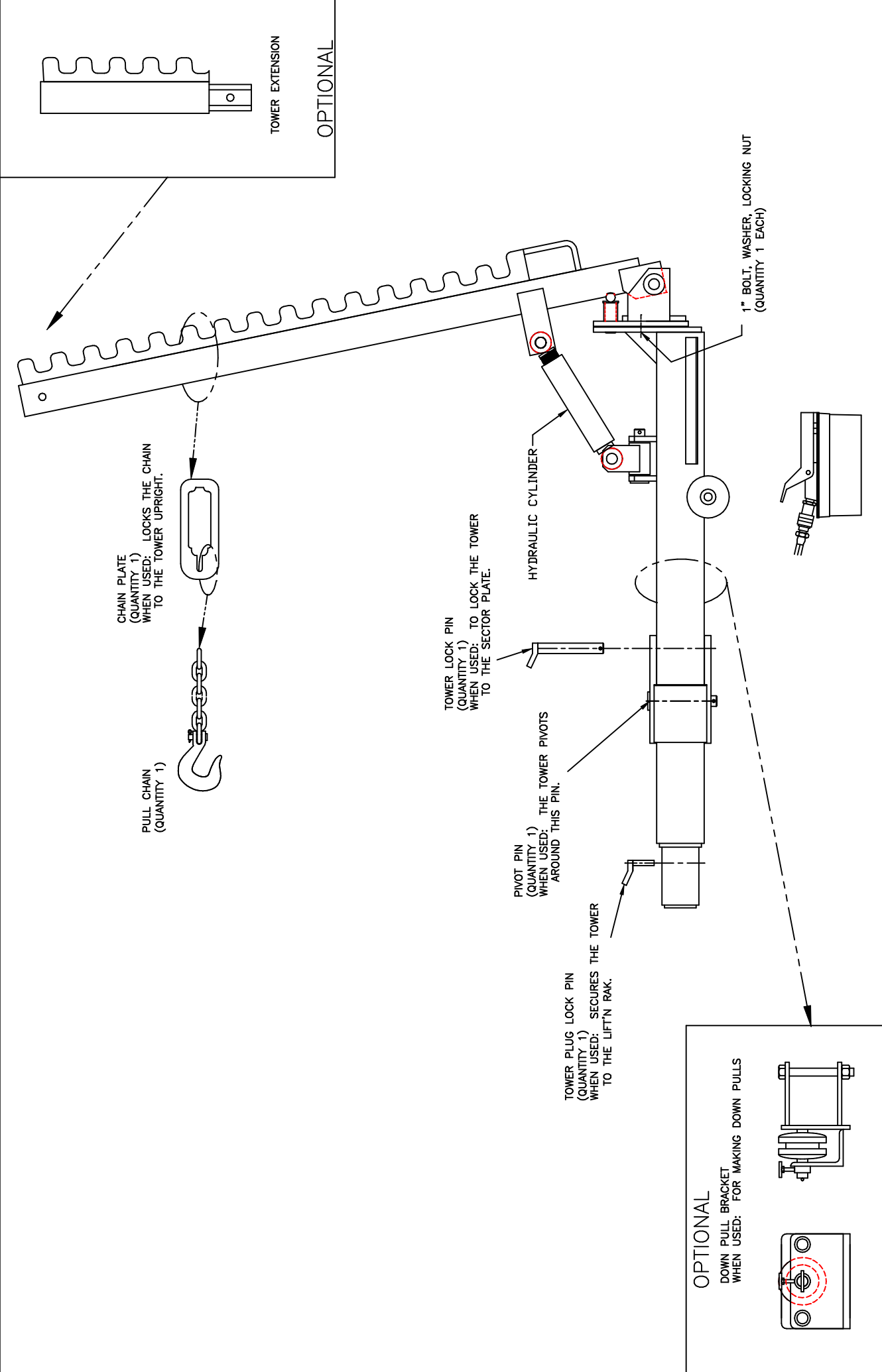
**SIDE STABILITY TUBE**  
 (Quantity 2)  
 WHEN USED: IF THE VEHICLE IS SIDE LOADED, OR ON UNEVEN GROUND, USE THESE TO HELP STABILIZE THE LIFT FROM TIPPING.

**DOLLY WHEEL**  
 (Quantity 1)  
 WHEN USED: TO MOVE THE LIFT'N RAK. USE THE DOLLY HANDLE.

**CAR STAND WELDMENT**  
 (Quantity 4)  
 WHEN USED: TO SUPPORT THE VEHICLE WHILE INTERCHANGING THE LIFT PAD WITH THE MEASURE-RITE'S.



# TOWER DESCRIPTION & SETUP



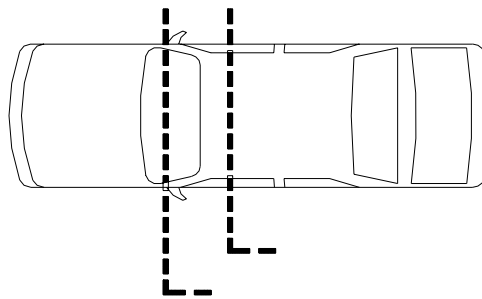
**Spotting the Vehicle**– This section will discuss the correct way to spot a vehicle on the Chassis Liner Lift'n Rak. Never allow the customer to drive the vehicle into the service bay. Keep personnel clear of the service bay during vehicle entry. Never stand in the path of a moving vehicle.

**The Center of Gravity**- Before you lift any vehicle, you have to know how to find its center of gravity. The center of gravity is the point between the front and rear of the vehicle where the weight is distributed equally.

Each vehicle you lift will have a different center of gravity due to:

Weight distribution, Wheel Base, Location of Drive Train.

In most cases, the center of gravity on rear-wheel drive (RWD) passenger cars is below the driver's seat. On front-wheel drive (FWD) passenger cars, the center of gravity is slightly in front of the driver's seat. Position the center of gravity in accordance with the lift manufacturer's spotting devices or methods furnished.



C.G. - RWD  
C.G. - FWD

**Before you lift the vehicle, check for the vehicle manufacturer's recommended lifting points. Beginning with some 1994 year models, automobile manufacturers will identify their recommended lift points by placing a label on the vertical lock face plate of the front passenger side door. They will identify the designated underbody lift points by holes, bosses, and/or depressions in the shape of an equilateral triangle or a supplemental part, such as a lift pad, identical to the triangle.**

## **LIFT'N RAK**

### **Contact Pads**

There are four (4) Lift'n Rak contact (foot) pads that are furnished as a standard feature. These contact pads must be securely in position before you spot them under the vehicle.

Be aware that oil and grease can make contact pad surfaces very slippery. Clean the contact pads if oil or grease is present. Before placing the lifting pads under the vehicle, inspect each contact pad for cracks or other signs of damage. If any part of the lift is damaged or operating improperly, do not use the lift or attempt to fix it. Notify your supervisor immediately. He should have qualified lift service personnel do the repairs.

Lifting Points- Before you lift the vehicle, check the vehicle manufacturer's recommended lifting points. These lifting points can be found in the vehicle's shop manual or on the vehicle. **The contact pads should be positioned according to these specifications only**

Check the condition of the vehicles lifting surfaces. Are the vehicles lifting points:

Damaged?

Rusted?

Covered with oil, dirt, undercoating, or anything else that may cause slippage?

If so, don't lift the vehicle until these problems have been corrected.

## **OPERATIONAL NOTES:**

- **TO MOVE YOUR LIFT, LOWER THE LIFT ONTO THE DOLLY TO ENGAGE AND WITH THE LIFT'S WHEELS IN CONTACT THE GROUND. (NO TOWERS ATTACHED, NO VEHICLE ON BOARD)**
- **PUMP PROVIDED FOR LIFT SHOULD NOT BE USED FOR ANY OTHER PURPOSE.**
- **PUMP PROVIDED FOR PULLING SHOULD NOT BE USED FOR ANY OTHER PURPOSE.**
- **GREASE ALL PIVOTS AND WHEELS ON A REGULAR BASIS IN ORDER TO MAINTAIN SMOOTH OPERATION**

# **LIFT'N RAK**

## **OPERATING INSTRUCTIONS**

### **NOTICE!!!**

**NEVER LOWER THE LIFT TO THE FULLY LOWERED POSITION WITH THE TILT 'N TURN TOWER ASSEMBLIES ATTACHED!!!**

- WITH THE TILT 'N TOWER ASSEMBLIES REMOVED, PLACE THE RACK IN THE LOWEST POSITION.
- PLACE THE ARM RAMPS IN POSITION OVER THE ARMS.
- DRIVE VEHICLE OVER RAMPS AND SPOT THE VEHICLE.
- LOCATE THE LIFT PADS AT THE VEHICLE MANUFACTURER'S RECOMMENDED LIFTING POINTS. REMOVE RAMPS.
- INSTALL LIFT PADS TO ADAPTOR BRACKETS AND ADJUST TO VEHICLE PINCH WELDS/TORQUE BOXES.
- LIFT VEHICLE HIGH ENOUGH TO POSITION THE FOUR WHEEL STANDS AND LOWER VEHICLE ONTO THE WHEEL STANDS.
- LOWER THE VEHICLE ONTO THE WHEEL STANDS AND REMOVE THE LIFT PADS.
- INSTALL THE FOUR ADJUSTABLE UNIBODY TIE-DOWNS ON THE ROCKERS OF THE VEHICLE.

- RAISE THE LIFT HIGH ENOUGH TO REMOVE THE WHEEL STANDS.
- LOWER THE LIFT JUST FAR ENOUGH TO INSTALL THE TILT “N TURN TOWER ASSEMBLIES AT THE PREFERRED LOCATION FOR THE PULL.
- RAISE VEHICLE TO DESIRED HEIGHT TO PERFORM THE WORK.
- UPON COMPLETION OF THE WORK, LOWER THE LIFT JUST FAR ENOUGH TO REMOVE THE TILT “N TURN TOWER ASSEMBLIES. **DO NOT LOWER LIFT TOO FAR DURING THIS PROCESS AS YOU WILL DAMAGE THE TOWER ASSEMBLIES!!!**
- LIFT VEHICLE HIGH ENOUGH TO POSITION THE FOUR WHEEL STANDS AND LOWER VEHICLE ONTO THE WHEEL STANDS.
- REMOVE THE FOUR ADJUSTABLE UNIBODY TIE-DOWNS.
- INSTALL LIFT PADS TO ADAPTOR BRACKETS AND ADJUST TO VEHICLE PINCH WELDS/TORQUE BOXES.
- RAISE LIFT HIGH ENOUGH TO REMOVE WHEEL STANDS.
- LOWER VEHICLE TO GROUND, ENSURING THE LIFT IS IN ITS LOWEST POSITION.
- PLACE THE ARM RAMPS IN POSITION OVER THE ARMS.
- DRIVE VEHICLE OFF LIFT.

# CAUTION:

- 1.) **Remain clear of lift whenever raising or lowering a vehicle.**
- 2.) **Avoid excessive rocking of vehicle while on lift.**
- 3.) **Do not override any lift controls or safety mechanisms.**
- 4.) **Lift is to be used by trained personnel only.**
- 5.) **Proper maintenance and inspection is necessary for safe operation.**
- 6.) **Do not operate a damaged lift.**
- 7.) **Raise vehicle to desired working height, then lower the lifting carriage onto the safety lock. Make sure it is in the locked position before working on the vehicle.**

## TROUBLE SHOOTING GUIDE FOR AIR OPERATED HYDRAULIC PUMPS

The following list of common problems and solutions should be of value when trouble-shooting air operated hydraulic pumps.

All hydraulic systems need to be kept clean internally and externally in order to operate properly. The most common cause of dirt in the system is failure to clean the quick coupler halves prior to coupling them together. Clean systems will give trouble free service for a long period of time.

Air hydraulic pumps need to have the proper air pressure in order to deliver full output pressure. The unit should receive its air supply from an inline filter/regulator/lubricator. This will supply clean air at the proper pressure ( 90 PSI minimum ) and keep the air side of the pump lubricated. A few drops of SAE 10 oil may be placed in the air inlet weekly to supply lubrication if an automatic lubricator is not placed in the air supply line.

<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>

<b>Pump reciprocates but has no fluid delivery.</b>	low fluid level	add fluid
	pump is not primed	prime the pump by holding the pedal in the release position while holding the air inlet valve down with a screwdriver for fifteen seconds. Remove the screwdriver and operate normally. If the cylinder will not extend then repeat the priming procedure
	fluid inlet filter is dirty or clogged	remove reservoir and clean filter.
	the oil fill/transport plug has not been replaced with a vent plug.	plug. replace the solid plug with the vent plug
		the air inlet screen on the pump may be clogged and needs to be cleaned.
<b>Low or slow fluid delivery.</b>	low air supply pressure	air supply should supply 20cfm at 90 psi.
	fluid inlet filter is dirty or clogged.	remove reservoir and clean the filter.
<b>Pumps correctly but will not release.</b>	improperly tightened quick coupler. Dirt in the coupler can caused incomplete depression of the check ball. This results in fluid flow in one direction but not in the other direction.	uncouple the quick coupler and clean. Retighten the quick coupler and try for proper operation
<b>Pump won't hold pressure.</b>	leaks in the external system components	check for leaks in the hose, cylinder and quick coupler. Tighten fittings as needed..
	contaminant on the seat of the release valve	Prime the pump by holding the pedal in the release position while holding the air inlet valve down with a screwdriver for fifteen seconds. Remove the screwdriver and operate normally. If the system still will not hold pressure then repeat the priming procedure. This will sometimes wash the contaminant from the seat area. if the procedure is successful the reservoir should be removed, drained, cleaned and filled with clean fluid to prevent this from reoccurring. If this is not successful the contaminant is probably imbedded in the seat and the pump needs to be sent in for repair.

<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>

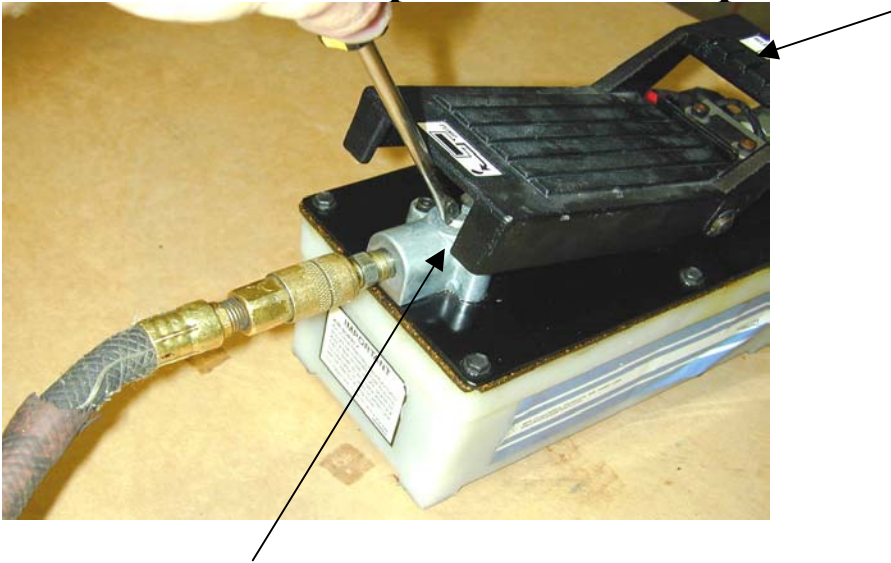
<b>Oil leaks from cover area when pumping.</b>	leaking piston seal in the air motor	return pump for repair
<b>Oil leaks from cover area when releasing.</b>	reservoir is to full. This can be caused by using one pump to pressurize the system and another pump to release the system thereby transferring fluid from one pump to another.	drain fluid from reservoir until it is at the proper level.

All other inquiries, please contact Chassis Liner Corporation,  
Service Manager at 1-800-242-2448 or 1-507-747-2456.

**AIR OPERATED PUMPS**

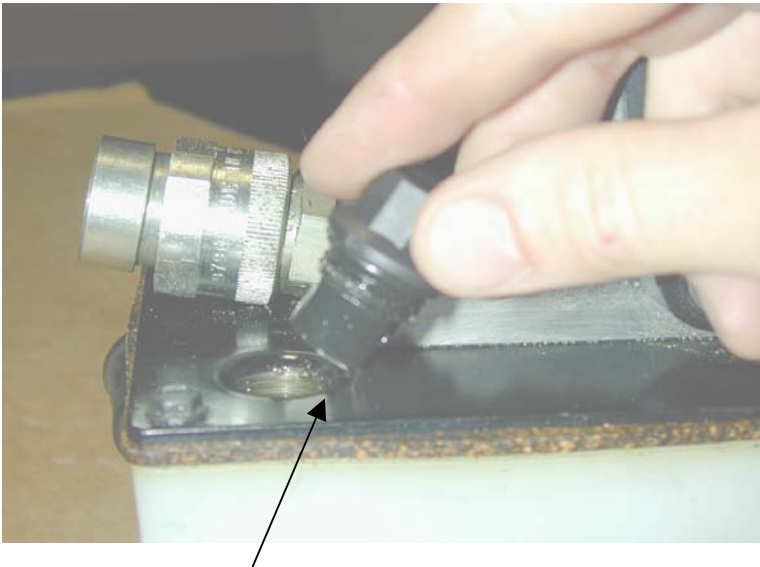
**Priming the pump**

**Hold pedal in release position**



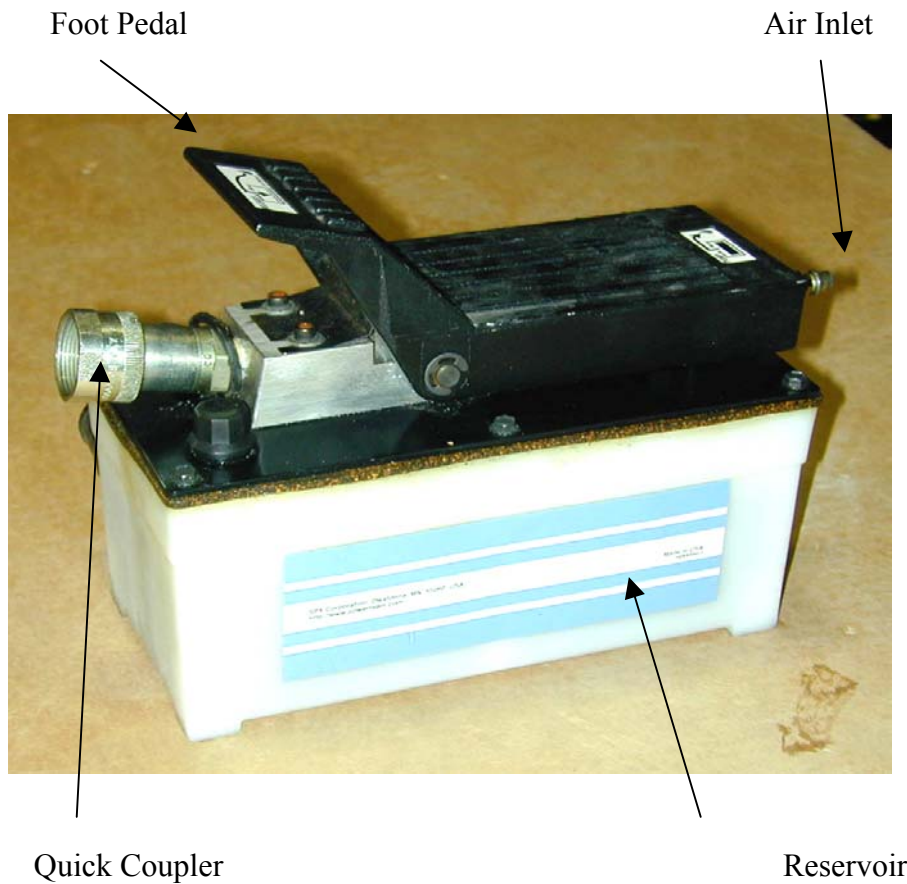
**Hold inlet valve down for 15 seconds**

**Replace solid plug with vent plug**



Exchange (red) solid plug with (black) vent plug

**AIR OPERATED PUMPS**



All hydraulic systems need to be kept clean and lubricated in order to operate properly. The quick coupler is the most common place for dirt to enter the system. If an automatic lubricator is not on the air supply line, a few drops of SAE 10 oil placed in the Air Inlet weekly will provide lubrication for the pump.

**NOTE:** For all other pump inquiries please refer to the manufacturers pump manual for more detailed information.



**CHASSIS LINER WARRANTY**

**CUST\_330**

- The structural components of Chassis Liner Corporation (CLC) surface mounted lifts are warranted to the original owner to be free from defects in material and workmanship under normal use for a period of five (5) years from the invoice date. CLC will replace those parts returned to the factory, which prove to be defective for the full five (5) year warranty period. CLC will pay for reasonable labor cost for replacement of defective parts for the first twelve (12) months with the exception of air cylinders and electrical switches, which have a six (6) month labor warranty. CLC will pay reasonable transportation cost for the first twelve (12) months and purchaser will bear the cost of transportation for the remainder of the warranty.
- Power units and hydraulic cylinders are warranted for two (2) years from the invoice date against defective material when the product is installed and used according to CLC specifications. Electrical switches, air cylinders (if used), rolling jacks and turntables are warranted for one (1) year. Warranty obligation is limited to the repair or replacement of parts returned to the factory, freight prepaid, which prove upon inspection, to have been defective and have not been misused.
- The structural components of Chassis Liner Corporation (CLC) manufactured frame racks are limited lifetime warranted to the original owner within the contiguous 48 United States to be free from defects in material and workmanship under normal use.
- The structural components of Chassis Liner Corporation (CLC) manufactured frame racks are warranted 5 years to the original owner outside the contiguous 48 United States to be free from defects in material and workmanship under normal use.
- This warranty does not cover normal maintenance, cable and chain adjustments, and damage as a result of improper installation, abuse, misuse, overloading, negligence, or normal wear and tear, concrete floor problems, or defects caused by lack of required maintenance. This warranty does not cover equipment when repairs have been attempted or made by anyone other than a CLC authorized service representative.
- All parts must be returned freight prepaid and adequately packaged to prevent damage in transit.
- This warranty is exclusive and is in lieu of all other warranties expressed or implied including any implied warranty of fitness for a particular purpose, which implied warranties are hereby expressly excluded.
- In no event will the sales representative, wholesale dealer, CLC, or any company affiliated with it or them be liable for incidental or consequential damages or injuries, including but not limited to the loss of profit, rental or substitute equipment or other commercial loss purchaser's sole and exclusive remedy being as provided here in above.
- This warranty may not be enlarged or modified in any manner except in writing signed by an executive officer of CLC to improve its products whenever it is possible and practical to do so. CLC reserves the right to make changes and or add improvements at any time without incurring any obligation to make such changes or add such improvements to products previously sold.
- Persons who have been trained on its safe and proper use must only operate CLC products.
- Please contact your Regional Manager or our Quality Manager for additional information.