



**LIFT'N RACK PRO**  
**OPERATING & INSTALLATION**  
**GUIDE**  
**5500 Lb. LIFT CAPACITY**

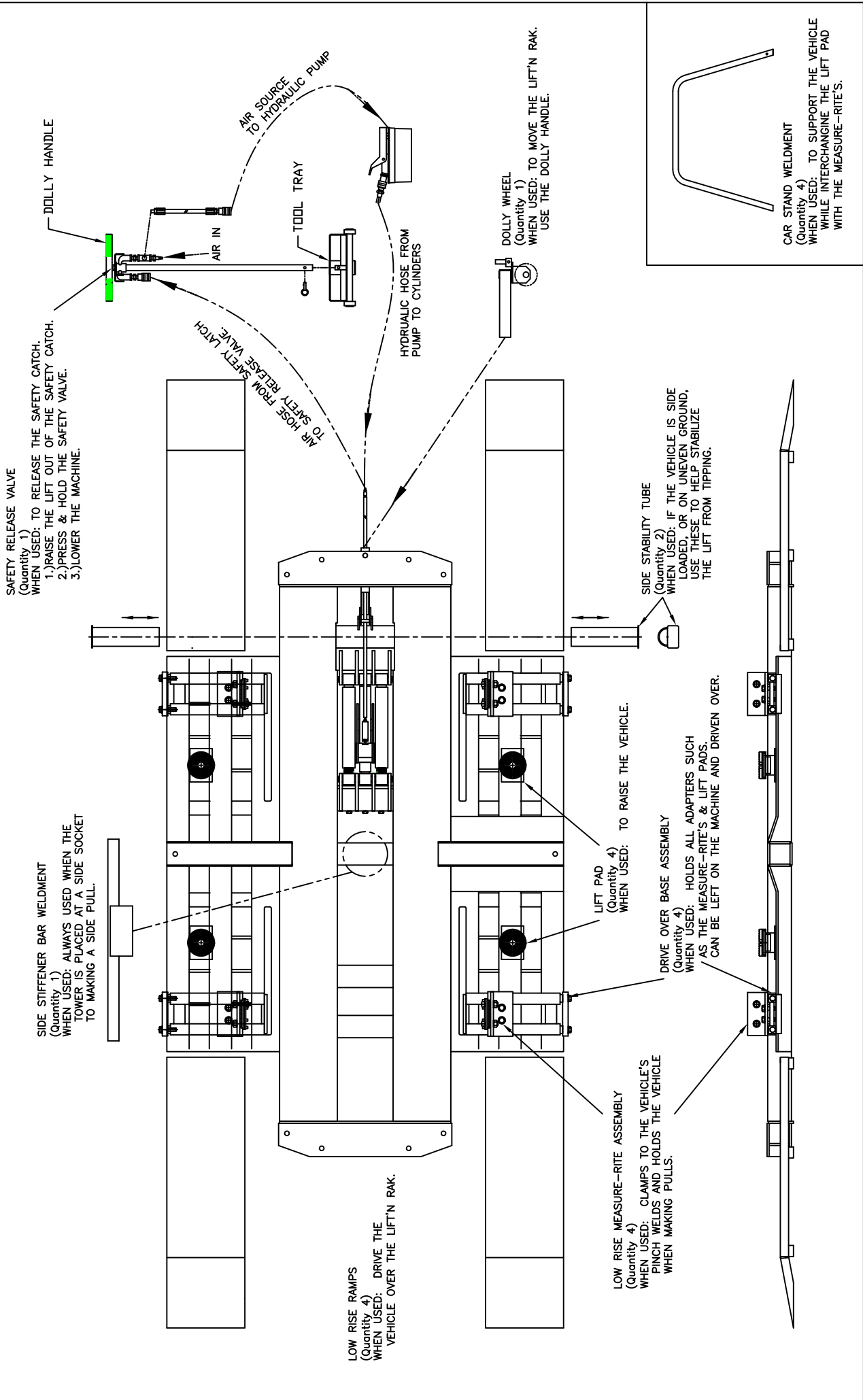
**IMPORTANT:**  
READ THIS MANUAL BEFORE  
IN-STALLING, OPERATING OR  
MAINTAINING YOUR LIFT.

Chassis Liner Company  
Sales Office  
Toll Free: 800-242-2448  
[www.ChassisLiner.com](http://www.ChassisLiner.com)

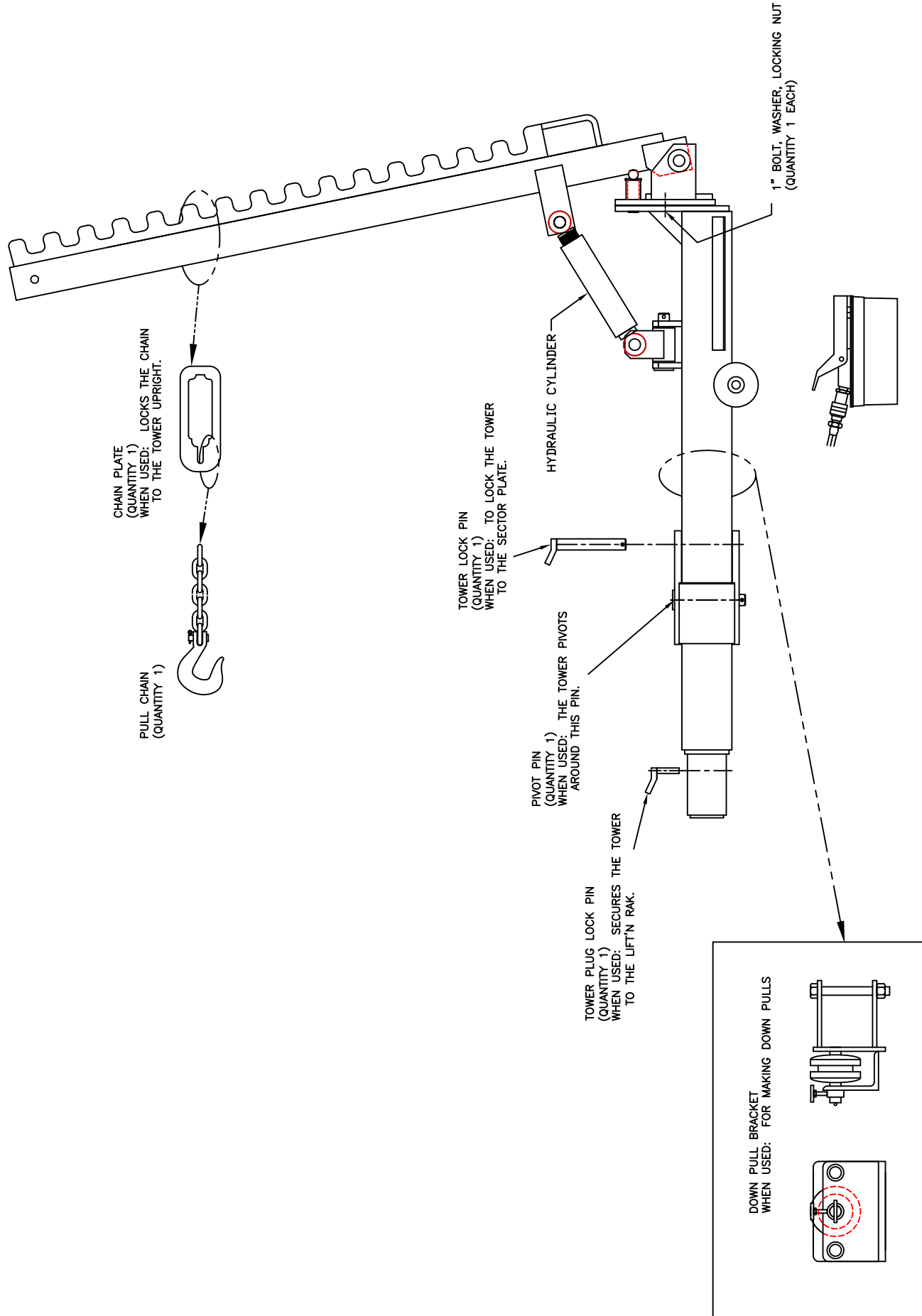
Factory/Warehouse & Service Dept.  
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Rev: 10/09

# MACHINE DESCRIPTION & SETUP



# TOWER DESCRIPTION & SETUP



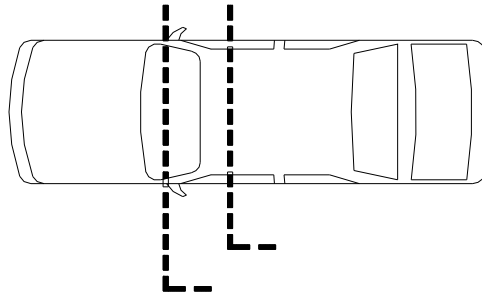
**Spotting the Vehicle**– This section will discuss the correct way to spot a vehicle on the Chassis Liner Lift'n Rak. Never allow the customer to drive the vehicle into the service bay. Keep personnel clear of the service bay during vehicle entry. Never stand in the path of a moving vehicle.

**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 PRO**

### **Contact Pads**

There are four (4) Lift'n Rak PRO 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 WHEEL. (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 PRO**

## **OPERATING INSTRUCTIONS**

- WITH THE RACK IN THE LOWEST POSITION.
- DRIVE VEHICLE OVER RAMPS AND SPOT THE VEHICLE.

### **USING AS A "PAD LIFT"**

- LOCATE THE LIFT PADS AT THE VEHICLE MANUFACTURER'S RECOMMENDED LIFTING POINTS.
- BEGIN RAISING THE MACHINE.

### **USING AS A "FRAME RACK"**

- INSTALL PINCH WELD ADAPTERS IN THE DRIVE-OVER BASES.
- POSITION ADAPTERS INTO THE VEHICLE'S PINCH WELDS AND TIGHTEN ALL THE BOLTS.
- RAISE/LOWER THE MACHINE & INSTALL THE TILT "N TURN TOWER.
- RAISE VEHICLE TO DESIRED HEIGHT TO PERFORM REPAIRS.

### **UPON COMPLETION OF FRAME PULLING**

- LOOSEN ALL PINCH WELD BOLTS FROM THE ROCKERS.
- BEGIN LOWERING THE LIFT
  - REMOVE THE TILT "N TURN TOWER
- LOWER LIFT/VEHICLE COMPLETELY TO THE GROUND.
- REMOVE THE (4) PINCH WELD ASSEMBLIES.
- DRIVE VEHICLE OFF LIFT.

## **TROUBLE SHOOTING GUIDE**

<b>PROBLEM</b>	<b>SOLUTION</b>
Pumping unit operates, but does not extend cylinder.	Check oil level in reservoir when cylinder is in retracted position.
Lifting unit is making unusual sounds.	Grease rollers, wheels and pivots.
Hydraulic oil leaks.	Check that all fittings are properly tightened.
Safety latch is not engaging or disengaging.	-Lubricate latching mechanism. -Check for obstructions or debris in latching mechanism.

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

# **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.**



## AIR OPERATED PUMPS

# TROUBLE SHOOTING

NOTE: 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 ends prior to coupling them together.

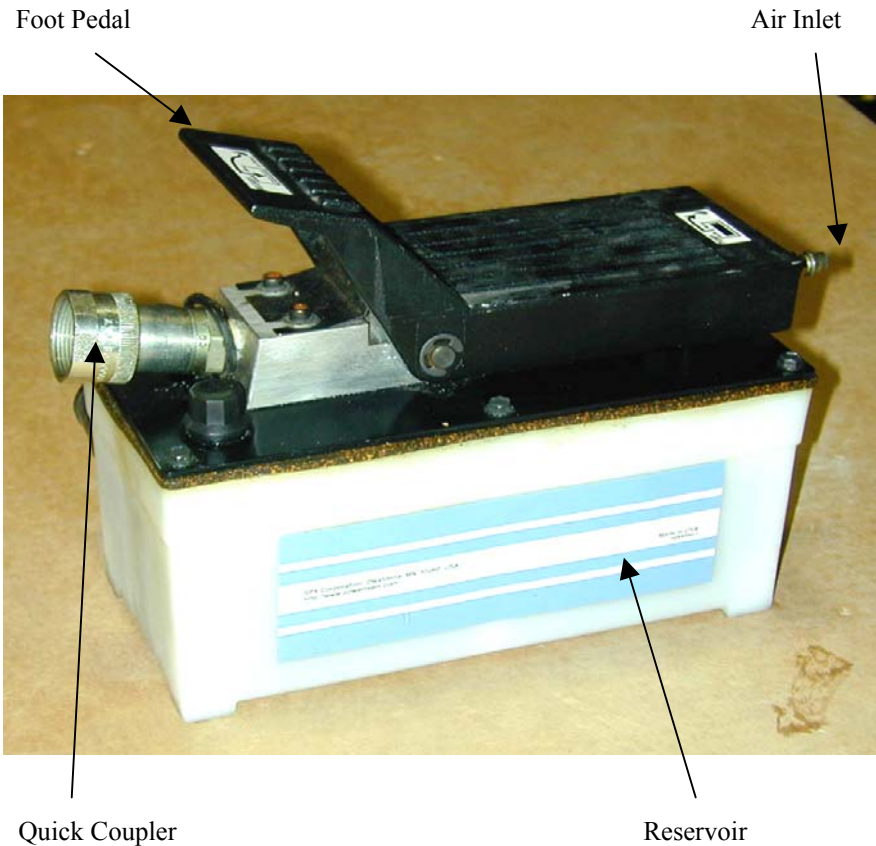
NOTE: Air hydraulic pumps need to have proper air pressure to deliver the full output pressure. The pump should receive air supply from an inline filter/regulator/lubricator. This will supply clean air at the proper pressure (90 PSI minimum) and keep the pump lubricated. If an automatic lubricator is not on the air supply line, a few drops of SAE 10 oil may be placed in the air inlet weekly to provide lubrication for the pump.

#	PROBLEM	CAUSE	SOLUTION
①	Pump is operating but has no fluid delivery	Low fluid level	Add fluid
		Pump is not primed	Prime the pump by holding the pedal in release position while holding air inlet valve down for 15 seconds, if cylinder will not extend then repeat priming procedure
		Fluid inlet filter is dirty or clogged	Remove reservoir and clean filter
		The oil fill transfer plug has not been replaced with a vent plug.	Replace solid plug with vent plug
		Air inlet screen on the pump may be clogged	Remove air fitting and clean screen
②	Low or slow fluid delivery	Low air supply pressure	Air supply should be 20cfm at 90psi
		Fluid inlet filter is dirty or clogged	Remove reservoir and clean the filter
③	Pumps correctly but will not release	Improperly tightened quick coupler. Dirt in the coupler causes the check ball not to depress. This allows flow in one direction but not in the other.	Uncouple the quick coupler and clean. Retighten and try for proper operation
④	Pump won't hold pressure	The external components leak	Check for leaks in hose, cylinder & quick coupler. Tighten fittings
		Contaminant on the seat of the release valve.	Prime the pump (as talked about in problem #1). This will sometimes wash the contaminant from the seat. If priming works, the reservoir should be removed, drained, & cleaned. If this is not successful the contaminant is probably embedded in the seat & the pump needs to be sent in for repair
⑤	Oil leaks from cover area when pumping	Leaking piston seal in air motor	Return pump for repair
⑥	Oil leaks form cover area when releasing	Reservoir is too full. This can be cause by one pump used to pressurize the sysem and another pump used to release the system.	Drain fluid from reservoir until it is at the proper level



## TROUBLE SHOOTING GUIDE

### 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.

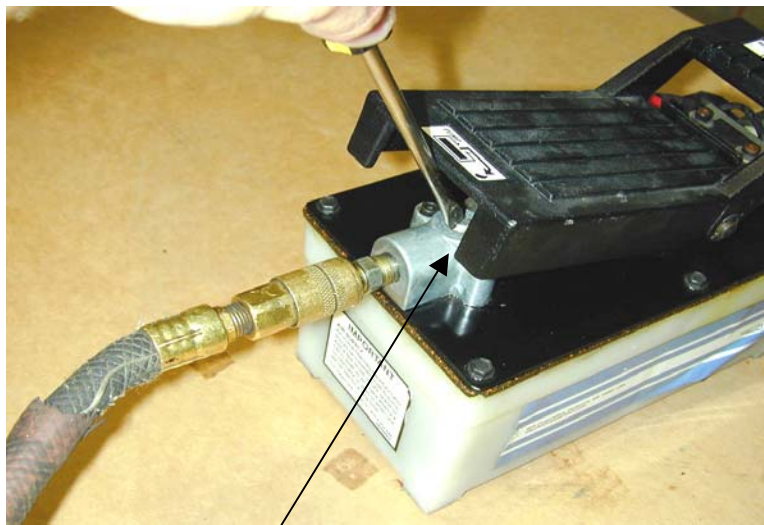
**NOTE:** For all other pump inquiries please refer to the manufacturers pump manual for more detailed information.

# TROUBLE SHOOTING GUIDE

(Refer to Trouble Shooting on page 7)

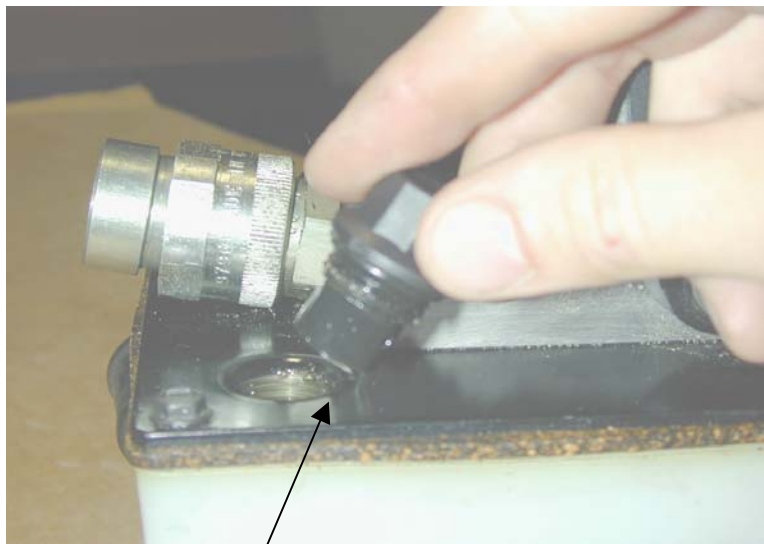
## AIR OPERATED PUMPS PROBLEMS - SOLUTIONS

### PROBLEM #1 – Priming the pump



Hold inlet valve down for 15 seconds

### PROBLEM #1 – Replace solid plug with vent plug



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



## **CHASSIS LINER WARRANTY**

- The structural components of Chassis Liner Company (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 one (1) year from the invoice date. CLC will replace those parts returned to the factory, which prove to be defective for the full warranty period.
- Power units and hydraulic cylinders are warranted for one (1) year 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 Company manufactured frame racks are warranted to the original owner to be free from defects in material and workmanship under normal use for one (1) year.
- 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 Service Manager for additional information.