### **GSR-550 Ram Assembly**



#### **General Description**

The GSR-550 Two Post Lift / Ram uses two 3-1/2" air-powered cylinders connected by tubular steel cross member and is welded to a heavy gauge base plate. It is normally used to raise and lower a fluid handling pump and follower in and out of a standard 55-gallon drum, or when used as a ram it can force high viscosity flowable material into the pump inlet. Stainless steel followers are fitted with a dual lip seal to wipe the drum clean and seal of the material from the atmosphere. Drum hold down brackets are attached to each cylinder to hold the drum in place when raising the ram. When properly secured, this unit has the ability to raise a pump to clear a standard 55-gallon drum. The operator is then able to easily remove the pump from the drum.

This Lift / Ram uses a hand lever 4-way control valve which controls the air necessary to raise and lower the lift. This unit includes an auxiliary manual air valve, which is used to supply a controlled amount of air pressure to the follower plate. When the control valve is in the "UP" position, a small amount of air pressure applied under the follower plate will help raise the follower plate, pump and lift by relieving the vacuum.

There are (2) air regulators attached to the control valve assembly for the ram and transfer pump.

#### **Operating and Safety Precautions**

# \* READ AND HEED ALL WARNINGS, AND SAFETY PRECAUTIONS BEFORE OPERATING. \*

#### \* USE ONLY GENUINE GS REPLACEMENT PARTS TO ASSURE COMPATIABLE PRESSURE RATING AND LONGEST SERVICE LIFE \*

# **WARNING:** ANCHOR THE LIFT BASE SECURELY TO A CONCRETE FLOOR, OR CART.

An improperly secured lift could be unsafe. Do not attempt to use the lift until all possible measures have been taken to insure that the lift has been properly installed and the base has been secured. It is the duty of the installer to provide anchor bolts / studs (not included) and for them to be securely embedded in concrete which is more than 2" thick.

**WARNING: PREVENT ELECTRIC SHOCK.** Be certain the area above the lift is clear of electrical fixtures, devices and wiring. Examine the working area and take necessary action to assure adequate clearance for the lift and pump assembly to raise to the fullest limit and function properly.

**WARNING: PINCH HAZARD.** Follower can descend quickly, causing injury. Keep hands clear when aligning with container. In the raising and lowering function, the lift could get hung up or the descent could be temporarily restricted. The lift could, in some situations, drop suddenly and be hazardous. If the follower plate does not enter the drum properly, DO NOT ATTEMPT TO REPOSITION IT WITH YOUR HANDS; release the downward pressure, raise the lift, realign the drum and restart.

**WARNING: STAND CLEAR.** When raising or lowering the lift, keep clear and operate from a safe position.

**WARNING: HAZARDOUS PRESSURE.** Do not exceed maximum inlet air pressure of 150 psi (10.3 bar). Operating lift at higher pressure may cause lift damage and / or personal injury and / or property damage. Do not service or clean the transfer pump or hoses while the system is pressurized.

**WARNING: DO NOT EXCEED DRUM PRESSURE LIMITS.** Keep the pressure limitations of the drum and regulate the air pressure within safe limits when supplying air to the follower plate.

**CAUTION:** Be certain all operators of this equipment have been trained for safe working practices, understand its limitations and wear their safety goggles / equipment as required.

### Lift / Ram Installation

# WARNING: Failure to properly install the lift assembly can result in severe personal injury and property damage.

- 1. Establish the desired location for the lift / ram and pay special attention to work area above, this area above the lift must be open, without obstructions and safely away from any electrical devices.
- 2. THE LIFT MOUNTING PLATE BASE MUST BE SECURELY ANCHORED TO THE CONRETE FLOOR, OR CART. The mounting plate itself can be used for template for establishing the proper anchor locations.
- 3. Mount the transfer pump assembly on the follower plate using the proper plate adapter.
- 4. Connect the transfer pump air supply hose to the pump.

NOTE: The ram was tested at the factory. The unit should be generally checked over for leakage, as the fittings on the system may have loosened in shipment.

### **Operating Instructions**

Operating Instructions/ Initial Setup Procedure

#### WARNING: STAND CLEAR when raising or lowering the lift.

### TO RAISE LIFT, (THE FIRST TIME):

- 1. Take note of the pump / drum clearance above. Be certain the lift is clear of any objects above. Also refer to OPERATING AND SAFETY PRECAUTIONS.
- 2. Connect the air supply (150 p.s.i. / 10.3 bar maximum) to the air inlet.
- 3. Shift the control valve lever to the "UP" position.
- 4. Slowly increase the ram pressure air regulator until the plate assembly rises.
- 5. Raise the lift high enough to clear the height of the drum. Stop the lift upward travel by moving the control valve lever to the (center) "NEUTRAL" position.

### TO RAISE LIFT, (NORMAL OPERATION):

- Adjust the follower plate air valve pressure. DO NO OVERPRESSURIZE THE DRUM to avoid damage. NOTE: air from this valve will only pass when the control lever is in the "UP" position.
- 2. Shift the control valve lever to the "UP" position.
- 3. Raise the lift high enough to clear the height of the drum. Stop the lift upward travel by moving the control valve lever to the (center) "NEUTRAL" position.

### **TO CHANGE DRUMS:**

NOTE: The control lever should be in the "NEUTRAL" position.

1. Place a new drum into position.

### **TO LOWER LIFT:**

**WARNING: PINCH HAZARD.** Follower can descend quickly causing injury. Keep hands clear when aligning with container.

**NOTE:** Be certain the follower plate vent plug has been removed so that the air trapped between the follower and the material is allowed to escape from this vent. Captured air between the follower plate and drum will escape.

**NOTE:** The lift may hesitate momentarily before starting downward; the air pressure inside the post air chamber must decrease before it will begin to descend.

- 1. Shift the control valve lever to the "DOWN" position and proceed to lower the pump.
- 2. Increase the ram air regulator pressure slowly to assist the downward movement of the plate into the rum
- 3. Replace the vent plug once the material begins to ooze from the vent opening.