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INSTALLATION AND MAINTENANCE INSTRUCTIONS FOR HIGH PRESSURE HYDRAULIC PUMPS

Models PF120 - PF300 - PF500

CAUTION: THE PUMP **MUST BE PRIMED** BEFORE INITIAL START OR AFTER UNIT HAS BEEN DRAINED AND REFILLED!!!

Reservoir Capacity

The reservoir size for the pumps must have a minimum oil capacity as follows:

PF120	.....	15 Gallons
PF300	.....	15 Gallons
PF500	.....	25 Gallons

When an auxiliary low pressure pump is used, the reservoir must have a capacity greater than three times the rated g.p.m. output of the auxiliary pump.

Pump Alignment

Pumps must be mounted in-line with driving source and connected with a good flexible coupling. Allowable misalignment will be determined by the specifications of the coupling used.

Hydraulic Oil

Use a good grade of hydraulic oil. The oil should contain rust and oxidation inhibitors together with an anti-foam agent. See attached Hydraulic Oil Specification Sheet for recommended viscosity and temperatures. This will determine the grade of oil required in pump.

Suction Lines

The suction line to the pumps **MUST NOT** be restricted. Keep suction lines tight and short with as few bends as possible.

It is imperative that air not enter the pump through the suction line, either because of fitting leaks or because the filter is above the oil level. Recommended suction lines sizes are as follow:

PF120	.....	5/8" O.D. Tubing or 1/2" Pipe
PF300	.....	1" O.D. Tubing or 1" Pipe
PF500	.....	1" O.D. Tubing or 1" Pipe

Filtration

A 100 mesh (149 micron) filter should be used in the suction line. The filter **MUST** have a rated capacity at least two times the rated g.p.m. of the pump.

Direction of Rotation

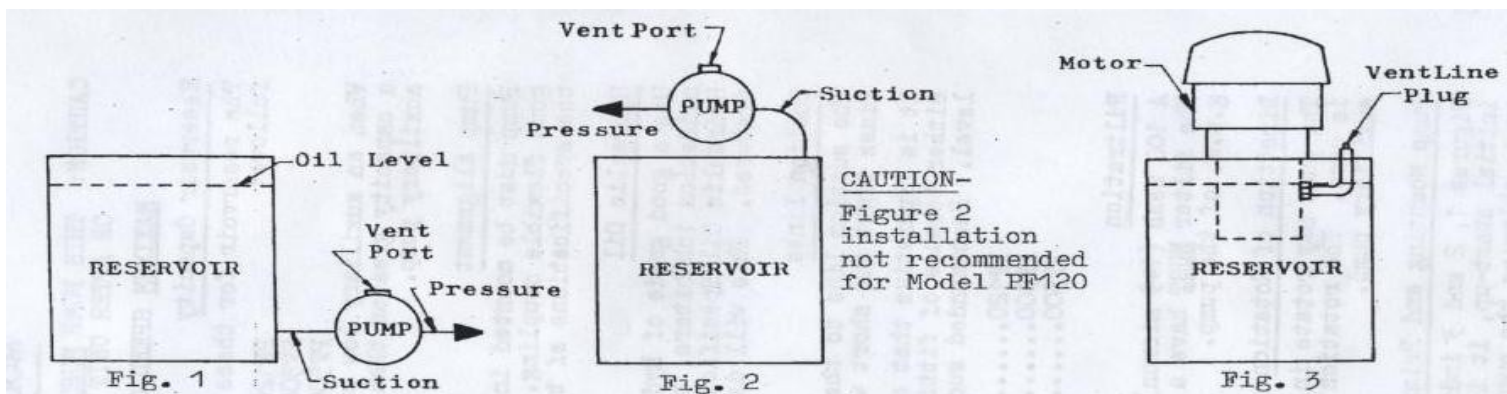
The pump may rotate in either direction except when an auxiliary pump is used. The rotation is then indicated by a direction arrow on the auxiliary pump.

Pump Mounting and Priming Instructions

Figures 1, 2 & 3 indicate different methods of pump mounting. Before initial start-up, it is imperative that the air be removed from the pump, allowing the pump body to fill with oil. Failure to do this may result in inability of the pump to operate at full capacity, and bearing damage due to lack of lubrication.

The described methods for priming the pump must be followed before initial start-up; after the system has been drained of oil; or if the pump becomes air-locked due to air leakage through the vent port or suction line. An air-lock can be identified by a decrease in oil volume from the pump and excessive noise.

TYPICAL PUMP INSTALLATIONS



1. When the pump is mounted below the oil level, remove the vent plug until oil flows from the vent port. Replace the plug and the pump is ready to operate.
2. When the pump is mounted above the reservoir, the pump body must be filled with oil through the vent port and cap replaced before operating.
3. Fig. 3 illustrates a vertical pump mounting. An oil line must be installed from the pump vent port through the reservoir cover, and a plug provided above the cover. If the oil level is at least as high as the pump vent port, it is necessary only to remove the vent plug until the air can escape, and the pump will fill with oil. If the oil level is below the pump vent port, the pump must be filled with oil through the vent line and then plugged before the pump can be operated.

NOTE VENT PORT MUST BE PLUGGED BEFORE PUMP OPERATIONS!!

Maintenance

When servicing the pumps, refer to Parts Drawing. Clean all parts with a good solvent. When re-assembling the pump, make certain that the "O" ring seals are not damaged. Torque the cap screws and ball stops as indicated on parts drawings.

The oil filter must be checked and cleaned periodically. The oil should be replaced when it becomes discolored or contaminated with water, dirt or other foreign substances.

CAUTION MAXIMUM SPEED OF RODGERS PF PUMPS IS 1800 R.P.M.