

TWO-STAGE HYDRAULIC PUMP

This hydraulic pump incorporates precision design and engineering features which make it the most outstanding pump of its kind on the market!

The critical moving parts are made from high grade tool steel, heat-treated, machined, ground and lapped to extremely close tolerances to assure efficient operation and long life. Watch-like precision insures peak efficiency for operation at the full range of pressures up to 10,000 PSI.

Your pump will give you uninterrupted, trouble-free service if you keep it clean, use only high grade, filtered, hydraulic oil and take care of it as you would any fine machine.

FILLING RESERVOIR

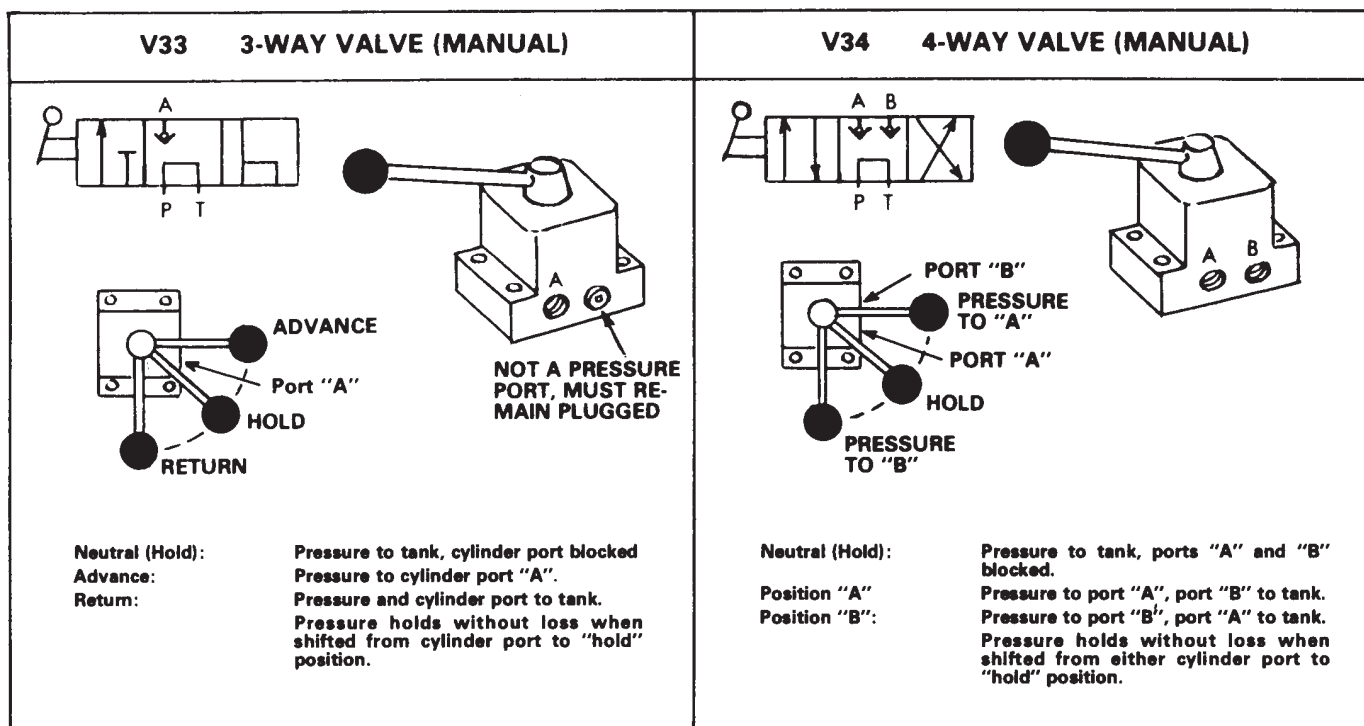
NOTE: These pumps have been shipped without oil in the reservoir. Use only Power Team No. HO1.

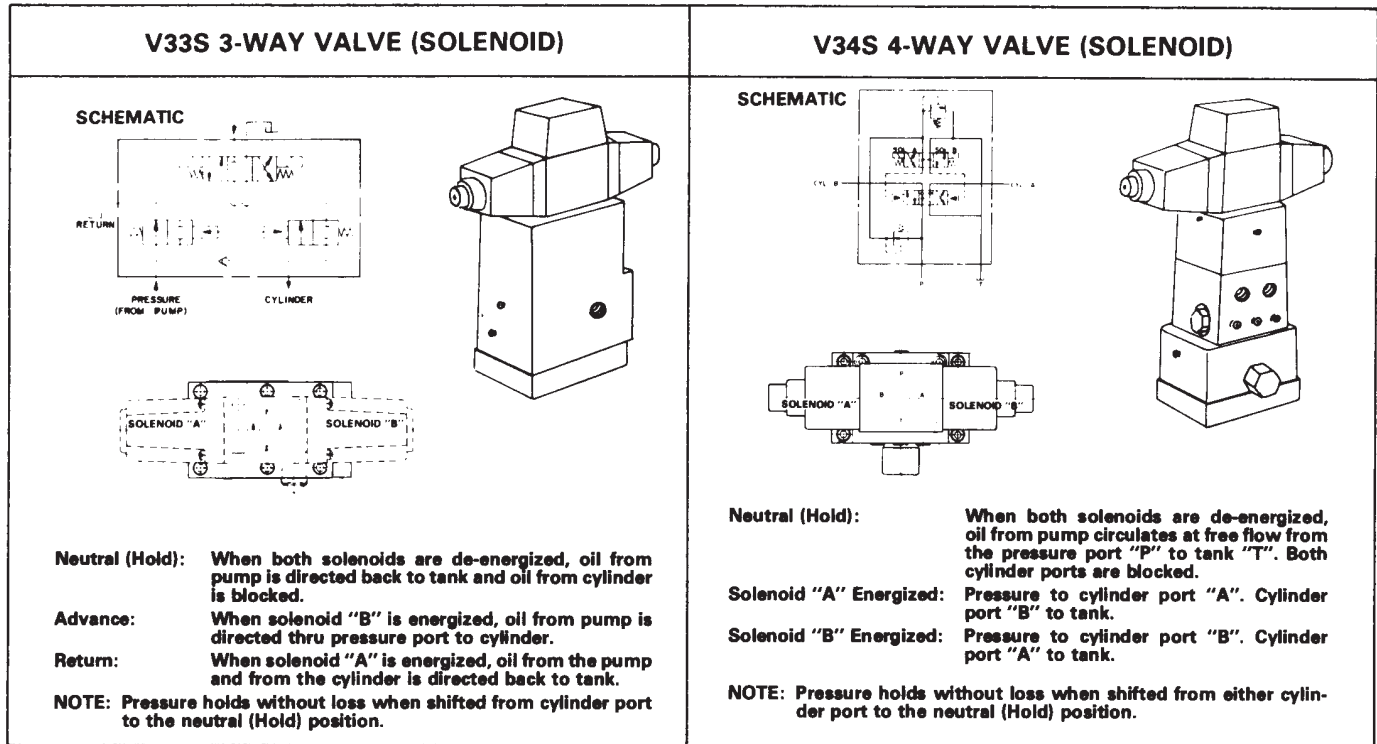
- A. Before removing filler cap, clean area around cap. Use a clean cloth to remove all dust and grit. This pump is a precision built pump and any foreign particles in the oil could damage polished surfaces resulting in a loss in performance.
- B. Remove filler cap and fill with oil to bottom of filler screen. Replace cap.

CONNECTING HOSES

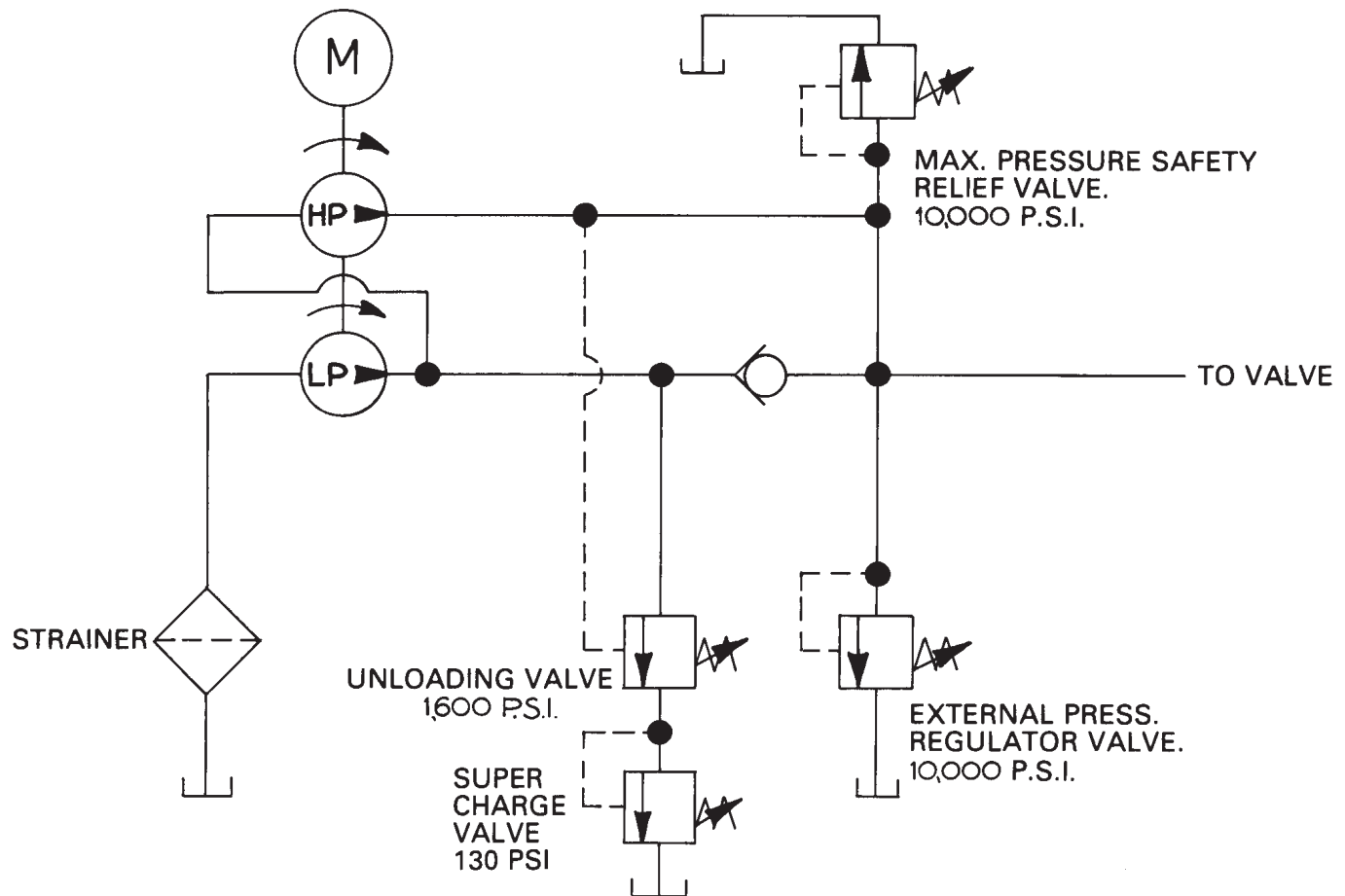
- A. Clean the areas around the valve ports to remove all dust and grit.
- B. Remove plastic caps and connect hose or fittings from the cylinder to the proper valve ports. (See valve operation illustrations.) Make sure all connections are tight.

VALVE OPERATION





HYDRAULIC SCHEMATIC



ELECTRICAL HOOK-UP AND OPERATION

- ⚠ WARNING: Any electrical work should be done by a qualified electrician. Disconnect power supply before removing electrical box cover.**

All voltages must be wired for counterclockwise rotation viewed from lead end of motor.

- A. The electric motor is a three phase 60 cycle motor and can be wired for 230 or 460 volt. This pump may also be ordered with a 50 cycle 220 or 380 volt motor. If the unit is prewired at the factory, there will be a tag on the motor that will indicate what the motor voltage is. This unit is supplied without a power cord or plug.* The motor leads are located on the magnetic starter inside the electrical box (see electrical schematic decal on inside of box cover).
- B. Carefully check your line voltage to ensure that it is compatible with the voltage required by the pump. Plug cord into proper electrical outlet or provide wiring as required. To rewire motor from one voltage to another, see diagram on motor nameplate and electrical schematic and heater elements sections in parts list.

- ⚠ WARNING: Changing the voltage on this unit is an involved, and if improperly performed, potentially hazardous procedure. Consult the manufacturer for specific information before attempting any rewiring.**

- C. When a valve is changed either from manual to solenoid or from solenoid to manual, reference should be made to the schematic decal inside the electrical box cover.
NOTE: It is not advisable to start and stop the motor to control flow of the pump. Instead, flow should be controlled by valve only.
- D. Reset button: When overheating occurs, the thermal overload will kick out. To restart the motor, place valve in neutral and push the start button once the unit is cooled.
- E. Power outage: The electrical design of this unit is such that when the unit is in operation and the power goes off and back on again, the unit's start button must again be pushed before it will run. Place valve in neutral before restarting.

*NOTE: An appropriately rated power cord and plug should be selected for the current rating of the motor found on the specifications decal on the motor.

PUMP OPERATION – ELECTRIC DRIVEN

The following instructions should be followed when operating the pump for the first time.

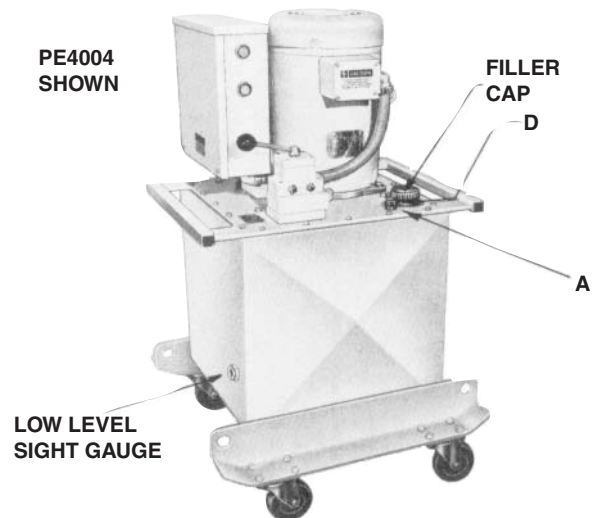
- A. Make sure all valve and hose connections are tight, then plug in the electric motor.
- B. Set valve in the neutral or return position. Jog pump on and off several times. Depress the start button and let pump idle for a few minutes.
- C. Run cylinder out to its full travel several times to eliminate air from the system.
- D. Pump is ready now to be put into regular operation.
NOTE: If a large double acting cylinder is being operated, after eliminating the air from the system, refill the pump reservoir to the bottom of the filler screen with the cylinder in the retracted position, since the forward part of the cylinder acts as a reservoir in this instance.

ADJUSTING THE PRESSURE REGULATING VALVE

1. Loosen the locknut on the pressure regulating valve (A) and back the adjusting screw (D) out a few turns with a screwdriver by turning in a counterclockwise direction. This will decrease the setting to a lower than desired pressure.
2. Pump must be completely connected and the control valve in operating position. Turn the pump on by depressing the "Start" button.
3. With the screwdriver, slowly turn the adjusting screw (D) in a clockwise direction. This will gradually increase the pressure setting. When the desired pressure is reached lock the adjusting screw in position by tightening the locknut.

- ⚠ WARNING: Always adjust the pressure regulating valve by increasing to the desired pressure. Do not attempt to adjust by decreasing from a higher to a lower pressure.**

NOTE: Pressure range is 1,000 to 10,000 PSI.



ADJUSTING THE LOW PRESSURE UNLOADING VALVE

This unit is a two stage, high pressure pump. The low pressure, high volume stage provides fast cylinder piston travel. The unloading valve pressure is preset at the factory at 1550-1650 PSI. In the event this valve needs to be reset, refer to parts list form number 19460, sheet 7 of 7 high pressure pump assembly.

Loosen the jam nut (item #25) and turn in the socket head cap screw (item #24) to increase the unloading pressure or out to decrease the pressure. Once this is done the jam nut should be locked in place.