

### START-UP Procedure

Machine is shipped with hydraulic fluid.

1. Install hydraulic control levers (provided threaded rods with black ball handles)
2. **IMPORTANT:** BEFORE operation, remove the **RED** shipping plug from the hydraulic reservoir, and replace with the provided **BLACK** breather as shown below.



Remove **RED** shipping plug from the hydraulic reservoir



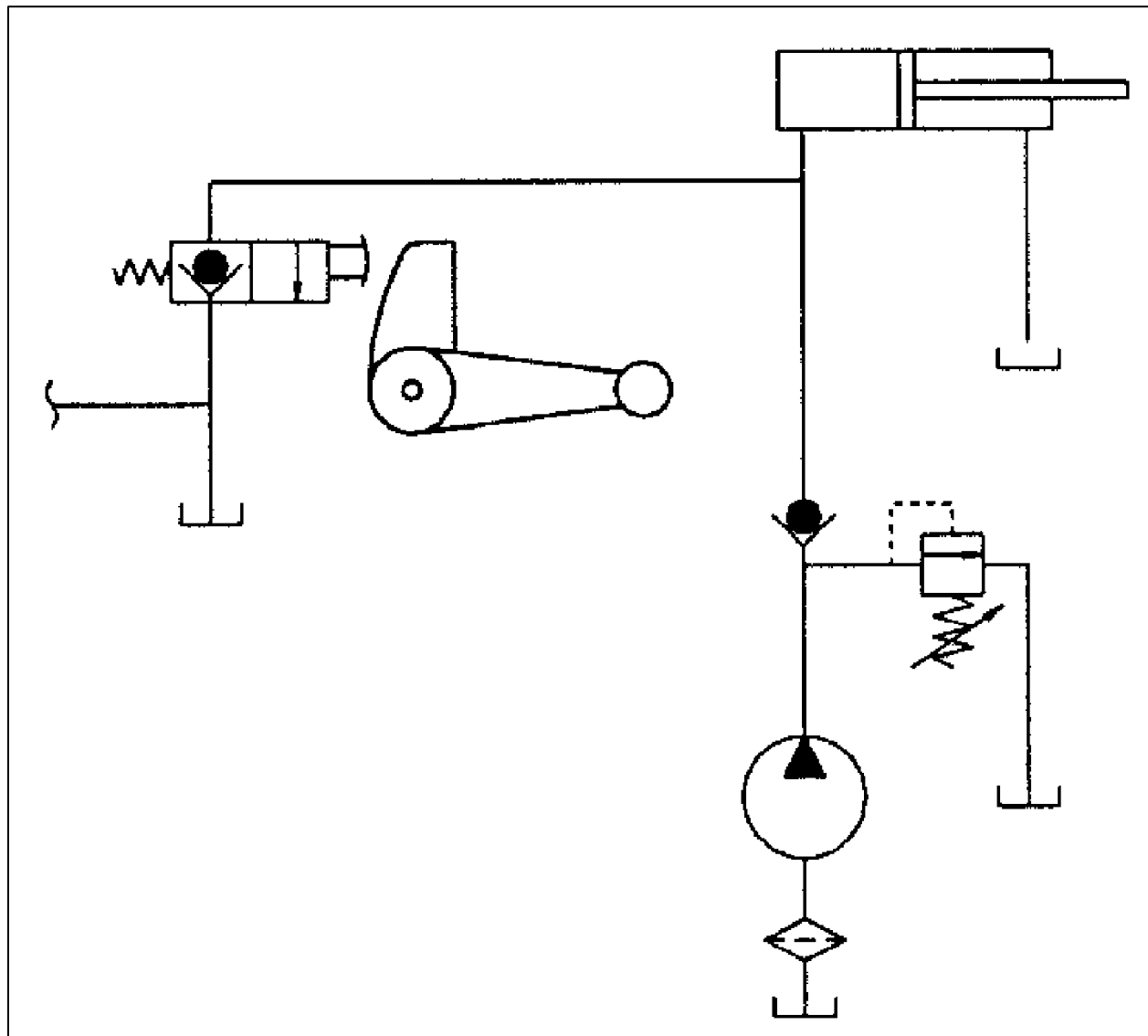
Remove **BLACK** breather from storage position



Install **BLACK** breather in place of **RED** shipping plug

## Hydraulic Schematic

for Morse Part Number M4509-P Hydraulic Power Pack Used on: 400, 405 and 500 Series with 120 or 124 Option Serial Number 0802 to \_\_\_\_ (MMYY)



Maintenance info for Hydraulic Pump

Recommended oil is petroleum based Dexron III ATF or equivalent (non-synthetic). Change oil yearly.

Recommended Operating Conditions:

- Oil Temperature Range: 10°F to 170°F (-25°C to 77°C)
- Operating Temperature: 50°F to 130°F (10°C to 54°C)

Oil Viscosity:

- Optimum 100 to 350 SUS (Cst = .22 X SUS – 135/SUS)
- Minimum 100 SUS at Operating
- Maximum Start Up 4000 SUS

Recommended Filtration:

- 10 micron nominal or better

The system should not be disassembled in the field for maintenance. These are pass or fail components.

If the valve or pump fails it will need to be replaced due to wear on components.

The root cause for the failure needs to be taken into account to avoid contaminating the new components or to avoid exposing them to the same fail parameters.