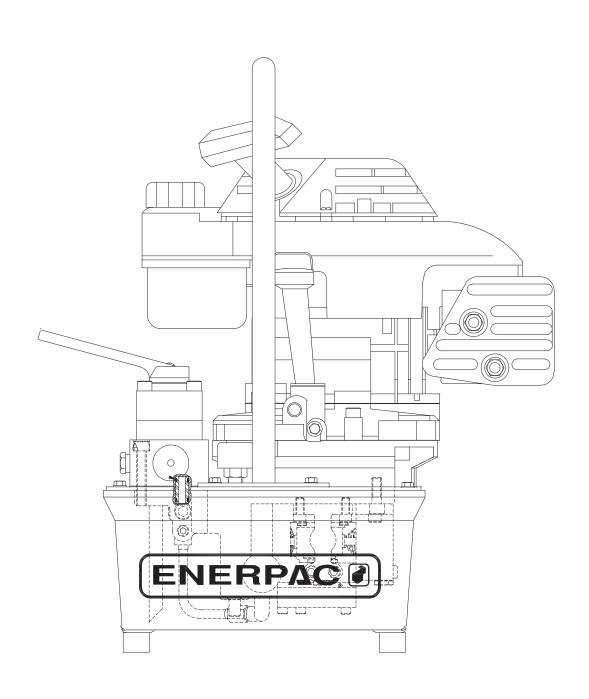


Instruction Sheet

PGHM5042E

54734 Rev. A 06/10



SAFETY

1-1. Working Pressure

The pump's maximum working pressure is 10,000 PSI (700 kg/cm2). Make sure that all hydraulic equipment used with this pump is rated at 10,000 PSI operating pressure.

1-2. Hydraulic Connections

Never disconnect or connect any pressurized hydraulic hoses or fittings. Shift, or open all hydraulic controls several times to assure that the system has been depressurized. If the system includes a gauge, double check the gauge to assure pressure has been released.

When making connections with quick disconnect couplings, make sure the couplings are fully engaged. Threaded connections such as fittings, gauges, etc. must be securely tightened and leak free.

CAUTION: Loose or improperly threaded fittings can be potentially dangerous if pressurized, however, severe over tightening can cause premature thread failure. Fittings need to be tightened secure & leak free. Never hold or stand directly in line with any hydraulic connections while pressurizing. Never grab, touch or in any way come in contact with a hydraulic pressure leak. Escaping oil can penetrate the skin and a serious injury can result.

*Do not subject the hose to potential hazard such as sharp surfaces, extreme heat or heavy impact. Do not allow the hose to kink & twist. Inspect each hose for wear before it is used.

INSTRUCTIONS BEFORE USE

Read carefully. Most malfunctions in new equipment are the result of improper operation and/or improper set-up assembly.

Preparation: Remove pump from shipping container -- but do not remove any plugs or valves until the unit is ready to be fully assembled to prevent dirt or foreign matter from contaminating system.

Inspection: Visually inspect all components for shipping damage. If any damage is found, notify carrier immediately.

Gasoline Motor Oil and Fuel:

- 1. Above 32 degrees Fahrenheit use S.A.E. 10 W 30 (Motor only)
- 2. Below 32 degrees Fahrenheit use S.A.E. 5 W 20 (Motor only)
- 3. Oil sump capacity - About 1.3 pints or check dip stick
- 4. Use clean, unleaded automotive gasoline (without alcohol)

2-1. Hydraulic Connections:

Check hydraulic oil level to prevent possible pump burnout. Open the red plastic fill plug located on reservoir plate. Oil level should be approximately 1" from top of reservoir plate -- with cylinders retracted and motor off. Add Simplex oil as necessary. Do not mix different grades of oil, or types of oil.

Make sure all desired gauge, valve, hose and guick coupler connections are tight and secure before operating (See Section 1.2).

2-2. Starting instructions (Gasoline Motor)

- Hydraulic control valve in neutral (center position):
- Throttle to choke position (extreme right): Grasp STARTER HANDLE and pull rope out slowly to engagement:
- Pull rope with a rapid, continuous full stroke and let rewind slowly, and do not allow snapping back.
- Move the control lever to "HIGH SPEED" position then to "RUN" as the engine warms.

OPERATING INSTRUCTIONS AT A GLANCE

Before Operating Pump:

- 1. Use only cylinders, hoses and equipment rated at 10,000 PSI.
- 2. Make sure all hose and fitting connections are tight and secure. Hoses cannot be kinked or twisted.
- 3. Oil level should be 1" from the top of the reservoir plate, with cylinders retracted and motor off.
- 4. Never operate the pump with the directional control valve in advance or retract at 10,000 PSI without ram movement for more than 1 minute. Leaving the valve in the advance or retract position without the rams piston rod moving will overheat the oil.

After Completing the Job:

- 1. Before disconnecting hoses, fittings, etc., first be sure the ram is retracted & unloaded, and shift the hydraulic controls several times to release system pressure.
- 2. Store the pump in a clean, dry area.

Periodic Maintenance:

1. Completely change the hydraulic oil and clean the oil filter screen and magnet (located in the reservoir) twice a year. (Use ENERPAC oil only). Change the oil more frequently when used in extremely dusty areas or when the oil has been overheated. 2. Contact an AUTHORIZED ENERPAC SERVICE CENTER if there are any problems with the equipment.

OPERATION

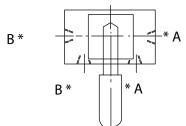
3-1. Control Valve:

4-Way Valve

Pushing lever to right directs pump output to right-hand port. (Closing clamps and pulls)

Pushing lever to left directs pump output to left-hand port. (Open Clamps)

Center position is neutral/hold. Pump output is directed back to tank.



- 3-2. Before starting pump, place valve in Neutral/Hold position (as described above) to prevent accidental movement. Start the pump and let the pump idle for a few minutes.
- 3-3. **Bleeding the Hydraulic System**--air can be removed from the system by fully advancing and retracting the hydraulic cylinder several times with the pump elevated so its reservoir is higher than the cylinder. Single-acting cylinder should be inverted and double-acting on their side with the coupling fitting up. When the trapped air is removed from the hydraulic circuit, the cylinder will advance and retract smoothly. Sluggish cylinder action is usually the first signoff air in the system.
- 3-4. Move lever to Advance position (as described above) to activate cylinders. To hold load, place lever into Neutral/Hold. Move lever to Retract position (as described above) to release load.
- 3-5. Never operate the pump at 10,000 PSI without ram movement for more than 1 minute without shifting the control valve to neutral. Leaving the valve in the advance or retract position without the piston rod moving will overheat the oil.

MAINTENANCE

4-1. Maintain Oil Level -- check hydraulic oil level every 30 hours of operation. Add ENERPAC oil when necessary. Oil level should be no more than 1" from top of reservoir plate -- with cylinders retracted and motor off.

Completely change oil at least twice a year. The following conditions require more frequent oil changes:

- a. Rigorous duty, where oil temperature may reach 140 F.
- b. High humidity environment and extreme changes in temperature that can result in condensation inside the reservoir.
- c. Dirty or dusty environments that may contaminate the oil.
- 4-2. Clean Oil Filter Screen Once a Year
- a. Loosen and remove reservoir plate bolts. Lift pump unit off the reservoir, being careful not to damage the gasket.
- b. Unscrew screen from bottom of pump unit and clean with nonflammable solvent.
- c. Blow dry and reassemble.
- 4-3. Keep areas around pump unobstructed to provide good air flow around the motor and pump. Keep the motor and pump as clean as possible.
- 4-4. Flushing the Pump. If you suspect your pump has been contaminated or discover sludge or other deposits on internal components, you should thoroughly flush the pump.
- a. Remove the old oil from the reservoir, then thoroughly clean the reservoir and refill with a clean, nonflammable flushing oil.
- b. Reassemble the pump and motor to the reservoir.
- c. Now run the pump in no load condition for 1 or 2 minutes maximum.
- d. Unplug the pump and remove the motor and pump assembly again. Now drain the flushing oil and re clean the inside of the reservoir. (Make sure flushing fluid is also drained from pump assembly). Refill the reservoir with ENERPAC hydraulic oil and reassemble the pump.

TROUBLESHOOTING

If the procedures listed below do not remedy the problem -- the pump will require service and should be taken to an authorized ENERPAC service center for repair

Problem Problem	Cause Solution
Sporadic Cylinder Action	 Air in the hydraulic system. See Sec. 3-3 for correct bleeding procedure. Check reservoir oil level.
Motor Will Not Start	Check manufacturer's operating instructions.
Noisy Operation	 Air in system. (See Sec. 3-3 for bleeding procedure). Be sure the oil reservoir is filled to normal level. Check all points where air might leak into system.
Pump Oil is Over Heating	 Oil viscosity too high. Check for high pressure leakage on upper pressure plate. (Leaking at plug). Oil level is low. Fill reservoir to normal level, or refit the pump with larger reservoir. (See Section 3-5)
Pump Runs but Will Not Pump Oil	 Pump is not primed. Run pump a few minutes tipping from side to side. Check to make sure that externally adjustable relief valve set properly. Check internal relief valve. Damaged O-Rings. Take to nearest ENERPAC service center for repair. Defective control valve. (Troubleshoot separately).