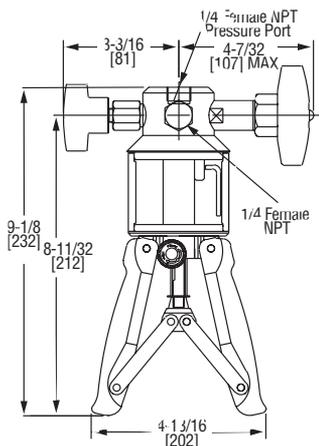




Model HHP Hydraulic Hand Pump

Specifications – Operating Instructions



Model HHP Hydraulic Hand Pump generates pressures up to 10,000 psi (700 bar). Scissor action pump allows quick priming and pressure generation. Use in conjunction with an analog or digital pressure gage for a complete calibration system.

The pump is designed with a large, see through reservoir with a capacity of over 4 oz. A variety of fill liquids can be used including mineral oil, distilled water, and alcohol. The sealed stainless steel and tempered glass construction provide leak free operation.

Model HHP offers adjustable over pressure protection, fine control, and a unique selector switch to move from priming to high pressure generation.

Figure 1 Key:

1. $1/4$ " NPT female connection to take master instruments. E.g. Digital/Analog indicators.
2. Pressure release valve.
3. Fine control.
4. Front port: $1/4$ " NPT female.
5. 100cc's Reservoir.
6. Reservoir filling plug.
7. Priming/High pressure selector.
8. Fluid inlet tube.
9. Rear port: $1/4$ " NPT female reserved for valve pressure relief.
10. Pump Handles.

SPECIFICATIONS

Output Ranges: 0 to 10,000 psi (0 to 700 bar).

Process Connection: $1/4$ " female NPT (quick fit).

Gage Connection: $1/4$ " female NPT.

Materials: Stainless Steel and tempered glass.

Weight: 3.5 lbs (1.6 kg).

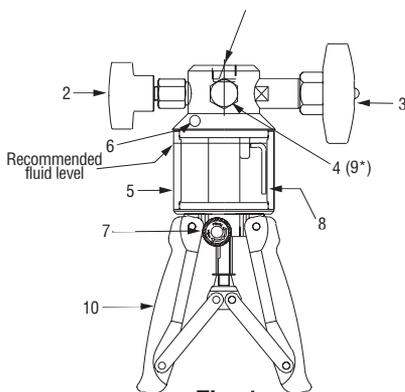


Fig. 1

WARNING: HIGH PRESSURE:
Uncontrolled release of high pressure is hazardous to personnel and may cause damage to equipment. Before connection of any pressure component to the HHP ensure that the component(s) is/are isolated from the pressure supply and any internal pressure is released slowly. Do not connect HHP to external pressure source. Pressure built up internally during use can be extremely high, ensure that all connections are made correctly.

GUIDELINES FOR USE:

1. Remove filling plug (6) and fill reservoir (5) to the recommended level with the appropriate fluid and replace plug.
2. Connect master instrument to pump via connection (1) using the appropriate seals and adaptors.
3. Connect instrument under test to flexible hose/gage adaptor and attach to pump via the quick-fit connection (4).
4. Adjust the Fine control (3) to 'mid-travel'.
5. Ensure the pressure release valve (2) is open (turn fully clockwise then one turn anti-clockwise). Fully squeeze handles 'in' and turn the selector (7) to the 'prime' position.
6. Operate handles several times to expel air from the pump. (Ensure that the fluid inlet tube (8) remains immersed in fluid at all times).
7. Close the release valve (2) fully clockwise.
8. Prime system by squeezing handles together and then releasing, allowing the oil to enter the pump cylinder. Repeat as necessary until system is fully primed and

low pressure is indicated on either the master or test instrument.

9. With handles fully squeezed 'in' select the 'high' pressure position on selector (7) and operate handles to generate approximate pressure.

Note: Smaller handle strokes enable easier pressure generation at high pressures.

10. Adjust pressure to required value using the fine control (3).

Note: Pressure will fall slightly, immediately after pressure generation due to thermodynamic effects, but will stabilize after a short time.

Warning: Do not exceed maximum operating pressure indicated on pump label!

11. To totally release pressure from the system turn release valve (2) one turn anti-clockwise and select the 'prime' position on selector (7) after first squeezing handles fully in.

Note: Careful use of the release valve (2) and fine control (3) enable a controlled release of pressure, essential for calibration purposes.

12. **RESERVOIR FLUID LEVEL:** If the fluid level in the reservoir falls considerably during use, a partial vacuum can be created in the reservoir which may affect the pump performance. To avoid this, simply allow air to enter the reservoir by partly unscrewing the filling plug (6).

13. **SEAL REPLACEMENT:** Dependent on the frequency of use, the Main Piston Seal (and others) will need replacing. Call factory for replacement seal.