

# Hydraulic Hand Pump - 23614P

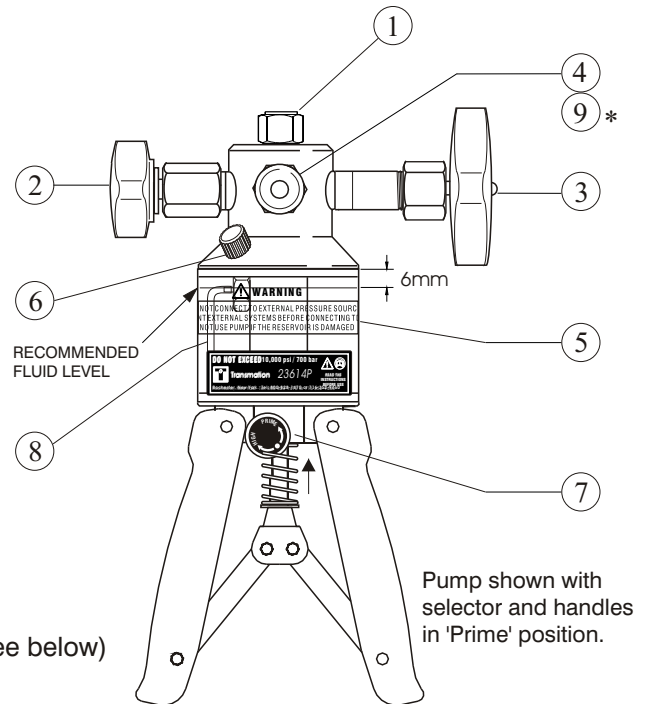
## OPERATING INSTRUCTIONS



PRIME / HIGH PRESSURE  
SELECTOR

### Key:

1. 1/4" NPT female connection to take master instruments. e.g. Calibrators, Digital / Analog indicators.
2. Pressure release valve.
3. Fine control.
4. Front port: 1/4" NPT female to take optional Quick-fit connection and flexible hose.
5. 100 cc's Reservoir (4 oz)
6. Reservoir filling plug.
7. Priming / High pressure selector.
8. Fluid inlet tube.
9. Rear port: Reserved for Pressure Relief Valve ONLY. (see below)  
( \* Do not use for any other purpose )



Pump shown with  
selector and handles  
in 'Prime' position.

### Specification:

- Pressure range:** 0 to 10,000 psi max. (700 bar ).
- Pressure media:** Low Viscosity Mineral based Hydraulic Oil,  
Distilled water  
( 'Skydrol' and brake fluid option available )
- Pressure connections:** 1/4" NPT female ( item 1 )  
1/4" NPT female ( item 4 )
- Dimensions:** L 9.3" x W 6.25" x D 2.75" ; approx. 3.5 lbs in weight.

### Ordering Codes for Pump & Optional Accessories

- 23614P** Hydraulic Hand Pump.
- 23615P-1/2/3/4** 4 ranges of Pressure Relief Valve: 150-750psi, 750-3000psi, 3000-6000psi, 6000-10000psi
- 23616P** Service kit containing a set of seals.

# User Instructions : Hydraulic Hand Pump

## SAFETY 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 23614P ensure that the component(s) is/are isolated from the pressure supply and any internal pressure is released slowly. Do not connect pump to external pressure source. Pressure built up internally during use can be extremely high, ensure that all connections are made correctly.

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) sealing as required.
3. Connect instrument under test to flexible hose / gauge adaptor and attach to pump via the quick-fit connection (4) (see optional accessories).
4. Adjust the Fine control (3) to 'mid-travel'.
5. Ensure the pressure release valve (2) is **open** ( turn fully clockwise then one turn anticlockwise ). 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 fluid 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 MAX. OPERATING PRESSURE OF 10,000 PSI (700 bar ).**
11. To totally release pressure from the system turn release valve (2) one turn anticlockwise 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) enables 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:** Dependant on the frequency of use, the Main Piston Seal (and others) will need replacing. Replacement seals and instructions for fitting are available in the Service Kit. (see optional accessories).