Safety Instructions

- Check all system fittings and connections are tight and leak free.
- Tighten the pressure release valve fully.
- 80% of the required pressure is given using handle and the remaining 20% is given using fine control.
- Careful use of the release valve and fine control enables a controlled release of pressure, essential for calibration purposes.
- Handles are fully squeezed together on each stroke to achieve max pressure output.
- Do not release max pressure using pressure release valve but use fine adjustment valve to avoid damage to the instrument.
- Do not exceed the max pressure indicated on the pump label.

Specification

Medium	: Oil / Water
Range	: 0 tp 700 Bar
Pressure Connection	: ¼ “BSP (F)
Resolution / Sensitivity	: Up to 1 mbar
Weight	: 1.8kg (with oil/water)

Accessories

1. Pump with hose
2. Adaptors
    - ¼” BSPM to 1/2” BSPF
    - ¼” BSPM to 1/4” NPTF
    - ¼” BSPM to 3/8” NPTF
    - ¼” BSPM to 3/8” BSPM
    - ¼” BSPM to 1/2” NPTF
    - ¼” BSPM to 1/8” NPTF
    - ¼” BSPM to 1/8” BSPF
    - 3/8” BSPM to ¼” BSPF
    - HEXAGON CAP FOR HYDRAULIC HAND PUMP

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OPERATING MANUAL

Taishio

HYDRAULIC HAND PUMP
TS 700HP

Introduction

The hand pump is an ideal pressure source for calibrating pressure transmitters, pressure transducers, pressure switched and pressure gauges.

There is a Low/High pressure selector switch in the pump, which is used for selecting either Low pressure/High pressure. It is fitted with the fine adjustment valve and pressure release valve. The output pressure of the hand pump can be adjusted precisely by the fine adjustment valve while calibration. Pressure Release valve is used for releasing the pressure after calibration. This pump generates pressure up to 700 bar.

Safety Warning

High Pressure

Make sure the connection of any pressure component to the TAISHIO Hydraulic Hand Pump, TS700HP is/are isolated from the pressure supply and any internal pressure release slowly. Uncontrolled release of the high pressure is hazardous to personnel and may damage the instrument.

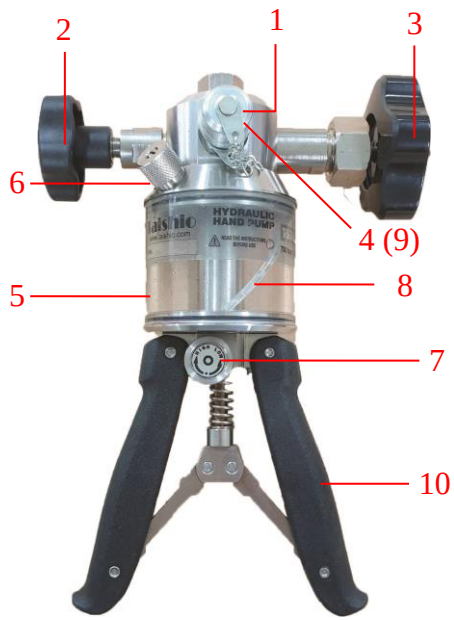
Do note connect the pump to the external pressure source. Pressure built-up internally during the use may be extremely high and make sure that all connectors are mode correctly.

Installation & Operation

"Read safety instruction before use"

1. Remove reservoir filling plug **(6)** and fill reservoir **(5)** with the oil/water up to the marked level and replace the plug.
2. Open the pressure release valve **(2)** in 2 or 3 turns clockwise direction.
3. Turn fine control **(3)** to "mid position" in anti-clockwise direction.
4. Fully squeeze handles **(10)** in and turn Low/High pressure selector **(7)** to LOW position.
5. Connect the master instruments through connection **(1)** using appropriate adapter.
6. Connect the test instruments to flexible hose/gauge adapter and attach to pump through the connection **(4)**.
7. **Prime System:** Squeeze the handles **(10)** together then release when the oil enter the pump cylinder. Repeat as necessary until until the system is fully primed and low pressure indicated on the instrument.
8. Turn the pressure release valve **(2)** fully in anti-clockwise direction.
9. Squeeze the handles **(10)** to generate approximate pressure. Stop when the pressure reached 150-200 bar.
10. Fully squeeze handles "in" and turn LOW/HIGH pressure selector **(7)** to HIGH.
11. Generate pressure from 200-400 bar.
12. Generate the remaining pressure using fine control **(3)** by turning it in clockwise direction.
13. Release the pressure using the fine control **(3)** by turning it anti-clockwise direction then use the pressure release valve **(2)** by turning one turn in anti-clockwise direction.

Parts Identification



1. Connection 3/8" BSP male adapter
2. Pressure release valve
3. Fine control
4. Front port: ¼" BSP female
5. Reservoir
6. Reservoir filling plug / Safety valve
7. Low / High pressure selector
8. Fluid inlet tube
9. Rear port: ¼" BSP female reserved for valve pressure relief
10. Pump handles