
**OPERATING INSTRUCTIONS FOR
HYDRAULIC COMPARISON TEST PUMP
Model 4740**



Model 4740

OPERATING INSTRUCTIONS FOR HYDRAULIC COMPARISON TEST PUMP

Manufactured by;

GE RUSKA

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WARNING

PRESSURIZED VESSELS AND ASSOCIATED EQUIPMENT ARE POTENTIALLY DANGEROUS. THE APPARATUS DESCRIBED IN THIS MANUAL SHOULD BE OPERATED ONLY BY PERSONNEL TRAINED IN PROCEDURES THAT WILL ASSURE SAFETY TO THEMSELVES, TO OTHERS, AND TO THE EQUIPMENT.

OPERATING INSTRUCTIONS FOR HYDRAULIC COMPARISON TEST PUMP

Model 4740

(Maximum Pressure Range 700 bar / 10,000 psi)

Mounting:

The pump assembly should be mounted securely to a stable work-bench or similar platform. Four mounting holes are provided in the Pump Stand for this purpose.

Connections:

Connect the reference instrument to one Test Station (23).

Connect the device under test (DUT) to the other Test Station.

Screw the appropriate Adapter (27) fully on to the DUT.

Screw assembly down COUNTER-CLOCKWISE onto the Test Station.

Note:

The internal thread in the lower half of the adapter is LEFT-HANDED, HAND-TIGHT is sufficient, ensure the bottom face contacts the test seal (26) on the Test Station (23).

To adjust the position to face forward, hold the Adapter and unscrew the DUT COUNTER-CLOCKWISE so that it faces forward. Hold the DUT steady while turning the Adapter COUNTER-CLOCKWISE until it pulls down onto the Test Seal. To calibrate rear connections gauges, use an optional Angle Adapter.

IMPORTANT:

ENSURE THAT ANY DUT FITTED TO THE TEST STATION IS FREE FROM CONTAMINATION. PARTICLE CONTAMINATION CAN DAMAGE THE VALVE SEAT AND BARREL ASSEMBLY, CAUSING POSSIBLE LEAKAGE.

Fluid Compatibility:

Any Fluid can be used in this equipment, provided that it is compatible with Brass, Anodised Aluminum, Nylon and Nitril Rubber Seals.

Priming:

- 1.) Screw the Capstan (3) turns fully in.
- 2.) Lift Reservoir Cover (21) against the spring (22), and rotate through 180°.
- 3.) Fill Reservoir (20) approximately $\frac{3}{4}$ full with the relevant fluid.
- 4.) Close the Reservoir Valve (18).
- 5.) Screw the Capstan fully out, then open the Reservoir Valve.
- 6.) Leave the Reservoir Valve open, and screw the Capstan fully in. During this operation, bubbles will appear from the base of the Valve assembly in the Reservoir.
- 7.) Repeat steps 4 to 6 above until no bubbles appear in the reservoir.

IMPORTANT:

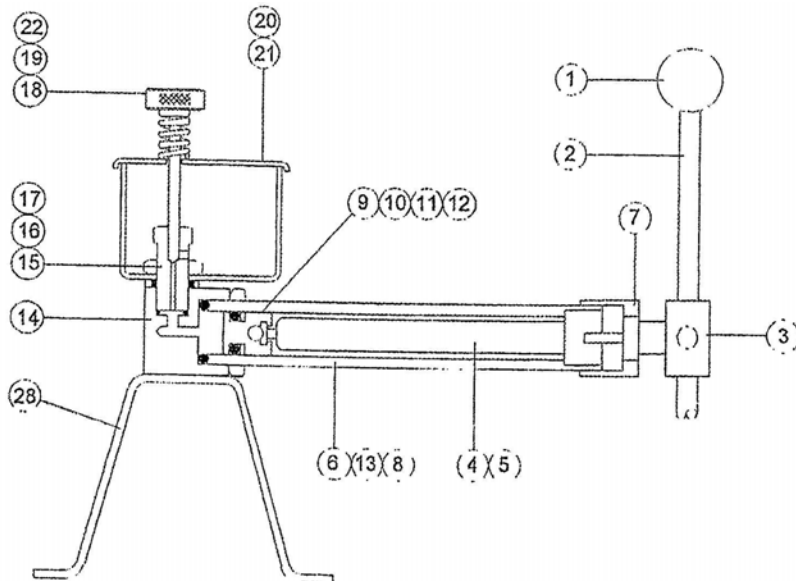
THE ABOVE PRIMING SEQUENCE WILL GENERATE A PARTIAL VACUUM WITHIN THE SYSTEM (POSSIBLY UP TO 80% VACUUM). IF THE DUT FITTED TO THE TEST STATION IS SENSITIVE TO VACUUM, THEN PRIME AS ABOVE BUT LEAVE THE RESERVOIR VALVE OPEN.

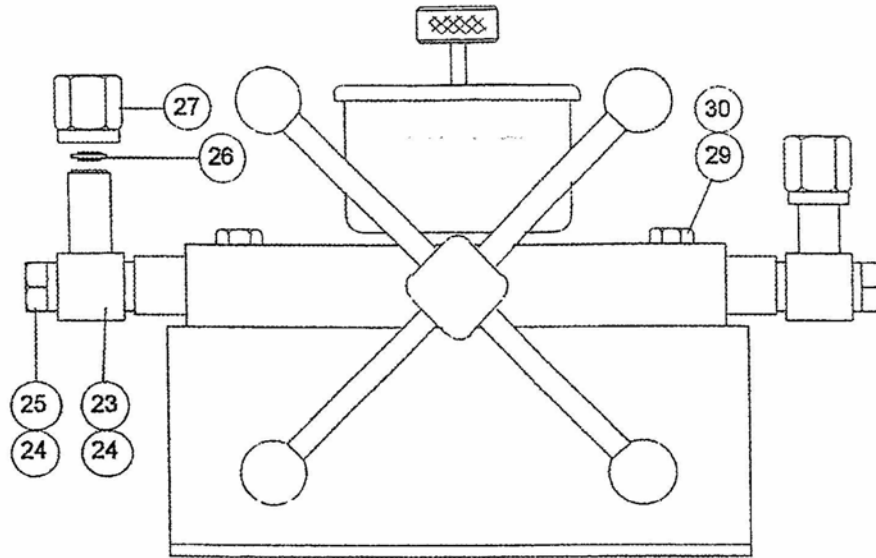
Operation:

- 1.) Open Reservoir Valve and screw the Capstan fully out.
- 2.) Close the Reservoir Valve.
- 3.) Screw the Capstan in to increase the system pressure, and out to decrease.

IMPORTANT:

ALWAYS REDUCE THE SYSTEM PRESSURE BY SCREWING THE CAPSTAN FULLY OUT. **NEVER** OPEN THE RESERVOIR VALVE TO REDUCE PRESSURE, AS THE SUDDEN DROP IN SYSTEM PRESSURE MAY CAUSE DAMAGE TO THE ATTACHED INSTRUMENT.





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| 1.) | B1021 | Knob |
| 2.) | D1020 | Spoke |
| 3.) | D1024 | Hub |
| 4.) | D3901 | Ram Screw |
| 5.) | D1053 | Key |
| 6.) | D3903 | Barrel |
| 7.) | D1019 | Barrel Union |
| 8.) | D1023 | Barrel Locknut |
| 9.) | D3904 | Rambler |
| 10.) | B1022 | Ball |
| 11.) | B4707 | Rambler Seal |
| 12.) | B3906 | Anti-Extrusion Ring |
| 13.) | B1054 | Barrel Seal |
| 14.) | D1201 | Manifold |
| 15.) | D1205 | Reservoir Valve Body |
| 16.) | B1025 | O-Ring |
| 17.) | D1206 | Locknut |
| 18.) | D1203 | Valve Screw |
| 19.) | D1207 | Valve Screw Cap |
| 20.) | D1208 | Reservoir |
| 21.) | D1209 | Reservoir Cover |
| 22.) | B1213 | Spring |
| 23.) | D1202 | Test Station Banjo |
| 24.) | B1211 | Bonded Seal |
| 25.) | D1210 | Banjo Bolt |
| 26.) | B1066 | Test Seal |
| 27.) | D1018 | Adapter |
| 28.) | D1212 | Pump Stand |
| 29.) | B1215 | Bolt |
| 30.) | B1216 | Nylon Nut |