

HAND PUMP „BIG“ (SINGLE ACTION)

MANUAL

80255100

SAFETY NOTICE

To understand the functioning of the tools, is it necessary to read the manual first!

- > Read these instructions before assembling, during installation and throughout use and in the proper sequence
- > Always refer to the OEM manufacturer's instructions and service manuals for the latest data and to maintain the correct sequence
- > These work instructions and the recommended tools are meant to serve as aides only and are by no means a guarantee for certain results.
- > This tool kit is a special collection and it has been tested and used successfully on several occasions. It is of the utmost importance to maintain the correct procedure as per the instructions
- > The use of the tools should only be carried out by qualified personnel!



ATTENTION
Special caution



CORRECT



LIGHT BULB
Hint or recommendation



WRONG



SAFETY GOGGLES
Wearing safety goggles
necessary

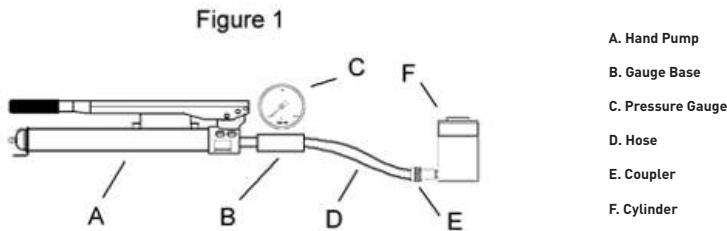
1. DETAILS

Suitable for 10, 17, 20 and 30 ton hydraulic open core cylinders.

- > Latest design hand pump!
- > Usable tank capacity: 655 cm³
- > Stroke volume: 2,62 cm³
- > Max. operating pressure: 700 bar
- > Total length: 585 mm

2. SET UP

Before using hand pumps, visually check all units, to make sure there is no damage to pump or other hydraulic equipment. Ensure that no oil is leaking or missing parts.



To connect the hand pump, please refer to Figure 1 and follow the steps below.

Step 1: Clean all hose ends, couplers and other areas around oil ports of pump and cylinder, remove thread protectors from the hydraulic oil outlets.

Step 2: Thread a pressure gauge and gauge adapter into hand pump.

Step 3: Thread hose into gauge adapter.

Step 4: Connect the hose(s) to cylinder or tool.

NOTE

- > For single-acting hand pump, connect one hose from the pump to the cylinder
- > For double acting pump, connect one hose from the advance port of the pump to the advance port of the cylinder, connect another hose from the retract port of the pump to the retract port of the cylinder
- > For double acting pump, pressure gauge should install in the advance port of the pump

IMPORTANT

To fully seal the connections, use of Teflon tape or sealing compound is necessary. Please leave first complete thread free to prevent tape particles from entering into the hydraulic system. Any tape particles in the hydraulic system may jam the oil flow.

3. BLEEDING AIR FROM THE CYLINDER

Air may accumulate within a hand pump during shipment or after refilling the hydraulic oil. This trapped air can cause the hand pump feel weak. Use the steps below to bleed the air from cylinder.

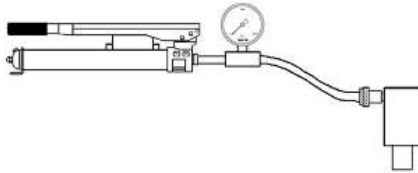


Figure 2

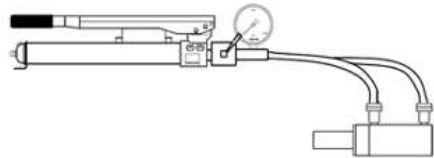


Figure 3

- > **Single-acting cylinders:**
Position the cylinder as figure 2 shows, so that the piston rod is extended down and the cylinder lower than the pump. Fully extend and retract the cylinder 1 or 2 times. It may be necessary to repeat the above steps several times.
- > **Double-acting cylinders:**
Lay the cylinder as figure 3 shows, to make sure the couplers facing up. Fully extend and retract the cylinder 1 or 2 times. It may be necessary to repeat the above steps several times.

4. OPERATION



Some hand pumps have an air vent screw, be sure loosen it before using the hand pump. To avoid the oil leaking from oil tank, please tighten the air vent screw before shipment.

4.1 SINGLE ACTING HAND PUMP

Single acting hand pump two-way valve.

- > Turn the hand pump's release valve clockwise to close the valve. Operate the pump handle up and down to produce pressure to the cylinder, causing the piston to extend
- > Monitor the pressure gauge while completing the application
- > Slowly turn the hand pump's release valve counterclockwise to release the pressure; the release speed is controlled by how fast the valve is opened

5. MAINTENANCE

5.1 ADDING/CHANGING HYDRAULIC OIL

When oil level in hand pump is low, please add hydraulic oil. With cylinder fully retracted, set hand pump in its normal level position, remove oil filler screw. Fill until oil is within the oil filler screw hole opening, reinstall oil filler screw. For best performance and increased system life, replace the complete hydraulic oil at least once per year.

IMPORTANT

Please always use clean oil or other approved hydraulic oil, use other unapproved oil or dirty oil will damage the hand pump.

5.2 LUBRICATION

A coating of light lubricating oil to pivot points, axles and hinges will help to prevent rust and assure that pump assemblies move freely.

5.3 STORAGE

Always keep hand pump and other attachments clean, use dust cap to protect couplers. When not in use, cylinder and hand pump piston must be fully retracted and stored in a clean environment.

6. TROUBLE SHOOTING

Problem	Cause	Solution
Hydraulic unit does not lift, Pipe Bender does not work.	1. Pump release valve not fully closed 2. Couplers not fully tightened 3. Oil level in pump reservoir is low 4. Pump or valve malfunctioning	1. Fully tighten pump release valve 2. Fully tighten couplers 3. Fill oil in pump
Hand pump will not maintain pressure	1. Leaky connection 2. Cylinder seals leaking 3. Release valve not fully closed 4. Pump or valve malfunctioning	1. Clean and reseal thread, tighten connection 2. Replace worn seals. Clean inside cylinder and use clean hydraulic oil 3. Fully tighten the release valve.
Cylinder extends slower than normal	1. Leaky connection. 2. Coupler not fully tightened. 3. Pump malfunctioning.	1. Clean and reseal thread, tighten connection 2. Fully tighten couplers 3. Repair, or use another pump and valve
Cylinder will not retract or <u>Retracts slower</u> than normal	1. Pump release valve closed. 2. Couplers are not fully tightened. 3. Pump reservoir is full 4. Hose is blocked 5. Return spring is damaged 6. Cylinder damaged.	1. Open release valve 2. Tighten the couplers 3. Drain hydraulic oil to correct level 4. Clean or change hose 5. Change return spring

NOTES

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