

## Hydraulic cylinders

### 1. Adding hydraulic fluid

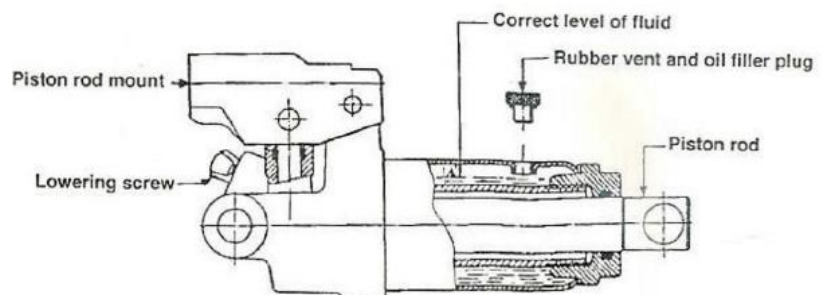
Remove the cover plate. On the hydraulic cylinder you will see a rubber plug in the fluid filler hole. With the trolley jack in horizontal position on the floor, remove the rubber plug by pressing it in on the side with a screwdriver. Fill in hydraulic fluid (type: HLP 32 Iso or equivalent) through the fluid filler hole. You must fill in enough fluid to cover the cylinder visible inside. Re-insert the rubber plug in the filler hole.

### 2. Venting

The hydraulic system has to be vented at least after each time add hydraulic fluid. Air pockets may also form in the hydraulic fluid passages if the jack is not used for a long time. This is the case if the load sinks again after being raised half or only part of the way.

To vent the hydraulic system, pump up the unloaded jacking arm approximately halfway.

Now press your foot against the jacking arm to exert a little pressure on the hydraulic system. The lowering screw must of course be closed when you doing this. Use a screwdriver to press the rubber plug slightly sideways until the air escapes. Now lower the trolley jack by opening the lowering screw and repeat the procedure 2 or 3 times. Air is also vented from the system via the lowering screw. Any drops of fluid which may then escape are irrelevant for the jack's future use. You can now rest assured that there are no longer any air pockets in the fluid passage and the jack will work correctly.



### 3. Maintenance

All moving joints should be oiled and the roller bearings of the steering wheels greased every three to six months, depending on how often the trolley jack is used. Every hydraulic system is sealed with O rings or cup packings which result in wear depending on how often the trolley jack is used. To prevent damage to the seals, use only acid-free hydraulic fluid to top up the system.

#### **Catch old fluid in a special and deliver to your old oil disposal center!**

You should always move the system (piston) to idle position (piston inserted) once the trolley jack is no longer needed. This will protect the precision-machined surface of the piston and the piston rod from corrosion.

Your trolley jack will give you good service if you use only high-grade hydraulic fluid. Never mix different types of fluid! Never use brake fluid, alcohol, glycerin, dirty fluid etc.

Faults	Causes and fault clearance
The load cannot be raised with the trolley jack	<ol style="list-style-type: none"> <li>1. The lowering screw has not been tightened.                             <ul style="list-style-type: none"> <li>- Tighten the screw clockwise.</li> </ul> </li> <li>2. The level of fluid is too low.                             <ul style="list-style-type: none"> <li>- Add more fluid as described in the instructions.</li> </ul> </li> </ol>
The trolley jack cannot hold the load in raised position.	<ol style="list-style-type: none"> <li>3. See No. 2 and No. 3</li> <li>4. The hydraulic system is clogged with dirt.                             <ul style="list-style-type: none"> <li>- First close the lowering screw and then open the vent plug.</li> <li>- Place your foot against a front wheel and pull up the jacking arm as far as possible.</li> <li>- Lower the jacking arm and try again to raise the load.</li> </ul> </li> </ol>
The hydraulic system (piston) cannot be extended to its full height.	<ol style="list-style-type: none"> <li>5. See No. 2 and No. 3</li> <li>6. There is air in the hydraulic system.                             <ul style="list-style-type: none"> <li>- Open the vent plug and then remove the air from the hydraulic system by pumping up and down several times as described in the instructions.</li> </ul> </li> </ol>
The hydraulic system cannot be fully lowered.	<ol style="list-style-type: none"> <li>7. See No. 2 and No. 3</li> <li>8. The return spring is worn or disconnected.                             <ul style="list-style-type: none"> <li>- You should clean and lubricate all moving parts in regular intervals.</li> </ul> </li> </ol>