

46.0

Checking Oil Pressure of Power Steering Pump

Checkup

1 Remove closing cover (3) and drain oil with syringe, since otherwise the oil will run out when unscrewing high-pressure expanding hose (6) (fig. 1).

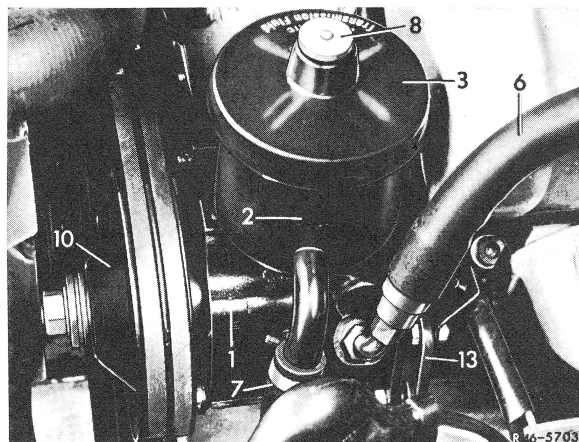


Fig. 1

- | | |
|--------------------------------|---------------------|
| 1 Power steering pump | 7 Return hose |
| 2 Supply tank | 8 Knurled nut |
| 3 Closing cover | 10 Double pulley |
| 6 High-pressure expanding hose | 13 Mounting bracket |

2 Unscrew high-pressure expanding hose on power steering pump and connect testing device (2). Open throttle valve (3) on pressure gauge (Fig. 2).

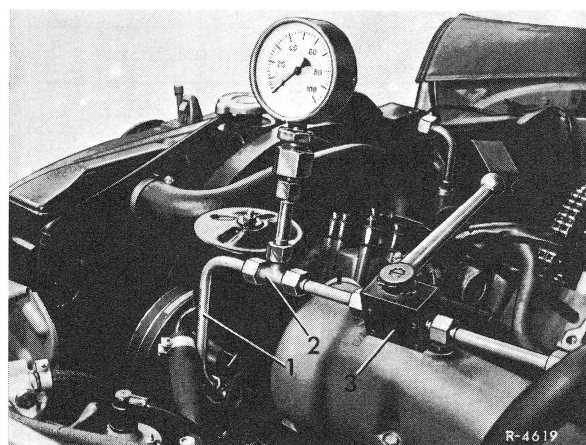


Fig. 2

- | | |
|-------------------|------------------|
| 1 Connecting pipe | 3 Throttle valve |
| 2 Testing device | |

3 Connect high-pressure expanding hose to testing device, fill supply tank with specified oil.

4 Run engine at idling speed and complete the following measurements:

a) With **throttle valve open**, measure **circulation pressure which should not exceed 5 bar gauge pressure (5 atü)**. Do not move steering wheel when measuring, since this would activate the control valve and the pressure would increase.

b) Connect **throttle valve** to testing device and **measure max. pressure** of power steering pump, while accelerating engine to maintain a speed of approx. 1000/min.

The max. pressure can also be measured by turning the steering wheel to lefthand and righthand lock.

Caution, do not spend too much time for measuring, since this would cause the oil temperature to rise to non-permissible limits, which would in turn result in damage to power steering pump.

c) If the pump does not attain the specified pressure, check volume control valve and pressure relief valve and replace, if required.

5 Disconnect high-pressure expanding hose on testing device, remove testing device, connect high-pressure oil hose to power steering pump. Tighten pipe nut to 45–50 Nm (4.5–5 kpm).

6 Fill supply tank up to mark with oil. Add oil with the engine running.

7 Check power steering system for leaks.

Revision: Tightening torque (*).

Data

Max. speed of power steering pump	7000/min	
Circulation pressure	2–5 bar gauge pressure (atü)	
Pressure relief valve opens at	60 ± 5 bar gauge pressure (atü)	82 ± 3 bar gauge pressure (atü)

Installation Survey of Power Steering Pumps

Pump Version	Installed in Model
Vickers VT 27, opening pressure of pressure relief valve at 60 bar (basic color of type rating plate: black)	107, 114, 115 116.020, 116.024, 116.025, 116.020 USA 1st version
Vickers VT 27, opening pressure of pressure relief valve at 82 bar (basic color of type rating plate: blue)	116.028, 116.029, 116.03, 1st version 116.020 USA 2nd version
Vickers VT 49, opening pressure of pressure relief valve at 82 bar (basic color of type rating plate: blue)	116.028, 116.029, 116.03, 2nd version

Note: The opening pressure of the pressure relief valve is punched into type rating plate.

Oil Grades/Capacity

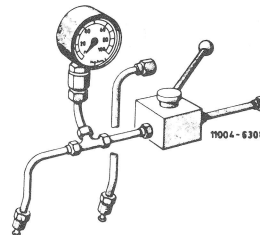
Automatic transmission fluid (ATF) or transmission oil	refer to „Specifications for Service Products“ refer to „Specifications for Service Products“	Page 236.1, 236.2 Page 237
Capacity	approx. 1.5 liters	

Tightening Torque

	Nm	(kpm)
Pipe nut on high-pressure expanding hose	45–50	(4.5–5)*

Special Tool

Testing device



115 589 13 21 00