

Measuring of Delivery Pressure and Fuel Pump Output without Bosch Taster 07.4.1

M 116, M 117

Test Values

Measuring instructions		at idling speed and a delivery pump voltage of at least 12 V
Delivery pressure in ring line	Measuring point	prior to pressure regulator on branch connection in ring line
	atü	2.0 + 0.1
Delivery capacity ¹⁾	Measuring point	following damper container in return line
	1 Liter	in max. 30 sec.

1) The fuel tank should be at least half filled for measuring delivery capacity.

Special Tools

Matra terminal W 157	—
Pressure gauge calibrated to measuring range of 0–2.5 atü	—
Fuel collecting vessel	116 589 01 63 00

Measuring the Delivery Pressure

1 Reduce fuel pressure in ring line for **safety reasons** by pulling electric plug connection on starting valve. Connect terminals of starting valve to positive (+) and negative (–) pole of battery for approx. 20 seconds.

Then reinsert plug connection on starting valve.

2 Remove air filter, connect pressure gauge on branch connection (arrow) in ring line (Fig. 1).

3 Run engine at idling speed and measure fuel pressure in ring line. Rated value 2.0 + 0.1 atü.

4 Stop engine, fuel pressure may drop to 1.7 atü. After another approx. 5 minutes a pressure drop of up to 1.5 atü is permitted. If the fuel pressure drops uniformly to 0 atü, **the following points may have an inside leak:**

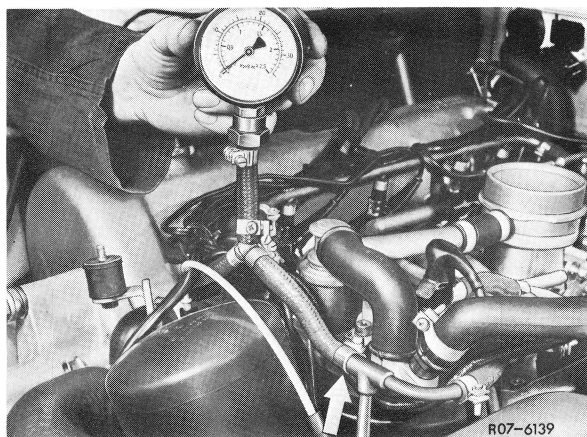


Fig. 1

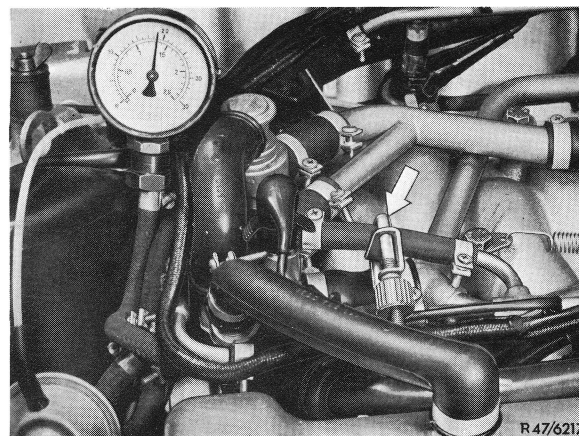


Fig. 2

07.4.1 Measuring of Delivery Pressure and Fuel Pump Output without Bosch Taster

a) Check starting valve, then switch on ignition and disconnect fuel hose on starting valve (arrow in Fig. 2).

If the pressure gauge shows no drop in fuel pressure, the starting valve leaks and should be replaced.

b) Check pressure regulator by switching on the ignition and disconnecting the fuel return hose following the pressure regulator the moment the fuel pump stops (arrow in Fig. 3). If the pressure gauge shows no drop in fuel pressure, the pressure regulator leaks and should be replaced.

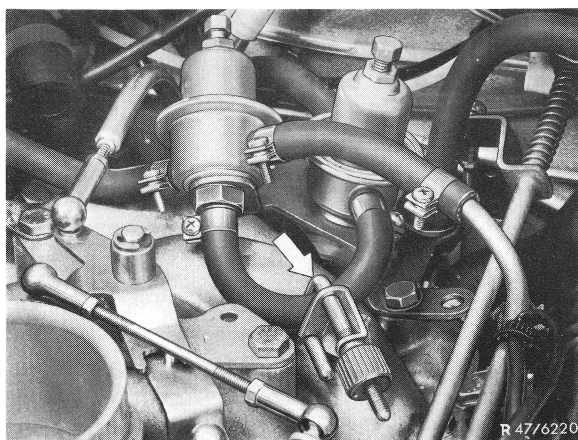


Fig. 3

c) Check ball valve in delivery connection of fuel pump by switching on the ignition and disconnecting the fuel hose in front of the ring line the moment the fuel pump stops (arrow in Fig. 4).

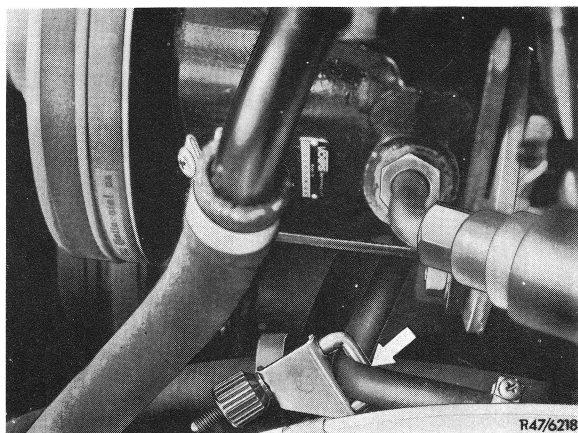


Fig. 4

If the pressure gauge shows no drop in fuel pressure, replace fuel pump.

d) Check injection valves by removing injection valves together with ring line, placing fuel collecting vessel underneath (Fig. 5).

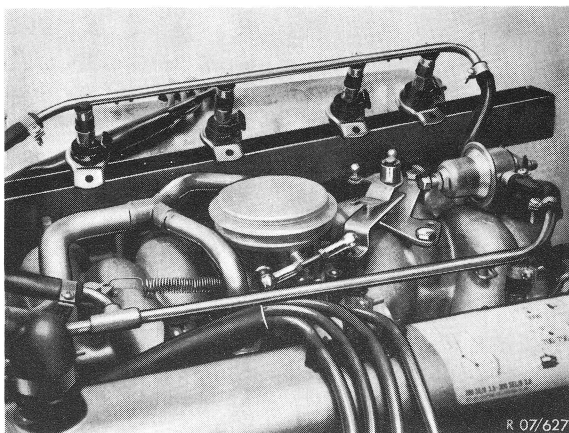


Fig. 5

Then remove cover on righthand front wall column. Pull off relay 1 (arrow) and bridge the two poles 1 and 3 (Fig. 6).

This will energize the fuel pump, which will then run with the engine stopped and the ignition switched on.

Switch on ignition and check injection valves for leaks, replace leaking injection valves.

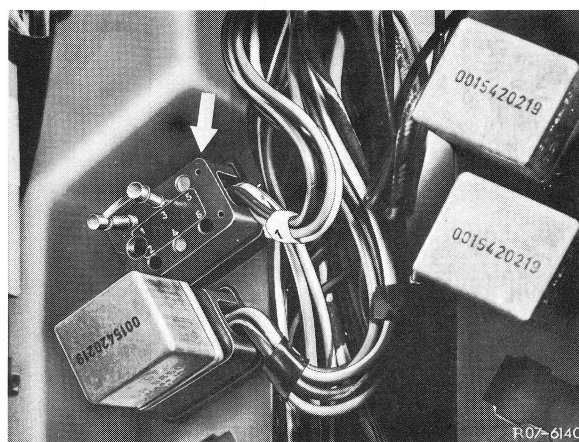


Fig. 6

5 Run engine at idling speed and adjust fuel pressure of 2.0 ± 0.1 atü on pressure regulator by means of adjusting screw (arrow) if required (Fig. 7).

If a slight turn of the adjusting screw shows no change in pressure, replace pressure regulator.

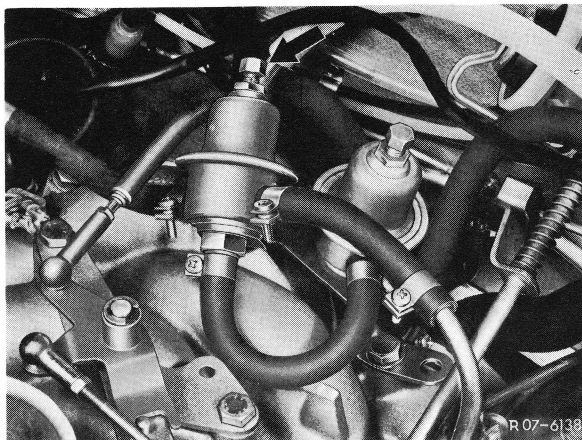


Fig. 7

6 Reduce fuel pressure as described in Fig. 1 prior to removing pressure gauge.

Measuring the Delivery Capacity

7 Disconnect fuel hose on damper container for return flow line.

8 Connect fuel hose (arrow) to damper container for measuring (Fig. 8).

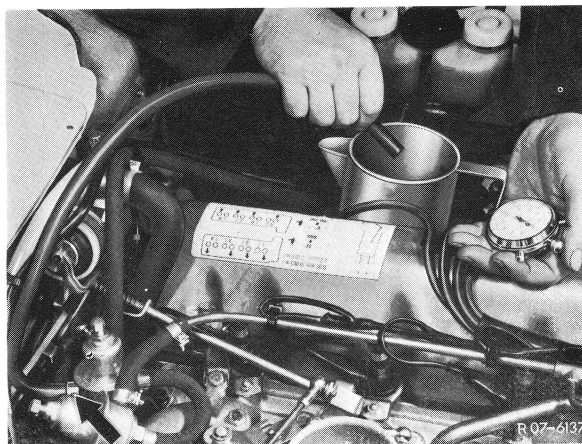


Fig. 8

9 Hold hose end into measuring cup and switch on ignition for 30 seconds.

10 If the delivery capacity is below 1 Liter/30 seconds, first check fuel lines for restricted spots (squeezed lines) and check fuel filter for unobstructed passage. For this purpose, loosen delivery hose on fuel filter and connect directly to fuel feed line (arrow in Fig. 9).

If the quantity delivered is still too low, replace fuel pump (07.4.0-452).

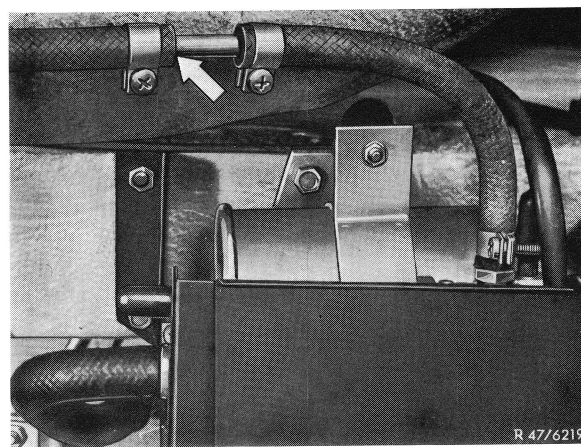


Fig. 9

11 Put back relay 1 and mount cover inside vehicle.

12 Install fuel hoses and air cleaner.