

07.1–145 Checking fuel pump and bypass valve

Job no. of flat rates or standard texts and flat rates data 07–8800 or 5700.

Test values

Bosch designation FP/K 22 MW 8, MW 22

Vacuum	Measuring point	prior to fuel pump inlet
	at idle speed bar vacuum	0.1

Delivery pressure	Measuring point	between fuel pump and main fuel filter
	at idle speed bar gauge pressure	0.6–0.8
	at 3000/min bar gauge pressure	min. 0.8

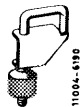
Delivery end pressure	at idle speed bar gauge pressure	min. 1.1
	at 3000/min bar gauge pressure	min. 1.3

Fuel bypass valve

	Opening pressure in bar gauge pressure
at idle speed	0.6–0.8
at 3000/min	min. 1.3

Special tools

Clip for fuel hose



000 589 40 37 00

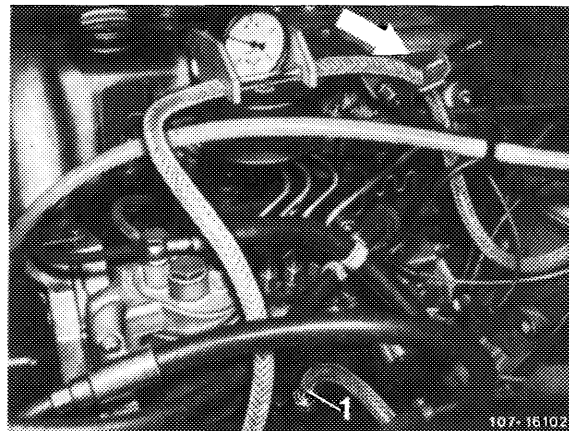
Tester for fuel pump



617 589 04 21 00

Measuring negative pressure

- 1 Connect tester to fuel inlet (1) on fuel pump. For this purpose, remove fuel feed line. Vent injection system (07.1–140).

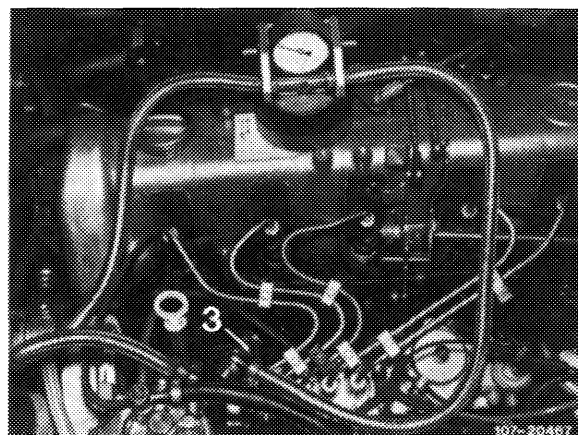


Measure vacuum pressure at idle speed. To do so, use clip to nip hose (arrow) at tester downstream of pressure gage.

If system fails to reach value of 0.1 bar vacuum, exchange suction and delivery valves or fuel pump (07.1–240).

Checking fuel feed pressure

- 2 Unscrew fuel line (3) on fuel main filter.
- 3 Connect tester. For this purpose, connect fuel line to hose line for tester with a double hollow screw and closing nut. Connect other hose line of tester to fuel filter.



- 4 Vent injection system (07.1–140).
- 5 Warm up engine.
- 6 Measure fuel feed pressure at idle speed and 3000/min.

0.6–0.8 bar gauge pressure at idle speed.

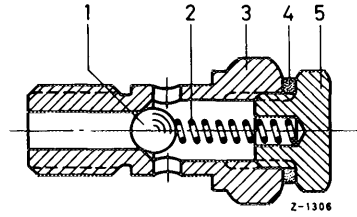
Min. 0.8 bar gauge pressure at 3000/min.

7 What to do in case feed pressure is inadequate:

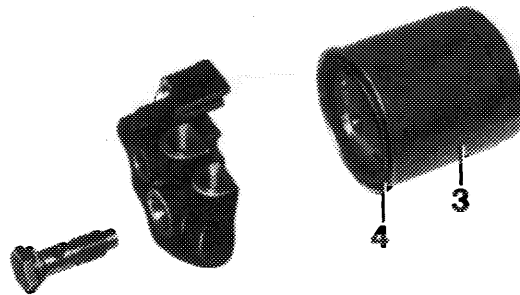
- a) Check bypass valve, removing, disassembling and cleaning for this purpose.

Increase preloading of compression spring (2), lengthening spring to 26–27 mm.

- | | | | |
|---|--------------------|---|--------------|
| 1 | Ball | 4 | Sealing ring |
| 2 | Compression spring | 5 | Screw plug |
| 3 | Body | | |



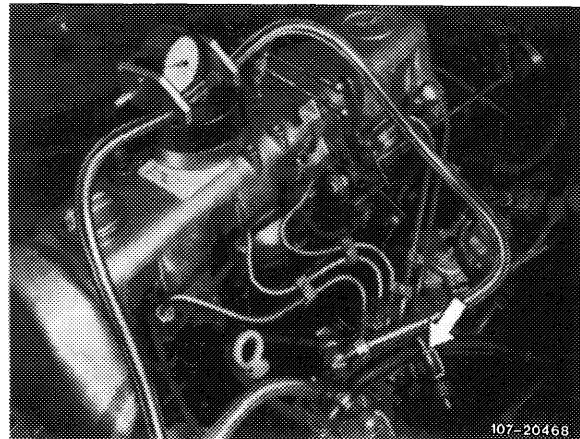
- b) Check fuel filter for clogging. If necessary, fit new filter element with body (3) and sealing ring (4).
- c) Exchange suction and delivery valves or fuel pump (07.1–235).



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Checking final fuel feed pressure

- 8 Using clip (arrow), nip fuel return hose.
- 9 Measure final fuel feed pressure at idle speed and 3000/min.
- Min. 1.1 bar gauge pressure at idle speed.
- Min. 1.3 bar gauge pressure at 3000/min.



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- 10 If final feed pressure is inadequate, exchange suction and delivery valves or fuel pump (07.1–235).