

# Fuel Pump

If the engine does not develop full power, the fault may lie with the fuel pump. Apart from leaking lines the following defects may be responsible.

- a) Defective pump diaphragm.
- b) Leaking valves in pump, too weak or broken valve springs.
- c) Too weak or broken springs under diaphragm.

Before attempting to remove the fuel pump, check whether

- a) the suction height is at least 0,9 m (35.5")
- b) the pressure is 0.25 to 0.30 atü (3.5 to 4.3 p.s.i.).

To make the check, unscrew suction line, screw on a vacuum gauge and turn engine over with

the starter (turn spark plugs out so engine will turn rapidly). If the pump is in good condition, the suction height specified under a) should be reached.

Unscrew pressure line and connect a pressure gauge. In this case the pressure given under b) must be reached.

The vacuum and pressure are preferably measured with a fuel pump gauge 000 589 30 21.

Remove fuel pump only if the readings fall short of the values specified above; exchange the pump or take it apart and recondition.

**Note:** The diaphragm does not deliver fuel at every stroke of the push rod, as the link provided in the rocker arm between push rod and diaphragm will only work when there is a lack of gasoline.

## Removal and Installation of Fuel Pump

Types 220 and 220 a

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| Operation<br>No. |
| M 34             |

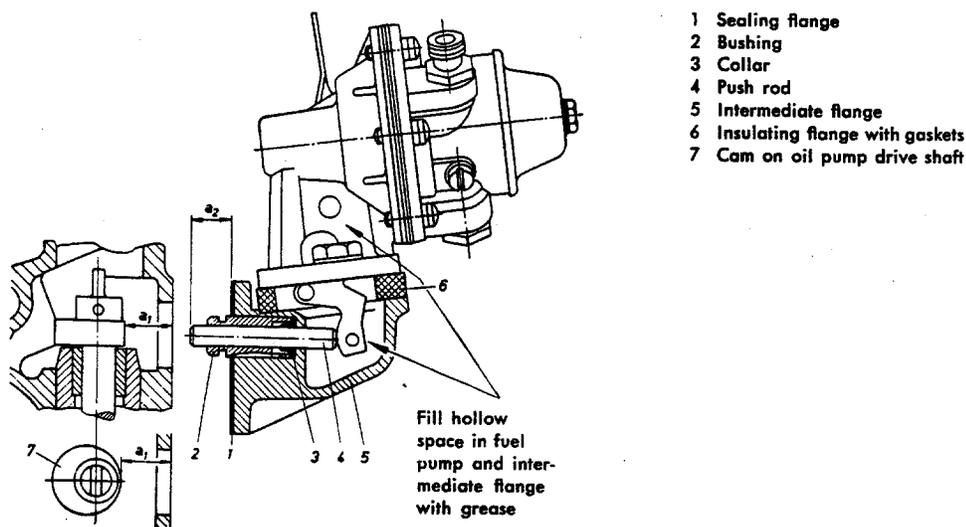


Fig. M 34/00

**Note:** If the pump shows high pressure, this may be attributed to an excessive pump stroke or to the fact that the pump diaphragm has hardened. In either case the pressure can be reduced to the permissible value by interposing shims between intermediate flange and crankcase. With push rod at pressure point and cam on oil pump drive shaft at BDC, the play between rod and cam should be 0.4 to 0.5 mm (0.016 to 0.02"). See Fig. M 34/00.

**Procedure:**

1. Unscrew fuel feed line and fuel pressure line.

2. Loosen the two fastening nuts and take fuel pump out.

3. Before installing the fuel pump, check play between push rod and cam; the difference between  $a_1$  and  $a_2$  must be 0.4 to 0.5 mm (0.016 to 0.02"). If the play does not meet the specifications, correct it by using a correspondingly thicker or thinner gasket (1). See Fig. M 34/00.

**Note:** In Type 220 the intermediate flange is not provided with a grease retainer.