



# Rattling noises due to oil sludge in the vacuum pump

Vehicle	Product	PIERBURG No.
VW Transporter LT, T4	Vacuum pump	7.22300.62.0/.69.0

### Potential complaints:

Rattling noises (like bearing damage on the crankshaft)

The piston vacuum pump is driven by the camshaft (1) through a connecting tappet (2).

In the recommended installation position, the engine oil can flow back to the engine (Fig. 1).

The installation position in the VW Transporter is as displayed in Fig. 2. If oil is not changed regularly, the engine oil ages. Oil sludge with viscous consistency builds up between piston crown and housing.

This prevents the piston from reaching its end position. There is leeway between tappet and connecting tappet. This results in tapping noises, which sound like bearing damage on the crankshaft.

### Causes

- Intervals for changing oil not adhered to
- Insufficient quality of engine oil
- Soot formation due to unclean combustion
- Faulty exhaust gas recirculation

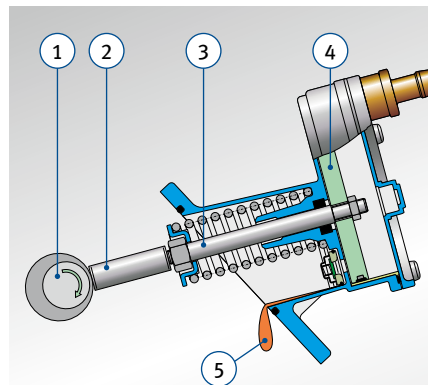


Fig. 1: Recommended installation position

- 1 Camshaft
- 2 Connecting tappet
- 3 Tappet

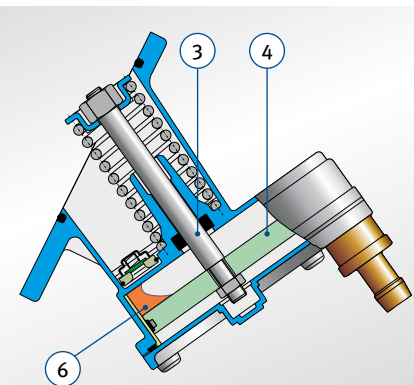


Fig. 2: Installation position VW LT and T4

- 4 Piston
- 5 Oil drainage
- 6 Oil collection



### Note:

In case of oil sludge deposits the vacuum pump must be replaced. It cannot be cleaned, as the vacuum pump cannot be opened with ordinary tools and there are no spare parts.

A similar complaint occurs if the wrong vacuum pump is installed with a tappet (3) that is too short.



Fig. 3: Oil sludge in the vacuum pump of the VW Transporter results in rattling noises

The right of changes and deviating pictures is reserved. For assignment and replacement parts, refer to the current catalogues, TecDoc CD or respective systems based on TecDoc.