

Removal and Installation of Drive Shaft with Helical Gear for Driving Oil Pump, OM 621

Job No.

18-16

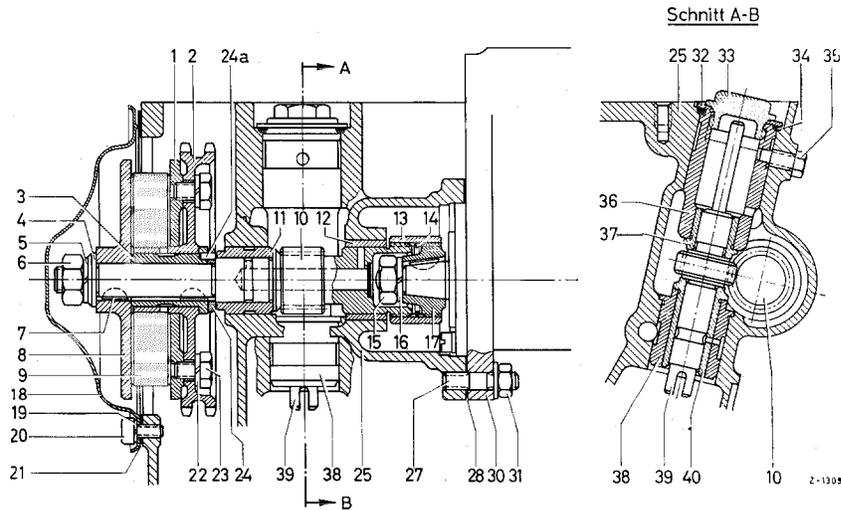


Figure 18-16/1

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|---|--|--------------------------------|---|
| 1 Segment plate of the injection timing device | 10 Intermediate gear shaft (drive shaft for inj. pump and for helical gear 39 and/or for oil pump) | 19 Lock washer | 32 Washer |
| 2 Intermediate gear | 11 Bearing bushing, front | 20 Fill. hd. screw | 33 Screw plug |
| 3 Bushing | 12 Bearing bushing, rear | 21 Gasket | 34 Rubber ring |
| 4 Washer | 13 Coupling sleeve | 22 Lock washer | 35 Hex. hd. screw |
| 5 Lock washer | 14 Snap ring | 23 Hex. hd. screw | 36 Pressure piece |
| 6 Hex. nut | 15 Hex. nut | 24 Butting ring (steel washer) | 37 Bearing bushing |
| 7 Woodruff key | 16 Lock washer | 24a Grooved pin | 38 Bearing body |
| 8 Segment flange of inj. timing device | 17 Follower | 25 Cylinder crankcase | 39 Helical gear (drive for oil pump and revolution counter) |
| 9 Centrifugal weight roller of inj. timing device | 18 Cover | 27 Stud bolt | 40 Bearing bushing |
| | | 28 Gasket | |
| | | 30 Injection pump | |
| | | 31 Hex. nut with washer | |

Removal:

1. Loosen the screw plug (33) on oil pump drive by approx. 2 threads, unscrew the hex. hd. screw with pin (35) and press out the pressure piece (36) towards top with the help of a screw driver which should be inserted between the screw plug (33). (see Figure 18-16/1).

Note: The pressure piece can also be pulled by a modified screw plug (33). To do this, use a second screw plug AM 26×1.5 DIN 7604, drill through the centre and tap a thread M 8. Screw a sufficiently long M 8 hex. hd. screw into this thread. After unscrewing the screw plug (33), insert the

modified screw plug and pull the pressure piece by screwing in the hex. hd. screw M 8.

2. Pull the helical gear (39) (see Figure 18-16/1).
3. Completely unscrew the screw plug (33) from the pressure piece (36) and remove the washer (32) and the rubber ring (34) (see Figure 18-16/1).

Checking:

4. Check the helical gear (39) and the bearing bushings (37) and (40) for wear and replace, if necessary (see Figure 18-16/1).

Installation:

5. Insert the helical gear (39) and the pressure piece (36) and tighten the hex. hd. screw with pin (35). Check the axial clearance (0.1–0.25 mm) of the helical gear (see Figure 18–16/1).

Note: If the axial clearance is too small or too large, dismount the pressure piece again. If the clearance is too small, remachine the front face of the bearing bushing (37) accordingly and re-install the pressure piece (36). If the clearance is too large,

press the bushing (37) out of the pressure piece and correct the axial clearance of the helical gear (39) by placing the required washers between bushing (37) and pressure piece (36). Press the bearing bushing with the washer into the pressure piece, insert the pressure piece again and tighten the hex. hd. screw with pin. **Check the axial clearance of the helical gear again** (see Figure 18–16/1).

6. Fit the rubber ring (34), the washer (32) and tighten the screw plug (33) (see Figure 18–16/1).