

Disassembly and Assembly of Cylinder Crankcase, OM 621

Job No.

01-25

Change: Two Notes added

Disassembly:

1. Disassemble the engine (see Job No. 00-20).
2. Unscrew the two front engine supports (11) and the intermediate plate (24) (see Figure 00-6/8a).
3. Dismount the guide rails (5, 13 and 14) (see Figure 01-25/1). To do this, use the puller Part No. 187 589 07 33 to extract the pivot pins. Then remove the chain from the cylinder crankcase.

Note: On models 190 Dc, 180 Dc and L and O 319 D an additional guide rail (15) has been mounted in the cylinder crankcase at the inside opposite the guide rail (5) be-

tween the tensioning pulley and the crankshaft gear.

4. Unscrew the screw plugs at the end of the oil ducts.
5. Dismount the front bearing bushing (11) for the intermediate sprocket shaft; to do this, dismount the locking plate and knock out the bearing bushing (11) as well as the rear bearing bushing (12) using a suitable drift (see Figure 01-25/2).
6. Use a suitable drift to knock the bearing body (38) with bushing (40) for the helical gear from the oil pan side (see Figure 01-25/2).

Note: On model 190 Dc type 621.912 the intermediate plate between the cylinder crankcase and the clutch housing has been replaced by an intermediate flange with centering means for the clutch housing. Two set pins center the intermediate flange in relation to the cylinder crankcase, the flange is attached by means of four hex screws. A cover plate with foam rubber shim attached to the intermediate flange at the engine end protects against contamination.

If damaged, the intermediate flange can be replaced only together with the cylinder crankcase. As a spare part, the cylinder crankcase and the intermediate flange are one. This is necessary to obtain the required accurate centering of the clutch and the transmission in relation to the crankshaft.

In addition, model 190 Dc is provided with screwed on support for mounting the engine at left and right in the center of cylinder crankcase.

Assembly:

7. Coat the threads of the screw plugs for the oil ducts with sealing compound and screw in at the end of the oil ducts. Take care that no sealing compound flows into the oil ducts.

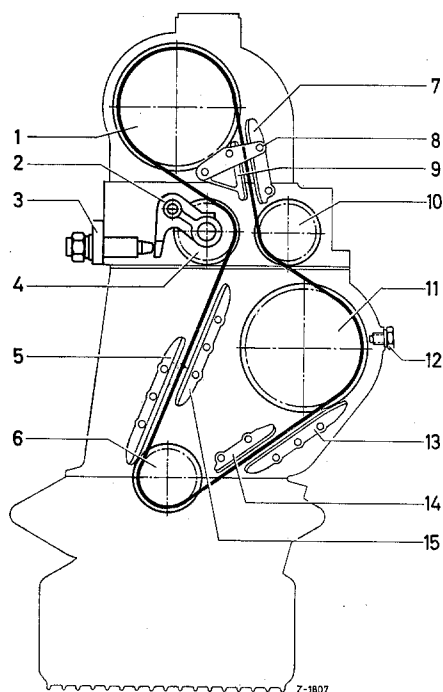


Figure 01-25/1

- 1 Camshaft sprocket
- 2 Idler sprocket bearing with idler sprocket
- 3 Chain tightener
- 4 Idler sprocket
- 5 Guide rail, outer
- 6 Crankshaft sprocket
- 7 Guide rail, outer
- 8 Holder for guide rail, inner
- 9 Guide rail, inner
- 10 Guide sprocket
- 11 Intermediate sprocket
- 12 Locking screw
- 13 Guide rail, outer
- 14 Guide rail, inner
- 15 Guide rail, inner

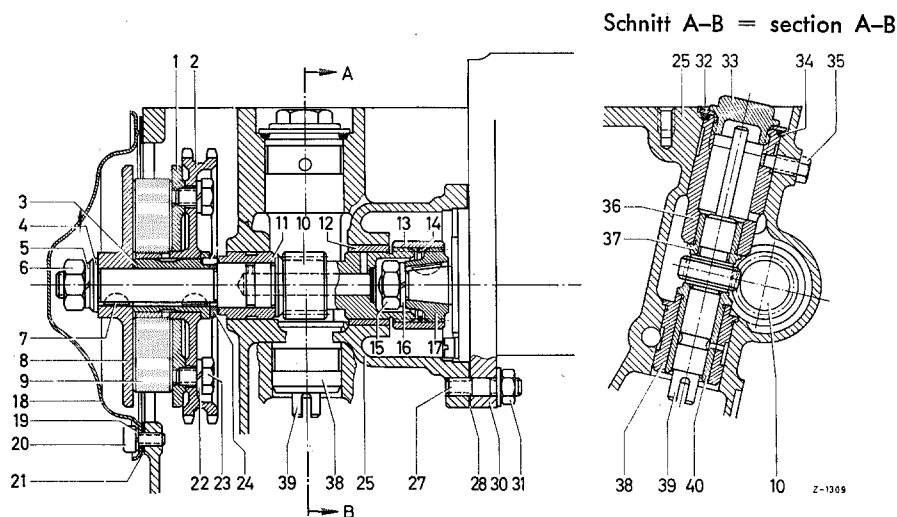


Figure 01-25/2

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

8. Use a suitable drift to knock in the front bearing bushing (11) for the intermediate gear shaft, observing the correct position of the bearing bushing because of fitting of the locking plate. Then fasten the locking plate (see Figure 01-25/2).

Use a suitable drift to knock in the rear bearing bushing (12) for the intermediate gear shaft. Use a suitable drift to knock the bearing body (38) with bushing (40) for the helical gear into the bore in the cylinder crankcase (see Figure 01-25/2).

9. Place the chain into the cylinder crankcase and install the guide rails 5, 13 and 14. The inner guide rail (14) in the cylinder crankcase is shorter. Press in the pivot pins until the locking wire on the guide rail snaps into the annular groove in the pin.

Coat all pivot pins at a length of approx. 1 cm with sealing compound.

Do not mount, however, the upper pivot pin of the guide rail (13). It should be pressed in only after the installation of the injection timing device.

Note: The upper pivot pin for the inner guide rail (14) is provided with an external thread and a hex. head. (see Figure 01-25/1).

10. Mount the intermediate plate.
11. Screw the two front engine supports to the cylinder crankcase. With the left engine support, also the adjusting pointer (10) for the engine adjustment is fixed, with the upper bolt of the right engine support, the tension screw for the generator and with the lower bolt the ground cable for the generator are fixed (see Figure 00-6/8 a).

12. Assembly of the engine (see Job No. 00-20).