

# Removal and Installation of Idler Sprocket and Idler Sprocket Support, OM 621

Job No.

05-23

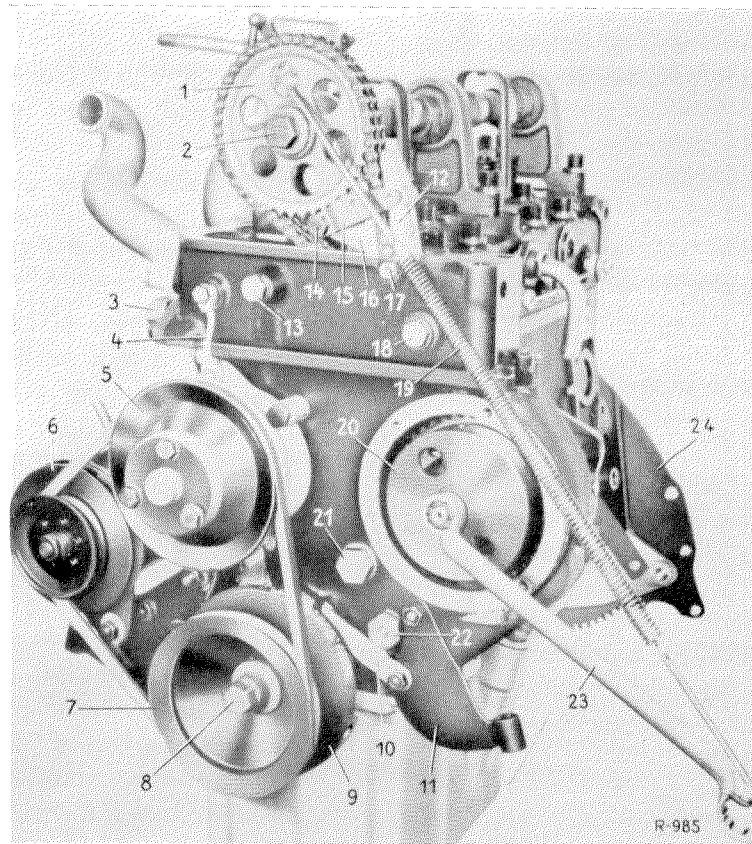


Figure 05-23/1

- |   |  |
|---|--|
| 1 Camshaft sprocket                           | 14 Hex. hd. screw M 8 × 50   |
| 2 Hex. hd. screw M 14 × 1.5 × 40              | 15 Holder for guide rail, inner  |
| 3 Chain tightener                             | 16 Guide rail, inner   |
| 4 Venting line for water pump                 | 17 Guide rail pivot pin on cylinder head                               |
| 5 Water pump                                  | 18 Screw plug for guide sprocket pivot pin                             |
| 6 Generator                                   | 19 Return spring   |
| 7 Pulley on crankshaft                        | 20 Injection timing device   |
| 8 Collar screw                                | 21 Screw plug for oil pressure relief valve                            |
| 9 Counterweight with gradation                | 22 Screw plug with guide rail pivot pin, bottom, in cylinder crankcase |
| 10 Adjusting pointer                          | 23 Box wrench  |
| 11 Engine support, front, left                | 24 Intermediate plate on cylinder crankcase for starter motor mounting |
| 12 Guide rail, outer                          |  |
| 13 Locking screw for idler sprocket pivot pin |  |

## Removal:

1. Remove the cylinder head cover (see page 01-3/7).
2. Unscrew the hex. hd. screw (14) and remove the holder (15) with the inner guide rail (16) from the outer guide rail (12) and from the cylinder head (see Figure 05-23/1).
3. Unscrew the hex. hd. screw (2), i.e. mounting screw for the camshaft sprocket (see Figure 05-23/1).
4. Turn the crankshaft **in direction of rotation** until the OIT mark (TDC) on the counterweight (9) coincides with the adjusting pointer (10) (see Figure 05-23/1) and at the same time the mark on the spacer washer coincides with the mark on the first camshaft bearing (see Figure 05-27/1).

**Note:** The piston of cylinder 1 is at ignition dead centre.

5. Remove the chain tightener (see Job No. 05-21).
6. Mark (paint) the meshing of the chain with the camshaft sprocket on chain and sprocket. Pull the camshaft sprocket leaving the chain on the camshaft sprocket and place it into the chain box.

(When pulling the camshaft sprocket observe the spacer washer between camshaft and sprocket).

7. Unscrew the screw plug (13) for the idler sprocket pivot pin (see Figure 05-23/1).
8. Pull the pivot pin and remove the pressure spring behind the idler sprocket support and also remove idler sprocket support.

**Note:** With tightly seated pivot pin, the puller (part No. 187 589 07 33) with the threaded insert M 6 can be used. Repairing idler sprocket and idler sprocket support (see Job No. 05-24).

#### **Installation:**

9. Insert the idler sprocket pivot pin into the cylinder head so far that it slightly projects in the chain box. Slide on the idler sprocket support and clamp the pressure spring behind. Only use a suitable arbor to knock in the pivot pin, observing not to

damage the internal thread. Check the idler sprocket support for unimpeded movement.

10. Screw on the screw plug (13) with seal ring and tighten (see Figure 05-23/1).
11. Check position of crankshaft and camshaft, if necessary, correct (see item 4).
12. Slide camshaft sprocket with placed on chain onto the camshaft, observing the meshing marks (see item 6).
13. Mount the hex. hd. screw (2) including washer and lock washer (see Figure 05-23/1).
14. Turn crankshaft back by 90 deg. and then forth until the O/T mark (TDC) on the counterweight (9) coincides with the adjusting pointer (10) (see Figure 05-23/1).

Also the mark on the spacer washer behind the camshaft sprocket must coincide with the mark on the first camshaft bearing (see Figure 05-27/1). If this is not the case, the camshaft sprocket must be removed and the chain relocated.

15. Remove and bleed the chain tightener (see 05-21).
16. Install the inner guide rail (16) with holder (15) and mount the cylinder head cover (see Figure 05-23/1 and Job No. 01-3).