

A. OM 636

The engines of the type 636.930, 636.934 and 636.935 are equipped with injection timing device ex works. Part of the engines of the type 636.930 were first delivered without injection timing device, but they are now also equipped with an injection timing device (external characteristic feature: Higher protecting cover of the timing housing cover) (see Figure 07-27/4).

The removal and installation is similar for the engines of the two types.

Removal:

1. Remove the fuel main filter (see Job No. 09-1) and unscrew the protecting cover (20) of the timing housing cover (see Figure 07-27/4).
2. Crank engine in direction of rotation, so that the marked teeth (1) of idler and pump drive gear are engaged (see Figure 01-25/1). In addition, the OT-marking (TDC) on the belt pulley must coincide with the timing needle at the timing housing cover (see Figure 07-25/2).
3. Unscrew the fixing nut (22) and extract the injection timing device with 2 screw-

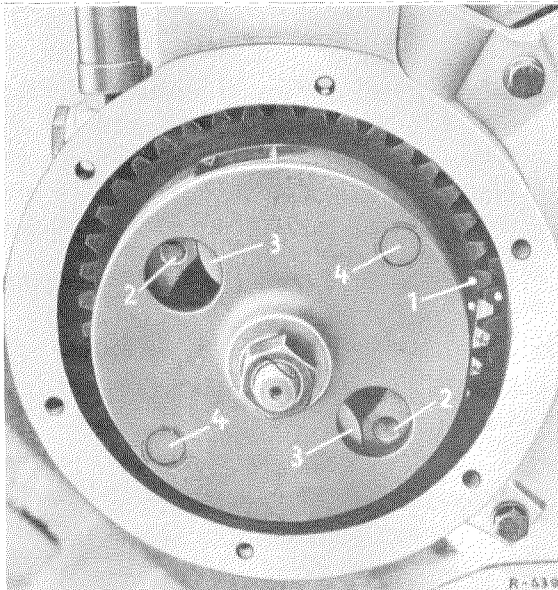


Figure 07-25/1

- 1 Marking of pump drive gears
- 2 Tapped holes to attach extractor
- 3 Centrifugal roller weights
- 4 Spring retaining bolts



Figure 07-25/2

- 1 Timing needle Part No. 636 015 02 71
- 2 TDC-marking on the belt pulley Part No. 181 200 17 05
- 3 Oil dipstick (type 636.919 and 636.934)

drivers (see Figure 07-27/4). If necessary, pull off the injection timing device with the Extractor Part No. 319 589 12 33 (see Figure 07-25/3).

4. Remove Woodruff key (24) from groove in shaft and remove the sleeve (19) from the driving shaft (9) (see Figure 07-27/4).

Installation:

5. Oil the sleeve (19) and slip it on the driving shaft (9) (see Figure 07-27/4).

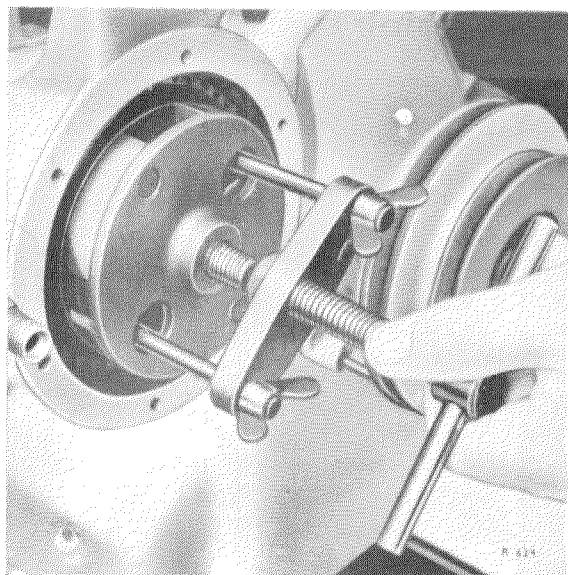


Figure 07-25/3

Note: Before the installation, the length of the sleeve (19) must be checked. The length of the sleeve has been changed from 29-0.1 mm to 28.8-0.1 mm. Only sleeves with a length of 28.8-0.1 mm must be installed to reduce the axial play of the centrifugal roller weights (16). As a make-shift, the old sleeves can be machined to the specified length (see Figure 07-27/4).

6. Install the Woodruff key (24) in the driving shaft (9) (see Figure 07-27/4).
7. Clean and oil the injection timing device and put it on the driving shaft, so that the marked teeth (1) are engaged (see Figure 07-25/1).
8. Slip the washer (23) and the lock washer (21) on the driving shaft and secure the injection timing device with the hex nut (22) (see Figure 07-27/4).

Note: While the engine is stopped the proper functioning of the injection timing device can be determined as follows: Unscrew the 2 hex nuts at the pump shaft end opposite to the driving end. Then turn the shaft with spanner in the direction of rotation. If the shaft returns to its former position after it is released, then the springs of the injection timing device

function properly. If this is not the case, the injection timing device must be replaced or it has to be checked whether the centrifugal weights return to their former position after having been pressed towards the center.

9. Check with a feeler gauge the gear backlash between the pump drive gear and the idler at several places. Checking by touching is generally also sufficient. **The backlash should be 0.05 to 0.07 mm.**

If necessary, the pump drive gear must be exchanged for a different size (see Job 05-31).

10. Install the protecting cover (20) with the paper gasket (15); use washers and lock washers (see Figure 07-27/4).
11. Install the fuel main filter with 20 mm thick spacer between the filter and the timing housing cover.

B. OM 621

Removal:

1. Unscrew the six Fill. hd. screws (20) from the locking cover (18) and remove the cover. Unscrew the hex. nut (6) on the intermediate gear shaft (10) and remove the lock washer (5) with washer (4) (see Figure 07-25/4).
2. Unscrew the two hex. hd. screws on the cylinder head cover and remove the cylinder head cover.
3. 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 07-11/6).
4. Unscrew the hex. hd. screw (2), mounting screw for the camshaft sprocket (see Figure 07-11/6).