M 116, M 117

Tightening Torque in kpm

Fastening bolt for cylinder head cover	0.5
Special Tool	
Removal and installation tool for rocker arm	116 589 00 61 00

Removal

- 1 Remove cylinder head covers.
- 2 Remove tensioning springs from adjusting screws by means of a screw driver.

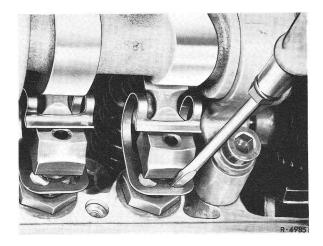


Fig. 1

3 For cranking the engine, force cover out of pulley (crankshaft) with a screw driver and position tool combination (Fig. 2) on hex. bolt of crankshaft.

Caution! Do not crank engine on hex. bolt on camshaft gear, but on crankshaft in direction of rotation.

4 Position removal and installation tool against camshaft and on valve spring retainer and push valve downwards to relieve the rocker arm (Fig. 3). The rocker arm should not be under load.

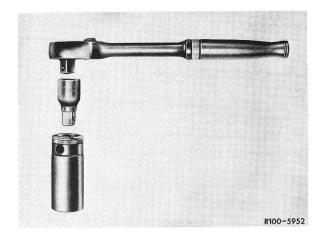


Fig. 2

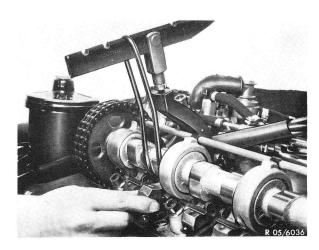


Fig. 3

5 Remove rocker arm (41) from adjusting screw (Fig. 4).

Installation

Caution! To facilitate running-in, the mating of rocker arm and camshaft must remain intact. Be sure to install the rocker arms always in the same spot from which they were removed.

- 6 Position removal and installation tool against camshaft and on valve spring retainer and push valve down until the ball socket of the rocker arm can be fitted to the ball of the adjusting screw (Fig. 4). 4
- 7 Install rocker arm.
- 8 Install tensioning spring (40). The tensioning spring should enter into the recess provided on the adjusting screw (42) (Fig. 4).
- **9** Check valve clearance and adjust (05.1–210).
- 10 Upon termination of adjusting jobs, check tensioning springs (40) for correct seat (Fig. 4).
- 11 Mount cylinder head covers, watching out for correct seat of gaskets.
- 12 Run engine and check cylinder head covers for leaks.

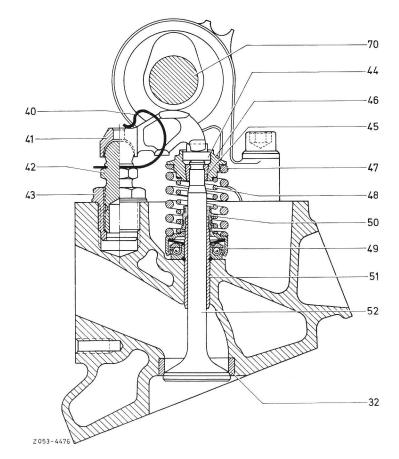


Fig. 4

- 43 Threaded bushing
- 42 Adjusting screw
- 41 Rocker arm
- 40 Tensioning spring
- 70 Camshaft
- 44 Thrust piece 46 Valve spring plate
- 45 Valve cone half
- 47 Outer valve spring 48 Inner valve spring
- 50 Valve seal
- 49 Valve rotating device (Rotocap)
- 51 Valve guide
- 52 Exhaust valve
- 32 Valve seat ring