

Fig. 47 Retightening belt B

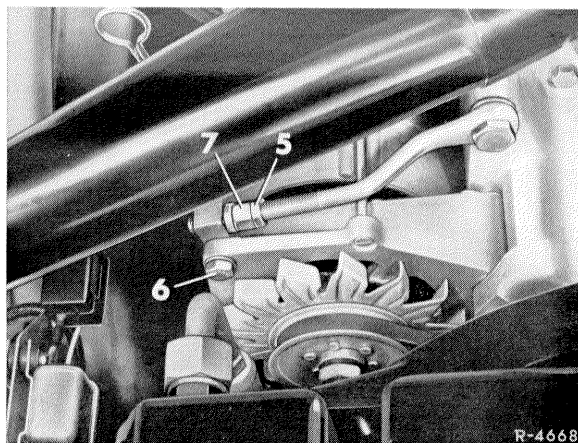


Fig. 48 Retightening belt C

D. Checking and Adjusting Valve Clearance

General

The valve clearance should be checked and adjusted during the "A" service and, following this, every 10.000 km (6000 miles) at the "D" and "E" services.

Check and adjust valve clearance only **with the engine cold**.

The valve clearance is measured between the **sliding surface of the rocker arm** and the **cam base circle of the camshaft** (Fig. 49).

Adjusting Valve Clearance

- 1 Remove air filter housing and both cylinder head valve covers.
- 2 Pull out high-tension cable (4) from ignition coil, remove cable (15) from series resistor.
- 3 To adjust the valves, position the cam on the camshaft belonging to the respective valve in such a way that the lobe of the cam is not pressed against the rocker arm but is in a position away from and **vertical to the sliding surface of the rocker arm**, i.e., the base circle of the cam must face the sliding surface of the rocker arm (Fig. 49).

Caution: Do not turn the engine with the aid of the hex.-hd. screw on the camshaft sprocket.

Rotating the crankshaft for the purpose of adjusting the valves can be performed as follows:

For approx. positioning of cam

Crank engine by means of starter.

Final position

By means of an 8 mm arbor applied to the bores (a) provided on the circumference of the vibration damper for this purpose, or by means of a ratchet $\frac{1}{2}$ " square, jointed, and 27 mm opg. socket applied to the front crankshaft screw (3). To do this, remove the plastic cover (1) from the pulley by means of a screwdriver and refit it when the adjustment has been completed (Fig. 5).

4 Measuring valve clearance: Insert feeler gauge with a thickness of 0.20 mm for exhaust valves and 0.08 mm for intake valves between the sliding surface of the rocker arm and the base circle of the cam. Location of intake and exhaust valves: see Fig. 50.

The valve clearance is correctly adjusted if the feeler gauge can be pulled through with firm resistance being felt.

5 If a correction of the valve clearance is required, adjust by turning adjusting screw (2) by hexagon (size 17), using valve clearance adjusting wrench 000 589 14 01 00 and torque wrench (0–6.0 mkp) (Fig. 49).

Note: The valve clearance may also be adjusted using the previous valve adjusting wrench with 17 mm opg. and 10 mm thickness, 115 589 00 01 00, provided the tension springs (4) are removed from rocker arms beforehand.

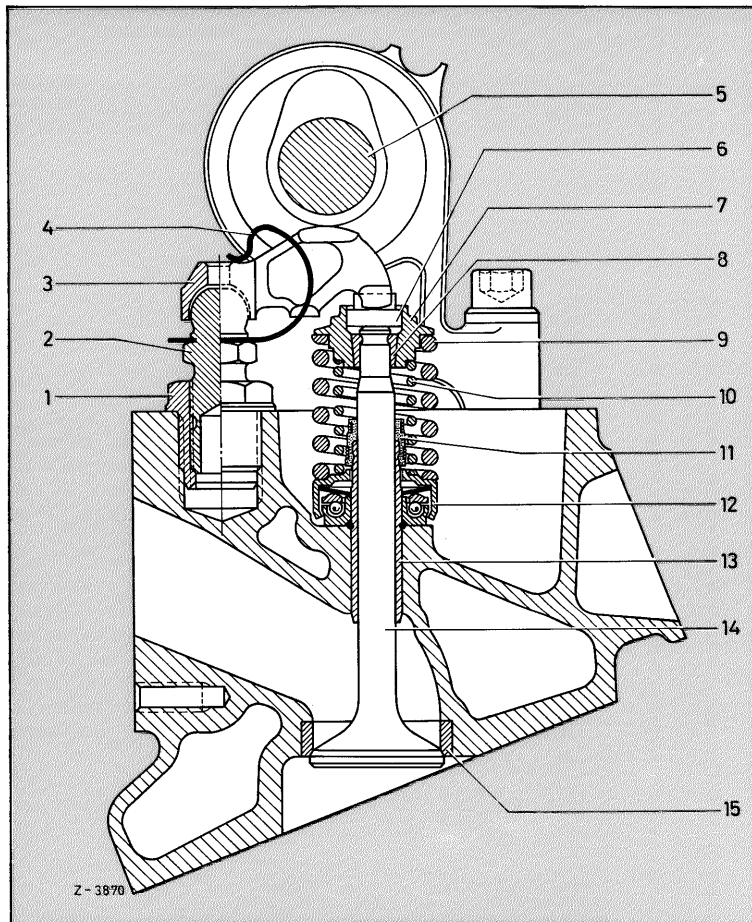


Fig. 49 Valve arrangement

- 1 Threaded bushing
- 2 Adjusting screw
- 3 Rocker arm
- 4 Tension spring
- 5 Camshaft
- 6 Pressure piece
- 7 Valve spring retainer
- 8 Valve cone half
- 9 Outer valve spring
- 10 Inner valve spring
- 11 Valve stem seal
- 12 Valve rotating device (Rotocap)
- 13 Valve guide
- 14 Exhaust valve
- 15 Valve seat ring

If the valve clearance is too small, increase it by turning in the adjusting screw.

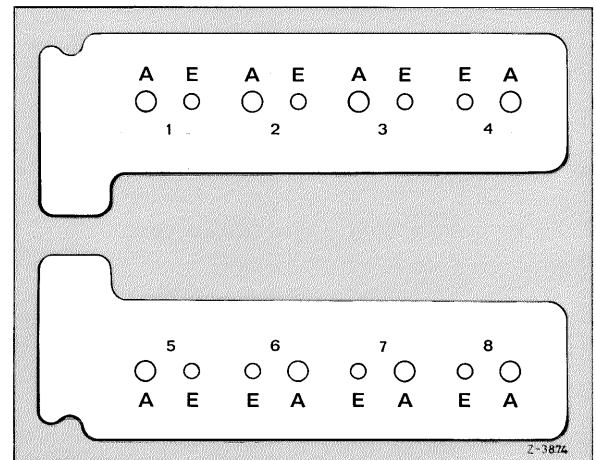
If the valve clearance is too large, reduce it by backing off the adjusting screw.

The torque for turning the adjusting screw (2) within the threaded bushing (1) must amount to 2.0–4.0 mkp.

If the torque is lower, either the adjusting screw (2) or the threaded bushing, or both, must be replaced. If with too small a valve clearance it is no longer possible to turn in the adjusting screw, a thinner pressure piece (6) may be installed in the valve spring retainer (7). Standard pressure pieces are 4.5 mm thick, but parts with thicknesses of 3.5 mm and 2.5 mm are also available. To replace the pressure piece, remove the rocker arm.

Caution: Check tension springs (4) after the adjustment has been completed. The tension springs must be fitted in the groove provided on the adjusting screw.

6 Mount cylinder head valve covers, making sure that the gaskets fit correctly. Connect breather line and mount air filter housing.



Firing order 1 5 4 8 6 3 7 2

Fig. 50 Location of intake and exhaust valves

A = Exhaust valve E = Intake valve

7 Reconnect the wiring which was disconnected.

8 Run engine and check cylinder head valve covers for leaks.