

05–250 Removal and installation of valve springs

Tightening torque

Nm

Bolts for cylinder head cover

3

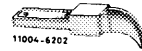
Special tools

Spring compressor for valve spring



123 589 03 61 00

Magnetic finger for valve cone halves



116 589 06 63 00

Conventional tool

Cylinder leak tester

e.g. Bosch, EFAW 210 A
Sun, CLT 228–1

Note

From October 1984 to January 1985 no Rotocaps were installed on exhaust valves and from January to May 1985 on intake valves.

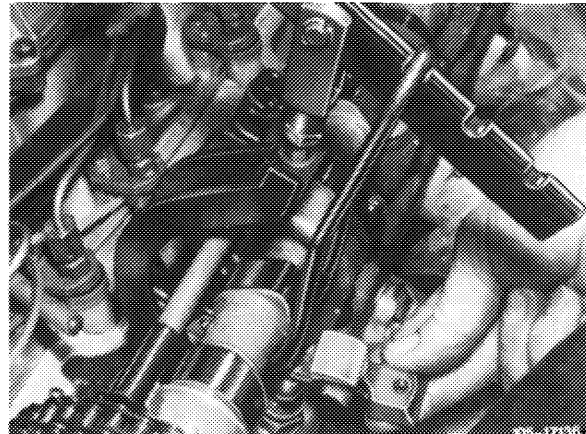
Observe valve spring preload (see 05–260).

Removal

1 Remove rocker arm (05–230).

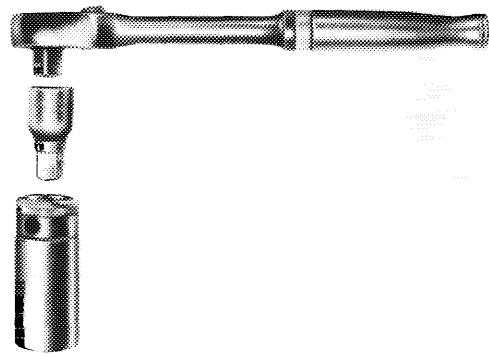
Caution!

Reinstall rocker arms in the same place from which they were removed.



2 Unscrew spark plugs.

3 Set piston of respective cylinder to ignition TDC. For this purpose rotate the engine with the tool combination on the crankshaft.

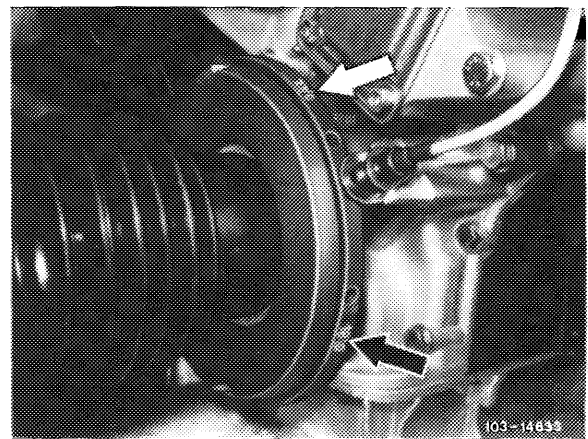


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Note: The numbers 0, 90, 180 and 270 (arrows) are stamped into the vibration damper.

In the following positions of markings opposite the indicator the pistons are at TDC as follows:

| Marking number | Piston at TDC |
|----------------|---------------|
| 0 | 1 and 6 |
| 90 | 5 and 3 |
| 180 | 4 and 7 |
| 270 | 8 and 2 |



4 Support valves by means of compressed air (cylinder leak tester).

Caution!

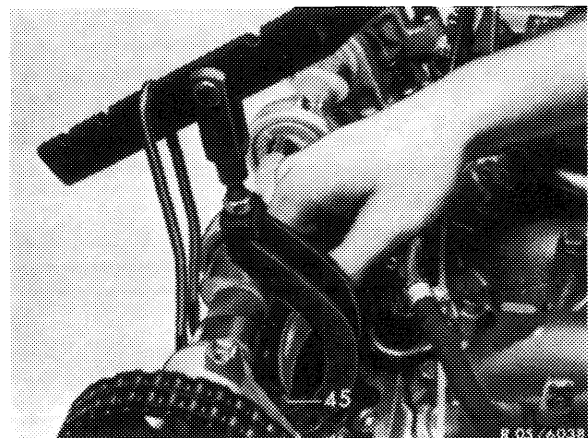
The valves should not be seated on the piston crown to prevent bending of the valves.

5 Push valve spring retainer down by means of spring compressor.

6 Remove valve cone halves with the magnetic finger.

7 Remove valve spring retainer and valve spring.

8 Check valve spring, replace if necessary (05-260).

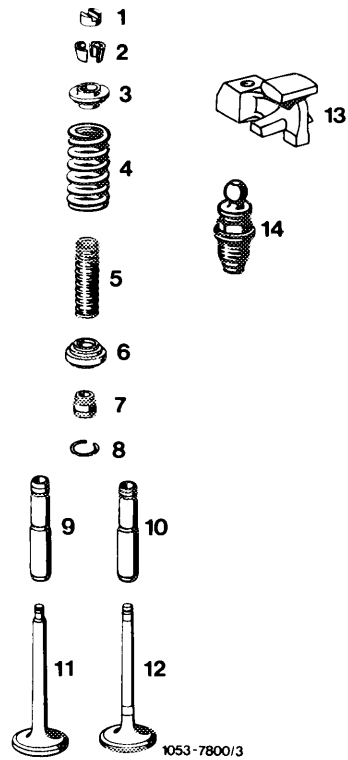


Installation

9 Insert valve spring with tight coil facing cylinder head head.

10 For further installation proceed vice versa to sequence of removal.

- 1 Thrust piece
- 2 Valve cone
- 3 Valve spring retainer
- 4 Outer valve spring
- 5 Inner valve spring
- 6 Rotocap
- 7 Valve stem seal
- 8 Locking ring
- 9 Valve guide intake
- 10 Valve guide exhaust
- 11 Intake valve
- 12 Exhaust valve
- 13 Rocker arm
- 14 Hydraulic valve clearance compensating element



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