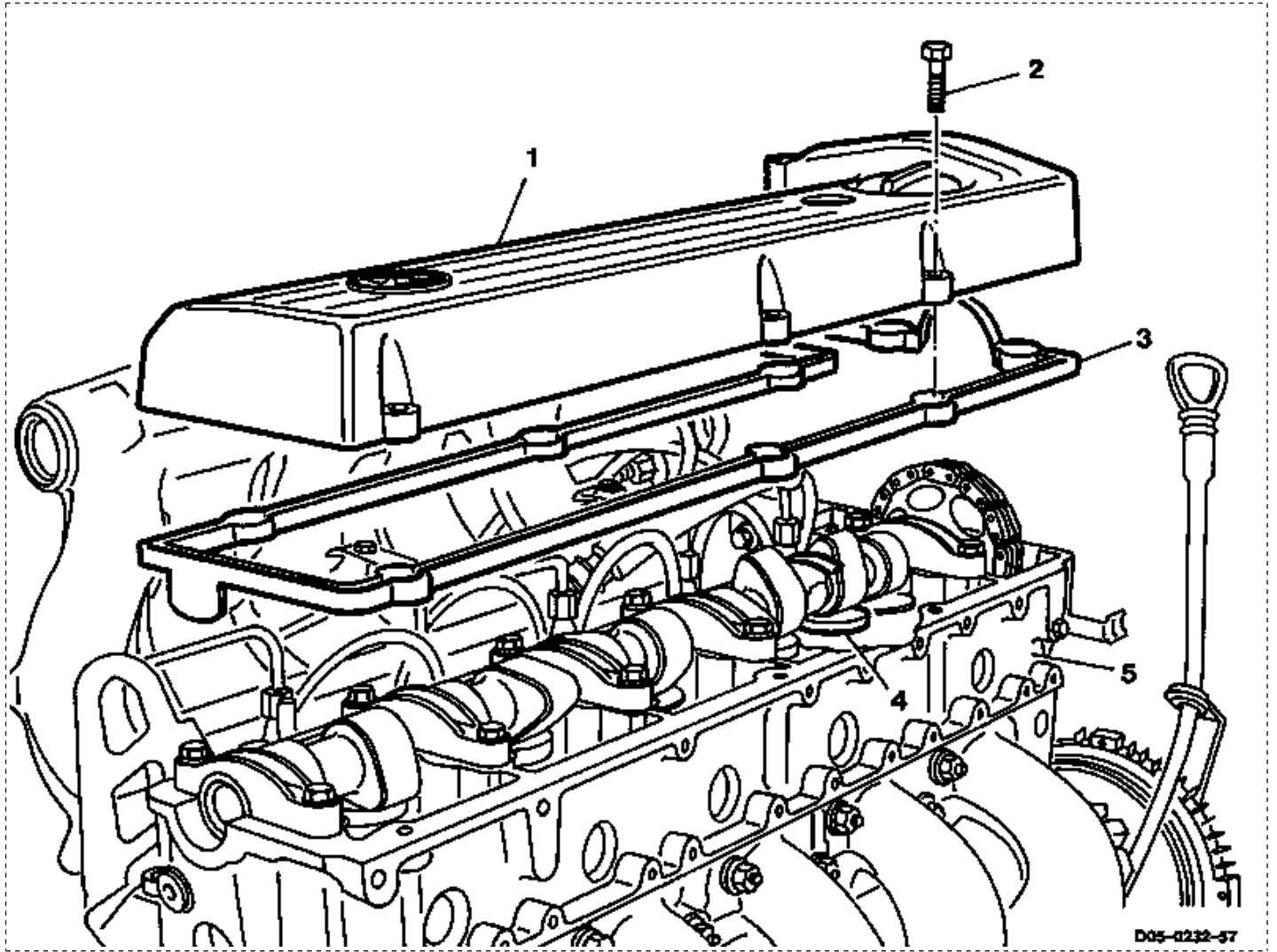


05-6010 Checking timing of camshaft

Preceding work:

Glow plugs removed (15-4111).



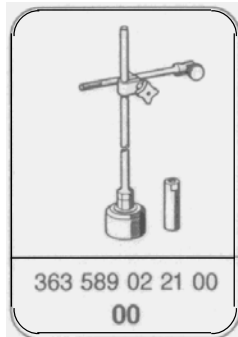
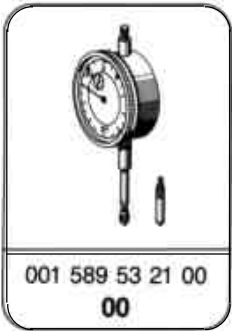
- 1 Cylinder head cover
- 2 Hexagon bolts 10 Nm
- 3 Gasket replace
- 4 Valve tappet
- 5 Cylinder head

Timing

Engine	Condition of camshaft	Inlet valve	Inlet valve	Exhaust valve	Exhaust valve
		opens ATDC	closes ABDC	opens ATDC	closes ABDC

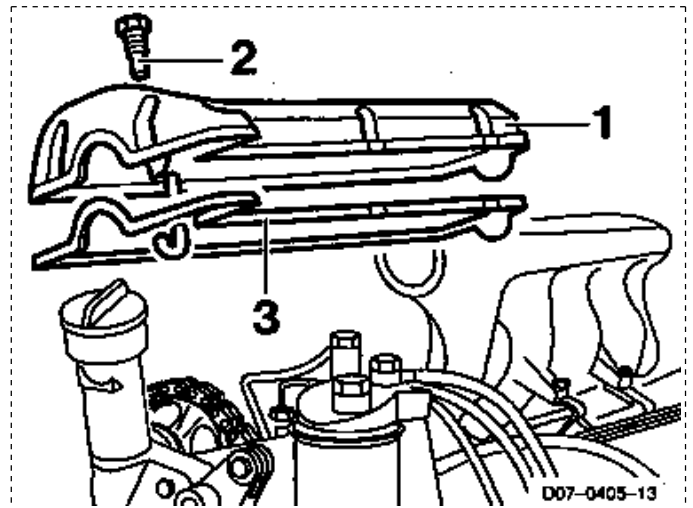
601/602	new	11°	17°	28°	15°
	used approx. 20000 km	12°	18°	27°	14°

Special tools



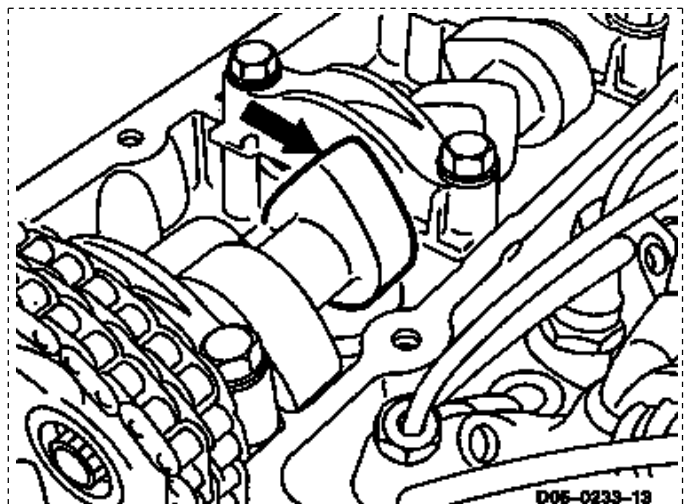
Checking

- 1 Unscrew hexagon bolts (2) and take off cylinder head cover (1) together with gasket (3).



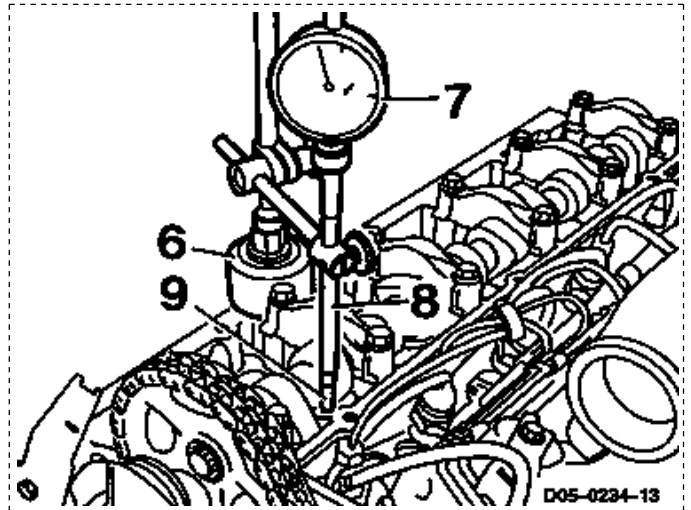
Do not crank engine at the bolt of the camshaft sprocket.
Do not crank engine in the opposite direction of rotation.

- 2 Crank engine in direction of rotation until the inlet valve of cylinder 1 is completely closed. The cam lobe faces up (arrow).



- 3 Attach dial gauge holder (6) and dial gauge (7) with extension (8) to the cylinder head (5) and position the tracer pin (9) on the valve tappet (inlet valve of cylinder 1) with a preload of approx. 3 mm.
- 4 Set dial gauge (7) to zero.

6		363 589 02 21 00
7		001 589 53 21 00
8		366 589 00 21 05



- 5 Crank engine further in direction of rotation until the dial gauge has moved back by 2 mm (valve lift) to 1 mm.

- 6 Read off timing.

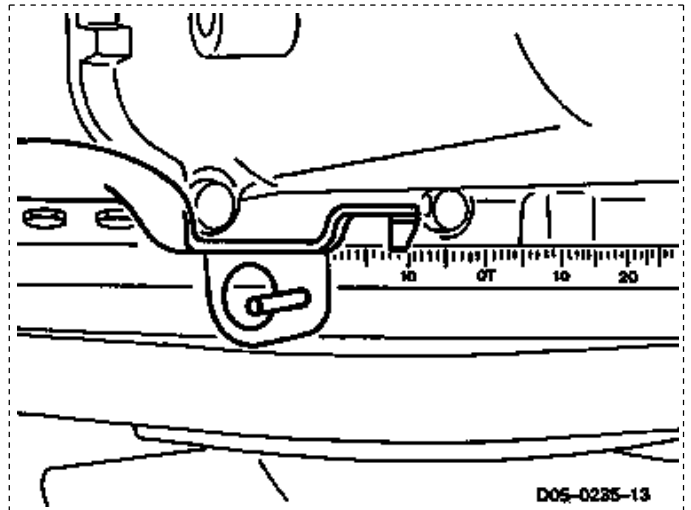
Specifications:

New engine 11°.

Engine run approx. 20000 km 12°.

If the specifications are not achieved, the camshaft should be examined for signs of wear and the timing chain for stretch.

If a difference of more than 4° exists, the timing chain should be replaced.



- 7 Install cylinder head cover with new gasket,
10 Nm.