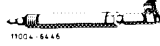
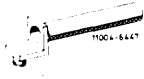
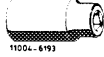


03--345 Checking and correcting adjustment of TDC transmitter

Special tools

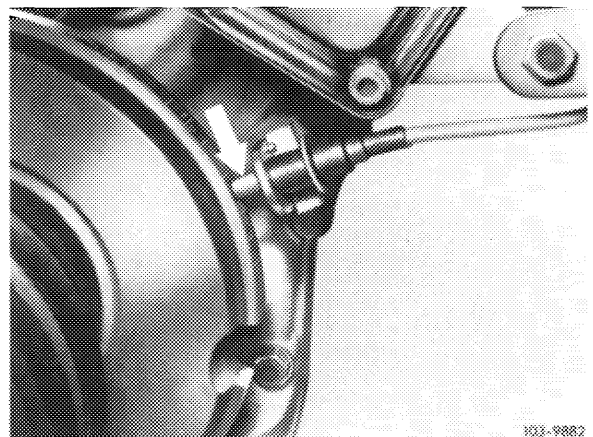
Measuring pin for TDC and 20° after TDC position of engine on 1st cylinder		115 589 17 21 00
Locating tool for adjusting tool		102 589 03 21 00
Socket 27 mm, 1/2" square		001 589 65 09 00
Square drive socket 1/2", 80 mm long for rotating engine		617 589 00 16 00

Note

At crankshaft position 20° after TDC, the TDC indicator should be accurately above pin in vibration damper (arrow).

Check or adjust adjustment of TDC transmitter:

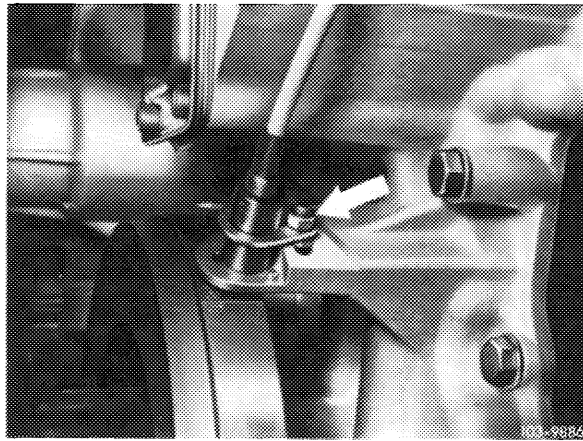
- when renewing TDC transmitter adjusting slide;
- when renewing hub and vibration damper of crankshaft;
- when renewing timing housing cover;
- when completing basic engines.



Checking

- 1 Remove radiator.
- 2 On vehicles with air conditioning system, screw on refrigerant compressor with mounting bracket after having adjusted TDC transmitter.

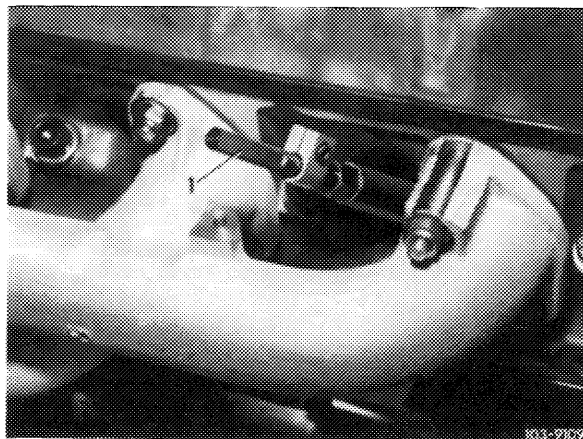
3 Unscrew hex. nut (arrow) and pull out TDC transmitter.



4 Screw tester into spark plug bore of 1st cylinder.

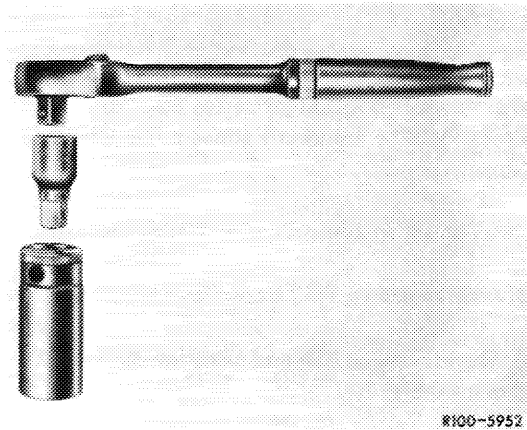
Insert adjusting pin (1) into tester and push down until seated.

Note: With cylinder head removed, attach a dial gauge holder to cylinder crankcase and place dial gauge pin on piston crown.



5 Turn crankshaft with tool combination until adjusting pin is at its highest point.

Piston is then at TDC.

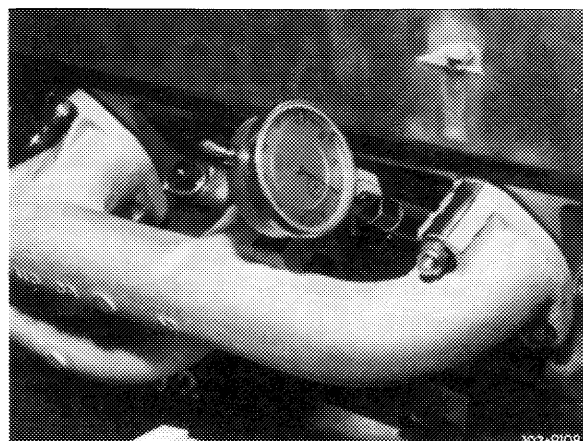


6 Remove adjusting pin.

Tighten dial gauge with approx. 5 mm preload.

Turn crankshaft and set TDC accurately by means of dial gauge.

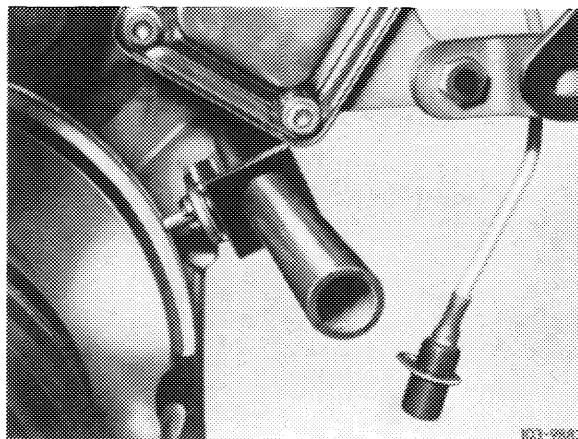
Turn dial gauge scale until needle points to 0.



7 Keep turning crankshaft in rotating direction until dial gauge shows the respective value according to table.

8 Insert positioning device into adjusting tool. Pin of vibration damper should engage in groove of positioning device.

Note: With righthand cylinder head removed, place dial gauge pin vertically on piston of 1st cylinder. Keep turning crankshaft in rotating direction until dial gauge shows the respective value according to table.

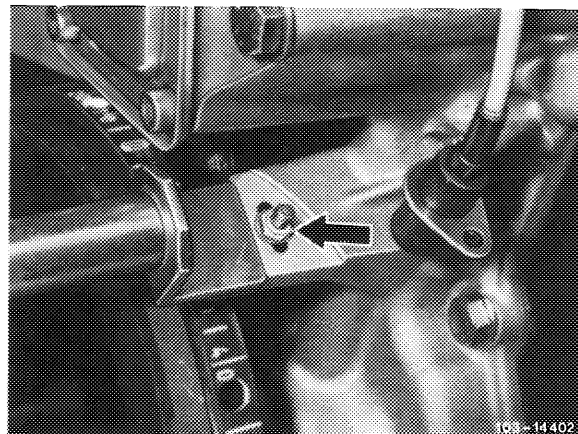


Engine	Measured through spark plug bore	Vertically on piston
116.98	2.69	2.44
117.98	3.58	3.25

Corrections

9 Loosen adjusting slide (arrow) and displace until pin engages in positioning device.

10 Screw-on adjusting slide (arrow) and remove positioning device.



11 Insert TDC transmitter and screw-on (arrow).

12 Remove dial gauge.

13 Turn crankshaft in rotating direction for a short distance, then unscrew tester from spark plug bore.

