

07.0 Checking Cylinders for Leaks

Data

Total pressure loss	25 %
---------------------	------

Special Tools

Cylinder leak tester	—
----------------------	---

Socket wrench for cranking engine	000 589 61 09 00
-----------------------------------	------------------

Inspection

Check **engine only at operating temperature.**

- 1 Unscrew spark plugs.
- 2 Remove air cleaner. Open throttle valve completely.
- 3 Remove radiator cap. Add cooling water, when cooling water level is too low.
- 4 Remove closing cover from righthand cylinder head cover.
- 5 Connect pressure loss measuring unit with hose to a compressed air system. Calibrate unit (refer to operating instructions of pertinent unit).
- 6 Set piston of first cylinder to ignition TDC.

Caution! Do not crank engine on hex. bolt of camshaft gears.

For cranking, push cover out of crankshaft pulley by means of a screw driver. Then place tool combination (Fig. 1) on hex. bolt for attaching hub to crankshaft and crank engine.

- 7 Screw connecting hose into spark plug bore of cylinder 1 and attach to connecting hose. The engine should not rotate. Watching the fan will be best, while subsequently checking the TDC mark once again.

Caution! If the crankshaft has turned **in direction of rotation**, that is, beyond dead center, keep turning the crankshaft in the direction of rotation for another two revolutions until the TDC mark on the balancing disc is once again aligned with the pointer.

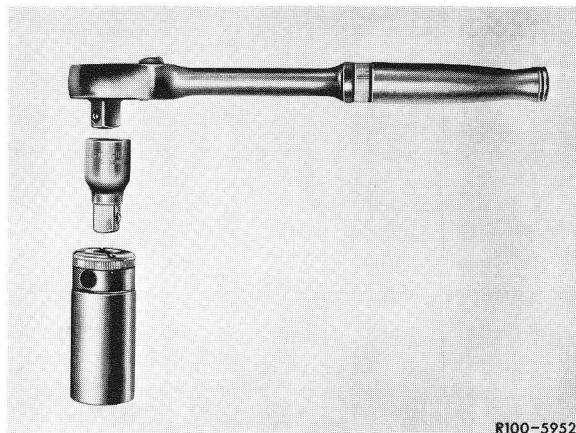


Fig. 1

- 8 Read "percentage-pressure loss" on measuring unit.

- 9 At a pressure loss above 25 % determine by listening whether air escapes through the intake pipe, the exhaust, the crankcase or out of the spark plug hole of an adjacent cylinder. Also check whether air bubbles are rising in the cooling water caused by a defective cylinder head gasket.

- 10 Repair fault.

The fault might be gone after adjusting the valve clearance.

It is also possible that on individual pistons the piston ring gaps are directly one above the other and the test results are thereby falsified.

When in doubt, keep vehicle running and check cylinders once again for leaks later on.