

GENERAL INFORMATION

DETERMINE LOSS OF PRESSURE AT CYLINDER - AH01.00-N-1300-02A

All engines

If an increased pressure loss was found with the cylinder leaktightness tester, inspect engine by listening at cylinder head gasket, air intake area, exhaust, oil filler opening and prechamber or spark plug bores of the adjacent cylinder or cylinders. Check the coolant in the coolant expansion reservoir for the formation of air bubbles.

Possible causes for the pressure loss are:

1. **Outlet of air through prechamber or spark plug bore of adjacent cylinder or cylinders, air bubbles in coolant expansion reservoir:**

pressure loss at cylinder head gasket

2. **Outlet of air through air intake area:** For inspecting by listening, open throttle valve pressure loss at inlet valve(s)

3. **Outlet of air through exhaust:**

pressure loss at exhaust valve(s)

4. **Outlet of air through oil filler opening:**

pressure loss through pistons and piston rings

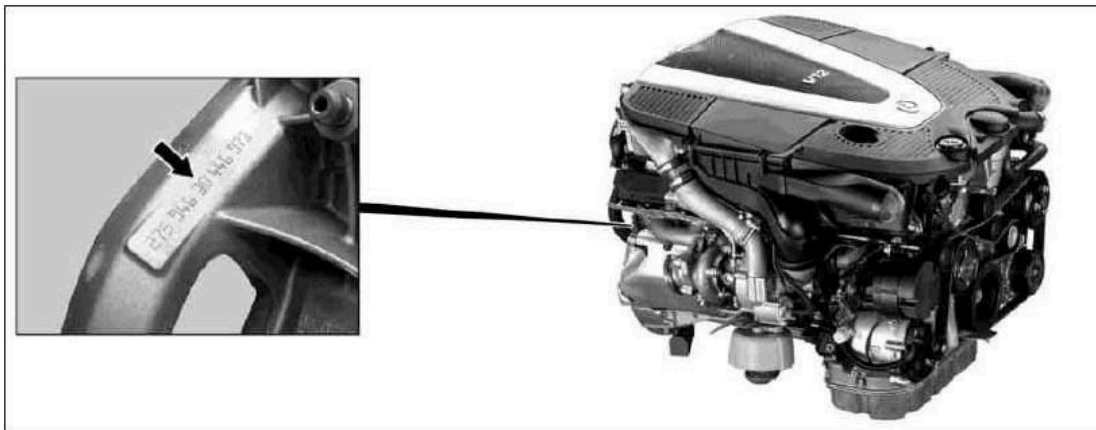
ⓘ It is possible to pinpoint the pressure loss of the relevant cylinder by spraying with engine oil. Engine oil seals off the gap between piston and cylinder briefly.

If a reduced pressure loss now occurs for a short time, the cause is very likely to be at the pistons, piston rings or cylinder contact surface of the relevant cylinder.

Determining the cause can be falsified by the position of the piston ring joints. If suspicion exists that the loss of pressure is caused by the piston ring joints being positioned directly one above the other, fit parts to engine and repeat test after running engine for a short time.

NOTES ON POSITION OF ENGINE NUMBER - AH01.00-P-0001-01D

Engine 112, 113, 120, 137, 271, 272, 273, 275, 285, 628, 629, 642, 651



P01.10-2660-08

Fig. 2: Locating Engine Number
Courtesy of MERCEDES-BENZ OF NORTH AMERICA.

Shown on engine 275

- Ⓢ The engine number is located on the upper right transmission flange.
- Ⓢ With OM 642 the engine number is located on the left front on the cylinder crankcase below the vacuum pump
- Ⓢ With OM 651 the engine number is located on the left side on the cylinder crankcase below the vacuum pump

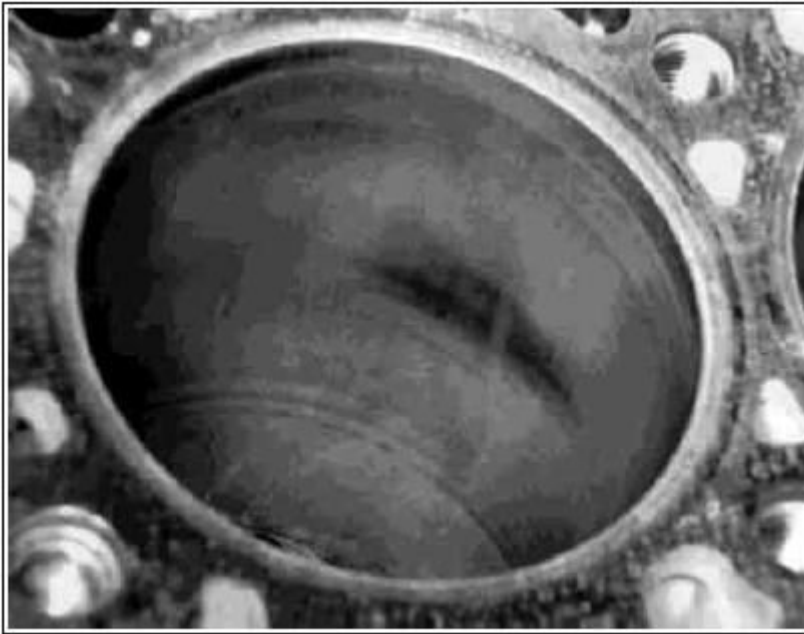
GENERAL INFORMATION ON INSPECTING CYLINDER WALLS - AH01.00-P-0300-01A

Engine 112, 122, 134, 135, 166, 271.951, 272, 611, 612, 613, 628, 629, 639, 642, 646, 647, 648, 651 CD

Pressure gloss marks, smooth spots

Individual blank points, e.g. in the middle of the cylinder barrel or around the cylinder head bolts.

- Ⓢ Continue to use crankcase.



P01.40-0265-11

Fig. 3: View Of Pressure Gloss Marks & Smooth Spots
Courtesy of MERCEDES-BENZ OF NORTH AMERICA.

Visible mottling, friction marks

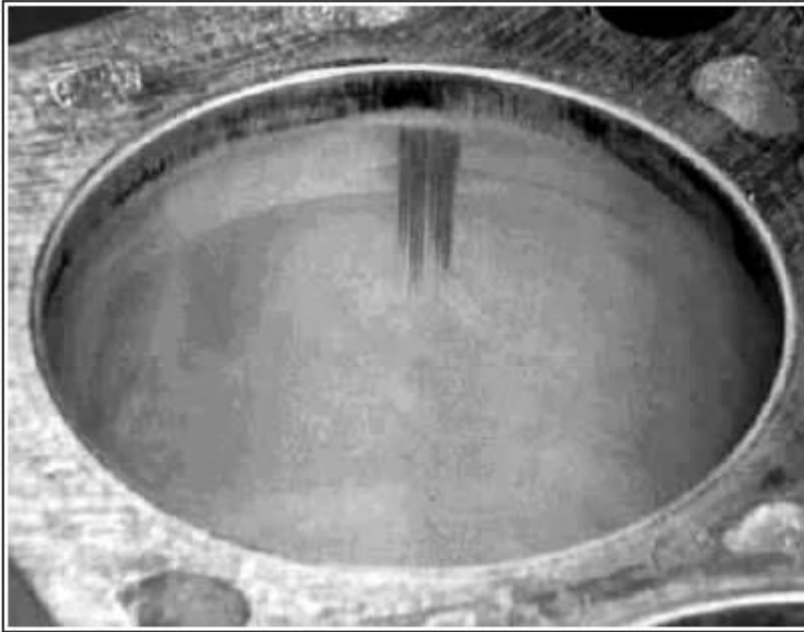
Starting from reverse area of the upper piston ring tapering downwards.

Traces of dry friction marks which cannot be felt, caused by oil film being washed off by fuel, for example from many cold starts when driving short distances.

Friction marks occurring mainly around the cylinder head bolts and on the pressure side are not a problem provided that they are smoothed out.

The piston rings are not damaged.

Ⓢ Continue to use crankcase.



P01.40-0267-11

Fig. 4: View Of Visible Mottling & Friction Marks
Courtesy of MERCEDES-BENZ OF NORTH AMERICA.

Ring shaped imprints

Visible imprints on cylinder barrel in the upper and lower reverse area of piston rings are not a cause for complaint.

Ⓢ Continue to use crankcase.