

Engine all

If an increased pressure loss was found with the cylinder leakage tester, inspect engine by listening at cylinder head gasket, air intake area, exhaust system, oil filler opening and prechamber or spark plug bores of the cylinder or adjacent cylinders.

Check the coolant in the coolant expansion reservoir for air bubble formation.

Possible causes of pressure loss given the following symptoms are:

1 Air escape through pre-combustion chamber or spark plug bore of cylinder or adjacent cylinder, air bubbles in coolant expansion reservoir:

Pressure loss at cylinder head gasket

2 Air escaping via air intake section:


Pressure loss at intake valve(s)

3 Air escaping via exhaust system:

Pressure loss at exhaust valve(s)


4 Air escaping via oil filler opening:

Pressure loss through pistons and piston rings

 Spraying in engine oil can limit the pressure loss from that cylinder. Engine oil temporarily seals the gap between the piston and cylinder.

If a reduced pressure loss then occurs temporarily, the cause is highly likely to be the piston, the piston rings or the cylinder barrel of the cylinder in question.

Troubleshooting the cause can be hampered by the position of the piston ring end gaps. If it is suspected that pressure loss is being caused by the piston ring end gaps being directly over each other, reassemble the engine and repeat the test after running the engine for a brief period.

 For vehicles with irregular engine operation, defect localization can be improved by conducting the measurement when the engine is hot and cold.