



SI M11 07 08
Engine

March 2015
Technical Service

This Service Information bulletin supersedes SI M11 07 08 **dated March 2011**.

NEW designates changes to this revision

SUBJECT

Crankcase Ventilation System Diagnosis and Measurement

MODEL

All

INFORMATION

All current MINI engines incorporate a pressure-controlled crankcase ventilation system. The crankcase ventilation systems use various different crankcase ventilation valves, depending on the engine type. Although the valves all look different, they function similarly, using a spring and diaphragm assembly to control the crankcase pressure. A properly functioning pressure control valve is designed to maintain a slight vacuum (underpressure) in the crankcase, which assures reliable crankcase venting during all engine operating conditions. Some of the causes and results of a malfunctioning crankcase ventilation system are listed below.

Causes of Excessive Overpressure (Pressure)

- Internal engine damage/wear
- Obstruction in the crankcase ventilation system
- Defective pressure control valve

Results of Excessive Overpressure

- Damage to the engine oil seals
- Increased engine oil consumption (can be misdiagnosed as a defective turbocharger)
- Excessive engine oil in the intake system
- Excessive engine oil in the charged intake tubes or the intercooler on turbocharged engines (can be misdiagnosed as a defective turbocharger)
- Engine oil dip stick is dislodged from the guide tube (if equipped)

Cause of Excessive Underpressure (Vacuum)

- Defective pressure control valve

Results of Excessive Underpressure

- Damage to the engine oil seals
- Increased engine oil consumption
- Excessive engine oil in the intake system
- Rough engine idling or engine misfire
- Whistling or howling noise from the engine (can be misdiagnosed as a defective turbocharger)

- Increased mixture adaptation values

Attached to this Service Information bulletin are two procedures:

1. Preparing an engine oil cap for a crankcase pressure measurement
2. Measuring the crankcase ventilation system using the ISID and IMIB diagnostic equipment

Specification and actual readings from the vehicle may vary by up to $\pm 10\%$, but not more than 4.0 mBar.

Engine Variant	Specification (mBar)
W10	1.0- 6.0
W11	2.5-4.0
N12	22
N14	38
N16	36
N18	36
 B38	50
 B48	50

WARRANTY INFORMATION

This service information bulletin is intended to provide technical diagnostic and/or repair information.

Claims that result from the repair of a verified defect are to be processed following established warranty policies and procedures.

ATTACHMENTS

View PDF attachment [M110708 Engine Oil Cap Modification.](#)

View PDF attachment [M110708 Measuring Crankcase Pressure Using IMIB.](#)

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