



This Service Information bulletin supersedes SI B11 03 08 **dated September 2010.**

NEW designates changes to this revision

SUBJECT

Crankcase Ventilation System Diagnosis and Measurement

MODEL

All

NEW INFORMATION

All current BMW 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(s)

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 is a procedure for 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 2.0 mBar.

Engine Variant	Specification (mBar)
M42, M44, M52, M52TU, S52, M54, M60, M62, M62TU, M73	13
S54	0.0 +- 1.0
S62	0.0 +- 1.0
S65	0.0 +- 2.0
S63	3
S85	0.0 +- 1.0
N52	26
N51 and N52K	28.5
N54	9
N55	35
N62	22
N62TU	25
N63	9
N73	26

WARRANTY INFORMATION

For information only

ATTACHMENTS

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