

N52 ENGINE RUNS POORLY WITH CAMSHAFT SENSOR AND VANOS FAULTS

TECHNICAL SERVICE BULLETIN

Reference Number(s): SI B 11 05 05, Date of Issue: March 10, 2009

BMW: E90 (3 Series), E60 (5 Series) with N52 engine produced from 3/2005 through 6/2006;
E90, E91 and E92 (3 Series) with N52KP and N54 engines from 7/2006 production; E85
and E86 (Z4) with N52 from 1/2006 production; E83 (X3) with N52 from 9/2006
production

GROUP: Engine

Superceded Bulletin(s): SI B11 05 05, Date of Issue: December 2009

Related Ref Number(s): 11 05 05

ARTICLE BEGINNING

NOTE: This Service Information bulletin supersedes SI B11 05 05 dated December 2006.

SUBJECT

N52 Engine Runs Poorly with Camshaft Sensor and Vanos Faults

SITUATION

Vehicles equipped with the N52, N52KP and N54 engines may be difficult to start, run rough and have the "Service Engine Soon" lamp illuminated.

Any of the following camshaft sensor or VANOS faults, as well as various misfire faults, may be stored in the DME fault memory:

- 2A9A Cam sensor, inlet signal - signal invalid for synchronization
- 2A98 Crankshaft-inlet camshaft, correlation - Value outside reference range
- 2A82 VANOS intake - stiff, jammed mechanically
- 2A9B Cam sensor, exhaust signal - signal invalid for synchronization
- 2A99 Crankshaft - exhaust camshaft, correlation - Value outside reference range
- 2A87 VANOS exhaust - stiff, jammed mechanically

CAUSE

The VANOS solenoid valve is jammed or sticking.

CORRECTION

Perform the diagnosis and repair procedure as described below.

PROCEDURE

E90 (3 SERIES) AND E60 (5 SERIES) WITH N52 ONLY

Remove the VANOS solenoid, intake or exhaust, depending on the fault codes stored and, using shop air, gently blow out any visible particles and reinstall.

It is no longer necessary to replace the VANOS solenoid on the N52 engine.

Reprogram the vehicle using **CIP17.01 (Target data Status E89x-05-06-510)** or higher for the **E90**, and **Target data Status E060-05-06-500** or higher for the **E60**.

The modified MSV70 DME data contains additional VANOS solenoid activation logic to flush out any foreign particles.

E90, E91 AND E92 (3 SERIES) WITH N52KP AND N54 ENGINE AND E83, E85, E86 WITH THE N52 ENGINE ONLY

Swap the faulted VANOS solenoid with the opposing solenoid to verify whether the fault follows to the opposing location. If the fault follows, replace the VANOS solenoid.

PARTS INFORMATION**PARTS INFORMATION**

Part Number	Description	Quantity
11 36 7 516 293	VANOS Solenoid	1

WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle Limited Warranty.

WARRANTY INFORMATION

Defect Code	Refer to KSD
Labor Operation:	Refer to KSD
Labor Allowance:	Refer to KSD

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