

**SUBJECT****N55 Engine: Various Faults Stored in DME Related to VANOS and Camshaft Position****MODEL**

E70

E71

E82 and E88 135i

E90, 92 and E93 335i

F07 535i

F10 535i

F12 and F13 640i

F25

**SITUATION**

A rattling noise can be heard from the engine compartment; the engine has a loss of power; and the Service Engine Soon lamp is illuminated. One or more of the following faults may be stored.

**E70, E71, E82, E88, E90, E92 and E93:**

2D5A - VANOS, intake: control fault, camshaft sticking

2D5B - VANOS, intake: control fault, position not reached

2D60 - VANOS, exhaust: control fault, camshaft sticking

2D61 - VANOS, exhaust: control fault, position not reached

2D9F - camshaft input sensor: signal implausible

2DA1 - Camshaft exhaust sensor: signal implausible

300C - Camshaft input sensor: signal high

300D - Camshaft input sensor: signal low

300E - Camshaft exhaust sensor: signal high

300F - Camshaft exhaust sensor: signal low

**F07, F10, F12, F13 and F25:**

130104 - VANOS, intake: control fault, camshaft sticking

130108 - VANOS, intake: control fault, position not reached

130304 - VANOS, exhaust: control fault, camshaft sticking

130308 - VANOS, exhaust: control fault, position not reached

130E11 - Camshaft input sensor: signal implausible

130F11 - Camshaft exhaust sensor: signal implausible

164020 - Camshaft input sensor: signal high

164021 - Camshaft input sensor: signal low

164030 - Camshaft exhaust sensor: signal high

164031 - Camshaft exhaust sensor: signal low

**CAUSE**

One or both (intake and/or exhaust) of the VANOS gear assemblies have failed; the attaching bolts may have also loosened and/or broken.

**PROCEDURE**

1. Replace both VANOS gear assemblies. Refer to Repair Instruction 11 36 046 “Removing and installing or replacing intake and exhaust camshaft units (N55).”
2. If the bolts have been found broken, the missing portions of the bolts will need to be retrieved from the engine before the final repairs are made. This additional work may include removing the engine oil pan, and a close examination of the timing chain drive to retrieve the missing parts. Refer to the applicable repair instructions for oil pan removal procedures.

**Replacement of the parts described in the bulletin does not require TeileClearing Authorization.**

**PARTS INFORMATION**

Part Number	Description	Quantity
11 36 7 583 207	Adjustment unit inlet camshaft (VANOS)	1
11 36 7 583 208	Adjustment unit outlet camshaft (VANOS)	1

Refer to ETK for additional bolts and gaskets.

**WARRANTY INFORMATION**

Covered under the terms of the BMW New Vehicle/SAV Limited Warranty, and as applicable, any Federal, State or BMW Emissions Warranty or the BMW Certified Pre-Owned Limited Warranty (only applies to BMW vehicles that are still within the BMW CPO coverage period but beyond the BMW

New Vehicle/SAV Limited Warranty or Emissions Warranty coverage that applies to the specific repair).

Please see SI B01 02 11 for “Emissions Warranty Coverage” and refer to the “Glossary of Emission Coverage” attachment for more information.

**Defect Code:**           **11 36 01 37 00**

<b>Labor Operation:</b>	<b>Labor Allowance:</b>	<b>Description:</b>
00 00 006	Refer to KSD2	Performing “vehicle test” (with vehicle diagnosis system – checking faults)

and if necessary, also

61 21 528	Refer to KSD2	Charging battery
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Labor operation code 00 00 006 is a Main labor operation. If you are using a Main labor code for another repair, use the Plus code labor operation 00 00 556 instead.

and

#### **Replacing the Intake Valve Adjustment Unit Only**

<b>Labor Operation:</b>	<b>Labor Allowance:</b>	<b>Description:</b>
11 36 542	Refer to KSD	Removing and installing or replacing intake valve adjustment unit (VANOS)

or

#### **Replacing the Exhaust Valve Adjustment Unit Only**

<b>Labor Operation:</b>	<b>Labor Allowance:</b>	<b>Description:</b>
11 36 544	Refer to KSD	Removing and installing or replacing exhaust valve adjustment unit (VANOS)

or

#### **Replacing Both the Intake and Exhaust Valve Adjustment Units**

<b>Labor Operation:</b>	<b>Labor Allowance:</b>	<b>Description:</b>
11 36 546	Refer to KSD	Removing and installing or replacing intake and exhaust valve adjustment units (VANOS)

Refer to KSD2 for the corresponding flat rate unit (FRU) allowance. Enter the Chassis Number, which consists of the last 7 digits of the Vehicle Identification Number (VIN). Click on the “Search” button, and then enter the applicable flat rate labor operation in the FR code field.

#### **Other Repairs**

As outlined in the Procedure section, if other eligible and covered consequential work is required, claim this work under the defect code listed above with the applicable labor operations listed in KSD2.

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