

January 2013 Technical Service

SUBJECT

N20 Engine: Repeated Juddering or Surging While Accelerating

MODEL

E84

E89

F10

F25

F30

SITUATION

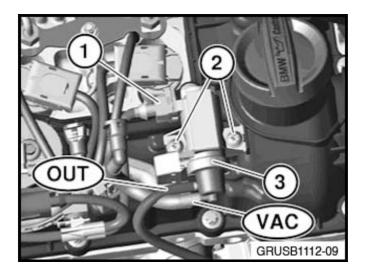
The vehicle judders or surges repeatedly while accelerating in hot ambient temperatures between 3,000 RPM and 5,000 RPM. The Service Engine Soon lamp is not illuminated, and no fault codes are stored in the vehicle memory related to this complaint.

CAUSE

The EPDW (electropneumatic pressure convertor) for the turbocharger wastegate valve is binding internally.

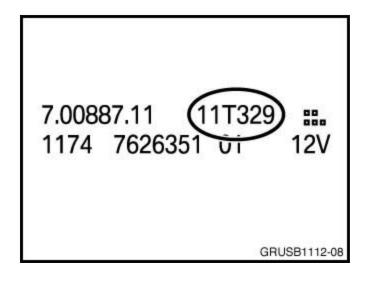
PROCEDURE

When no fault codes related to this complaint are stored in the vehicle's memory:



- 1. Remove the engine acoustic cover as per Repair Instruction 11 12 090, "Removing and installing/renewing acoustic cover (N20)."
- 2. Locate the EPDW located near the engine oil fill cap.
- 3. On the side the EPDW, there is a series of numbers printed.

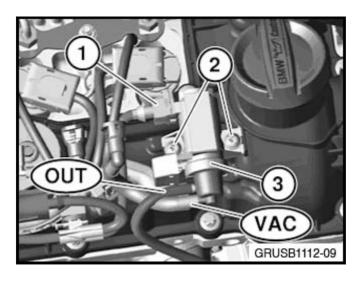
Do not remove the EPDW.



The date code located on the side of the EPDW needs to be 12T158 or greater.

If the date code is 12T157 or lower, the EPDW will need to be replaced.

Refer to the illustration.



- 4. Remove the electrical connector (1).
- 5. Remove the screws (2).
- 6. Remove vacuum lines marked "OUT" and "VAC."
- 7. Remove EPDW.
- 8. Install the new EPDW, connectors and vacuum lines. Install and torque the attaching screws to 3 Nm (2).

Note: When the ISTA system message displays: Battery voltage only "XX.XX" V. Please connect charger. Please note the displayed battery voltage reading in the repair order comments section. This documentation is not necessary when part of an approved Technical Service repair procedure; the battery charger is required to be attached before performing the Vehicle Test.

PARTS INFORMATION

Part Number	Description	Quantity
11 74 7 626 351	EPDW	1

WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle/SAV Limited Warranty or the BMW Certified Pre-Owned Limited Warranty.

Defect Code: 11 65 23 12 00

Labor Operation: Labor Allowance: Description:

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

and

11 74 507 Refer to KSD2 Replacing pressure converter for

turbocharger

Labor operation code 00 00 006 is a Main labor operation. If you are already using a Main labor code for another repair, use the Plus code labor operation 00 00 556 instead.

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

If performing other ISTA diagnostics and the related test plans results with **eligible and covered work**, claim this work with the applicable defect code and labor operations listed in KSD2.

Note: Please follow any TeileClearing (TC) or Diagcode (DC) requirements that may apply to this additional work.

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