

**Measure no.**

US 64351344-01

**Subject**

Lurching at partial load/idle speed

**Status date (mm/dd/yy)**

7/20/18

**Status**

Accepted

**Organization**

US, MOT

**Date created (mm/dd/yy)**

7/20/18

**Created by**

Annett Salzmann

**PQM Problem reference****Release date (mm/dd/yy)****Approved by****Dealer release**

Allow automatic release

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**Vehicles affected****E series**

K46/12 K46/13 K47 K47/11 K49

**Engine****Body****Production period (from/to)**

(mm/dd/yy)

/

**Comment on production period****Feedback (all cases relating to****measure up to) (mm/dd/yy)**

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**Complaint**

Lurching at partial load range and Idle speed is unstable

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**Cause**

Cold/short-distance drives at low speeds can increase oil residues and contamination deposits on the intake valves and consequently on the throttle valve. Contamination can also increase with the use of substandard fuel and/or engine oil with additives. The result is lurching at partial load in the low to middle engine speed range and cannot be remedied when ridden in this manner.

This high-performance engine was not developed to operate under cold/short distance drives at low speeds. The customer should be informed of the disadvantages of increased maintenance when used in such a way.

Regular journeys at high speeds > 9.000 rpm, for example on the motorway, can help to burn off contaminated valves and prevent contamination of the throttle valves.

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## **Measure**

The product was precision designed and reacts adversely to contamination.

Altering the product is out of the question due to homologation reasons.

The throttle valve position is monitored by the engine control unit (BMS-X or BMS-MP).

With increasing contamination, the throttle valve must open wider for the same air flow when idling or close to idling. As of I level K001-18-07-500, once a certain threshold value is reached, a fault entry is set.

BMS-X: 0x21F900 "Throttle valve contamination"

or

BMS-MP: 0x3A18F0 "Throttle valve contamination"

If either fault code is stored, the service function "Clean throttle valves" is automatically added to the test plan. In this case check the throttle valve and valves for contamination and clean them.

If the fault code is not stored, but the service function is deemed necessary, please proceed as follows:

After the vehicle test (read fault memory), select the fault pattern "Throttle valves contaminated, cleaning necessary" and add to test plan. The service function "Clean throttle valves" then appears in the test plan.

The guide for cleaning the throttle valve system is now also available in AIR under main group 13.

The intake valves are still cleaned as previously:

1. Remove contaminated valves and soak in brake cleaner
2. Remove contamination with a soft sponge
3. If there is also contamination on the valve seat, remove this carefully using a soft sponge.

Cleaning the throttle valves/intake valves is not covered under warranty or goodwill.

The software update can be invoiced using a temporary defect code:

Defect code: 13 61 99 00 00 "control unit - fault saved in diagnosis memory (without warning light)"

Flat rate units:

61 00 002 Check software, 3 FRUs

+ 61 00 510 Program vehicle control unit, 1 FRU

This invoicing is limited until 01/07/2020.

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### Complaint

<b>Fault location</b>	<b>Fault type</b>	<b>Fault place</b>	<b>Fault conditions</b>
▶ Constant-speed driving	Rough running / engine speed variation		Speed up to 1000 rpm Speed 1000-2000 rpm Speed 2000-4000 rpm

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### Cause

<b>#</b>	<b>Fault location</b>	<b>Fault type</b>	<b>Fault place</b>
▶ 1	11/34 Intake valve		
	<b>Repair Task</b>	<b>Special Clearance</b>	<b>Area</b>
	Checking, repairing, replacing	No	Powertrain

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<b>#</b>	<b>Fault location</b>	<b>Fault type</b>	<b>Fault place</b>
▶ 2	13/54 Throttle-valve stub assembly	Surface fault	Front
	<b>Repair Task</b>	<b>Special Clearance</b>	<b>Area</b>
	Checking, repairing, replacing	No	Powertrain

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<b>#</b>	<b>Fault location</b>	<b>Fault type</b>	<b>Fault place</b>
▶ 3	13/61 DME engine control unit	Revision index old	
	<b>Repair Task</b>	<b>Special Clearance</b>	<b>Area</b>

Program/encode

Yes

Powertrain

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**Fault code**

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**Progman / DIS / ISTA / ISTA/P**

**System**

**State**

**Version**

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Example 1:



Example 2:

