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PuMA measure

## MIL warning light while revving engine on side stand

US 65011886-02 - 03/02/21

### Complaint:

When the bike is propped on side stand and is revved up to > 5,000 rpm in neutral gear, the malfunction indicator lamp lights up. (see attached video for an example of this)

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### Cause

When the engine is revved up, vibrations will be transmitted through the complete bike. The intensity of the vibrations differs from bike to bike.

These vibrations may cause a certain "movement" between the wheel speed sensors and the sensor rings, depending on the position of the wheel speed sensors.

This recognised speed is called "ghost speed" and follows the increase of the engine speed:

5,000 rpm = approx.

20 km/h, 10,000 rpm = approx 50 km/h.

The warning light will light up and faults for the side stand will be entered when the bike recognises a speed of more than 20 km/h and the side stand is folded out.

Fault code: 0x3A1331 - side stand with (possibly together with 0x3A1800 wheel-speed sensor front / 0x3A1801 wheel-speed sensor rear).

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### Measure

A software update for K4x with BMS-MP is available with I level 20-03-500 as of March 2020 for the K4x with BMS-MP. The signals of both wheel speed sensors will be compared for this in future and only the lower will be used. Usually one of the

two wheel speed sensors is less affected by the vibrations than the other, which is why the number of complaints should reduce considerably.

This feature was already implemented in K67 with BMS-O.

As the correct function of the side stand switch has to be ensured, the following checks are required for every complaint:

1. Fastening of side stand and condition of the spring has been checked
2. Fastening of side stand switch and plug connection has been checked
3. Sidestand switch has been checked via ISTA
4. Wheel-speed sensors have been checked for damages and via ISTA
5. Lines have been checked for damages and chafe marks

Notice:

Engine running and revving up for prolonged period with vehicle at standstill may cause early wear and damage due to insufficient cooling as described in the owner's manual.

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### Validity information

Model series:	[K49, K46, K67, K47]
Engine range:	[ALL]
Body style:	[ALL]
Fault codes:	[]
Production period:	-

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## Repair overviews

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11/00/005/43075, Engine, Cannot be encoded with VFC, , Speed increase, , No action

62/11/001/43221, Instrument cluster, Front, , Erroneous fault / pseudo fault, , No action

61/31/038/14404, Side-stand switch, Cannot be encoded with VFC, , Component: electrical system, electronics faulty, , Checking, repairing, replacing

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## Attachments

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Number of attachments: 1