

Symptom - Engine - Vibrations in the Engine: Resetting Adaptation Values for Camshaft Control, Changing Engine Oil and Oil Filter (SY 55/20)

Vehicle type: **Macan (95B)**

Model Year: **As of 2019 up to 2020**

Equipment: **2.0-liter 4-cylinder petrol engine (engine type: EA888)**

Subject: **Camshaft control**

Symptom: There are vibrations in the engine after starting the vehicle.
 The following entries are stored in the fault memory of the DME control unit:
 P001100 Intake camshaft adjustment, bank 1 – setpoint position not reached (003A16)
 P001400 Exhaust camshaft adjustment, bank 1 – setpoint position not reached (003A15)

Cause: The adaptation values for camshaft control are out of tolerance.
 This fault may be caused by dirt on the adjusting units.

Remedial Action:

- Reset adaptation values using PIWIS Tester software **version 39.300.010** (or higher).
- Changing engine oil and oil filter.



Information

Only use the engine oils approved and recommended by Porsche for this engine.

Required spare parts and materials

Parts Info:	Part No.	Designation - Location	Qty.
	95810380100	⇒ Cap with sealing ring - Oil pan	1 ea.
	95811556201	⇒ Oil filter with seal - Oil filter housing	1 ea.

Materials: **Required materials** (usually already available at the Porsche dealership):

Part No.	Designation - Location	Qty.
00004321046	⇒ ExxonMobil 1 ESP x2 0W-20 engine oil	200-liter container ¹⁾
00004320593	⇒ Lubricant - Oil filter housing seal	100 g tube ²⁾

¹⁾ approx. 5 liter required per vehicle.

²⁾ approx. 5 grams required per vehicle.

Resetting adaptation values for camshaft control

Work Procedure: 1 Connect the **PIWIS Tester** to the vehicle and switch on the **PIWIS Tester**.

2 Switch on the ignition.

3 Start diagnostics.

4 Create initial VAL.

5 Reset adaptation values.

5.1 Select "**Engine electronics (DME)**" control unit.

5.2 Select the "**Maintenance/repairs**" tab.

5.3 Select the "**Reset adaptation values**" sub-procedure and press •F12" to continue.

5.4 Follow the instructions on the Tester.

6 Check adaptation values.

6.1 Select "**Engine electronics (DME)**" control unit.

6.2 Select the "**Actual values**" tab.

6.3 Select "**Camshaft**" in the menu and press •F12" to continue.

6.4 Select the "**Camshaft phase angle adaptation values**" sub-procedure and press •F12" to continue.

The following adaptation values must be reset to 0.000 degrees:

Camshaft phase angle adaptation value 1

Camshaft phase angle adaptation value 2

Camshaft phase angle adaptation value, exhaust 1

Camshaft phase angle adaptation value, exhaust 2

Camshaft phase angle adaptation value, intake 1

Camshaft phase angle adaptation value, intake 2

- 7 Delete fault memory entries.
 - 7.1 Select all control units (Ctrl+A).
 - 7.2 Select the "**Fault memory**" tab.
 - 7.3 Check the fault memory for relevant entries and correct them.
 - 7.4 Select all fault memory entries (CTRL+A).
 - 7.5 Press "•F8" to delete fault memory entries.
- 8 Create final VAL.
- 9 Switch off the ignition.
- 10 **Disconnect the PIWIS Tester** from the vehicle.

Changing engine oil and oil filter

- Work Procedure:
- 1 Change engine oil, see ⇒ *Workshop Manual '170117 Draining and filling engine oil (R4)'*.
 - 2 Change oil filter, see ⇒ *Workshop Manual '173055 Changing oil filter (R4)'*.
 - 3 Check engine-oil level, see ⇒ *Workshop Manual '170101 Checking engine-oil level (R4)'*.
 - 4 Reset service interval for the oil change service, see ⇒ *Workshop Manual '033500 Fault memory for on-board diagnosis'*.

Invoicing

Invoicing: For documentation and warranty invoicing, enter the labor operations, PQIS coding and part numbers specified below in the warranty claim:

APOS	Labour operation	I No.
24704900	Reworking DME control units	

PQIS coding:

Location (FES5)	1584	Camshaft actuator
Damage type (SA4)	9735	Repair in accordance with PAG instructions

Parts Info:	Part No.	Designation - Location	Qty.
	95810380100	⇒ Cap with sealing ring - Oil pan	1 ea.

95811556201	⇒ Oil filter with seal - Oil filter housing	1 ea.
00004321046	⇒ ExxonMobil 1 ESP x2 0W-20 engine oil	approx. 5 liter
00004320593	⇒ Lubricant - Oil filter housing seal	approx. 5 grams

- References:
- ⇒ *Workshop Manual '170117 Draining and filling engine oil (R4)'*
 - ⇒ *Workshop Manual '173055 Changing oil filter (R4)'*
 - ⇒ *Workshop Manual '170101 Check engine-oil level (R4)'*
 - ⇒ *Workshop Manual '033500 Fault memory for on-board diagnosis'*

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