If There is a Loss of Power or if a Fault Code is Stored in the Fault Memory: Checking Wastegate Function (62 / 16)

Information

This Quick Information shall remain valid until such a time as PIWIS Tester software version 18.100 becomes available.

Until then, the following check must be performed.

Vehicle Type: **911 Carrera (991)**

911 Carrera S (991)

Model Year: **2017**

Subject: **Turbocharger – wastegate**

Information: **If there is a loss of power or if the following fault codes are stored in the fault memory, the wastegate must be checked for smooth operation and corrosion:**

- P0133 (Oxygen sensor upstream of catalytic converter, bank 1)
- P0153 (Oxygen sensor upstream of catalytic converter, bank 2)
- P0234 (Boost pressure control limit exceeded)
- P0299 (Boost pressure control deviation)
- P2262 (Boost pressure too low)

Remedial Action:

- Check wastegate on turbocharger bank 1 for smooth operation and corrosion.
- Check wastegate on turbocharger bank 2 for smooth operation and corrosion.
- If the wastegate shaft on turbocharger bank 1 is stuck, replace turbocharger on bank 1.
- If the wastegate shaft on turbocharger bank 2 is stuck, replace turbocharger on bank 2.

Work Procedure: **Always check the wastegate on both turbochargers. Perform each test step on turbocharger bank 1 (left in direction of travel) first and then on turbocharger bank 2.**

CAUTION

Hot components

- **Risk of burns**

⇒ **Let hot components cool down.**

⇒ **Wear personal protective gear.**

1 Raise the vehicle. ⇒ *Workshop Manual '4X00IN Lifting the vehicle'*

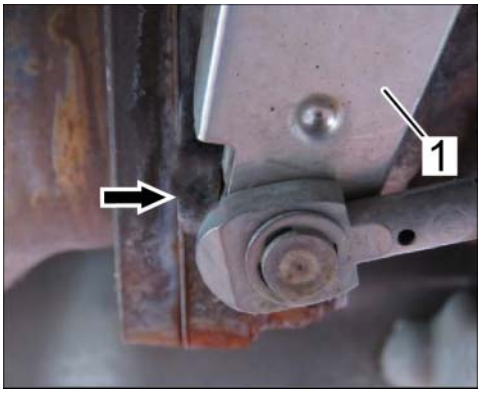
2 Check actuating lever and wastegate shaft for corrosion.

3 Check actuating lever.

3.1 The actuating lever ⇒*Checking stop* **-1-** must be at the stop ⇒*Checking stop* **-arrow-**.

3.2 It must be possible to move the actuating lever ⇒*Checking stop* **-1-** against the spring force of the vacuum unit with your hand.

- If the actuating lever is stuck, replace the relevant turbocharger. ⇒*Workshop Manual '213019 Removing and installing turbocharger'*
- If the actuating lever is at the stop and can be moved by hand, continue with Step 4.



Checking stop

4 Check wastegate shaft ⇒*Checking wastegate shaft* **-2-**.

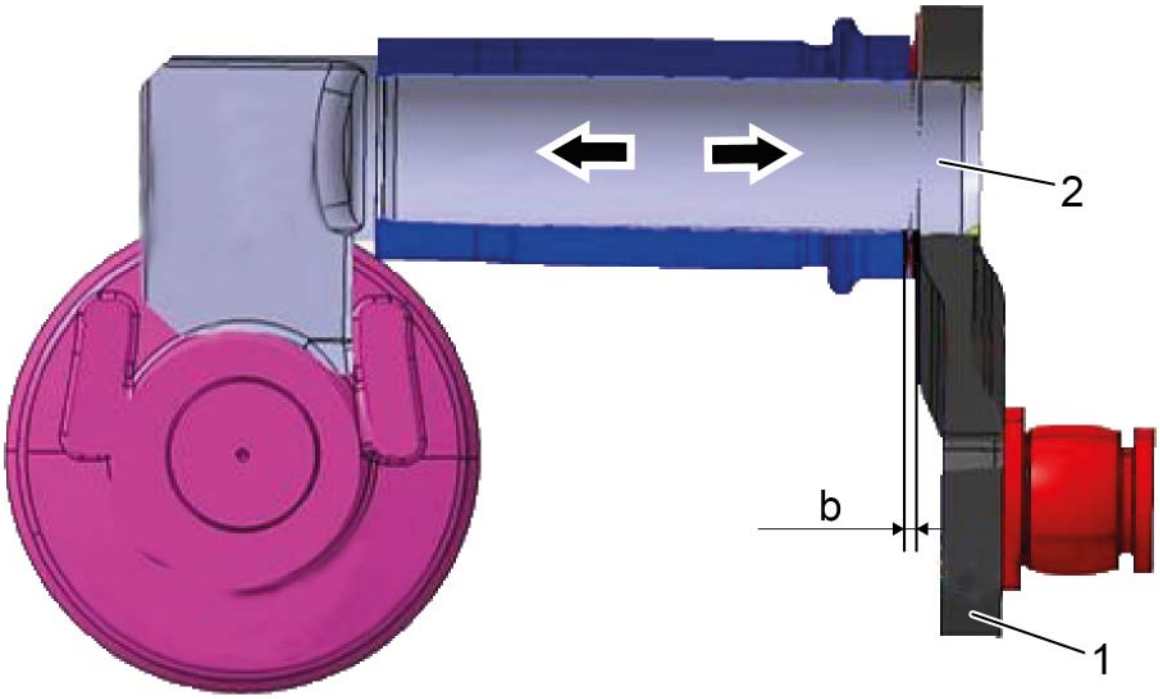
4.1 Check that the wastegate shaft ⇒*Checking wastegate shaft* **-2-** moves smoothly internally.

4.2 Move the wastegate shaft ⇒*Checking wastegate shaft* **-2-** using the actuating lever ⇒*Checking wastegate shaft* **-1-** in axial direction ⇒*Checking wastegate shaft* **-arrows-**.

The axial play ⇒*Checking wastegate shaft* **-b-** of the wastegate shaft ⇒*Checking wastegate shaft* **-2-** is about 0.5 mm.

A clear locking sound can be heard in both directions.

- If the wastegate shaft is stiff and/or if there is too much/not enough axial play, replace the relevant turbocharger. ⇒*Workshop Manual '213019 Removing and installing turbocharger'*
- If the wastegate shaft moves freely and the axial play corresponds to the setpoint value, continue with Step 5.



Checking wastegate shaft

5 Perform vacuum test.

5.1 Disconnect vacuum line from the vacuum unit for the wastegate adjuster.

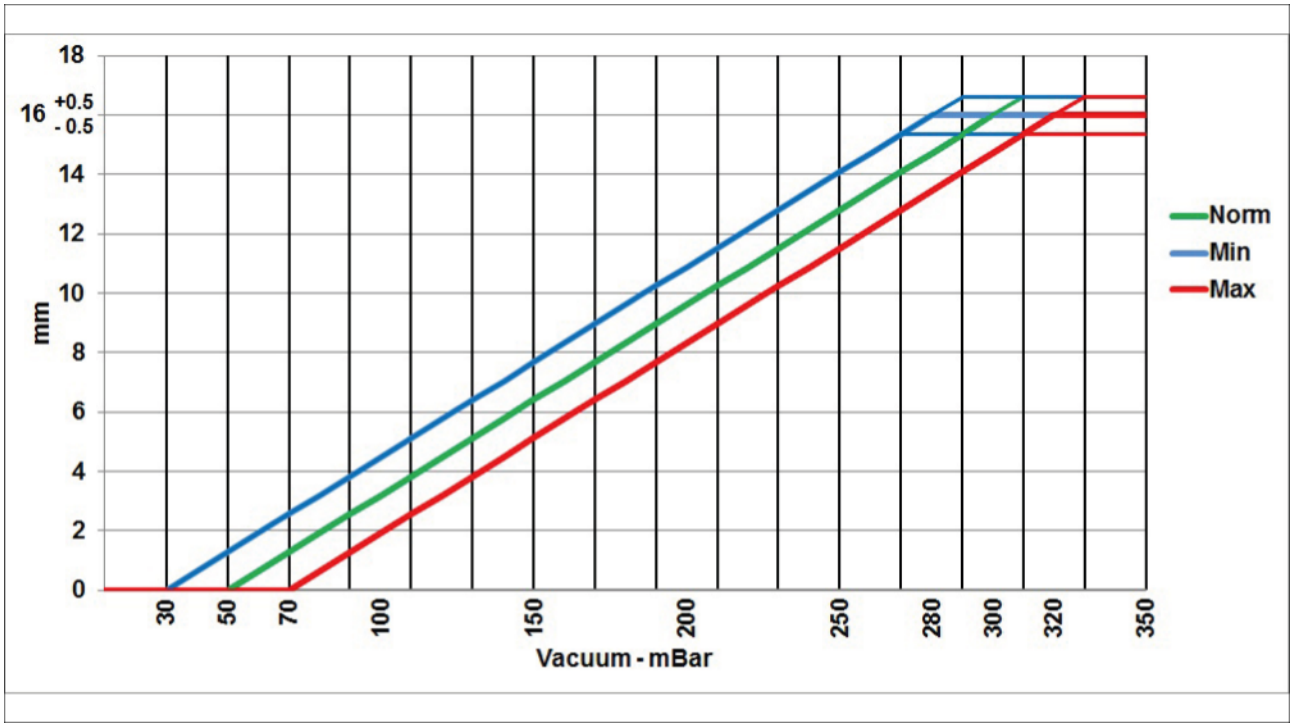
5.2 **9160/1 - Tester** must then be connected to the vacuum connection on the boost pressure control valve.

5.3 Build up vacuum and compare setpoint values ⇒*Nominal values*:

5.3.1 The actuating lever must start to move within the specified setpoint value.

5.3.2 The end position of the actuating lever must be reached within the specified setpoint value.

5.3.3 The actuating lever must move evenly and without jerking.

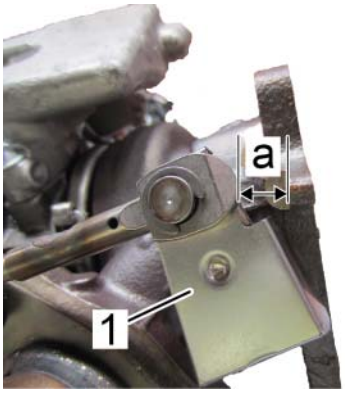


Nominal values

- If the setpoint values are not reached and/or if the actuating lever does not move evenly, replace the relevant turbocharger. ⇒*Workshop Manual '213019 Removing and installing turbocharger'*
- If the setpoint values are reached and the actuating lever moves evenly, continue with Step 6.

6 Check actuating lever travel.

6.1 The actuating lever ⇒*Lever travel* **-1-** must travel a total distance ⇒*Lever travel* **-a-** of approx. 16 mm.



Lever travel

- If the actuating lever travel does not correspond to the setpoint value, replace the relevant turbocharger. ⇒*Workshop Manual '213019 Removing and installing turbocharger'*

- If the actuating lever travel corresponds to the setpoint value and if the **wastegate is checked and found to be OK, the fault is not due to the cause described here. Find the cause of the fault and correct it.**

Invoicing: The work involved is invoiced under the labor operation:

APOS	Labor operation	I No.

For invoicing and documentation using PQIS, enter the following coding:

Location (FES5)	21300	Turbocharger
Damage type (SA4)	1711	Stiff, stuck, not enough play

References: ⇒ *Workshop Manual '213019 Removing and installing turbocharger'*

Dealership Distribution Routing	Service Manager	_____	Shop Foreman	_____	Service Technician	_____	_____	_____	_____
	Asst. Manager	_____	Warranty Admin.	_____	Service Technician	_____	_____	_____	_____