

Complaint - Vibrations in Passenger Compartment at 2,000 - 3,000 RPM (93/20)

Vehicle Type: **Macan S (95B)**

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

Subject: **Boost pressure hose between charge-air cooler and throttle valve**

Information: **Unfavorable routing of the boost pressure hose can cause vibrations that may be transmitted into the passenger compartment.**

Remedial Action: Check routing of the boost pressure hose and if necessary:

- Install boost pressure hose correctly
- Re-align boost pressure hose
- Adjust bonnet and front apron
- Replace boost pressure hose

Parts required

Parts Info (if required):

Part No.	Designation	Qty.
95B145993G	⇒ Charge air hose	1 ea. (only if required)

Required tools

- Tools:
- Torque wrench, 2–10 Nm (1.5–7.5 ftlb.), e.g. **VAG 1783 Torque wrench, 2-10 Nm (1.5-7.5 ftlb.)**
 - Calliper gauge, e.g. **VAS 6082 Depth gauge**

Preparatory work

- Work Procedure: 1 Remove front left wheel housing liner, see ⇒ *Workshop Manual '505619 Removing and installing front wheel housing liner'*.
- 2 Document the installation position of the charge air hose and the connection points on the charge-air cooler and throttle valve by taking relevant pictures **before carrying out repairs**.



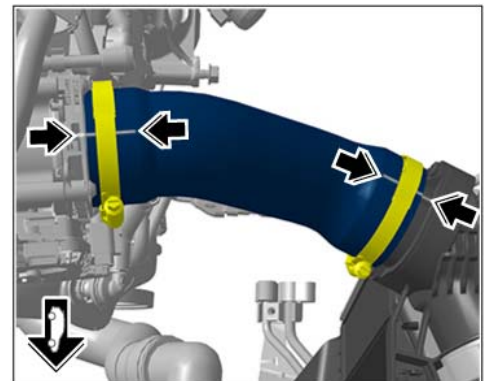
Information

Also document your findings after each section if the measure has **not** corrected the noise problem.

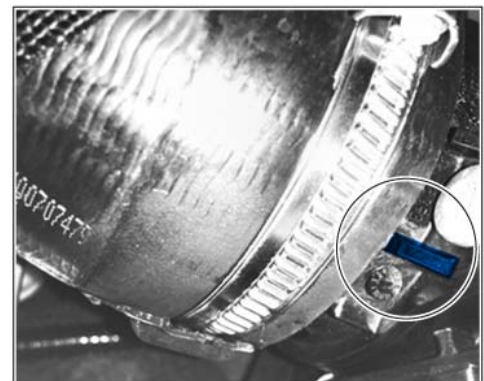
Checking installation position of charge air hose

Work Procedure: 1 Check installation position of the charge air hose and check whether the charge air hose is attached and installed correctly at the specified end points on the throttle valve ⇒ *Installation position of charge air hose* and on the charge-air cooler ⇒ *Connection point for charge air hose on charge-air cooler*.

- If the charge air hose is installed correctly, continue with ⇒ *Technical Information '505619 Turning charge air hose'*.
- If the charge air hose is not installed correctly, install the charge air hose correctly and check whether this corrects the problem.



Installation position of charge air hose



*Connection point for charge air hose
on charge-air cooler*

- 2 If the problem is corrected, no further action is required.
 - If this is not the case, continue with ⇒ *Technical Information '505619 Turning charge air hose'*.

Turning charge air hose

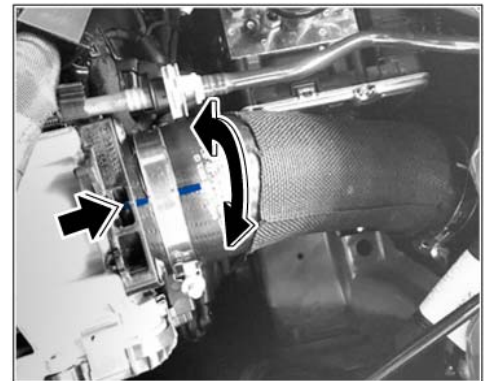
Work Procedure: 1 Loosen the hose clamp on the charge air hose, move the charge air hose at the throttle valve approx. 7 mm (0.28 in) from the alignment point ⇒ *Connection point for charge air hose on throttle valve* **by turning it clockwise** and secure the charge air hose. Then, check whether the problem is corrected.



Information

Turning the charge air hose should relieve tension on the charge-air cooler mount in order to prevent this problem.

- If the problem is corrected, no further action is required.
- If this is not the case, repeat the procedure and move the charge air hose again **by turning it approx. 7 mm (0.28 in) anti-clockwise**. Then, check again to see whether the problem is corrected.



Connection point for charge air hose on throttle valve

- 2 If the problem is corrected, no further action is required.
 - If this is not the case and the vehicle was produced **before 8/12/2019**, continue with ⇒ *Technical Information '505619 Adjusting bonnet and front apron'*.
 - If this is not the case and the vehicle was produced **after 8/12/2019**, continue with ⇒ *Technical Information '505619 Replacing boost pressure hose'*.

Adjusting bonnet and front apron

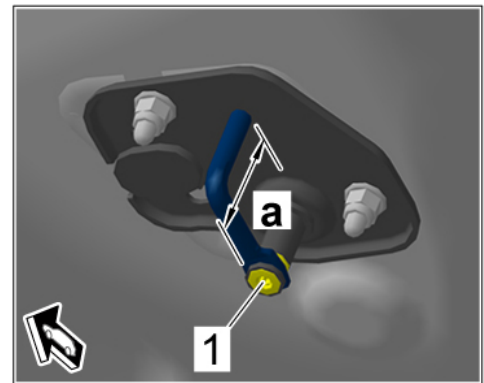


Information

Carry out the steps described under "Adjusting bonnet and front apron" only on vehicles produced **before 8/12/2019**.

This measure was already implemented during production on vehicles produced after this date.

- Work Procedure: 1 Check adjustment dimension on **both** bonnet lock latches.
To do this, use a suitable tool, e.g. a calliper gauge, to measure at position \Rightarrow *Bonnet lock latch -a-* (lower edge of lock latch to retainer plate) and write down the measured value.
- If the value is **37 mm (1.46 in)**, continue with \Rightarrow *Technical Information '505619 Replacing boost pressure hose'*. The bonnet has already been adjusted to the optimised dimension.
 - If the value is **not 37 mm (1.46 in)**, continue with Step 2 - Adjust lock latch.



Bonnet lock latch

Adjust lock latch.

- 2 Adjust the lock latch by unscrewing the adjusting screw \Rightarrow *Bonnet lock latch -1-* to dimension \Rightarrow *Bonnet lock latch -a-37 mm (1.46 in)* and write down the difference in measurement on both lock latches. (Actual dimension compared to 37 mm (1.46 in))

The front apron must then be raised by the same dimension.

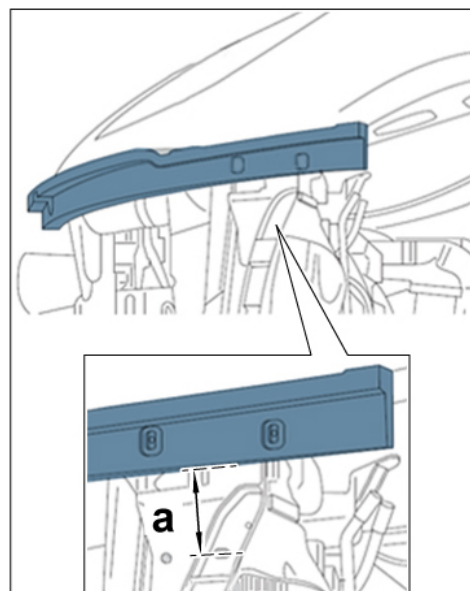
- 3 To do this, remove the front apron. See \Rightarrow *Workshop Manual '631519 Removing and installing front apron'*.

- 3.1 Measure the dimension \Rightarrow *Retaining strip on front apron -a-* between the bore and lower edge of retaining strip on the front apron and write it down.
- 3.2 Loosen screws on the front apron retaining strip.
- 3.3 Move the front apron retaining strip up by the difference measured in 3.1 and tighten screws on the front apron retaining strip to **Tightening torque 9.7 Nm (7.2 ftlb.)** . Perform this procedure on both retaining strips for the front apron.

- 4 Install front apron, see \Rightarrow *Workshop Manual '631519 Removing and installing front apron'*.

Then, check whether the problem is corrected.

- If the problem is corrected, no further action is required.
- If this is not the case, continue with \Rightarrow *Technical Information '631519 Replacing boost pressure hose'*.



Retaining strip on front apron

Replacing boost pressure hose

Work Remove boost pressure hose.

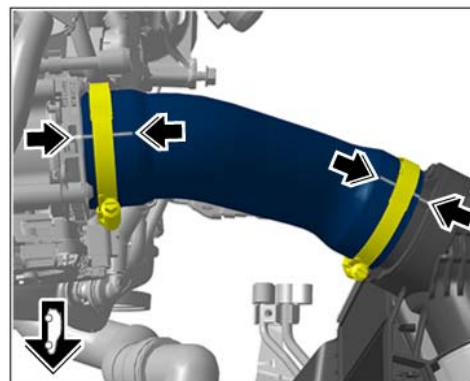
- Procedure:
- 1 Loosen both hose clamps on the boost pressure hose \Rightarrow *Installation position of charge air hose*.
 - 2 Pull boost pressure hose off the throttle valve and then off the charge-air cooler.

Install boost pressure hose.

- 3 The boost pressure hose is installed in reverse order. Also check that the charge air hose is installed at the correct position \Rightarrow *Installation position of charge air hose*.

Then, check whether the problem is corrected.

- If the problem is corrected, no further action is required.
- If this is not the case, turn the boost pressure hose as described under \Rightarrow *Technical Information '631519 Turning charge air hose'*.



Installation position of charge air hose

Concluding work

Work Procedure: 1 Install front left wheel housing liner, see ⇒ *Workshop Manual '505619 Removing and installing front wheel housing liner'*.

Invoicing

Invoicing: For documentation and warranty invoicing, enter the labor operations (depending on the time and effort involved), PQIS coding and part numbers specified below in the warranty claim:

APOS	Labor operation	I No.
21390111	Checking molded hose	
21394961	Reworking molded hose	
21394962	Reworking (turning) molded hose	
55180250	Checking upper parts of front lock	
55181650	Adjusting upper parts of front lock	
63151900	Removing and installing front apron	
63171650	Adjusting retaining strips	
21391961	Removing and installing molded hose	

PQIS coding:

Location (FES5)	10010	Engine
Damage type (SA4)	1313	Vibrating, shaking

Parts Info: Parts required (if necessary):

Part No.	Designation	Qty.
95B145993G	Charge air hose	1 ea.

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