

**Noise Symptom - Squeaking While Steering: Checking Installation Position of Dust Boot on Steering System (SY 103/19)**

Vehicle Types: **911 Carrera S (992)/911 Carrera 4S (992)/911 Carrera S Cabriolet (992)/911 Carrera 4S Cabriolet (992)**

Model Year: **2020**

Concern: **Power-steering gear**

Symptom: A squeaking noise can be heard from the power-steering gear area or from the steering column while steering.

Cause: The dust boot on the power-steering gear may have been pressed in too far during production and as a result, it may rub against the power-steering gear housing while steering.

Remedial Action: In the event of a customer complaint, check the installation position of the dust boot and replace it if necessary.

**Required spare parts and tools**

Parts Info:	Part No.	Designation	Qty.
		<b>— Use</b>	
	992422573	⇒ Dust boot for steering system	1 ea.
	WHT004955A	⇒ Internal hexagon round cheese head bolt	1 ea.
		<b>— Universal joint on power-steering gear</b>	

- Tools:
- Rubber spatula
  - **9900 - PIWIS Tester 3**
  - **Battery charger** with a current rating of **at least 90 A**. We recommend **VAS 5908 - battery charger 90A or equivalent**, for example

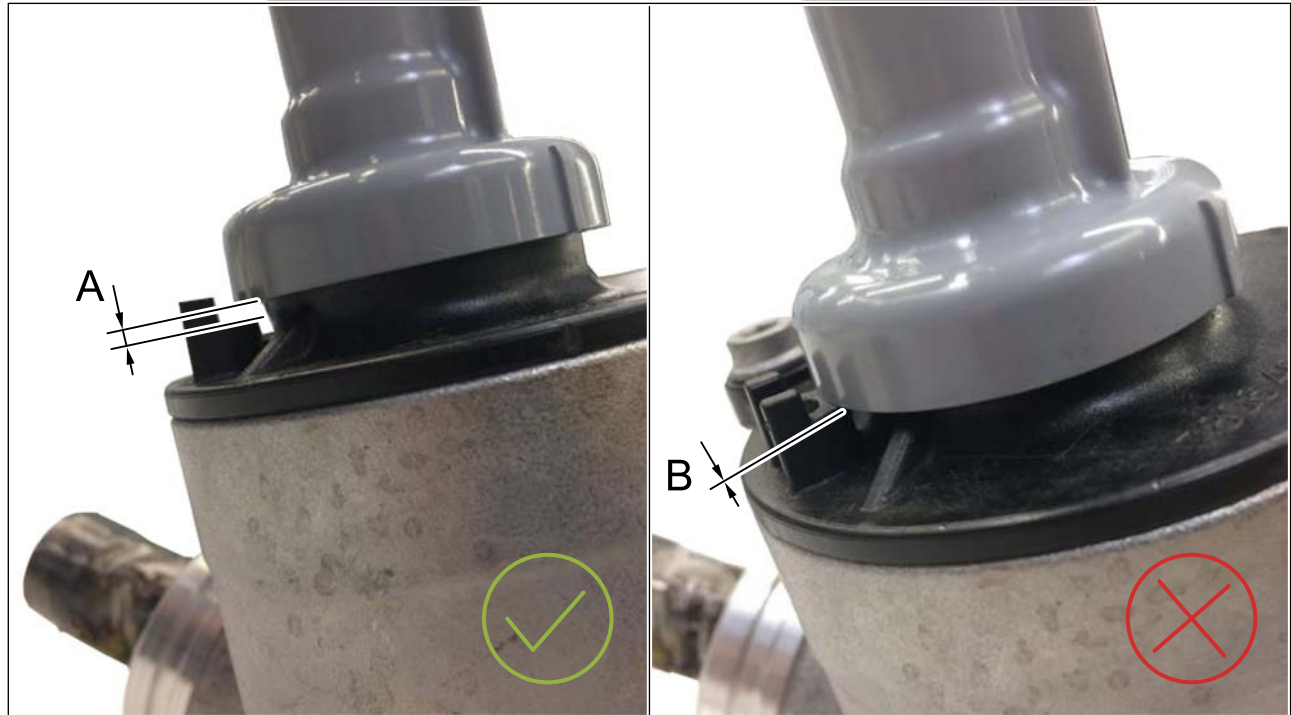
**Preparatory work**

- Work Procedure: 1 Turn steering wheel to center position.
- 2 Remove front-axle support, see ⇒ *Workshop Manual '400819 Removing and installing front-axle support'*.

**Checking and replacing dust boot on steering system**

- Work Procedure: 1 Check whether there is a sufficient gap between the dust boot and housing cover bar.

- 1.1 **If the gap is OK (⇒ *Checking dust boot -dimension A-*):**  
The dust boot is not the cause of the squeaking noise — Install front-axle support, see ⇒ *Workshop Manual '400819 Removing and installing front-axle support'*.
- 1.2 **If the gap is not OK (⇒ *Checking dust boot -dimension B-*):**  
The dust boot is causing the squeaking noise. Continue with Step 2.



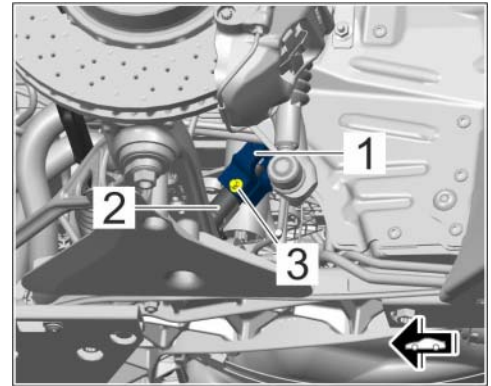
*Checking dust boot*

**Dimension A** – ~ 2 mm

**Dimension B** – ~ 0 mm

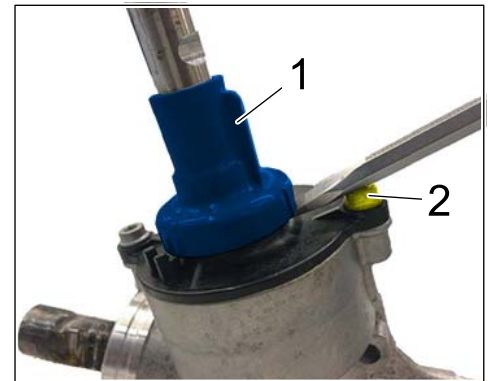
- 2 Loosen universal joint ⇒ *Universal joint on power-steering gear -1-* from power-steering gear ⇒ *Universal joint on power-steering gear -2-*.
  - 2.1 Clean the area around the dust boot, universal joint and steering spindle.

- 2.2 Unscrew screw ⇒ *Universal joint on power-steering gear -3-*.
- 2.3 Pull universal joint off the power-steering gear.
- 3 Remove dust boot ⇒ *Removing dust boot -1-*.



*Universal joint on power-steering gear*

- 3.1 Loosen the dust boot using a screwdriver and support the screwdriver at the screw ⇒ *Removing dust boot -2-* on the housing cover.
- 3.2 Pull off dust boot by hand.



*Removing dust boot*

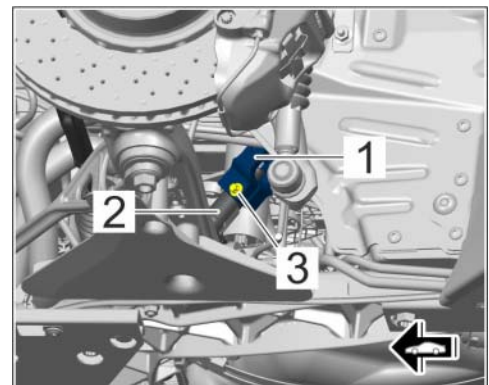
- 4 Check that the shaft sealing ring  $\Rightarrow$  *Shaft sealing ring on power-steering gear -1-* on the power-steering gear is completely covered with grease. If there is no grease, use a rubber spatula to transfer clean grease from the removed dust boot  $\Rightarrow$  *Shaft sealing ring on power-steering gear -2-* onto the steering spindle.
- 5 Install new dust boot.
  - 5.1 Position dust boot and push it as far as it will go onto the power-steering gear by hand.
  - 5.2 Check the gap between the dust boot and housing cover bar again.
- 6 Secure universal joint  $\Rightarrow$  *Universal joint on power-steering gear -1-* to the power-steering gear  $\Rightarrow$  *Universal joint on power-steering gear -2-*.
  - 6.1 Move universal joint on the power-steering gear into installation position.
  - 6.2 Replace screw  $\Rightarrow$  *Universal joint on power-steering gear -3-*.
  - 6.3 Fit and tighten **new** screw.

**Initial tightening 20 Nm (15 ftlb.)**

**Final tightening +90°**



*Shaft sealing ring on power-steering gear*



*Universal joint on power-steering gear*

## Concluding work

- Work Procedure: 1 Install front-axle support, see  $\Rightarrow$  *Workshop Manual '400819 Removing and installing front-axle support'*.
- 2 Read out and erase the fault memories of all control units.  
 $\Rightarrow$  *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Subsequent work"*

**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.
48900100	Checking power-steering gear (17 TU)	
48904900	Reworking power-steering gear (34 TU)	

PQIS coding:

Location (FES5)	48900	Power-steering gear
Damage type (SA4)	1015	Gap/air gap too large/too small

Part No.	Designation	Qty.
	<b>— Use</b>	
992422573	⇒ Dust boot for steering system	1
WHT004955A	⇒ Internal hexagon round cheese head bolt	1
	— Universal joint on power-steering gear	

References: ⇒ *Workshop Manual '400819 Removing and installing front-axle support'*  
 ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester'*

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