

Complaint - Cylinder Head Cover Near the Injector Holes Leaking: Subsequent Work on Cylinder Head (180/18)

Change overview:

Version	Date	Change
0	12/02/2019	First publication
1	01/08/2021	Checking for leaks at the solenoid hydraulic valve for valve lift control is no longer required
2	01/16/2021	Work procedure under Step 2.1 adapted.
3	02/21/2023	Order types added, invoicing updated
4	7/13/2023	Order types added

Vehicle Type: **Panamera (971) / Panamera 4 (971) / Panamera 4 Sport Turismo (971) / Panamera 4S (971) / Panamera 4S Sport Turismo (971) / Panamera 4 E-Hybrid (971) / Panamera 4 E-Hybrid Sport Turismo (971) / Panamera 4S E-Hybrid (971) / Panamera 4S E-Hybrid Sport Turismo (971)**

Model Year: **As of 2017 up to 2020**

Concerns: **Cylinder head cover**

Cause: **Complaint about injector hole leaks**

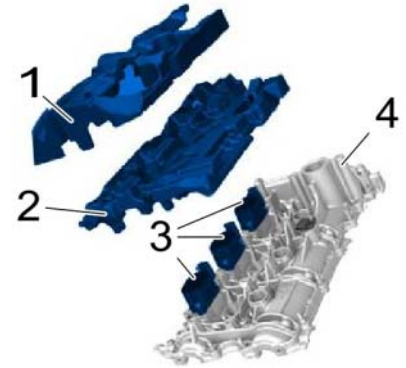


Information

- The casting procedure may have caused cast residue in the cylinder head cover sealing groove.
- This cast residue may cause the injector holes to leak.

In the event of a complaint, the corresponding position of the leak(s) must be located **before doing any other work** and then rectified on a case-by-case basis, see section **“Work procedure”**.

Work Procedure: – **Cylinder head cover component overview:**



Cylinder head cover component overview

- 1 – Insulation on top of cylinder head cover
- 2 – Insulation on bottom of cylinder head cover
- 3 – Solenoid hydraulic valve for valve lift adjustment
- 4 – Cylinder head cover



Information

- Other electric plug connections and line guides must be disconnected to remove the cylinder head cover insulation.

1 Identify the cause of the leak(s):

- 1.1 To remove engine cover (design cover), see ⇒ *Workshop Manual '108319 Removing and installing engine cover (design cover) (V6 Turbo)'*.
- 1.2 Remove turbocharger shield, see ⇒ *Workshop Manual '261219 Removing and installing turbocharger shield (V6 Turbo)'*.
- 1.3 Visually check whether both cylinder head covers have leaks, then continue on the relevant cylinder head with ⇒ 1.4.
- 1.4 Remove insulation on top of the cylinder head cover.



Information

If the insulation on the top of the cylinder head cover is already soaked with oil, it must be replaced.

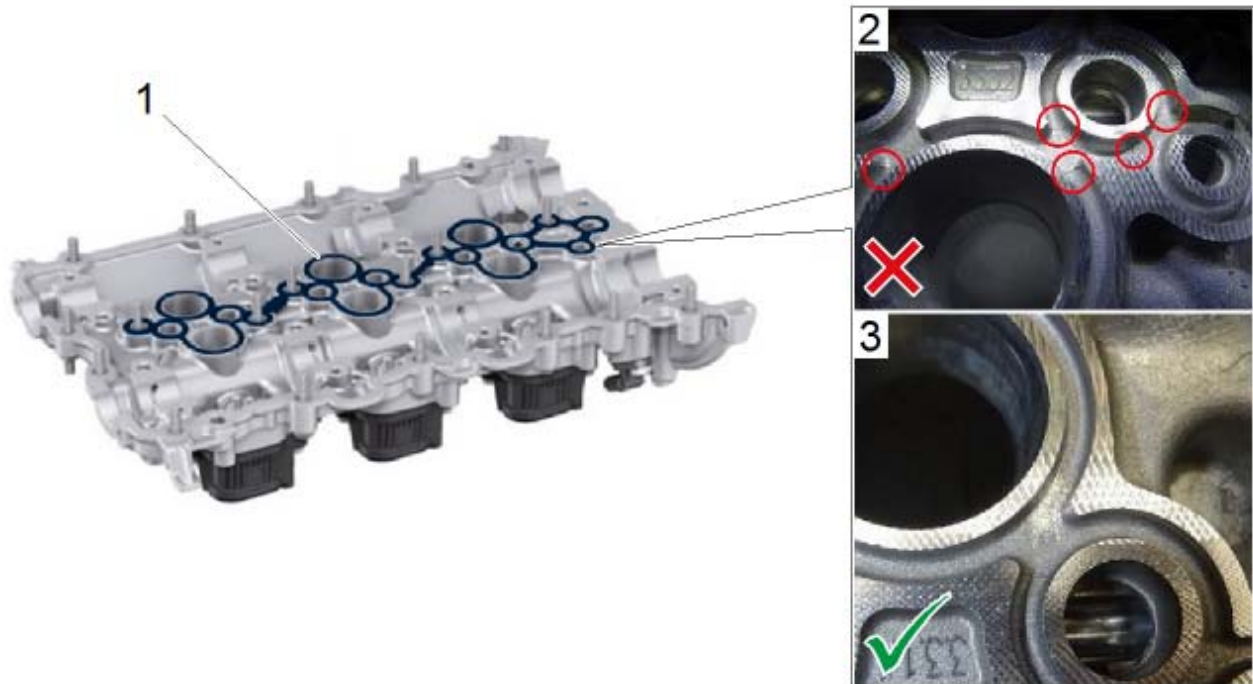
2 Subsequent work on cylinder head:

- 2.1 Remove fuel collection pipe **and** fuel injectors on the affected cylinder head, see ⇒ *Workshop Manual '243019 Removing and installing fuel collection pipe (V6 Turbo)'* and ⇒ *Workshop Manual '244019 Removing and installing fuel injector'*.

- 2.2 Remove insulation on bottom of the cylinder head cover.
- 2.3 **Identify the affected cylinder(s) by a visual inspection:**
 - 2.3.1 Oil must have collected in the vicinity of the injector of the affected cylinder and the insulation on the bottom of the cylinder head cover should be fully soaked.
⇒ Fault type 2: Cylinder head cover leaking
 - 2.3.2 If all affected cylinders are identified, make a note of them and continue with ⇒ 2.4.
- 2.4 To remove cylinder head cover and dispose of old seal, see ⇒ *Workshop Manual '158219 Removing and installing cylinder head cover (V6 turbo)'*.
- 2.5 Clean cylinder head cover.
- 2.6 Check the sealing groove (⇒ *Cylinder head cover sealing groove -1-*) of the cylinder head cover visually. Be particularly meticulous when doing this especially in the vicinity of the affected cylinder.
- 2.7 Carefully remove any cast residue (⇒ *Cylinder head cover sealing groove -2-*) using **a small flat screwdriver, ensuring that the sealing groove is not damaged**. There must be no more cast residue in the sealing groove after machining (⇒ *Cylinder head cover sealing groove -3-*).
- 2.8 To install a new seal on the cylinder head cover, see ⇒ *Workshop Manual '158219 Removing and installing cylinder head cover (V6 turbo)'*.
- 2.9 Replace and install the insulation on the bottom of the cylinder head cover.
- 2.10 Install fuel collection pipe, see ⇒ *Workshop Manual '243019 Removing and installing fuel collection pipe (V6 Turbo)'*.



Fault type 2: Cylinder head cover leaking



Cylinder head cover sealing groove

3 Subsequent work:

- 3.1 Install insulation on top of the cylinder head cover.
- 3.2 Install turbocharger shield, see ⇒ *Workshop Manual '261219 Removing and installing turbocharger shield (V6 Turbo)'*.
- 3.3 Install engine cover (design cover), see ⇒ *Workshop Manual '108319 Removing and installing engine cover (design cover) (V6 Turbo)'*.

Labor position and PCSS encryption

Labor position:

APOS	Labor operation	I No.
15824912	Reworking cylinder head cover cylinders 1–3	
15824911	Reworking cylinder head cover cylinders 4–6	
15824914	Reworking cylinder head cover cylinders 1–3	
15824913	Reworking cylinder head cover cylinders 4–6	

PCSS encryption:

Location (FES5)	15800	Cylinder head cover seal
Damage type (SA4)	5041	Oil/grease leak

Labor position and PCSS encryption

Labor position:

APOS	Labor operation	I No.
15824912	Reworking cylinder head cover cylinders 1–3	
15824911	Reworking cylinder head cover cylinders 4–6	
15824916	Reworking cylinder head cover cylinders 1–3	
15824915	Reworking cylinder head cover cylinders 4–6	

PCSS encryption:

Location (FES5)	15800	Cylinder head cover seal
Damage type (SA4)	5041	Oil/grease leak

Labor position and PCSS encryption

Labor position:

APOS	Labor operation	I No.
15824912	Reworking cylinder head cover cylinders 1–3	
15824911	Reworking cylinder head cover cylinders 4–6	
15824924	Reworking cylinder head cover cylinders 1–3	
15824923	Reworking cylinder head cover cylinders 4–6	

PCSS encryption:

Location (FES5)	15800	Cylinder head cover seal
Damage type (SA4)	5041	Oil/grease leak

Important Notice: Technical Bulletins issued by Porsche Cars North America, Inc. are intended only for use by professional automotive technicians who have attended Porsche service training courses. They are written to inform those technicians of conditions that may occur on some Porsche vehicles, or to provide information that could assist in the proper servicing of a vehicle. Porsche special tools may be necessary in order to perform certain operations identified in these bulletins. Use of tools and procedures other than those Porsche recommends in these bulletins may be detrimental to the safe operation of your vehicle, and may endanger the people working on it. Properly trained Porsche technicians have the equipment, tools, safety instructions, and know-how to do the job properly and safely. Part numbers listed in these bulletins are for reference only. The work procedures updated electronically in the Porsche PIWIS diagnostic and testing device take precedence and, in the event of a discrepancy, the work procedures in the PIWIS Tester are the ones that must be followed.

© 2023 Porsche Cars North America, Inc.