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
4	07/21/2023	Information added: "Specify the cylinder head cover seal as the component causing the damage"
5	05/21/2025	Order types added
6	06/27/2025	Information added: “create informative photo documentation” under Work Procedure steps 2.4 and 2.6

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

Model Year: **As of 2017**

Equipment:
- 2.9-liter twin-turbo V6 engine **(M-No. TV8)**
- 3.0-liter turbo V6 engine **(M-No. T9I)**

Concerns: **Cylinder head cover**

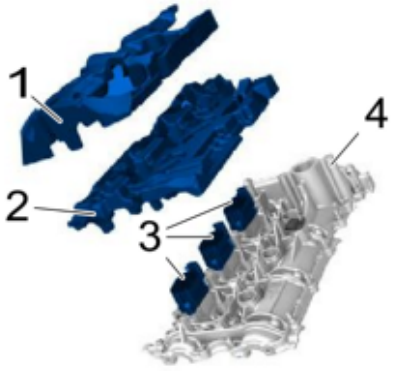
Cause: **Complaint about injector hole leaks**

Information

- Due to a batch error in the casting procedure there may be 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** injection valves on the affected cylinder head, see ⇒ *Workshop Manual '243019 Removing and installing fuel collection pipe (V6 Turbo)'* and ⇒ *Workshop Manual '244019 Removing and installing injection valve (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.

Fault type 2: Cylinder head cover leaking

2.4 To remove cylinder head cover and dispose of old seal, see ⇒ *Workshop Manual '158219 Removing and installing cylinder head cover (V6 turbo)'*.

Information

Create informative photo documentation of the damaged seal and attach it to the process in PCSS.

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.

Information

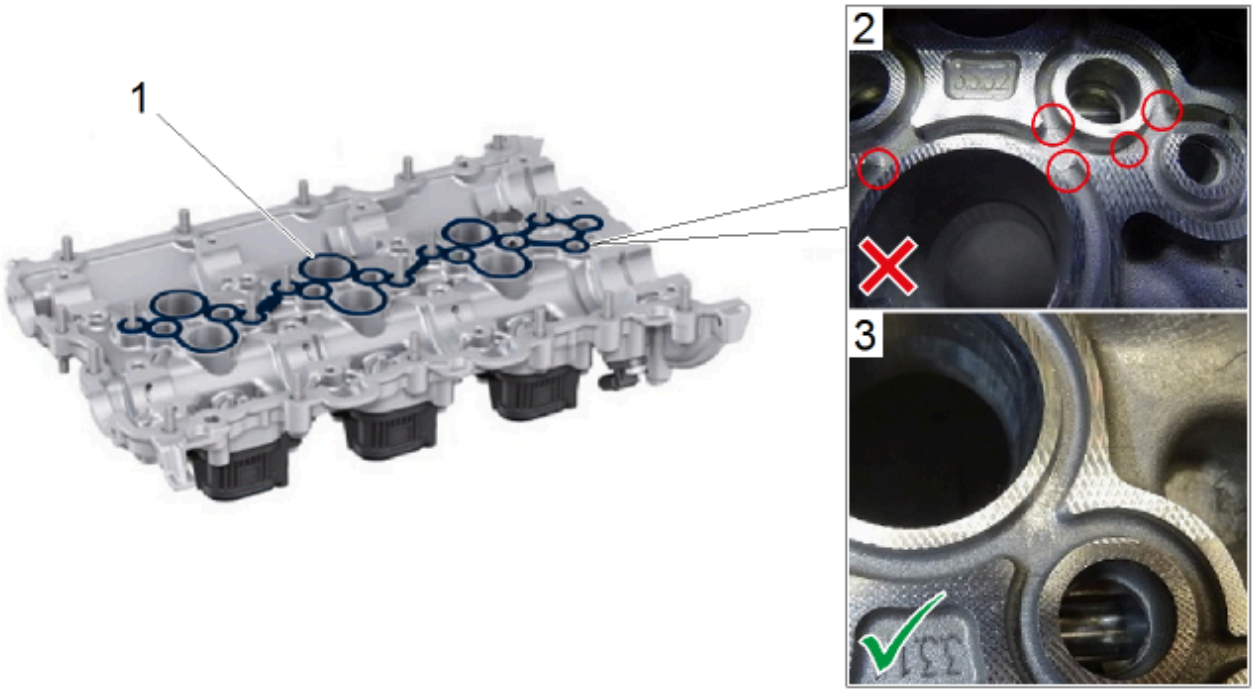
Create informative photo documentation of the seal groove in the area of the affected cylinder, before rework and attach it to the process in PCSS.

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)'*.



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.
15824913	Reworking cylinder head cover cylinders 1–3	
15824914	Reworking cylinder head cover cylinders 4–6	
15824915	Reworking cylinder head cover cylinders 1–3	
15824916	Reworking cylinder head cover cylinders 4–6	
15824923	Reworking cylinder head cover cylinders 1–3	
15824924	Reworking cylinder head cover cylinders 4–6	

PCSS encryption:

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

Information

In addition to PCSS encryption, specify the **seal** of the **cylinder head cover** as **the component causing the damage**.