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**

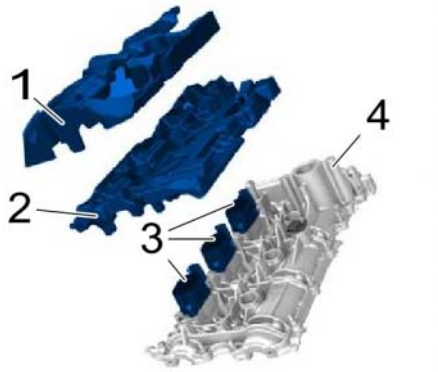
Cause: **Complaint about injector hole leaks**

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.

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)'*.

2.5 Clean cylinder head cover.

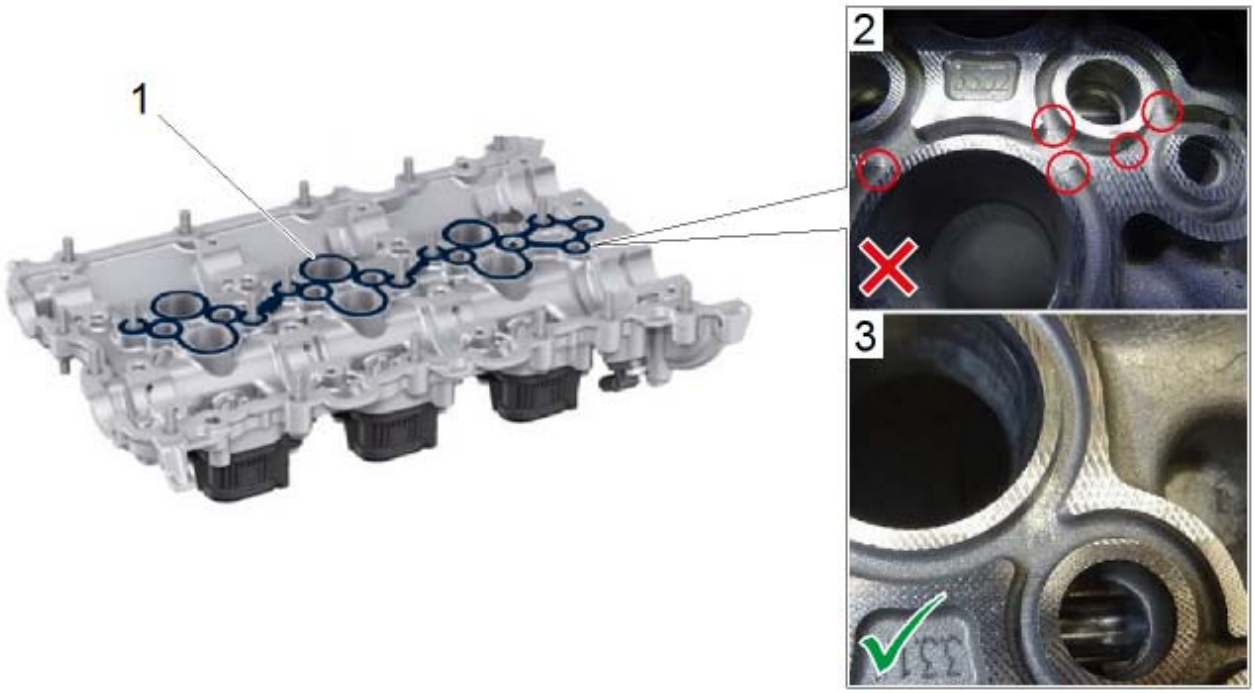
2.6 Check the sealing groove (⇒ *Cylinder head cover sealing groove* **-1-**) of the cylinder head cover visually. Be particularly meticulous when doing this especially in the vicinity of the affected cylinder.

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)'*.



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