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

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

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

Subject: **Cylinder head cover**

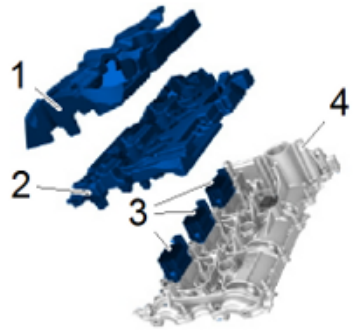
Information: **Complaint about injector hole leaks**

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 "**Procedure**".

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



Component overview of cylinder head cover

- **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 To remove turbocharger heat shield, see ⇒ *Workshop Manual '261219 Removing and installing turbocharger heat shield (V6 Turbo)'*.

1.3 Look to see 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 To remove fuel collection pipe on the affected cylinder head, see ⇒ *Workshop Manual '243019 Removing and installing fuel collection pipe (V6 turbo)'*.

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.

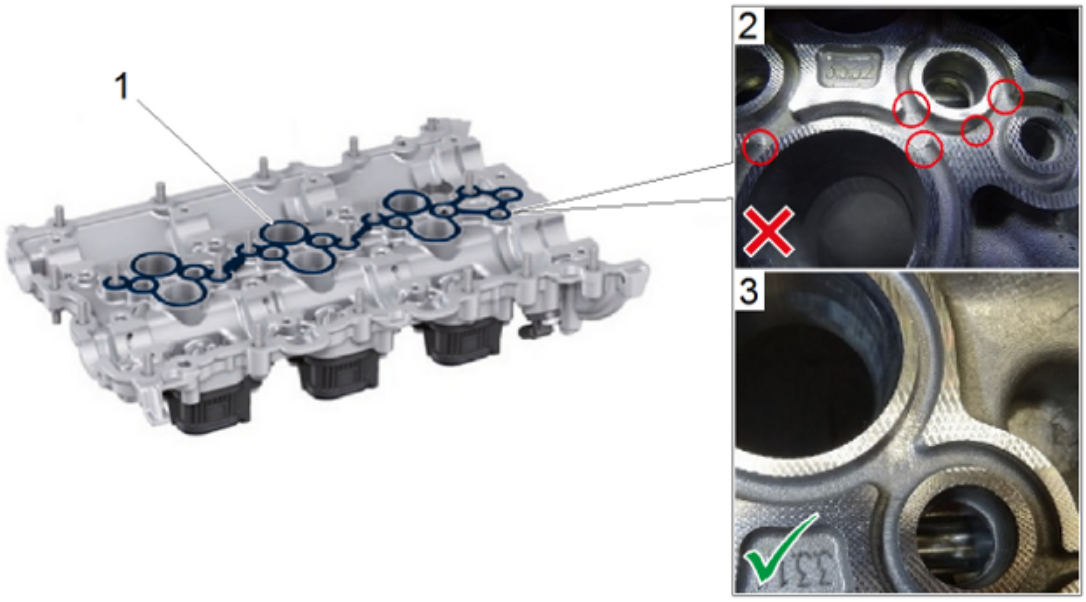
2.6 Check the sealing groove (⇒ *Cylinder head cover sealing groove* **-1-**) of the cylinder head cover visually. Be particularly meticulous when doing this especially in the vicinity of the affected cylinder.

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 To 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 To install the turbocharger heat shield, see ⇒ *Workshop Manual '261219 Removing and installing turbocharger heat shield (V6 Turbo)'*.

3.3 To install engine cover (design cover), see ⇒ *Workshop Manual '108319 Removing and installing engine cover (design cover) (V6 Turbo)'*.

Invoicing: The work involved is invoiced under the labor operation:

APOS	Labor operation	I No.
15824912	Subsequent work on cylinder head cover 1–3	
15824911	Subsequent work on cylinder head cover 4–6	
15824914	Subsequent work on cylinder head cover on cylinders 1–3 (97AAA1, 97ABA1, 97BAA1, 97BBA1, 97CBA1)	
15824913	Subsequent work on cylinder head cover on cylinders 4–6 (97AAA1, 97ABA1, 97BAA1, 97BBA1, 97CBA1)	

APOS	Labor operation	I No.
15824916	Subsequent work on cylinder head cover on cylinders 1–3 (97ABE1 97BBE1, 97CBE1)	
15824915	Subsequent work on cylinder head cover on cylinders 4–6 (97ABE1 97BBE1, 97CBE1)	
15824924	Subsequent work on cylinder head cover on cylinders 1–3 (97ADB1 97BDB1, 97CDB1)	
15824923	Subsequent work on cylinder head cover on cylinders 4–6 (97ADB1, 97BDB1, 97CDB1)	

For invoicing and documentation using PQIS, enter the following coding:

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

References: ⇒ *Workshop Manual '108319 Removing and installing engine cover (design cover) (V6 Turbo)'*

⇒ *Workshop Manual '261219 Removing and installing heat shield for turbocharger (V6 Turbo)'*

⇒ *Workshop Manual '243019 Removing and installing fuel collection pipe (V6 Turbo)'*

⇒ *Workshop Manual '158219 Removing and installing cylinder head cover (V6 Turbo)'*

Change overview:

Version	Date	Change
0	07.02.2019	First publication
1	14.12.2020	Checking for leaks at the solenoid hydraulic valve for valve lift control is no longer required

Vehicle Types: **Cayenne (9YA) / Cayenne E-Hybrid (9YA) / Cayenne S (9YA)**

Subject: **Cylinder head cover**

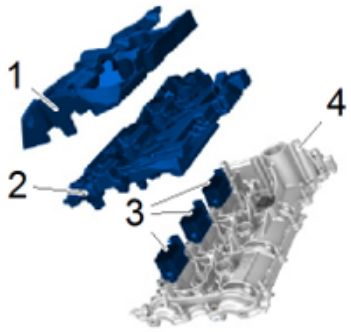
Infoarmation: **Complaint about injector hole leaks**

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 "**Procedure**".

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



Component overview of cylinder head cover

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 air filter housing, see ⇒ *Workshop Manual '242519 Removing and installing air filter housing'*.

1.2 Look to see whether both cylinder head covers have leaks, then continue on the relevant cylinder head with ⇒ 1.3.

1.3 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 cover:**

2.1 To remove fuel collection pipe on the affected cylinder head, see ⇒ *Workshop Manual '243019 Removing and installing fuel collection pipe (V6 turbo)'*.

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.

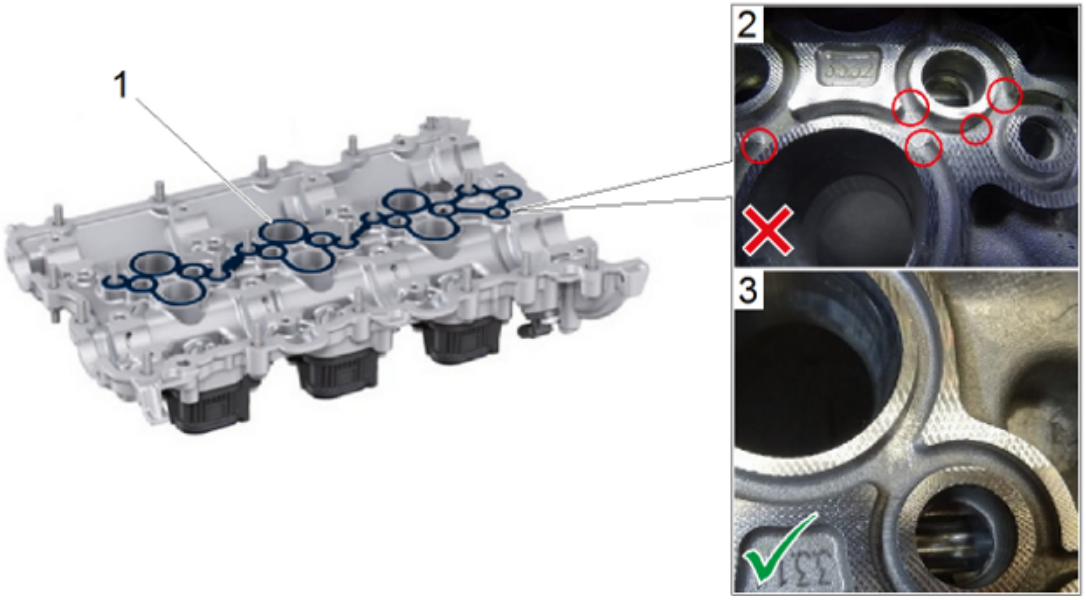
2.6 Check the sealing groove (⇒ *Cylinder head cover sealing groove* **-1-**) of the cylinder head cover visually. Be particularly meticulous when doing this especially in the vicinity of the affected cylinder.

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 To 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 To install air filter housing, see ⇒*Workshop Manual '242519 Removing and installing air filter housing'*.

Invoicing: The work involved is invoiced under the labor operation:

APOS	Labor operation	I No.
15824912	Subsequent work on cylinder head cover on cylinders 1–3 (9YAAA1, 9YAAE1)	
15824911	Subsequent work on cylinder head cover on cylinders 4–6 (9YAAA1, 9YAAE1)	
15824914	Subsequent work on cylinder head cover on cylinders 1–3 (9YAAA1, 9YAAE1)	
15824913	Subsequent work on cylinder head cover on cylinders 4–6 (9YAAA1, 9YAAE1)	
15824922	Subsequent work on cylinder head cover on cylinders 1 –3 (9YABB1)	

APOS	Labor operation	I No.
15824921	Subsequent work on cylinder head cover on cylinders 4–6 (9YABB1)	
15824924	Subsequent work on cylinder head cover on cylinders 1–3 (9YABB1)	
15824923	Subsequent work on cylinder head cover on cylinders 4–6 (9YABB1)	

For invoicing and documentation using PQIS, enter the following coding:

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

References: ⇒ *Workshop Manual '242519 Removing and installing air cleaner housing '*

⇒ *Workshop Manual '243019 Removing and installing fuel collection pipe (V6 Turbo)'*

⇒ *Workshop Manual '158219 Removing and installing cylinder head cover (V6 Turbo)'*

Change overview:

Version	Date	Change
0	07.02.2019	First publication
1	14.12.2020	Checking for leaks at the solenoid hydraulic valve for valve lift control is no longer required

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

Subject: **Cylinder head cover**

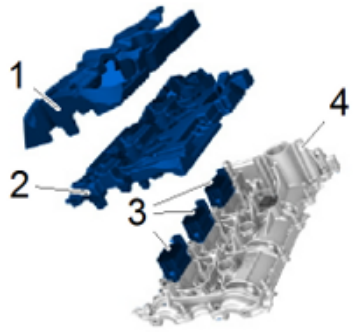
Information: **Complaint about injector hole leaks**

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 "**Procedure**".

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



Component overview of cylinder head cover

1 – Insulation on top of cylinder head cover
2 – Insulation on bottom of cylinder head cover
3 – Hydraulic valve for valve lift switchover
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 Remove engine cover, see ⇒*Workshop Manual '108319 Removing and installing engine cover (design cover) (V6 Turbo)'*.

1.2 Look to see whether both cylinder head covers have leaks, then continue on the relevant cylinder head with ⇒ 1.3.

1.3 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 on the affected cylinder head, see ⇒*Workshop Manual '243019 Removing and installing fuel collection pipe'*.

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.

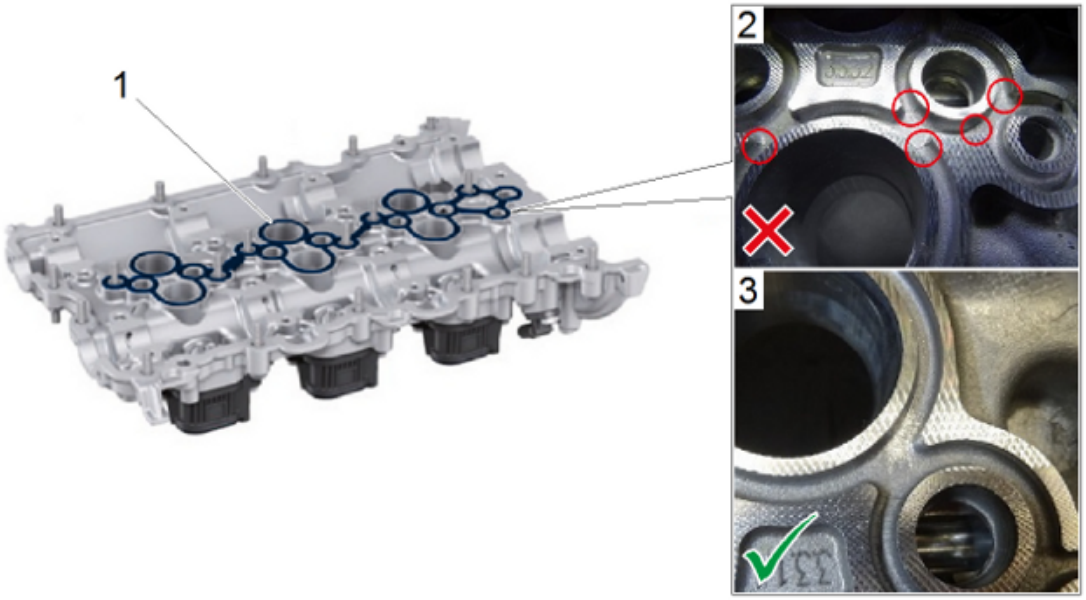
2.6 Check the sealing groove (⇒ *Cylinder head cover sealing groove* **-1-**) of the cylinder head cover visually. Be particularly meticulous when doing this especially in the vicinity of the affected cylinder.

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'*.



Cylinder head cover sealing groove

3 **Subsequent work:**

3.1 Install insulation on top of the cylinder head cover.

3.2 Install engine cover, see ⇒ *Workshop Manual '108319 Removing and installing engine cover (design cover) (V6 Turbo)'*.

Invoicing: For documentation and warranty invoicing, enter the labor operations and PQIS coding specified below in the warranty claim:

APOS	Labor operation	I No.
15824922	Subsequent work on cylinder head cover on cylinders 1–3 (96 TU)	
15824921	Subsequent work on cylinder head cover on cylinders 4–6 (100 TU)	
15824924	Subsequent work on cylinder head cover on cylinders 1–3 (1,998 TU)	
15824923	Subsequent work on cylinder head cover on cylinders 4–6 (1,975 TU)	

PQIS coding

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

References: ⇒ *Workshop Manual '108319 Removing and installing engine cover (design cover) (V6 Turbo)'*

⇒ *Workshop Manual '243019 Removing and installing fuel collection pipe'*

⇒ *Workshop Manual '158219 Removing and installing cylinder head cover (V6 Turbo)'*