

**WC23 - Replacing Vacuum Pump (Workshop Campaign)**

Vehicle Type: **Panamera/Panamera 4**

Model Year: **As of 2011 up to 2012**

Concerns: **Vacuum pump**

Information: This is to inform you of a voluntary Workshop Campaign on the above-mentioned vehicles.

**There is a possibility that the elastomer check valve in the additional outlet on the vacuum pump can become damaged over the service life of the vehicle.**

**As a result, the vacuum supplied to the secondary loads may not be sufficient.**

This can cause malfunctions in the variable intake system. The lack of vacuum can also result in a fault entry during tank leakage diagnosis in the DME and can cause the Check Engine light to come on.

Action Required: Replace vacuum pump.

Also check the area on the vacuum unit for the intake-air distributor switching mechanism for traces of oil.

If there are **traces of oil** on the vacuum unit or on the intake-air distributor switching mechanism, the seals for the coolant regulator housing must **also** be replaced in addition to the vacuum pump.

Affected Vehicles: The VIN(s) can be checked by using PIWIS Vehicle Information link to verify if the campaign affects the vehicle. This campaign is scope specific to the VIN! Failure to verify in PIWIS may result in an improper repair. This campaign affects 3,036 vehicles in North America.

Parts Info: **NOTE:** All parts for Scope 2 and all parts for Scope 3 will be automatically allocated to your dealership with the exception of the following, which should be readily available at your dealership:

- 000.043.301.47 Antifreeze
- 000.043.301.19 Engine Oil
- 000.043.205.93 Klüberplus S06 – 100 grease
- 000.043.204.68 Grease
- WC230000001 Engine oil

Scope 1: Not valid for your market.

**Scope 2: Replacing vacuum pump:**

000.043.207.89	⇒ Vacuum pump	1
000.043.301.47	⇒ Antifreeze	1-liter container (As much as required, approx. 200 ml per vehicle)
000.043.301.19	⇒ Engine oil	1-liter container (As much as required, approx. 100 ml per vehicle)

**Scope 3: Replacing vacuum pump and seals on coolant regulator housing:**

000.043.207.89	⇒ Vacuum pump	1
000.043.301.47	⇒ Antifreeze	1-liter container (As much as required, approx. 200 ml per vehicle)
In addition:		
948.106.124.01	⇒ Seal for coolant regulator housing	2
948.107.437.20	⇒ Seal for oil separator	1
948.107.438.20	⇒ Seal for oil separator	1
946.110.146.02	⇒ Seal for intake-air distributor	6
948.106.533.00	⇒ Seal for coolant pump	1
999.707.477.40	⇒ O-ring, 19 x 3 for coolant pipe	2
999.701.825.40	⇒ O-ring, 19.6 x 3.53 for coolant pipe	1
999.707.586.40	⇒ O-ring, 11 x 2.5 for vent line	2
948.106.707.00	⇒ O-ring, 62.86 x 5.33 for thermostat insert	2
000.043.205.93	⇒ Klüberplus S06-100 grease	100g tube (As much as required, approx. 1 gram per vehicle)
000.043.204.68	⇒ Grease	50g tube (As much as required, approx. 1 gram per vehicle)

WC230000001

⇒ Engine oil

1 unit

Corresponds to a maximum quantity of 1.25 liters – for warranty invoicing only\*. The actual quantity required depends on the engine-oil refill quantity determined using the PIWIS Tester.

\* The WWS Warranty system will automatically add into the "Miscellaneous item" section (sublet) of the claim after the claim has been submitted.

Special Tools: **Nr. 90 Pos. 3 - Torque wrench**  
**9818 - PIWIS Tester II**

Work Procedure: See Attachment "A".

Claim Submission: See Attachment "B".

Attachment "A": **Work Procedure**

1 Remove vacuum pump ⇒ *Workshop Manual '477619 Removing and installing vacuum pump'*

**Information**

If a vacuum pump is damaged, engine oil can leak out of the vacuum pump through an adjacent duct and get into the vacuum unit for the intake-air distributor switching mechanism and can then leak out of the vacuum unit via the linkage.

The oil can move forward towards the coolant regulator housing on the underside of the intake-air distributor or via various lines routed in this area on the engine and can then be deposited heavily in this area.

The build-up of oil can cause the seals on the coolant regulator housing to swell and coolant can then start leaking out.

- 2 Check the area on the vacuum unit ⇒ *Figure 1-1-* for the intake-air distributor switching mechanism next to the vacuum pump ⇒ *Figure 1-2-* for traces of leaking engine oil ⇒ *Figure 1-arrow-*.

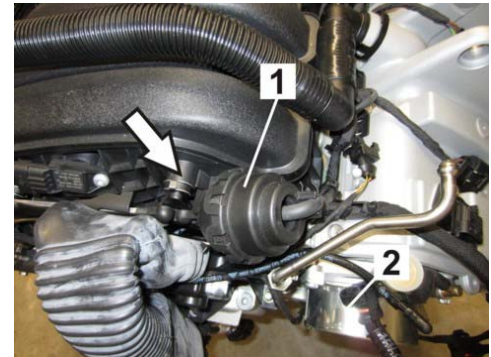


Figure 1

- 3 If the vacuum unit ⇒ *Figure 2-1-* or intake-air distributor switching mechanism ⇒ *Figure 2-item 2-* as shown in ⇒ *Figure 2-arrow-* has visible **traces of oil**, ⇒ **continue** with **Step 4** and **first** replace both seals on the coolant regulator housing (**Scope 3**).

If there are **no** traces of oil on the vacuum unit and on the intake-air distributor switching mechanism, ⇒ **continue** with **Step 5** and install a new vacuum pump (**Scope 2**).



#### Information

If there are **traces of oil** on the vacuum unit or on the intake-air distributor switching mechanism, in addition to replacing the seals on the coolant regulator housing, **all** components of the vacuum system for the secondary loads (vacuum lines, connections, switching valves) must be checked for **oil leaks**. Vacuum system components that are contaminated with oil must be **replaced**.

The working time and spare parts needed are to be invoiced using a **separate warranty claim**.

- The additional warranty claim must be processed by specifying ⇒ **damage code 4776 97 000**, **repair code 1**.
  - Document the work in the PQIS job by entering **4776** (brake booster vacuum pump) under "Location" and **9735** (Repair in accordance with PAG instructions) as the "Symptom".
  - Specify that the repairs were carried out due to campaign WC23 under "Further Information" on the PQIS job.
- 4 **Replace seals on the coolant regulator housing.**

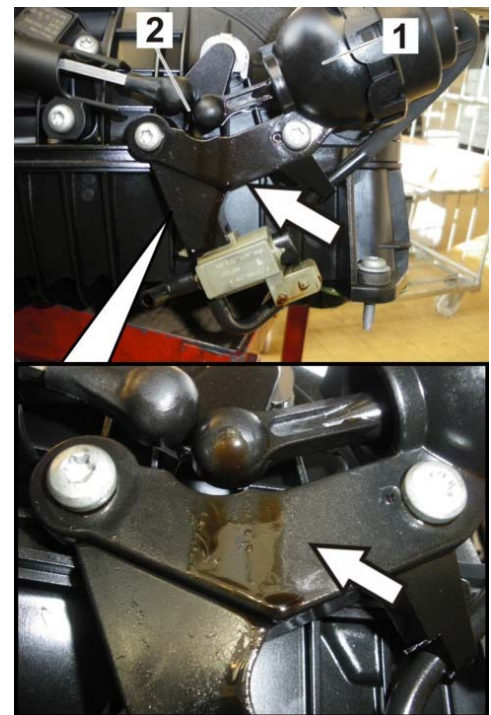


Figure 2

- 4.1 Remove coolant regulator housing ⇒ *Workshop Manual '195519 Removing and installing coolant regulator housing'*
- 4.2 Carefully **clean** components and lines soiled with engine oil.
- 4.3 **Both seals** ⇒ *Figure 3-4-* on the coolant regulator housing ⇒ *Figure 3-1-* **must be replaced.**

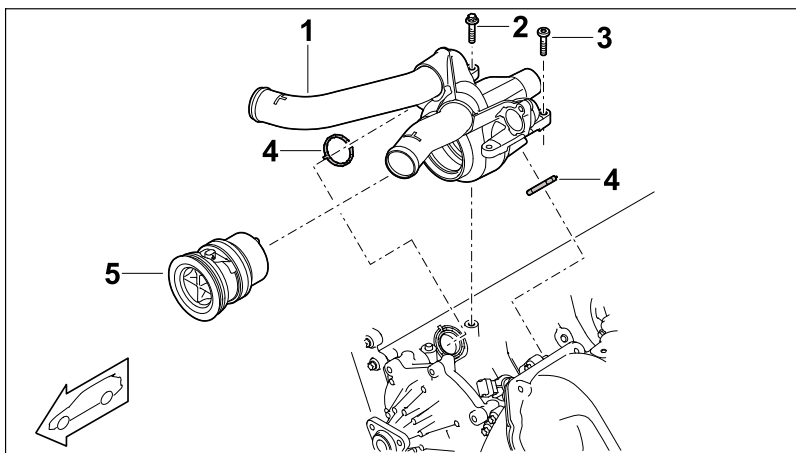


Figure 3

- 4.4 Install coolant regulator housing ⇒ *Workshop Manual '195519 Removing and installing coolant regulator housing'*.
- 5 **Install new** vacuum pump ⇒ *Workshop Manual '477619 Removing and installing vacuum pump'*.
- 6 Check engine-oil level and correct it if necessary ⇒ *Workshop Manual '170101 Checking engine-oil level'*.
- 7 Enter the workshop campaign in the Warranty and Maintenance booklet.

Attachment "B": **Claim Submission** - Workshop Campaign WC23  
 Warranty claims should be submitted via WWS/PQIS.  
 Open campaigns may be checked by using either the PIWIS Vehicle Information system or through PQIS Job Creation.  
 Labor, parts, and sublet will be automatically inserted when Technician is selected in WWS/PQIS. If necessary, the required part numbers will need to be manually entered into warranty system by the dealer administrator.

Scope 1: Not valid for the North American market.

Scope 2: **Replacing vacuum pump and checking intake-air distributor for oil leaks.**

**Information**

Scope 2 must be invoiced if there are **no traces of oil** on the vacuum unit and on the intake-air distributor switching mechanism and as a result, **only the vacuum pump must be replaced.**

**Working time:**

Replacing vacuum pump

Labor time: **209 TU**

Includes: Removing and installing cowl panel cover  
 Removing and installing plenum panel cover  
 Removing and installing wiper linkage  
 Removing and installing cross panel  
 Checking intake-air distributor for traces of oil

**Parts required:**

000.043.207.89	Vacuum pump	1
000.043.301.47	Antifreeze, 1-liter container	0.2 ea.
000.043.301.19	Engine oil, 1-liter container	0.1 ea.

⇒ Damage code **WC23 066 000 2**

Scope 3:

**Replacing vacuum pump and seals on coolant regulator housing.****Information**

Scope 3 must be invoiced if there are **traces of oil** on the vacuum unit and/or on the intake-air distributor switching mechanism and as a result, **the seals on the coolant regulator housing must also be replaced in addition to the vacuum pump.**

**Working time:**

Replacing vacuum pump and seals on coolant regulator housing

Labor time: **442 TU**

Includes: Removing and installing cowl panel cover  
 Removing and installing plenum panel cover  
 Removing and installing wiper linkage  
 Removing and installing cross panel  
 Checking intake-air distributor for traces of oil  
 Removing and installing intake-air distributor  
 Removing and installing coolant regulator housing

**Parts required:**

000.043.207.89	Vacuum pump	1
000.043.301.47	Antifreeze, 1-liter container	0.2 ea.
948.106.124.01	Seal	2

948.107.437.20	Seal	1
948.107.438.20	Seal	1
946.110.146.02	Seal	6
948.106.533.00	Seal	1
999.707.477.40	O-ring, 19 x 3	2
999.701.825.40	O-ring, 19.6 x 3.53	1
999.707.586.40	O-ring, 11 x 2.5	2
948.106.707.00	O-ring, 62.86 x 5.33	2
000.043.205.93	Klüberplus S06–100 grease	0.01 ea.
000.043.204.68	Grease	0.02 ea.
WC230000001	Engine oil	1 unit Corresponds to a maximum quantity of 1.25 liters – for warranty invoicing only*. The actual quantity required depends on the engine-oil refill quantity determined using the PIWIS Tester.

\* The WWS Warranty system will automatically add into the “Miscellaneous item” section (sublet) of the claim after the claim has been submitted.

⇒ **Damage code WC23 066 000 2**

- References:
- ⇒ *Workshop Manual '477619 Removing and installing vacuum pump'*
  - ⇒ *Workshop Manual '195519 Removing and installing coolant regulator housing'*
  - ⇒ *Workshop Manual '195819 Removing and installing coolant regulator (thermostat insert)'*
  - ⇒ *Workshop Manual '170101 Checking engine-oil level'*

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