

WC22 - Replacing Camshaft Controller (Workshop Campaign)

Revision: Revision 1: March 18, 2013, this revision amends WC22 with:
 a. Additional text under "Action Required"
 b. Adds Scope 1, 2, 3 and 4
 c. Two additional hexagon round-head bolts (M12x1.5x110, Part No. 948.105.254.00) were missing from Kit Numbers PNA.043.207.90.KIT, PNA.043.207.89.KIT and PNA.043.207.88.KIT. Please be advised that the two outstanding hexagon round-head bolts will be automatically allocated to your dealership this week.

Model Year: **2011**

Vehicle Type: **Cayenne S (92A)/Cayenne Turbo (92A)**

Concerns: **Camshaft controller**

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

Due to a temporary screw connection assembly problem, existing threaded connections on the camshaft controller can become strained to such an extent that the function of the camshaft controller cannot be guaranteed over the service life of the vehicle.

Action Required: Replace both camshaft controllers



Information

If you see from the vehicle's workshop history, for example, that **both** camshaft controllers with Part No. **948.105.051.22** or a higher index were already installed on the vehicle before carrying out the campaign, these do **not need to be replaced**.

- The campaign must not therefore be carried out on the vehicle.
- This must be documented accordingly in PQIS. The campaign must be marked as **cannot be carried out** with the reason **"Campaign scope already carried out on the vehicle prior to starting the campaign"**. The **"Warranty relevance"** flag must be activated in order to be able to set a warranty claim and close the campaign.
- A warranty claim must be submitted for the campaign in which **0 TU** is entered as the specified **working time** and **no** material items are specified.

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 3,509 vehicles in North America.

Parts Info:

Note:

1. Kit part number PNA.043.207.88.KIT will be automatically allocated to your dealership.
2. P/N N.911.468.01 must be ordered separately through your parts ordering system for any vehicle that is equipped with anti-theft protection for the engine control module.
3. P/N 000.043.204.58 Silicone Sealant must be ordered separately, as needed, through your parts ordering system.

1. Part Number PNA.043.207.88.KIT - The kit is comprised of all of the following components with the exception of 2 additional Hexagon round-head bolts, M12x1.5x110, only two have been included in the kit. The remaining two Hexagon round-head bolts, M12x1.5x110, P/N 948.105.254.00 will be automatically allocated to your dealership.

2. Part Number N.911.468.01 Shear bolt, M6x16 3 ea.

3. Part Number 000.043.204.58 Silicone 2210 sealant 0.2 ea.

000.043.207.88	⇒ Camshaft controller	2 ea.
948.105.254.00	⇒ Hexagon round-head bolt, M12 x 1.5 x 110	4 ea.
900.123.118.30	⇒ Sealing ring, A22 x 27	1 ea.
948.105.146.00	⇒ Aluminum screw	8 ea.
948.107.437.20	⇒ Seal	1 ea.
948.107.438.20	⇒ Seal	1 ea.
948.105.935.01	⇒ Seal, cylinders 1-4	1 ea.
948.105.936.01	⇒ Seal, cylinders 5-8	1 ea.
948.105.937.02	⇒ Inner seal	8 ea.
948.105.938.00	⇒ Camshaft actuator seal	2 ea.
999.073.905.31	⇒ Aluminum oval-head screw, M6 x 30	23 ea.
999.073.908.31	⇒ Aluminum oval-head screw, M8 x 35	3 ea.
WHT.005.204	⇒ Aluminum cheese head bolt, M10 x 80	1 ea.
WHT.004.595	⇒ Aluminum cheese head bolt, M10 x 90	1 ea.
WHT.004.635	⇒ Hexagon nut	2 ea.
999.073.914.31	⇒ Oval-head screw, M6 x 55	2 ea.

2. Part Number N. 911.468.01 ⇒ Shear bolt, M6 x 16 3 ea.

3. Part Number 000.043.204.58 > Silicone 2210 Sealant 0.2 ea.

Special Tools:

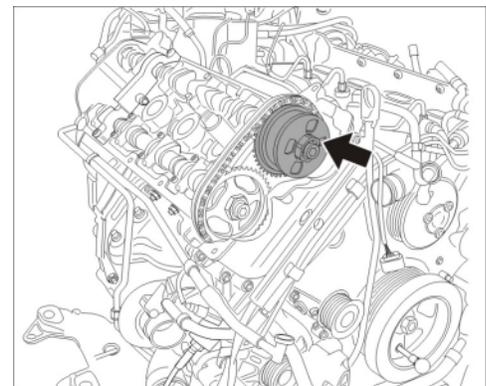
- 9595/1 - Locating pins**
- 9678/1 - Staking tool**
- 9683/1 - Auxiliary chain tensioner**
- 3122 B - Spark plug wrench**
- 9701 - Assembly sleeve**
- 9824 - Flexible-head socket wrench, a/f 8**
- 9824/1 - Flexible-head socket wrench, a/f 10**

- 9824/2 - Torx Micro Bit T30
- 9824/3 - Torx Micro Bit T45
- Nr.99 - Pole terminal pull-off device
- Nr.186 - Change-over ratchet insert bit
- 9768 - Electronic torque wrench, 2 - 100 Nm/1.5 - 74 ftlb.

Work Procedure: See Attachment "A".

Claim Submission: See Attachment "B".

Attachment "A": 1 **Remove both camshaft controllers** as described in the **Workshop Manual** ⇒ *Workshop Manual '158419 Removing and installing camshaft controller - section on "Removing"*.



Camshaft controller

- 2 **Install new** camshaft controllers, Part No. **000.043.207.88**, on **cylinder bank 1 and 2** ⇒ *Workshop Manual '158419 Removing and installing camshaft controller - section on "Installing"*.
- 3 Enter the workshop campaign in the Warranty and Maintenance booklet.

Attachment "B": **Claim Submission** - Workshop Campaign WC22
 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: **Only relevant for the Panamera/Panamera 4** - see Technical Information for this vehicle type.

Scope 2: **Only relevant for the Panamera S/Panamera 4S/Panamera Turbo** - see Technical Information for this vehicle type.

Scope 3: **Replacing both camshaft controllers**



Information

The specified working time was determined specifically for carrying out this campaign and may differ from the working times published in the Labor Operation List in PIWIS.

Working time:

Replacing both camshaft controllers

Labor time: **468 TU**

Includes:

- Disconnecting and connecting battery
- Removing and installing engine cover
- Removing and installing cylinder head cover
- Removing and installing chain tensioner
- Removing and installing oil separator
- Removing and installing secondary-air pump
- Removing and installing torque support
- Removing and installing cross panel
- Removing and installing cowl panel cover
- Removing and installing front trim (engine compartment)
- Removing and installing seal for front lid
- Removing and installing wiper arm
- Replacing cylinder-head cover gasket
- Removing and installing DME control unit
- Setting the timing

Parts required:

000.043.207.88	Camshaft controller	2 ea.
948.105.254.00	Hexagon round-head bolt, M12 x 1.5 x 110	4 ea.
900.123.118.30	Sealing ring, A22 x 27	1 ea.
948.105.146.00	Aluminum screw	8 ea.
948.107.437.20	Seal	1 ea.
948.107.438.20	Seal	1 ea.
948.105.935.01	Seal, cylinders 1-4	1 ea.
948.105.936.01	Seal, cylinders 5-8	1 ea.
948.105.937.02	Inner seal	8 ea.
948.105.938.00	Camshaft actuator seal	2 ea.
999.073.905.31	Aluminum oval-head screw, M6 x 30	23 ea.

999.073.908.31	Aluminum oval-head screw, M8 x 35	3 ea.
WHT.005.204	Aluminum cheese head bolt, M10 x 80	1 ea.
WHT.004.595	Aluminium cheese head bolt, M10 x 90	1 ea.
WHT.004.635	Hexagon nut	2 ea.
999.073.914.31	Oval-head screw, M6 x 55	2 ea.
WC220000001*	Tie-wrap	1 ea.* (For warranty invoicing only)

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

⇒ Damage code WC22 066 000 2

Scope 4:

Replacing both camshaft controllers (on vehicles with anti-theft protection for engine control module, I-no. KE2)



Information

The specified working time was determined specifically for carrying out this campaign and may differ from the working times published in the Labor Operation List in PIWIS.

Working time:

Replacing both camshaft controllers (on vehicles with anti-theft protection for engine control module, I-no. KE2)

Labor time: **487 TU**

- Includes:
- Disconnecting and connecting battery
 - Removing and installing engine cover
 - Removing and installing cylinder head cover
 - Removing and installing chain tensioner
 - Removing and installing oil separator
 - Removing and installing secondary-air pump
 - Removing and installing torque support
 - Removing and installing cross panel
 - Removing and installing cowl panel cover
 - Removing and installing front trim (engine compartment)
 - Removing and installing seal for front lid
 - Removing and installing wiper arm
 - Replacing cylinder-head cover gasket
 - Removing and installing DME control unit with anti-theft protection

Setting the timing

Parts required:

000.043.207.88	Camshaft controller	2 ea.
948.105.254.00	Hexagon round-head bolt, M12 x 1.5 x 110	4 ea.
900.123.118.30	Sealing ring, A22 x 27	1 ea.
948.105.146.00	Aluminum screw	8 ea.
948.107.437.20	Seal	1 ea.
948.107.438.20	Seal	1 ea.
948.105.935.01	Seal, cylinders 1-4	1 ea.
948.105.936.01	Seal, cylinders 5-8	1 ea.
948.105.937.02	Inner seal	8 ea.
948.105.938.00	Camshaft actuator seal	2 ea.
999.073.905.31	Aluminum oval-head screw, M6 x 30	23 ea.
999.073.908.31	Aluminum oval-head screw, M8 x 35	3 ea.
WHT.005.204	Aluminum cheese head bolt, M10 x 80	1 ea.
WHT.004.595	Aluminum cheese head bolt, M10 x 90	1 ea.
WHT.004.635	Hexagon nut	2 ea.
999.073.914.31	Oval-head screw, M6 x 55	2 ea.
N.911.468.01	Shear bolt, M6 x 16 (Vehicles with anti-theft protection for engine control module, I-no. KE2)	3 ea.
WC220000001*	Tie-wrap	1 ea.* (For warranty invoicing only)

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

⇒ **Damage code WC22 066 000 2**

- References:
- ⇒ *Workshop Manual '1001IN Tightening torques, tightening sequences, assembly overviews for engine'*
 - ⇒ *Workshop Manual '2X00IN Work instructions after disconnecting the battery'*
 - ⇒ *Workshop Manual '158219 Removing and installing cylinder head cover'*
 - ⇒ *Workshop Manual '153619 Removing and installing chain tensioner'*
 - ⇒ *Workshop Manual '150516 Setting the timing'*
 - ⇒ *Workshop Manual '105519 Removing and installing oil separator'*

- ⇒ *Workshop Manual '108319 Removing and installing engine cover (design cover)'*
- ⇒ *Workshop Manual '266519 Removing and installing secondary-air pump'*
- ⇒ *Workshop Manual '103719 Removing and installing torque support'*
- ⇒ *Workshop Manual '508119 Removing and installing cross panel'*
- ⇒ *Workshop Manual '664419 Removing and installing cowl panel cover'*
- ⇒ *Workshop Manual '700219 Removing and installing front trim (engine compartment)'*
- ⇒ *Workshop Manual '553319 Removing and installing seal for front lid'*
- ⇒ *Workshop Manual '922519 Removing and installing wiper arm'*
- ⇒ *Workshop Manual '158219 Removing and installing cylinder head cover'*
- ⇒ *Workshop Manual '158055 Replacing cylinder-head cover gasket'*
- ⇒ *Workshop Manual '247019 Removing and installing DME control unit'*

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