

WE36 - Replacing Engine (Stop Sale Campaign)

Revisions: Revision 1: September 29, 2014
 This revision amends WE36 as follows:
 1. The method in which Thatcham labels are ordered, i.e., dealers need to file a PTAR and not a PAV in order to be able to attach pictures.
 2. The specifications of the battery charger/power supply to be used in completing this campaign.

Model Year: **2014**

Vehicle Type: **Cayenne**

Equipment: **3.6-liter V6 engine** (engine type **M55.02**)

Concerns: **Cylinder head**

Information: This is to inform you of a Stop Sale Campaign on the above-mentioned vehicles. **Routine tests carried out previously have shown that the cylinder head on the engines on the affected vehicles do not meet the required specifications and there is a possibility that the long-term durability required by Porsche will not be met.**

Action Required: Replace engine.

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 105 vehicles in North America.

Parts and Tools

Parts Info: **NOTE: PARTS ACQUISITION PROCESS:**
 1. For each vehicle scheduled to be sent to your dealership, you will receive an electronically transmitted disclosure agreement letter from PCNA Vehicle Logistics. This letter must be signed by a member of the dealership's executive staff and returned, electronically, to Vehicle Logistics.
 2. Upon receipt of the returned disclosure agreement letter, the engine, parts kit and vehicle will be shipped to your dealership for repair. Please be advised that the vehicles will be shipped out in priority order, i.e., oldest customer ordered vehicle first. **NOTE: NO ENGINES, PARTS OR VEHICLES WILL BE SHIPPED WITHOUT A SIGNED DISCLOSURE AGREEMENT LETTER ON FILE FOR EACH VIN.**
 3. Immediately upon receipt of the engine and vehicle, steps should be taken to order the Thatcham labels (see section on "Also Required") as it will take 6-9 days to receive these once the order is placed.

4. Items listed under "Required Materials" **WILL NOT BE SHIPPED TO YOU AS PART OF THE PARTS ORDER.** As noted, these items should already be available at your dealership

Part No.	Designation – Use	Qty.
000.043.209.77	⇒ Engine	1 ea.
PNA.000.0WE.36 Engine replacement kit, which includes the following:		
N 107.642.01	⇒ Cheese head bolt, M10 x 32 – Engine bracket	4 ea.
N 104.029.04	⇒ Hexagon nut, M12 x 1.5 – Engine bracket	2 ea.
N 906.916.01	⇒ Cheese head bolt, M10 x 1 x 17 – Drive plate to torque converter	3 ea.
N 907.682.02	⇒ Stud, M12 x 60 – Engine to transmission	2 ea.
N 105.934 01	⇒ Hexagon-head bolt, M12 x 50 – Engine to transmission	2 ea.
N 105.923.02	⇒ Hexagon-head bolt, M12 x 140 x 49 – Engine to transmission	2 ea.
N 103.145.05	⇒ Hexagon-head bolt, M10 x 50 – Engine to transmission	4 ea.
N 104.748.03	⇒ Hexagon nut, M12 x 1.5 – Engine to transmission	1 ea.
955.101.139.01	⇒ Dowel sleeve – Engine to transmission	2 ea.
N 910.144.02	⇒ Hexagon-head bolt, M14 x 1.5 x 100 – Engine carrier	2 ea.
N 909.913.02	⇒ Combination screw, M10 x 80 – Transmission support	4 ea.
N 102.090.07	⇒ Lock nut, M10 – Exhaust pipe to exhaust manifold	6 ea.
955.111.113.40	⇒ Seal – Exhaust pipe to exhaust manifold	2 ea.
958.111.220.20	⇒ Clamping sleeve – Exhaust system	2 ea.

N 909.987.02	⇒ Hexagon-head bolt, M14 x 1.5 x 150 – Front-axle carrier, front	2 ea.
N 910.093.02	⇒ Hexagon-head bolt, M14 x 1.5 x 120 – Front-axle carrier, rear	2 ea.
N 105.326.02	⇒ Hexagon-head bolt, M14 x 1.5 x 102 – Front spring strut	2 ea.
N 103.353.04	⇒ Hexagon nut, M14 x 1.5 – Front spring strut	2 ea.
N 102.613.11	⇒ Hexagon nut, M10 – Front spring strut	6 ea.
WHT.003.950	⇒ Hexagon nut, M12 x 1.5 – Upper wishbone	2 ea.
WHT.004.955.A	⇒ Torx screw, M8 x 30 – Steering column to steering gear	1 ea.
WHT.004.571	⇒ Cheese head bolt, M14 x 1.5 x 115 – Front brake calliper	4 ea.
958.349.493.00	⇒ Circlip, 24.3 x 1.8 – Cardan shaft to transfer gear	1 ea.
N 908.424.02	⇒ Combination screw, M6 x 22 – Transmission oil cooler line	1 ea.
N 906.660.01	⇒ O-ring, 11.5 x 3 – Transmission oil cooler line	2 ea.
958.321.581.00	⇒ Sealing ring – ATF inspection plug	1 ea.
955.573.749.01	⇒ Round seal, 9.5 x 2.5 – Refrigerant line for air-conditioning compressor	1 ea.
955.573.749.02	⇒ Round seal – Refrigerant line, front left connection point	1 ea.
958.573.191.02	⇒ Desiccator	1 ea.
N 911.366.01	⇒ Shear bolt, M5 x 12 – DME control unit	2 ea.

Also required:

7P5.010.732.S ⇒ Thatcham sticker (vehicle-specific) * 3 ea. *

* Given that the engines are being replaced, the vehicle-specific stickers showing the allocation of vehicle identification number to engine number must be replaced by updated stickers.

For detailed information on ordering the stickers, see ⇒ *Technical Information 'WE3600 Preliminary work'*.

Materials: **Required materials** (usually already available in the Porsche Dealership):

Part No.	Designation – Use	Qty.
000.043.301.48	Antifreeze	20-liter container (approx. 2 liters required per vehicle)
000.043.206.56	Pentosin CHF 202	1-liter container (approx. 1 liter required per vehicle)
958.300.540.00	Transmission oil (ATF)	1-liter container (approx. 1 liter required per vehicle)
000.043.205.93	Klüberplus Gel grease – For greasing O-rings and coolant hoses	100g tube As much as required (approx. 5 grams required per vehicle)

Tools: • **Auxiliary tool:**

Part No.	Designation – Use	Qty.
...	Hexagon-head bolt, M8 x 50, e.g. N 900.637.06 – Loosening drive belt	1 for every Porsche Dealership (only if not already available)
...	Hexagon-head bolt, M8, e.g. N 010.272.5 – Securing transport eyebolt	1 for every Porsche Dealership (only if not already available)
999.571.074.30	Assembly aid – Removing and installing wheel	1 for every Porsche Dealership (only if not already available)

• **Special tools:**

NOTE: Special tools may be used but are not mandatory to perform the engine replacement. Please note that dealers having access to VW/Audi repair facilities may be able to obtain some of these tools from those franchises.

Designation/Comment	Use
9818 - PIWIS Tester II	On-board diagnosis/checking ATF
Battery Charger/Power Supply - Suitable for AGM Type batteries, recommended current rating of 70A fixed voltage 13.5V to 14.5V. Refer to Equipment Information EQ-1105.	
Coolant collection container	Draining coolant from the engine to be replaced
Assembly pliers for spring band clamps, e.g. VAS 6890 - Spring band clamp pliers	
Suitable flexible screwdriver	
VAS 6935 - Pole terminal puller	Removing wiper arms
Suitable vice-grip wrench (at least 300 mm long)	Removing DME control unit
Suitable air-conditioning service unit, e.g. VAS 6456A - A/C service station with rinsing device	Draining and filling refrigerant in the air conditioning system
Suitable mounting lever	Loosening cardan shaft on transfer gear
Nr.21 - Disassembly tool	Disconnecting parking lock cable from PDK transmission
VAS 6832 - Master Gear unit elevating platform	Removing and installing engine
Cayenne assembly fixture for Master Gear	
T10187 - Press-out tool	
Workshop crane	Removing and mounting engine
Suitable lifting equipment, e.g. 3033 - Lifting tackle	
9689 - Centering pin	
9700/2 - Transport eyebolt	
3269 - Engine support	
VAS 6262A - Adapter for oil filling	Checking and topping up ATF
VAS 6262/2 - Adapter for filling ATF oil	
9696 - Filling device	Filling coolant and bleeding the cooling system

• **Other tools:**

Torque screwdriver, 1.5 – 3 Nm (1 – 2 ftlb.), e.g. **Nr.89 Pos.5 - Torque screwdriver**

Torque wrench, 4 – 20 Nm (3 – 15 ftlb.), e.g. **Nr.90 Pos.2 - Torque wrench**

Torque wrench, 10 – 60 Nm (7.5 – 44 ftlb.), e.g. **Nr.90 Pos.3 - Torque wrench**

Torque wrench, 25 – 130 Nm (19 - 96 ftlb.), e.g. **Nr. 90 Pos. 4 - Torque wrench**
Torque wrench, 40 – 200 Nm (30 - 148 ftlb.), e.g. **Nr. 90 Pos. 6 - Torque wrench**
Torque angle torque wrench, 4 – 400 Nm (3 – 296 ftlb.), e.g. **Nr. 88 - Torque angle torque wrench.**

Work Procedure: See Attachment "A".

Claim Submission: See Attachment "B".

Attachment "A"

Procedure:



Information

Given that the engines are being replaced, the vehicle-specific stickers showing the VIN and engine number must be replaced by updated stickers showing the **new** engine number.

Since it takes approx. **6 to 9 working days plus shipping** for Porsche AG to deliver the vehicle-specific stickers, the vehicle-specific stickers - **Thatcham sticker (3 ea., Part No. 7P5.010.732.S)** - should be requested as soon as a new engine has been allocated to a certain vehicle.

- 1 Allocate the new engine to the vehicle and request vehicle-specific stickers from Porsche AG, via PCNA.

To ensure that your request is processed quickly and efficiently, use the following procedure when ordering the vehicle-specific stickers:

The vehicle-specific stickers must be requested from PCNA via a PTAR.

As soon as you have the engine, parts kits and vehicle, send the following information and details to PCNA via a PTAR:

- **Vehicle identification number**
- **Engine number** of the **new** engine, which will be installed in the vehicle
- **Delivery address** and **name of the contact person** to whom the documents must be sent

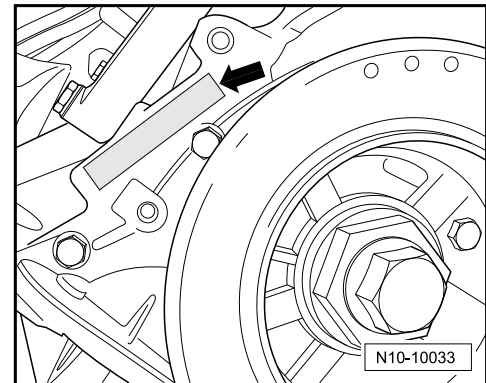
When requesting the documents, also attach **digital photos** showing the **vehicle identification number** of the vehicle and the **engine number of the new engine** to the ticket.

This can help to avoid transmission errors and longer processing times.



Information

The **engine number** ⇒ *Engine number -arrow-* is stamped on the **front** of the housing **next to** the vibration damper.



Engine number

Replacing engine

- Procedure:
- 1 Remove engine ⇒ *Workshop Manual '100119 Removing and installing engine'*.
 - 2 **Remove engine to be replaced** from the transmission and secure it on an assembly support ⇒ *Workshop Manual '100127 Removing engine from transmission and mounting engine on transmission'*.
 - 3 Remove peripheral parts on the **engine to be replaced**. ⇒ *Workshop Manual '100433 Completing reconditioned engine'*.
 - 4 Remove transport packaging on the new engine and lift **new engine** using a engine hoist ⇒ *Workshop Manual '10011N Lifting engine with a workshop crane'*.
 - 5 Fit peripheral parts on the **new engine**. ⇒ *Workshop Manual '100433 Completing reconditioned engine'*.
 - 6 **Fit new engine** on the transmission ⇒ *Workshop Manual '100127 Removing engine from transmission and mounting engine on transmission'*.
 - 7 **Install new engine**. ⇒ *Workshop Manual '100119 Removing and installing engine'*.
 - 8 Drain the engine oil and the coolant from the engine that was replaced before it is shipped to its final destination.

Subsequent work

- Procedure 1: **Update the vehicle data with the engine number of the newly installed engine.**

**Information**

Once the engine in the vehicle has been replaced, the **engine number** of the **newly installed engine** must be stored in the vehicle data instead of the old engine number.

To do this, the engine number must be updated in the data stored in the vehicle using the PIWIS Tester.

- 1 Connect a battery charger or power supply, suitable for AGM type batteries, recommended current rating of 70A fixed voltage 13.5V to 14.5V to the jump-start terminals in the engine compartment.
- 2 Switch on the ignition using the **original driver's key**.
To do this, replace the control panel in the ignition lock with the original driver's key if necessary.
- 3 **9818 - PIWIS Tester II** with software version **14.300** (or higher) installed must be connected to the vehicle communication module (VCI) via the **USB cable**. Then, connect the communication module to the vehicle and switch on the PIWIS Tester.
- 4 On the PIWIS Tester start screen, call up the ⇒ **'Diagnostics'** menu and select the vehicle type ⇒ **'Cayenne'** ⇒ **'92A as of MY 2011'**.

The diagnostic application is then started and the control unit selection screen is populated.

**Information**

The procedure described here is based on the PIWIS Tester II software version **14.300**.

The PIWIS Tester instructions take precedence and in the event of a discrepancy, these are the instructions that must be followed.

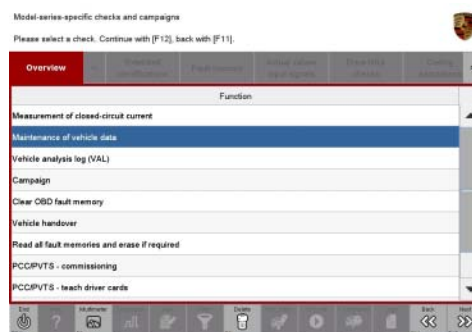
A discrepancy may arise with later software versions for example.

- 5 In the control unit selection screen (⇒ **'Overview'** menu), press **•F7** to call up the ⇒ **'Additional menu'** (⇒ *Calling up Additional menu*).
- 6 When the question "Create Vehicle Analysis Log (VAL)?" appears, either press **•F12** to create a VAL or press **•F11** if you do not want to create a VAL.
- 7 Press **•>>** to acknowledge the message informing you that campaigns for the vehicle are stored in the PIWIS information system.



Calling up Additional menu

- 8 Select ⇒ **'Maintenance of vehicle data'** and press •>>“ to confirm your selection ⇒ *Maintenance of vehicle data*.



Maintenance of vehicle data

- 9 To enter the engine number, click in the **'Engine number'** text box so that the cursor starts to flash. Delete the old engine number and enter the **engine number** of the **newly installed engine** (⇒ *Entering engine number*). Then press •>>“ to continue.



Entering engine number

- 10 Press •>>“ to skip the other vehicle data.

- 11 Check the engine number you entered for the newly installed engine. Then press •F8“ to save the change you made to the engine number and continue by pressing •>>“ ⇒ *Saving change to engine number*.



Saving change to engine number

- 12 Press •F8“ to save the values again and complete the adaptation of the vehicle data by pressing •>>“.

- 13 Select the ⇒ **'Overview'** menu and press •<<“ to return to the control unit selection screen.

Procedure 2: **Verify the new engine oil level is correct with the PIWIS Tester.**



Information

The replacement engine is pre filled with engine oil from the factory.

Check and correct engine oil level with the PIWIS Tester as required prior to the road test.

**Information**

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Check and correct engine oil level with the PIWIS Tester as required prior to the road test.

- 1 Connect a battery charger or power supply, suitable for AGM type batteries, recommended current rating of 70A fixed voltage 13.5V to 14.5V to the jump-start terminals in the engine compartment.
- 2 Switch on the ignition using the original driver's key. To do this, replace the control panel in the ignition lock with the original driver's key if necessary.
- 3 9818 – PIWIS Tester II with software 14.300 (or higher) installed must be connected to the vehicle communication module (VCI) via the USB cable. Then connect the communication module to the vehicle and switch on the PIWIS Tester.
- 4 On the PIWIS Tester start screen, call up the > "Diagnostics" menu and select the vehicle type > "Cayenne" > "92A as of MY 2011" The diagnostic application is then started and the control unit selection screen is populated.
- 5 Select DME > Maintenance Repairs > Oil Filling. Follow the listed guidelines and pre conditions to correct the engine oil level.

Procedure 3: **Perform throttle valve adaptation of the newly installed engine.**

- 1 Connect a battery charger or power supply, suitable for AGM type batteries, recommended current rating of 70A fixed voltage 13.5V to 14.5V to the jump-start terminals in the engine compartment.
- 2 Switch on the ignition using the original driver's key. To do this, replace the control panel in the ignition lock with the original driver's key if necessary.
- 3 9818 – PIWIS Tester II with software 14.300 (or higher) installed must be connected to the vehicle communication module (VCI) via the USB cable. Then connect the communication module to the vehicle and switch on the PIWIS Tester.
- 4 On the PIWIS Tester start screen, call up the > "Diagnostics" menu and select the vehicle type > "Cayenne" > "92A as of MY 2011" The diagnostic application is then started and the control unit selection screen is populated. Select DME > Maintenance Repairs > Adaptations > Next - F 12 > Observe all preconditions > Throttle Adaptation > Start - F 8. Repeat the selection process and high light the Kickdown adaptation > Start - F 8 > Back - F11 when adaptation is successfully completed.

Procedure 4: **Road test vehicle.**

Verify the new engine does not have any codes or any performance issues during a road test. Create an "After Repairs" VAL with the PIWIS Tester. Attach the VAL to the PQIS job.

- 1 Connect a battery charger or power supply, suitable for AGM type batteries, recommended current rating of 70A fixed voltage 13.5V to 14.5V to the jump-start terminals in the engine compartment.

- 2 Switch on the ignition using the original driver's key. To do this, replace the control panel in the ignition lock with the original driver's key if necessary.
- 3 9818 – PIWIS Tester II with software 14.300 (or higher) installed must be connected to the vehicle communication module (VCI) via the USB cable. Then connect the communication module to the vehicle and switch on the PIWIS Tester.
- 4 On the PIWIS Tester start screen, call up the > "Diagnostics" menu and select the vehicle type > "Cayenne" > "92A as of MY 2011" The diagnostic application is then started and the control unit selection screen is populated. Additional Menu > F7 > Service VAL > Execute – F8 > when program is completed confirm VIN is correct with Yes - F12 > Next - F12 > Select "after Repairs" in the drop down screen for the type of VAL > Next – F12 to complete the VAL.
- 5 Switch off ignition.
- 6 Disconnect the PIWIS Tester from the vehicle.
- 7 Switch off and disconnect the battery charger.
- 8 On vehicles with Porsche Entry & Drive, replace the original driver's key in the ignition lock with the control panel again.

Procedure 5: **Affix new vehicle identification stickers over existing stickers on the engine compartment lid, bottom of A-pillar and inner side of D-pillar.**



Information

Once the engine in the vehicle has been replaced, the stickers affixed to the vehicle showing the vehicle identification number and engine number must be replaced with updated stickers showing the engine number of the **newly installed engine**.

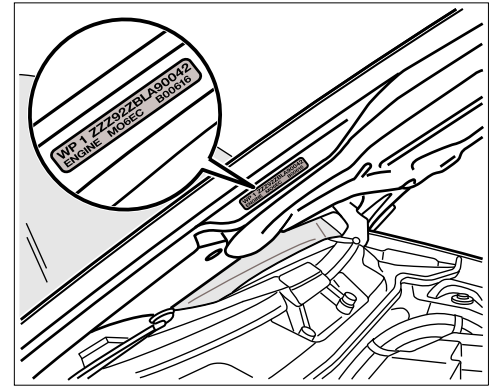
Important! Confirm that the updated stickers are accurate prior to installation. Contact PCNA for any discrepancies or concerns.

The stickers must be affixed at the following positions on the **right-hand side of the vehicle in direction of travel**:

- Side of engine compartment lid
- Bottom of A-pillar
- Inner side of D-pillar (above tail light)

1 Affix new sticker on the engine compartment lid.

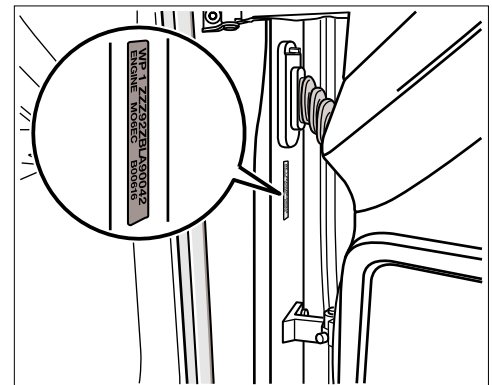
- 1.1 Clean the sticker ⇒ *Sticker on engine compartment lid* affixed to the engine compartment lid using a suitable cleaning agent (e.g. isopropanol) and then rub it dry with a clean, lint-free cloth.
- 1.2 Affix a new sticker over the existing sticker in such a way that the existing sticker is **covered exactly** by the new sticker. When affixing the new sticker, make sure that the new sticker is affixed with the **same text alignment** as the existing sticker.
- 1.3 Close the engine compartment lid.



Sticker on engine compartment lid

2 Affix new sticker to the bottom of the A-pillar.

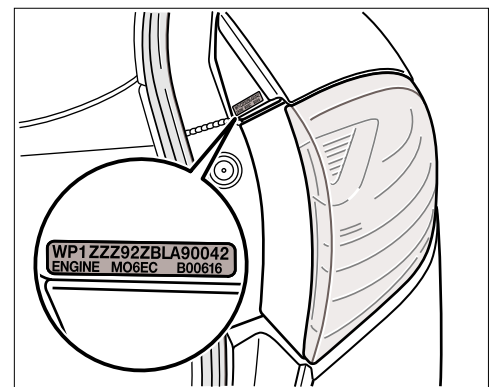
- 2.1 Open the front door on the right-hand side of the vehicle.
- 2.2 Clean the sticker ⇒ *Sticker on bottom of A-pillar* affixed to the A-pillar using a suitable cleaning agent (e.g. isopropanol) and then rub it dry with a clean, lint-free cloth.
- 2.3 Affix a new sticker over the existing sticker in such a way that the existing sticker is **covered exactly** by the new sticker. When affixing the new sticker, make sure that the new sticker is affixed with the **same text alignment** as the existing sticker.
- 2.4 Close the front door on the right-hand side of the vehicle.



Sticker on bottom of A-pillar

3 Affix new sticker on the inner side of the D-pillar, above the tail light.

- 3.1 Open the luggage compartment lid.
- 3.2 Clean the sticker affixed above the tail light on the inner side of the D-pillar using a suitable cleaning agent (e.g. Isopropanol) and then rub it dry with a clean, lint-free cloth.
- 3.3 Affix a new sticker over the existing sticker in such a way that the existing sticker is **covered exactly** by the new sticker. When affixing the new sticker, make sure that the



Sticker on inner side of D-pillar

new sticker is affixed with the **same text alignment** as the existing sticker.

3.4 Close the luggage compartment lid.

Attachment "B"

Claim Submission - Stop Sale Campaign WE36

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:

Working time:		
Replacing engine		Labor time: 1365 TU
Includes:	<ul style="list-style-type: none"> Removing engine to be replaced and installing new engine Removing engine to be replaced from transmission and mounting new engine Removing peripheral parts on engine to be replaced and fitting them on new engine Performing suspension alignment and making adjustments if necessary Update vehicle data, correct engine oil level, adapt throttle valve and create VAL using the PIWIS Tester. Replacing vehicle identification stickers 	
Required parts and materials:		
000.043.209.77	Engine	1 ea.
PNA.000.OWE.36		
Engine replacement kit, which includes the following:		
N 107.642.01	Cheese head bolt, M10 x 32	4 ea.
N 104.029.04	Hexagon nut, M12 x 1.5	2 ea.
N 906.916.01	Cheese head bolt, M10 x 1 x 17	3 ea.
N 907.682.02	Stud, M12 x 60	2 ea.
N 105.934 01	Hexagon-head bolt, M12 x 50	2 ea.
N 105.923.02	Hexagon-head bolt, M12 x 140 x 49	2 ea.

N 103.145.05	Hexagon-head bolt, M10 x 50	4 ea.
N 104.748.03	Hexagon nut, M12 x 1.5	1 ea.
955.101.139.01	Dowel sleeve	2 ea.
N 910.144.02	Hexagon-head bolt, M14 x 1.5 x 100	2 ea.
N 909.913.02	Combination screw, M10 x 80	4 ea.
N 102.090.07	Lock nut, M10	6 ea.
955.111.113.40	Seal	2 ea.
958.111.220.20	Clamping sleeve	2 ea.
N 909.987.02	Hexagon-head bolt, M14 x 1.5 x 150	2 ea.
N 910.093.02	Hexagon-head bolt, M14 x 1.5 x 120	2 ea.
N 105.326.02	Hexagon-head bolt, M14 x 1.5 x 102	2 ea.
N 103.353.04	Hexagon nut, M14 x 1.5	2 ea.
N 102.613.11	Hexagon nut, M10	6 ea.
WHT.003.950	Hexagon nut, M12 x 1.5	2 ea.
WHT.004.955.A	Torx screw, M8 x 30	1 ea.
WHT.004.571	Cheese head bolt, M14 x 1.5 x 115	4 ea.
958.349.493.00	Circlip, 24.3 x 1.8	1 ea.
N 908.424.02	Combination screw, M6 x 22	1 ea.
N 906.660.01	O-ring, 11.5 x 3	2 ea.
958.321.581.00	Sealing ring	1 ea.
955.573.749.01	Round seal, 9.5 x 2.5	1 ea.
955.573.749.02	Round seal	1 ea.
958.573.191.02	Desiccator	1 ea.
N 911.366.01	Shear bolt, M5 x 12	2 ea.
7P5.010.732.S	Thatcham sticker (vehicle-specific)	3 ea.
000.043.301.48	Antifreeze	0.1 ea. (= approx. 2 liters)
000.043.206.56	Pentosin CHF 202	1 ea. (= approx. 1 liter)
958.300.540.00	Transmission oil (ATF)	1 ea. (= approx. 1 liter)
000.043.205.93	Klüberplus Gel grease	0.05 ea. (= approx. 5 g)

⇒ Damage code WE36 066 000 2

References

- References:
- ⇒ *Workshop Manual '1001IN Tightening torques for V6 DFI engine'*
 - ⇒ *Workshop Manual '1001IN Lifting engine with a workshop crane'*
 - ⇒ *Workshop Manual '100119 Removing and installing engine'*
 - ⇒ *Workshop Manual '100127 Removing engine from transmission and mounting engine on transmission'*
 - ⇒ *Workshop Manual '100127 Removing engine from transmission and mounting engine on transmission'*
 - ⇒ *Workshop Manual '108019 Removing and installing engine guard'*
 - ⇒ *Workshop Manual '137319 Removing and installing belt tensioner'*
 - ⇒ *Workshop Manual '137819 Removing and installing drive belt'*
 - ⇒ *Workshop Manual '193817 Draining and filling coolant (includes bleeding)'*
 - ⇒ *Workshop Manual '2X00IN Work instructions after disconnecting the battery'*
 - ⇒ *Workshop Manual '243519 Removing and installing air box for throttle housing (intake pipes upstream of throttle valve)'*
 - ⇒ *Workshop Manual '247019 Removing and installing DME control unit'*
 - ⇒ *Workshop Manual '260119 Removing and installing exhaust system'*
 - ⇒ *Workshop Manual '276019 Removing and installing starter'*
 - ⇒ *Workshop Manual '3X00IN Tightening torque, tightening sequence and assembly overview'*
 - ⇒ *Workshop Manual '370235 Checking and topping up ATF'*
 - ⇒ *Workshop Manual '373519 Removing and installing automatic transmission'*
 - ⇒ *Workshop Manual '390219 Removing and installing front cardan shaft'*
 - ⇒ *Workshop Manual '4X00IN Tightening torques for front axle'*
 - ⇒ *Workshop Manual '400619 Removing and installing front-axle carrier'*
 - ⇒ *Workshop Manual '430955 Replacing reservoir (PDCC)'*
 - ⇒ *Workshop Manual '440519 Removing and installing wheel'*
 - ⇒ *Workshop Manual '449503 Suspension alignment, complete'*
 - ⇒ *Workshop Manual '489719 Removing and installing reservoir'*
 - ⇒ *Workshop Manual '505619 Removing and installing front wheel housing liner'*
 - ⇒ *Workshop Manual '508119 Removing and installing cross panel'*
 - ⇒ *Workshop Manual '553119 Removing and installing front pneumatic spring'*
 - ⇒ *Workshop Manual '553319 Removing and installing front lid seal'*
 - ⇒ *Workshop Manual '664419 Removing and installing cowl panel cover'*
 - ⇒ *Workshop Manual '700219 Removing and installing front trim panel (engine compartment)'*
 - ⇒ *Workshop Manual '870317 Draining and filling refrigerant'*
 - ⇒ *Workshop Manual '875555 Replacing desiccator'*

⇒ Workshop Manual '922519 Removing and installing wiper arm'

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