

If the (PDCC) pump is replaced by a new pump or if a new replacement engine is installed, a precisely defined pressure (approx. 2.0 bar/max. 2.5 bar permitted) must be produced on the fluid level in the reservoir before starting the engine. This pressure causes a check valve in the pump to open (at approx. 1.3 bar). The pump can then suck in and deliver fluid.

PRELIMINARY WORK

1. Remove the generator. → [Removing Generator](#)
2. Remove throttle housing. → [Removing throttle housing](#)

REMOVING PUMP (PDCC)

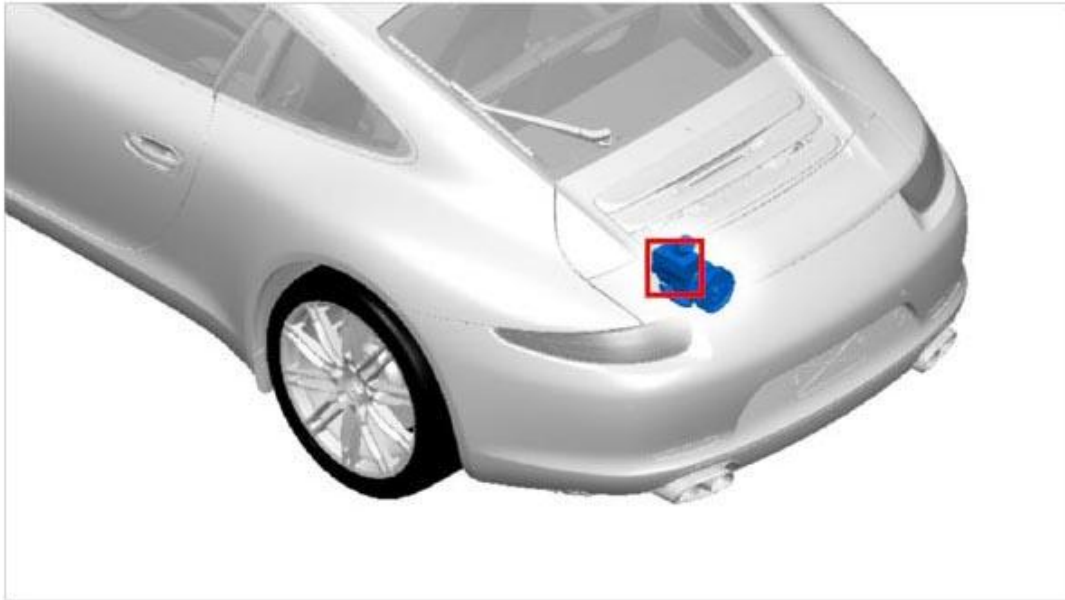


Fig. 38: Identifying Pump Position (PDCC)

Courtesy of PORSCHE CARS NORTH AMERICA, INC.

WARNING: Danger of injury and material damage when using Pentosin.

- Risk of skin irritation and damage to skin.
- Damage to hoses and wiring.

→ Wear protective gloves and goggles.

→ In the event of contact (eyes or skin), wash immediately with water.

→ Collect emerging Pentosin.

→ Use caps to protect the wiring against soiling and damage.

→ Clean hoses and wiring immediately.

Information

- Cover engine openings (e.g. intake openings, crankcase, lines, open containers, etc.) with a cloth to prevent dirt and foreign bodies from getting into the openings.
- Ensure absolute cleanliness at all times!
- Steel flexi-pipes must not be kinked or crushed.

- Close off PDCC lines using suitable stoppers if the pump will not be installed immediately.
 - Observe safety requirements! → [4303AW SAFETY REQUIREMENTS FOR PORSCHE DYNAMIC CHASSIS CONTROL \(PDCC\)](#)
1. Empty the PDCC reservoir using a suitable suction device. Use only one suction device that is used exclusively for Pentosin, not for any other fluids.

Dispose of extracted Pentosin according to the relevant regulations. Place a cloth under the reservoir to collect any emerging Pentosin.
 2. Release connector -1- at the rear of the pump -2- (-arrow a-) and pull it off -arrow A- .

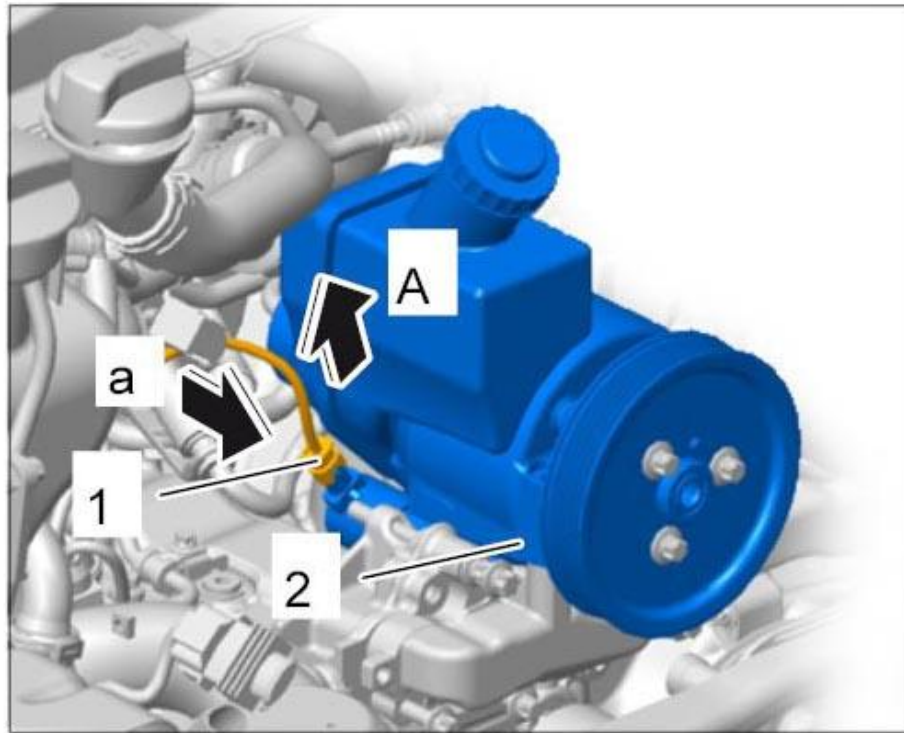


Fig. 39: Releasing Pump Connector
 Courtesy of PORSCHE CARS NORTH AMERICA, INC.

3. Disconnect the return line at the reservoir for the pump (release and pull it out at the same time).

Disassembly tool, universal NR.21

If you do not have a special tool to hand, press the circlip **-top arrow-** forward using two plastic spatulas or an open-ended wrench (a/f 12 mm) and pull the return line **-bottom arrow-** out at the same time.

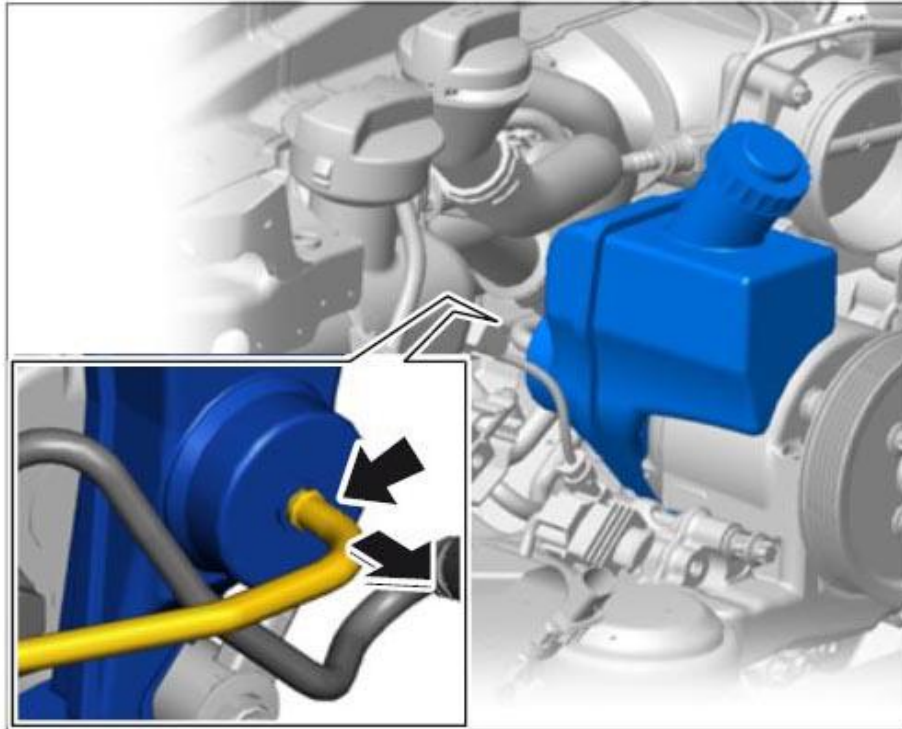


Fig. 40: Removing Pump Return Line

Courtesy of PORSCHE CARS NORTH AMERICA, INC.

4. Close off the return bore -1- on the reservoir -2- with a stopper.

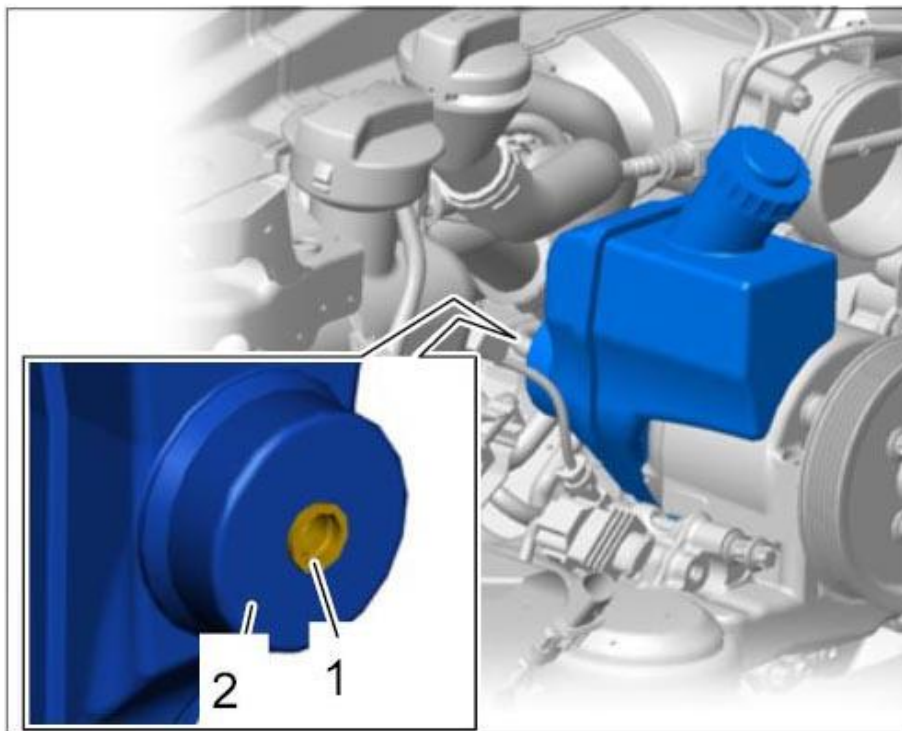


Fig. 41: Identifying Reservoir Return Bore

Courtesy of PORSCHE CARS NORTH AMERICA, INC.

5. Remove two M8 Torx screws at the front of the pump -1- and one M6 Torx screw at the back -2- (rear fastening point).

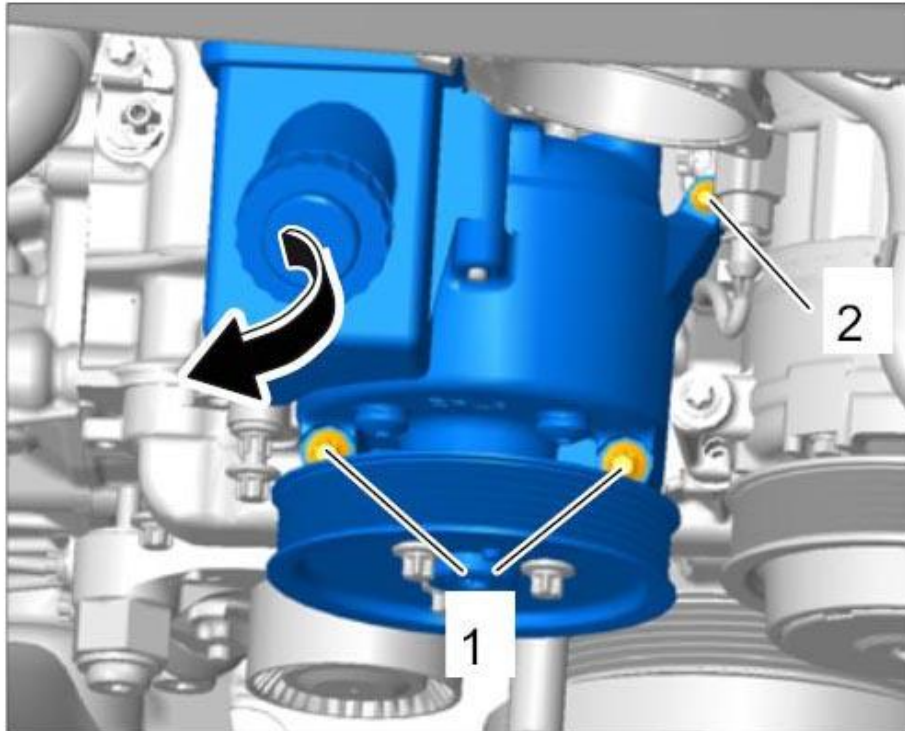


Fig. 42: Removing Pump

Courtesy of PORSCHE CARS NORTH AMERICA, INC.

6. Lift up the pump and swivel it in **-direction of arrow-** until you have easy access to the banjo bolt.
7. Unscrew the banjo bolt **-1-** (pressure line **-2-**) on the pump **-3-** (**-arrow-**).

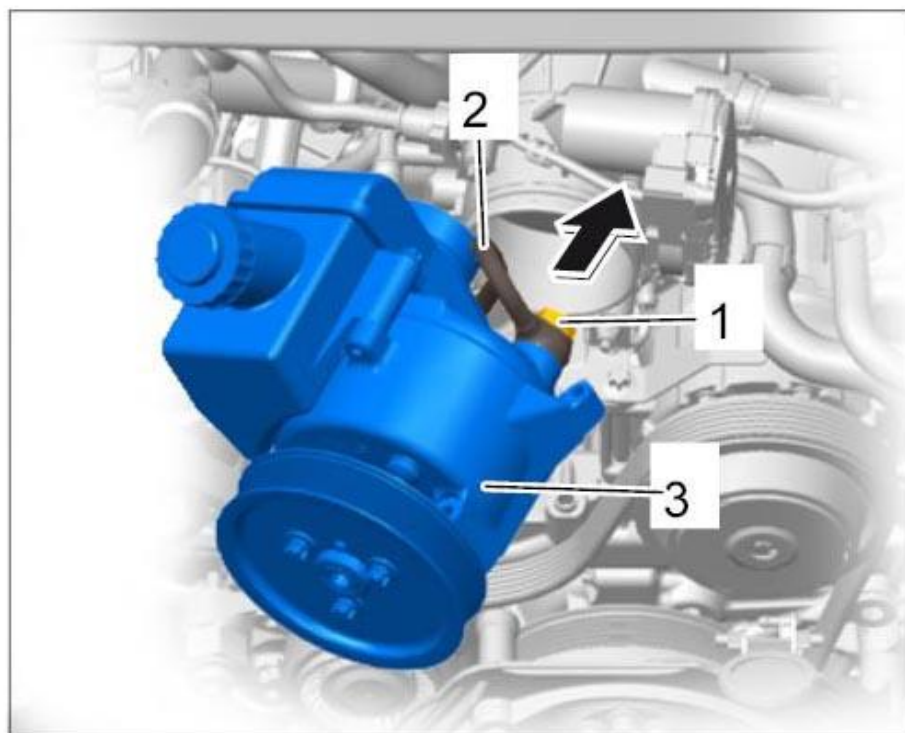


Fig. 43: Disconnecting Pressure Line

Courtesy of PORSCHE CARS NORTH AMERICA, INC.

8. Close off the supply bore (pressure line) **-1-** on the pump **-2-** with a stopper.

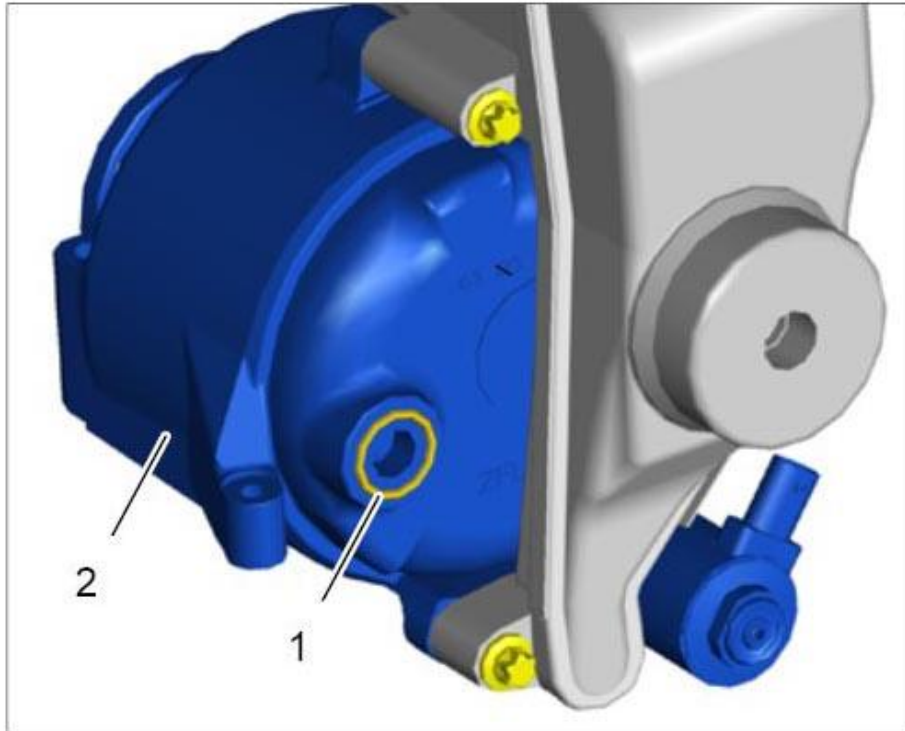


Fig. 44: Identifying Pump Supply Bore And Stopper
Courtesy of PORSCHE CARS NORTH AMERICA, INC.

9. Remove the pump/reservoir assembly.
10. Check O-rings -1- on the pressure line -2- and replace them if necessary.
11. Check the return line -3- .

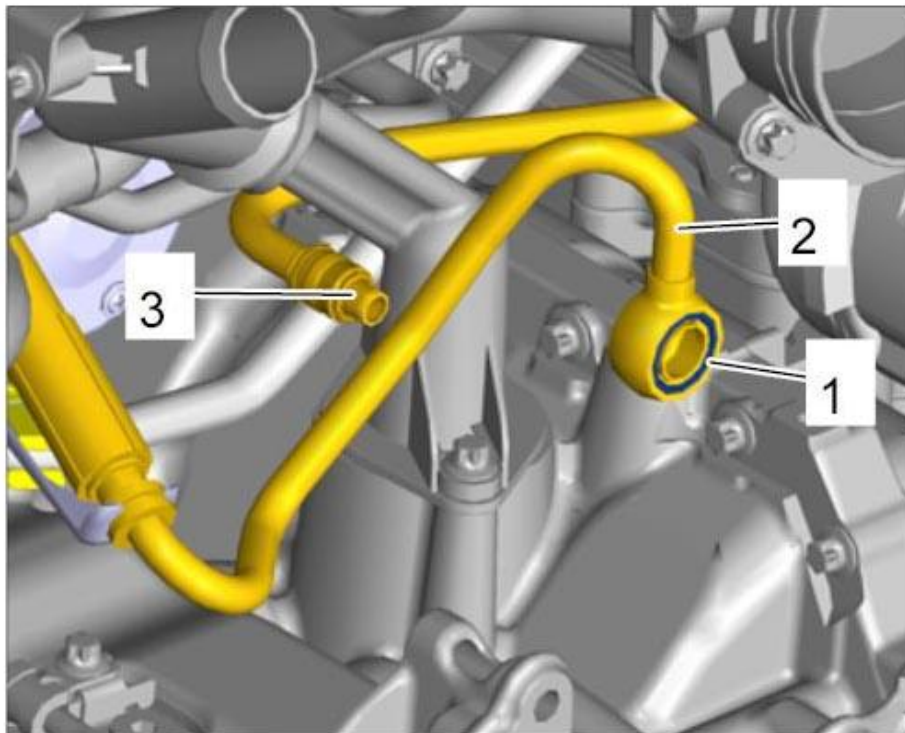


Fig. 45: Identifying Pressure Line And O-Ring
Courtesy of PORSCHE CARS NORTH AMERICA, INC.

INSTALLING PUMP (PDCC)

CAUTION: Increased risk of accidents and material damage if too much Pentosin CHF 202 is filled in or if Pentosin CHF 202 comes into contact with the coolant hoses when filling or topping up.

- It is possible to overfill the system, causing Pentosin CHF 202 to overflow onto coolant hoses and other components.

→ The engine must be run for approx. 20 seconds prior to checking the fluid level.

→ If coolant hoses come into contact with Pentosin, clean them thoroughly with water IMMEDIATELY.

→ Replace visibly swollen coolant hoses.

1. Fit the pump/reservoir assembly into the vehicle in such a way that the pressure line can be connected.
2. Remove the stopper and secure the pressure line -2- with the banjo bolt -1- on the pump -3- (-arrow-). The pressure line must be secured at a right angle to the pump.

→ **Tightening torque: 35 Nm (26 ftlb.)**

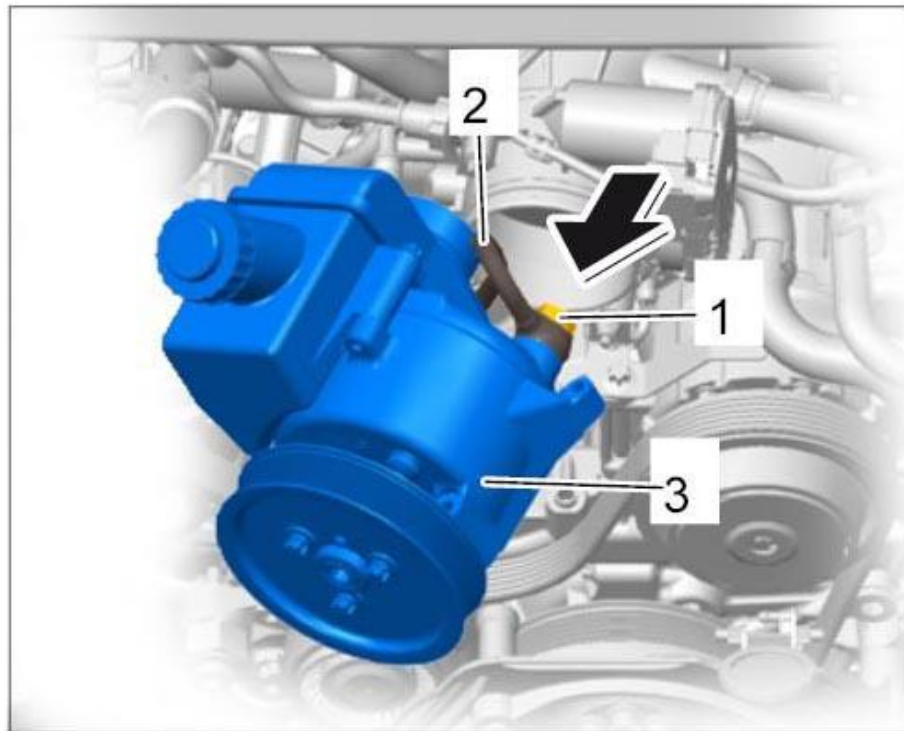


Fig. 46: Connecting Pressure Line

Courtesy of PORSCHE CARS NORTH AMERICA, INC.

3. Remove stopper from the reservoir and fit return line to the reservoir -arrow- .

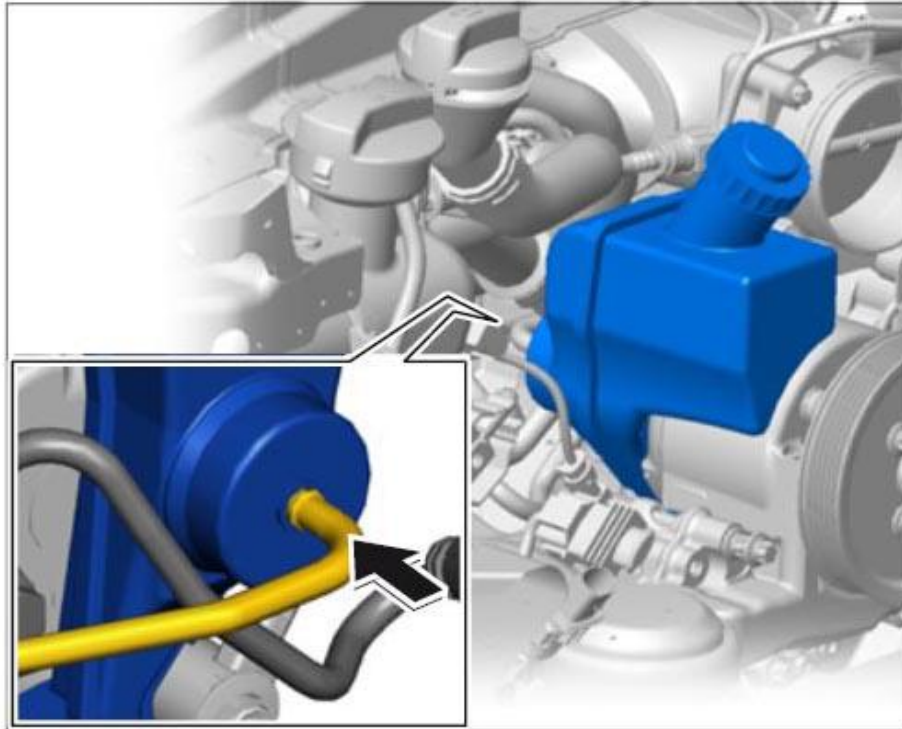


Fig. 47: Connecting Return Line

Courtesy of PORSCHE CARS NORTH AMERICA, INC.

4. Align the pump in installation position -arrow- .

Screw in two M8 Torx screws at the front of the pump -1- and one M6 Torx screw at the back -2- (rear fastening point).

→ Tightening torque (M8 screws): 23 Nm (17 ftlb.) → Tightening torque (M6 screw): 13 Nm (9.5 ftlb.)



Fig. 48: Securing Pump

Courtesy of PORSCHE CARS NORTH AMERICA, INC.

5. Plug in connector -1- on the pump -2- (-arrow-) until it engages securely.

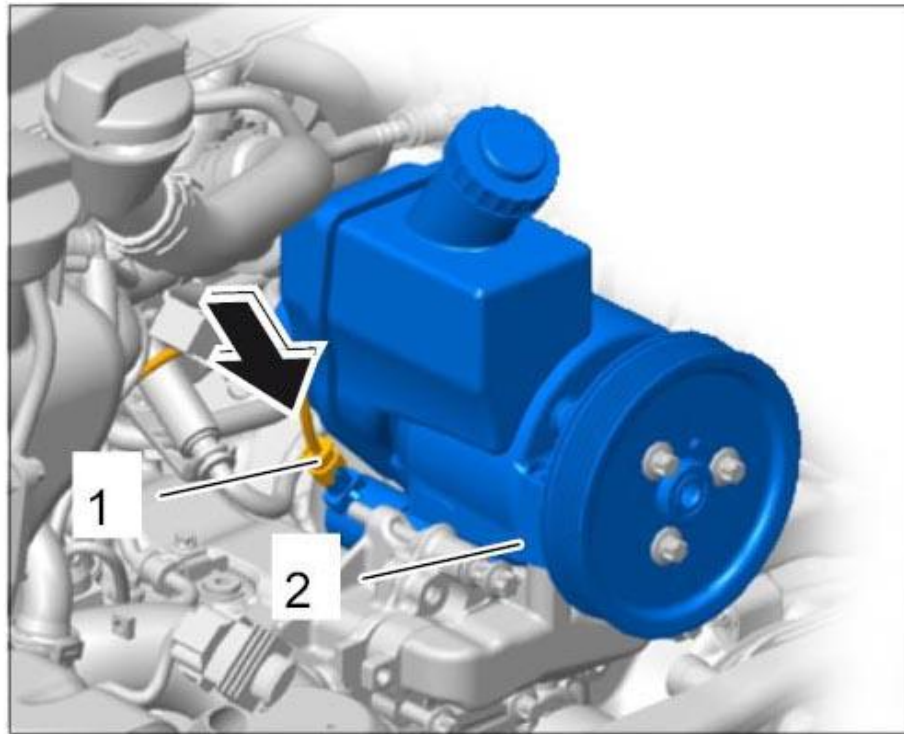


Fig. 49: Locating Pump Locking Connector

Courtesy of PORSCHE CARS NORTH AMERICA, INC.

Replacing Pump (PDCC)

Information

A new (PDCC) pump is **not** supplied pre-filled.

This means that a precisely defined pressure (approx. 2.0 bar/max. 2.5 bar permitted) must be produced on the fluid level in the reservoir following installation (before starting the engine) in order to ensure that a new pump will function correctly. This pressure causes a check valve in the pump to open (at approx. 1.3 bar). The pump can then suck in and deliver fluid.

Always follow the required procedure after installing a new pump or replacement engine before starting the engine!

1. Convert the pulley.



Fig. 50: Identifying Pump Pulley

Courtesy of PORSCHE CARS NORTH AMERICA, INC.

1.1. Loosen Torx screws on the pulley.

Counter the shaft (pump) using an Allen key when loosening the pulley.

1.2. Secure the pulley on the new pump using the Torx screws. → **Tightening torque: 23 Nm (17 ftlb.)**

SUBSEQUENT WORK

1. Install throttle housing. → [Installing throttle housing](#)
2. Install the generator. → [Installing Generator](#)
3. Fill the reservoir and do not exceed the MAX marking.

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A new (PDCC) pump is **not** supplied pre-filled.

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Always follow the required procedure after installing a new pump or replacement engine before starting the engine!

4. Only complete the next steps (produce a precisely defined pressure on the reservoir before starting the engine and bleeding the system) if a new pump or a replacement engine was installed.

Otherwise, bleed the PDCC system (Step [5.](#)).

4.1. Remove cap with dipstick.

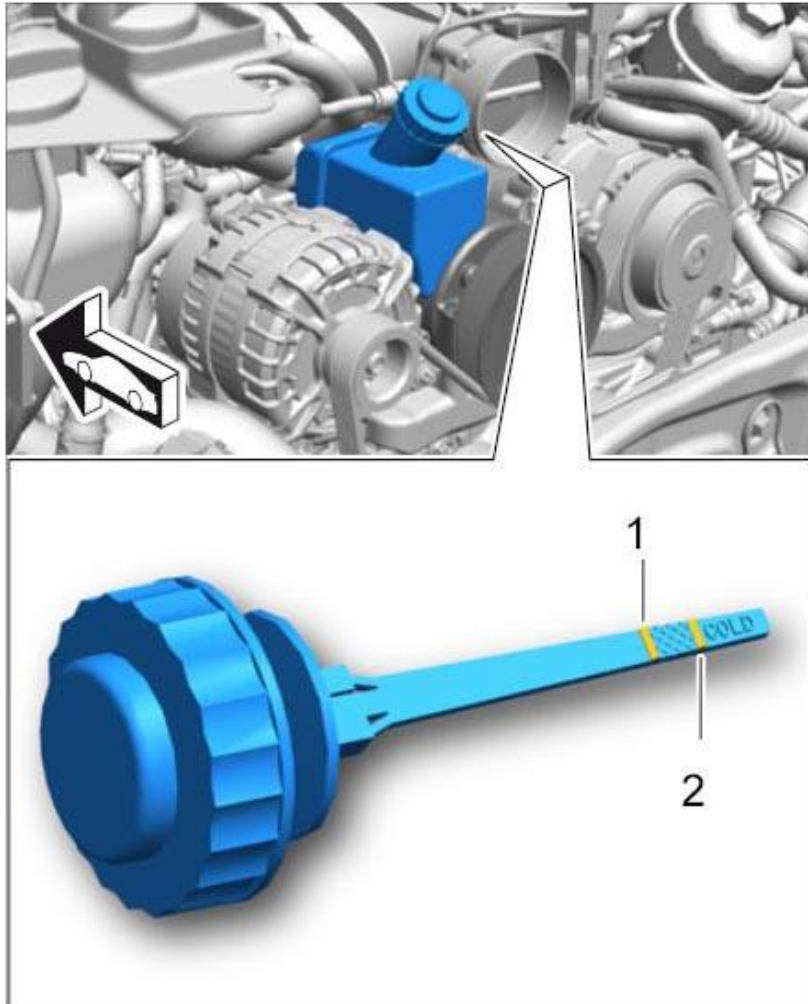


Fig. 51: Identifying Dipstick With Cap

Courtesy of PORSCHE CARS NORTH AMERICA, INC.

4.2. Fit special tool **cap 9853 -1-** on the reservoir instead of the cap with dipstick.

This cap 9853 will be supplied with the spare part (new pump or replacement engine) for the time being.

The special tool 9853 will shortly be supplied in the usual way as part of our obligatory special tool delivery system (end of February 2012).

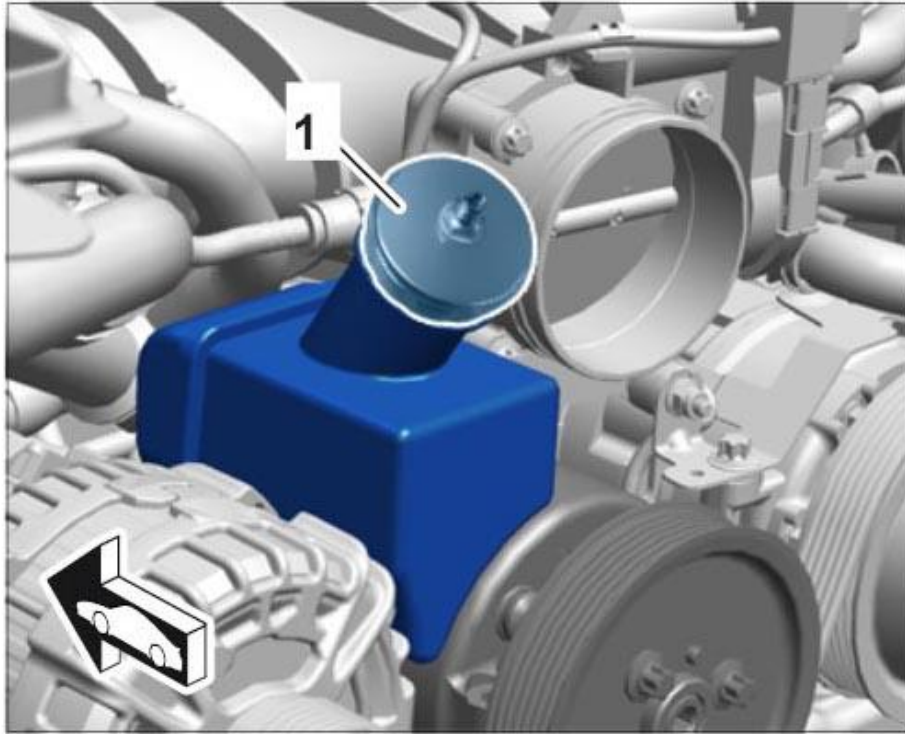


Fig. 52: Identifying Special Tool (9853)

Courtesy of PORSCHE CARS NORTH AMERICA, INC.

4.3. The cap 9853 -1- must then be fitted with a commercially available tire-inflating device -2- and a pressure of 2.0 bar must be set.

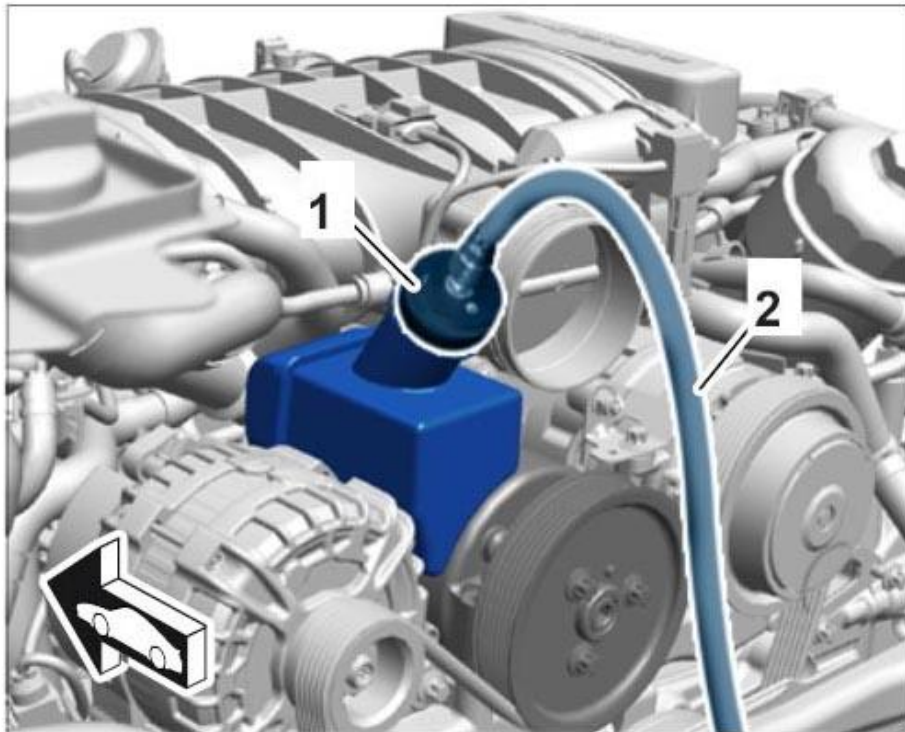


Fig. 53: Checking Pressure In Reservoir

Courtesy of PORSCHE CARS NORTH AMERICA, INC.


- 4.4. With a pressure of 2.0 bar in the reservoir, start the engine and **leave it running for 5 seconds at idle speed before stopping it again.**
- 4.5. Release the pressure at the valve on the cap 9853. Screw off the cap.
- 4.6. Fill the reservoir and do not exceed the MAX marking.
- 4.7. Start the engine and check the fluid level in the reservoir immediately. **If there is no change in the fluid level, stop the engine and repeat Steps 4.3 to 4.7.**
- 4.8. Check the fluid level at idle speed. If the fluid level is still dropping, keep topping up until the fluid level remains constant in the reservoir.

If the oil level drops to the bottom of the reservoir, or if a lot of air bubbles rise to the surface and/or a significant amount of foam forms in the reservoir, air is still present in the hydraulic system. It is quite normal for a few air bubbles to appear in the reservoir immediately after topping up.

- 4.9. Fit cap with dipstick.
- 4.10. Now bleed the PDCC system.
5. Bleed the PDCC system. → **430307 BLEEDING PORSCHE DYNAMIC CHASSIS CONTROL (PDCC)**
6. Install rear spoiler, air cleaner housing and engine-compartment blower.
 - **Installing rear spoiler**
 - **Installing air cleaner housing**
 - **Installing engine-compartment blower**

WM 430819 REMOVING AND INSTALLING PDCC CONTROL UNIT (CARRERA 4, CARRERA 4S, TURBO, CARRERA 4 GTS, TURBO S, TARGA 4, TARGA 4S, TARGA 4 GTS, CARR. 4 CABRIO, CARR. 4S CABRIO, TURBO CABRIO, CARR. 4 GTS CABRIO, TURBO S CABRIO,)

TOOLS

Designation	Type	Number	Description	Â
PIWIS Tester II	Special tool	9818	Â	

TECHNICAL VALUES

Location	Description	Type	Basic value	Tolerance 1	Tolerance 2
PDCC control unit to body	Plastic nut	Tightening torque	2 Nm (1.5 ftlb.)	Â	Â
Control unit for all-wheel drive (PTM) to holder	M6 screw	Tightening torque	2 Nm (1.5 ftlb.)	Â	Â

PRELIMINARY WORK

1. Remove trim panel for tool kit and luggage compartment lamp. → **Removing front luggage compartment trim panel (luggage compartment liner)**
2. Fold trim panel for luggage compartment at the left aside. → **Removing front luggage compartment trim panel**