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## This bulletin supersedes Service Bulletin 09-003-19, dated October 10, 2019, which should be removed from your files. All revisions are highlighted with \*\*asterisks\*\* and include a Diagnostic Trouble Code (DTC) and additional discussion information.

## SUBJECT:

3.0L Oil Filter Cartridge Identification Differences And Oil Filter Element Servicing Procedure

### **OVERVIEW**:

\*\*This bulletin outlines the correct procedure for changing an oil filter on a 3.0L diesel to prevent engine damage.\*\* The bulletin also highlights the design differences in the oil filter cartridges used in the GEN-2 and GEN-3 3.0L diesel. As well as potential issues that can arise should the incorrect filter be used in each application.

### **MODELS**:

2020	(DT)	RAM 1500 Pickup
2020	(JL)	Jeep Wrangler
2014 - 2019	(DS)	RAM 1500 Pickup
2014 - 2019	(WK)	Jeep Grand Cherokee

NOTE: This bulletin applies to vehicles within the following markets/countries: North America and EMEA.

NOTE: This bulletin applies to the following:

- DT vehicles equipped with a 3.0L V6 Turbo Diesel Engine GEN 3 (Sales Code EXH).
- JL vehicles equipped with a 3.0L V6 Turbo Diesel Engine W/ESS G3 (Sales Code EXJ).
- DS vehicles equipped with a 3.0L Turbo Diesel Engine (Sales Code EXF).
- WK vehicles equipped with a 3.0L Turbo Diesel Engine (Sales Code EXF) or a 3.0L Turbo Diesel Engine W/ESS (Sales Code EXN).

### SYMPTOM/CONDITION:

Although similar in design, the oil filter cartridges used on the GEN-2 and GEN-3 3.0L diesel engines are different in design. Interchanging them may result in premature engine damage over time.

\*\*Customers with GEN-3 3.0L diesel engines may also experience a Malfunction Indicator Lamp (MIL) illumination if the oil filter cap is not tightened to 25 N·m (18 ft. lbs or 221 in. lbs). Upon further investigation the technician may find the following DTC has been set:

• P0524 - Engine Oil Pressure Too Low (DT and JL Vehicles Only).\*\*

## DISCUSSION - OIL FILTER CARTRIDGE SERVICING PROCEDURE:

\*\*Incorrect oil filter removal can cause contamination of the clean oil passage in the filter housing and promote a bearing failure shortly after the oil has been changed.

Follow the procedure below to correctly change an oil filter on a 3.0L diesel.

- 1. Start the engine and warm up the engine oil. Shut engine off.
- Remove the engine cover. Refer to the detailed service procedures available in DealerCONNECT/Service Library under: Service Info>09 - Engine/Cover, Engine/Removal for DS and DT and 09 - Engine, 3.0L Turbo Diesel/Cover, Engine/Removal for JL and WK.

CAUTION! Clean all dirt off of the anti spill lip before opening the filter cap. Failure to do so may result in debris entering the engine and causing bearing failure.

3. Clean all the dirt off of the anti spill lip of the filter housing **(if equipped)** (Fig. 1). If not equipped, proceed to Step 4 of the Repair Procedure.



Fig. 1 Dirty Anti Spill Lip (If Equipped)

NOTE: Do not completely remove the cap and cartridge at this time.

4. Open the filter cap approximately six turns until the cap O-ring is visible (Fig. 2) and stop. This will allow air into the filter housing for proper drainage.



Fig. 2 Filter Cap With Exposed Cap O-Ring

- CAUTION! Five minutes must be allowed for dirty engine oil to drain back into the sump to prevent contaminated oil from entering the clean oil passages. Failure to do so may result in engine damage.
- 5. With the cap loosened but not removed, allow five minutes for the engine oil to drain from the filter housing into the sump.
- CAUTION! The GEN-3 design filter is designed to be replaced as a set. DO NOT remove the oil filter cartridge from the cap when servicing any oil filter on a GEN-3 engine. Failure to do so may result in damage to the oil filter cartridge or cap.
- 6. **GEN-2 oil filter cartridges only,** remove the filter cap and oil filter cartridge by holding the oil filter cap, pushing down on the filter cartridge base to separate it from the cap and remove the oil filter cartridge.

## For GEN-3 oil filter and cartridge assemblies, proceed to Step 7.

- 7. Remove and discard the cap O-ring and clean the filter cap.
- 8. Lubricate and install a new oil filter cap O-ring with clean engine oil. Ensure the O-ring is installed in the correct location on the oil filter cap.
- 9. Install the new filter cartridge into the oil filter cap.

## CAUTION! DTC P0524 may be set if the oil filter cap is not tightened properly.

- 10. Install the oil filter cap and tighten to 25 N⋅m (18 ft. lbs or 221 in. lbs). Ensure that the flange on the cap is fully seated on the housing.
- 11. Start the engine and inspect the oil filter cap for leaks.
- 12. Stop the engine, wait five minutes and then check the oil level.
- 13. Verify oil level is at the proper specifications.
- Install the engine cover. Refer to the detailed service procedures available in DealerCONNECT/Service Library under: Service Info>09 - Engine/Cover, Engine/Installation for DS & DT or 09 - Engine, 3.0L Turbo Diesel/Cover, Engine/Installation for WK.\*\*

## DISCUSSION - GEN-2 AND GEN-3 - 3.0L OIL FILTER CARTRIDGE IDENTIFICATION DIFFERENCES:

There are two generations of the 3.0L V6 diesel engine found in our vehicles today. The Generation 2 or GEN-2 as it is most commonly referred to, is found in 2014 - 2019 WK (Jeep Grand Cherokee) and DS RAM 1500 Classic) vehicles, while the Generation 3 or GEN-3, is found in the 2020 and newer DT (RAM 1500) and JL (Wrangler).

There are several design changes between the GEN-2 and GEN-3 engines, including the oil filter cartridge. These filters are similar in appearance, however they are different in design and can lead to engine damage should the incorrect filter be used in each engine.

# CAUTION! The GEN-3 design filter is designed to be replaced as a set. DO NOT remove the oil filter cartridge from the cap when servicing any oil filter on a GEN-3 engine. Failure to do so may result in damage to the oil filter cartridge or cap.

The key differences between GEN-2 and GEN-3 engine oil filter cartridge assemblies \*\*(Fig. 3) \*\* include the GEN-2 oil filter cartridge is replaced separate from the cap. While the GEN-3 is meant to be replaced as a cap and cartridge in one assembly. **Do not attempt to separate the oil filter cartridge from the GEN-3 cap.** 



Fig. 3
\*\*Physical Differences In GEN-2 And GEN-3 Oil Filter Cartridges\*\*

**POLICY:** Information Only.