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**GROUP:** 09 - Engine

**DATE:** March 1, 2022

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## SUBJECT:

Yellow Warning Labels on the 3.0L Diesel Engines Cylinder Head Covers

#### **OVERVIEW:**

This bulletin outlines the correct procedure for all the repairs that involve:.

- Fuel Injector(s).
- Cylinder head(s).
- Cylinder head cover(s).

The engine may have a yellow warning label applied to the plastic cylinder head cover to alert the technician special procedures required for Injector Removal/Install. Failure to follow the procedure can result in excessive engine soot.

### **MODELS:**

2022	(JT)	Jeep Gladiator
2022	(DT)	RAM 1500 Pickup
2022	(JL)	Jeep Wrangler

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

NOTE: This bulletin applies to the listed vehicles:

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

## SYMPTOM/CONDITION:

If specific yellow warning labels (Fig. 1) are applied on engine cylinder head cover(s), follow the procedures reported in this bulletin.

During the following repairs:

- Fuel injector(s) replacement, removal and installation.
- · Cylinder head replacement
- Cylinder head cover replacement.

09-003-22 -2-

## **DISCUSSION:**

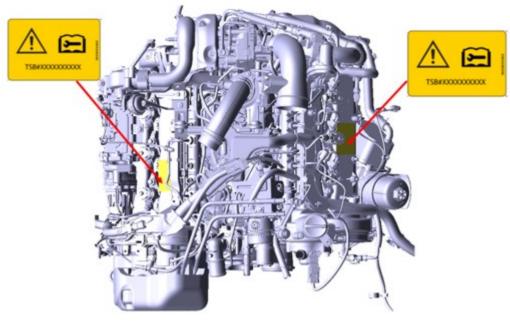


Fig. 1 Yellow Labels

NOTE: The yellow labels on the cylinder head covers (Fig. 1), alerts that the fuel injector(s) are installed with two washers, standard copper and a thinner stainless steel between the injector and copper shim.

NOTE: The label may be present on the left, right, or both cylinder heads. Only follow the repairs outlined in this bulletin on cylinder banks that have this label.

If the stainless stainless steel washer isn't present at injector removal, Do not install this additional washer (Fig. 2) .

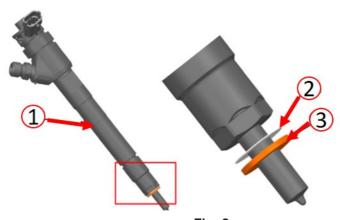


Fig. 2 Fuel Injector

- 1 Fuel Injector
- 2 Stainless Steel Washer
- 3 Copper Shim

NOTE: The fuel sealing is assured by the copper shim and the injector seat in the cylinder head. The upper stainless steel shim washer does not have sealing function (Fig. 2).

# FUEL INJECTOR(S), REMOVAL AND INSTALLATION (LEFT AND RIGHT BANK)

NOTE: The fuel injector are installed with two washers, standard copper and another thinner stainless steel between injector and copper shim. If the stainless steel washer isn't present, Do Not install an additional washer (Fig. 2).

## **REMOVAL**

- 1. Follow the Fuel Injector service procedure. Refer to the detailed service procedures available in DealerConnect> Service Library under: Service Info>09 Engine, 3.0L Turbo Diesel / Fuel Injection / Injector(s), Fuel / Removal and Installation> Right or Left Bank.
- 2. When the fuel injector is removed, discard the lower sealing copper shim (Fig. 2) .
- 3. Remove the stainless steel washer, clean it with a lint-free cloth (this washer is reusable), reinstall it onto the fuel injector and place a protective cap over the nozzle and injector bore (Fig. 2).

NOTE: The stainless steel washer is reusable, but if it is not possible to clean it properly, or it is lost it must be replaced.

#### INSTALLATION

- 1. Follow the Fuel Injector service procedure. Refer to the detailed service procedures available in DealerConnect> Service Library under: Service Info>09 Engine, 3.0L Turbo Diesel / Fuel Injection / Injector(s), Fuel / Removal and Installation> Right or Left Bank.
- 2. Verify that the stainless steel washer is reinstalled onto the fuel injector (Fig. 2).
- 3. Install a NEW copper sealing shim onto the fuel injector (Fig. 2).

# FUEL INJECTOR(S), REPLACEMENT

NOTE: New fuel injector(s) are equipped only with standard copper shim (Fig. 2).

NOTE: Before installing the fuel injector(s) in the cylinder head, the correct sequence of the washers must match with (Fig. 2).

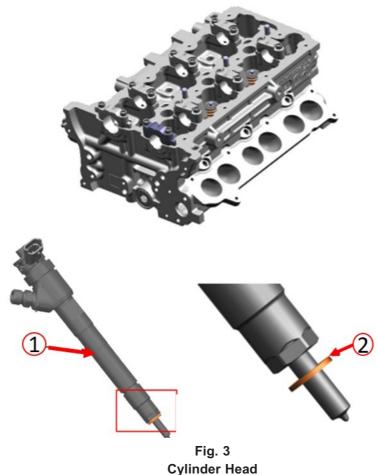
If fuel injector(s) need to be replaced with a new one, follow this procedure:

- 1. Ensure that the new fuel injector(s) came with a new copper sealing shim.
- 2. Remove the new copper shim from the new fuel injector(s).
- 3. Install the stainless steel washer onto the new fuel injector, and reinstall the new copper shim.
- 4. Install the fuel injector in the cylinder head.

09-003-22 -4-

## CYLINDER HEAD(S), REPLACEMENT

NOTE: When replacing a cylinder head on the bank that contains the yellow label, it will be necessary to discard the stamped steel washer from the fuel injector, and remove the label from the cylinder head cover.



- 1 Fuel Injector
- 2 Copper Shim

NOTE: New fuel injector(s) are equipped only with standard copper shim, and if new fuel injector(s) is installed in a new cylinder head, the stainless steel shim washer does not have to be used (Fig. 3).

If cylinder head(s) are being replaced on a bank that has the yellow label, follow the following procedure:

- 1. If the fuel injectors will be reinstalled, during the injector removal discard both copper and stainless steel washers (Fig. 3).
- 2. When the fuel injector(s) are re-installed in the new cylinder head follow exactly the Service procedure, Install a NEW copper sealing shim onto the fuel injector, and Do Not add the stainless steel washer between injector and copper shim (Fig. 3).
- 3. Remove the yellow label from the cylinder head cover only on the bank with new head being replaced.

# CYLINDER HEAD COVER REPLACEMENT ONLY

# NOTE: The new cylinder head cover does not have the yellow label.

If the cylinder head cover has to be replaced, follow the procedure:

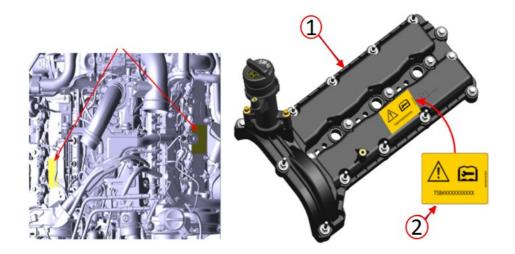


Fig. 4
Yellow Label on Cylinder Head Cover

- 1. Order a yellow label (Fig. 4).
- 2. Clean the area of the cylinder head cover to allow a proper bonding of the label (Fig. 4) .

09-003-22 -6-

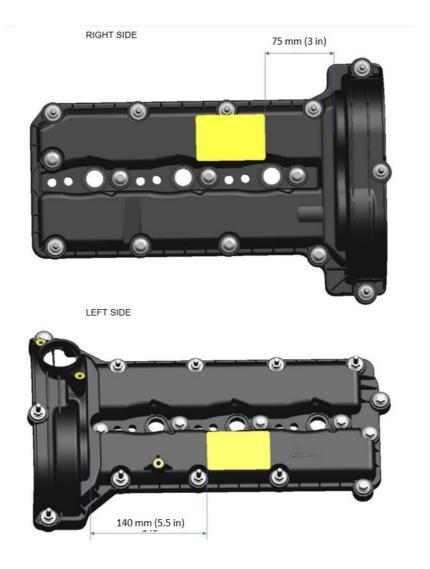


Fig. 5 Yellow Label Placement

3. Attach the label on the cylinder head cover according with the dimension reported in (Fig. 5) .

# **POLICY**:

Information Only