

03/06/2024
CAL FTL/WS 20-005

**Subject: ESOC Corporation is not Able to Fulfill
Orders**

**Models Affected: New Cascadia, Western Star 47X, Western Star
57X with a Detroit engine built between August 1, 2023 through
December 13, 2023.**

Our records indicate that you are the owner of a New Cascadia, Western Star 47X, or Western Star 57X with a Detroit engine; therefore, DTNA has decided to share the following documentation with you.

Please see the attached communication in this email. We hope you find this information helpful.

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General Information

Due to supply chain constraints the ESOC Corporation has not been able to fulfill orders for their product offered on Detroit Diesel engines. As a result, Detroit Diesel has been unable to fulfill customer orders previously placed with the ESOC feature. Additional orders for this feature on Detroit Diesel products have been suspended until the ESOC Corporation is able to stabilize their supply chain constraint and is able to resume supply of their proprietary components in a quantity that will fulfill customer demands without future interruptions.

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Work Instructions

Removal of the Oil Coolant Module Plug

See [Table 1](#) for service tools used in this procedure.

Service Tools


Tool Number	Tool Name	Tool Graphic
DSN470E19014	Oil Module Plug Socket	 <small>4580307</small>

Table 1: Service Tools

1. Park the vehicle on a level surface, shut down the engine, and set the parking brake. Chock the tires.



WARNING:

PERSONAL INJURY

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

- Always start and operate an engine in a well-ventilated area.
- If operating an engine in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system or emission control system.



WARNING:

PERSONAL INJURY

- To avoid injury before starting and running the engine, ensure the vehicle is parked on a level surface, parking brake is set, and the wheels are blocked.



WARNING:

ENGINE EXHAUST

- To avoid injury from inhaling engine exhaust, always operate the engine in a well-ventilated area. Engine exhaust is toxic.



CAUTION:

ELECTRICAL SHOCK

- To avoid injury from electrical shock, use care when connecting battery cables. The magnetic switch studs are at battery voltage.

2. Disconnect the batteries.

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3. Open the hood.
4. If necessary, remove the bumper for access. Refer to Original Equipment Manufacturer (OEM) procedures.

NOTICE: Use care to prevent foreign objects from entering the oil filter module.

5. If necessary, reposition the oil dipstick tube by removing the attachment hardware to gain clearance for the lower oil dipstick tube bracket.
6. If necessary, remove the bolt that secures the lower oil dipstick tube bracket to the cylinder block. Reposition the bracket to gain clearance for oil coolant module plug removal.

NOTICE: Engine oil can be used again if it is not contaminated and has been properly maintained.

7. Place a suitable oil-capturing device under the oil coolant module.

NOTE: To reduce the risk of damage to the plug, it is important to fully engage the socket with the oil coolant module plug.

8. Using oil module plug socket DSN470E19014, remove the bottom plug from the oil coolant module housing and allow oil to drain into the oil-capturing device. See [Fig. 1](#).

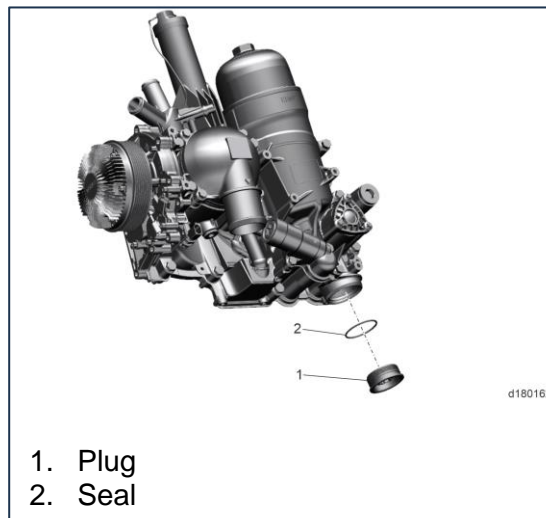


Fig. 1, Removal of Oil Coolant Module Plug

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Installation of the ESOC Oil Drain Reducer and Hose

1. Remove the elbow fitting from the oil drain reducer and thread the reducer with O-ring into the oil coolant module by hand. Tighten the reducer 36 lb-ft (50 N·m).
2. Install the elbow fitting into the reducer by hand. Then adjust the fitting facing forward.
3. If removed, install the bolt securing the lower oil dipstick bracket to the cylinder block. Tighten the bolt 103 lb-ft (140 N·m).
4. If removed, reposition the oil dipstick tube and install the attachment hardware.
5. Remove the thread cap from the drain hose. Thread the hose into the elbow fitting by hand. Tighten the hose 29 lb-ft (39 N·m).
6. Install the hose bracket to the cylinder block with the alignment tab facing forward. Using an M8 X 16 screw, secure the bracket. Tighten the bracket 22 lb-ft (30 N·m).
7. Position the drain hose at the bracket, ensuring it does not contact any other parts. Using an M8 X 16 screw, secure the hose. Tighten the clamp 22 lb-ft (30 N·m).
8. Tighten the elbow fitting locknut 29 lb-ft (40 N·m). See [Fig. 2](#).

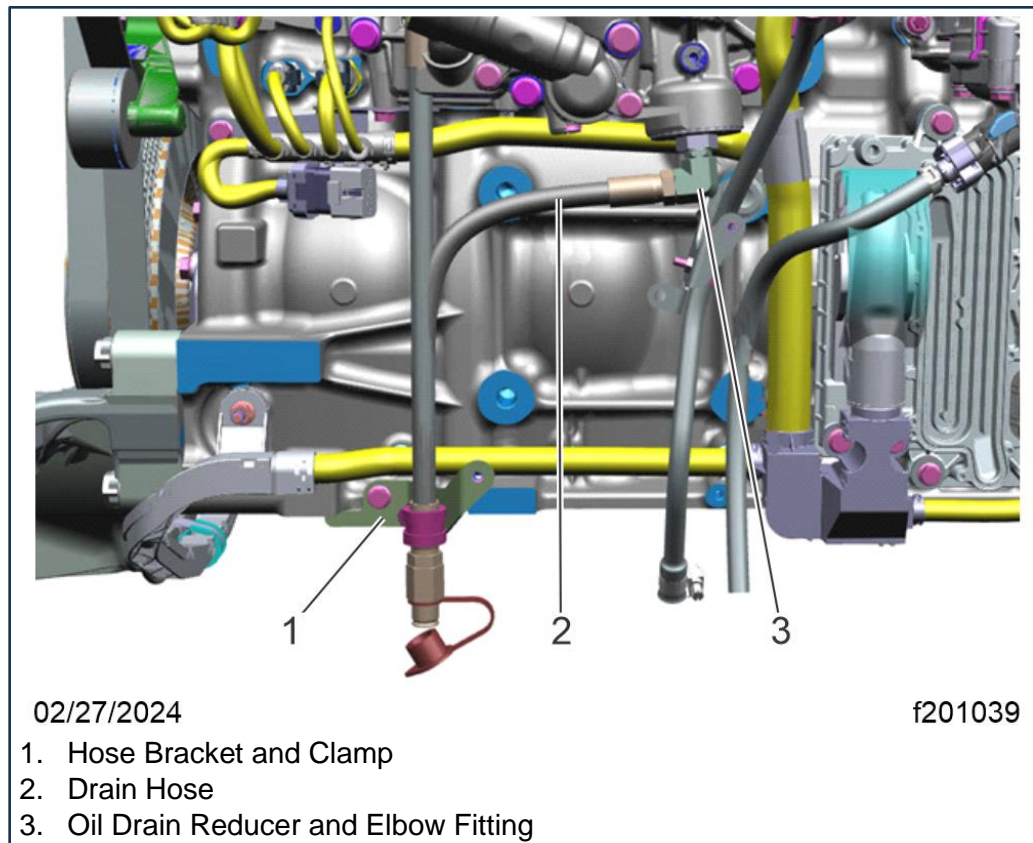


Fig. 2 Installation of the ESOC Oil Drain Reducer and Hose

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Installation of the Oil Drain Valve

NOTICE: Engine oil can be used again if it is not contaminated and has been properly maintained.

1. Place a suitable drain pan, 50 qt (47 L) or more, under the oil pan.

NOTICE: Do not use any power or air tools on the oil drain plug while performing maintenance or repairs. These tools can damage the oil pan.

NOTE: The oil pan contains multiple plugs that can be used for various options and applications. The oil drain plug is the lowest plug on the oil pan.

2. Carefully unscrew the oil drain plug and allow oil to drain out. Remove the oil drain plug seal washer.
3. Remove the thread cap and dust cap from the oil drain valve.
4. Install the drain valve with copper washer into the oil pan, replacing the original drain plug. Tighten 33 lb-ft (45 N·m). Install the dust cap. See **Fig. 3**.

NOTICE: Engine oil can be used again if it is not contaminated and has been properly maintained.

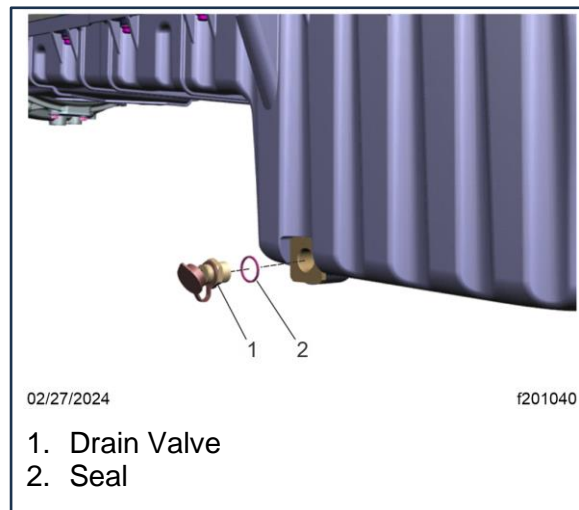


Fig. 3 Installation of the Oil Drain Valve

5. Refill the engine with lubricating oil. [Refer to section "Engine Oil Capacities"](#).



CAUTION:

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6. Connect the batteries.

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ENGINE EXHAUST

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7. Start the vehicle and check for oil leaks.
8. If removed, install the bumper. Refer to Original Equipment Manufacturer (OEM) procedures.
9. Close the hood.