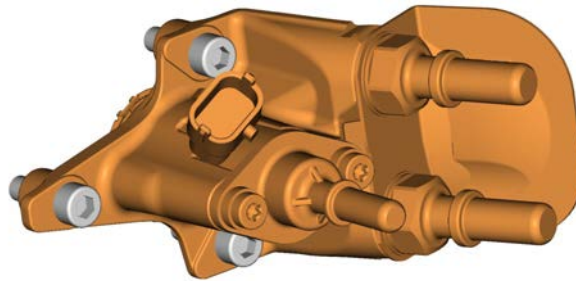




Date	Group	No.	Release	Page
5.2010	258	73	01	1(10)

Aftertreatment Diesel Exhaust Fluid
(DEF) Dosing Valve
Replacement
LEU, MRU

Aftertreatment Diesel Exhaust Fluid (DEF) Dosing Valve, Replacement



W2054160

This document provides the service procedures for the replacement of the Aftertreatment Diesel Exhaust Fluid (DEF) Dosing Valve on the LEU and MRU chassis.

Contents

- “Special Tools”, page 2
- “Dosage Unit, Replacement”, page 3

Note: Information is subject to change without notice. Illustrations are used for reference only, and may differ slightly from the actual vehicle being serviced. However, key components addressed in this information are represented as accurately as possible.

Tools

Special Tools

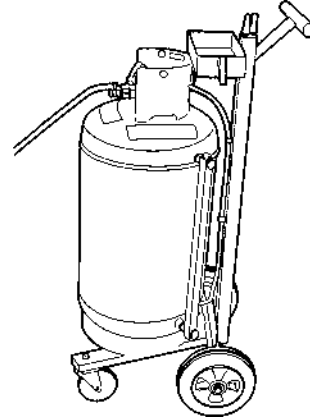
For special tools ordering information, refer to Tool Information, Group 08.



W0001795

9996049

Coolant Drain Hose



W2004191

85112740

Coolant Extractor

Service Procedures

2585-03-02-01

Dosage Unit, Replacement

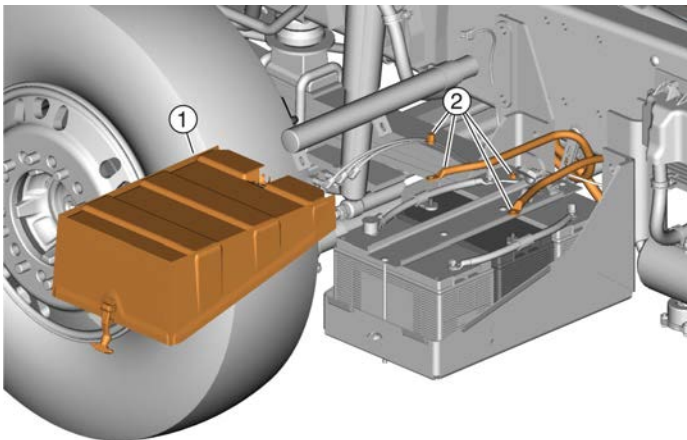
You must read and understand the precautions and guidelines in Service Information, Group 20, "General Safety Practices, Engine" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

Special tools: 85112740, 9996049

Removal

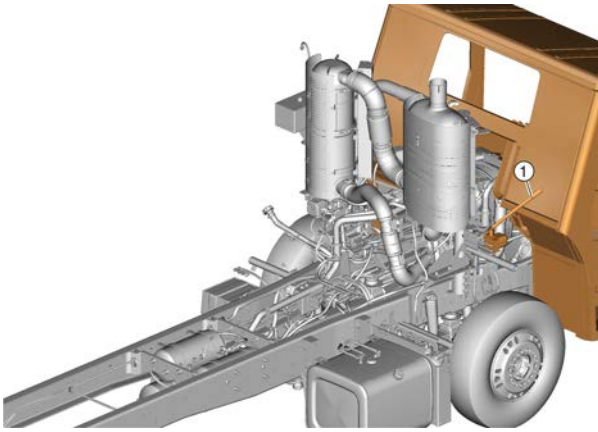
1
Apply the parking brake and place the shift lever in neutral.

2
Remove the battery box cover and disconnect all cables from the ground (negative) battery terminals to prevent personal injury from electrical shock.



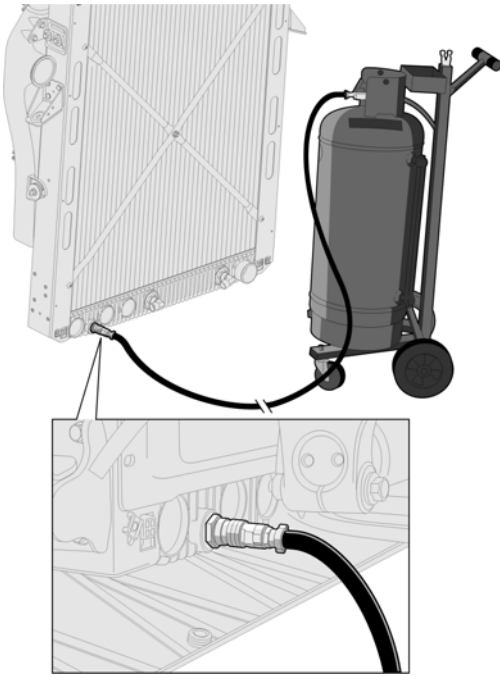
W3055602

- 1 Battery Box Cover
- 2 Ground (Negative) Battery Cables/Terminals



W2055601

1 Pump



W0055715

3

Secure any loose items in the cab to prevent damage to the dash or windshield when the cab is tilted. Unlock the pump and tilt the cab forward.

4

Connect the coolant extractor to the drain fitting at the bottom of the radiator and drain the coolant.

Note: An alternate method is to connect a coolant drain hose to the radiator drain fitting and drain the coolant into a suitable container.

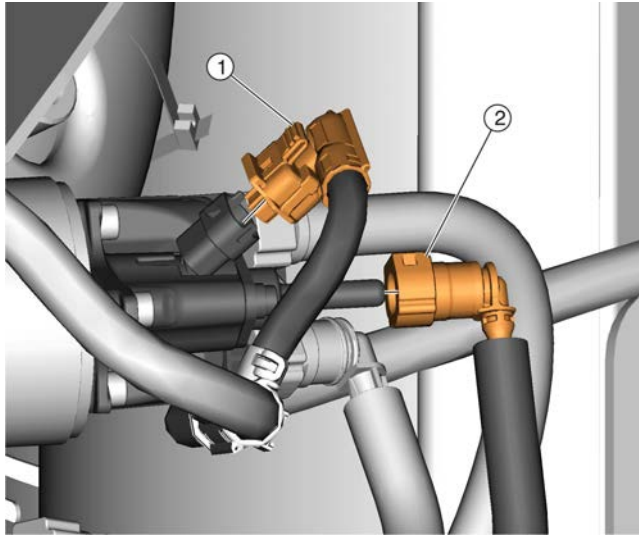
 **DANGER**

Coolant is toxic; risk of poisoning. Do not drink coolant. Use proper hand protection when handling. Keep coolant out of reach of children and animals. Failure to follow these precautions can cause seriously illness or death.

85112740, 9996049

5

Label the coolant lines connected to the DEF dosing valve to aid in reassembly.



W2055614

- 1 Electrical Connector
- 2 Aftertreatment DEF Line

6

! WARNING

Aftertreatment DEF is an irritant. Contact with DEF can irritate the skin and eyes. Inhaling DEF mist can cause lung irritation. Avoid DEF contact with skin and eyes. Avoid breathing mist created by DEF spray.

! WARNING

When disconnecting hoses and components, do not spill DEF onto separated connectors. If this occurs, replace the connectors **immediately**. Cleaning with water or compressed air will not help as the DEF quickly oxidizes metal and, due to capillary action, “creeps” along cabling at a speed of about 0.6 meters/hour.

Push the quick connect fitting coupling in the ON direction, squeeze the holding clip lugs on either side of the connector and pull to disconnect the DEF line from the dosing valve. Cover the DEF line with a plastic bag and secure the bag with a tie wrap to prevent spillage on nearby components.

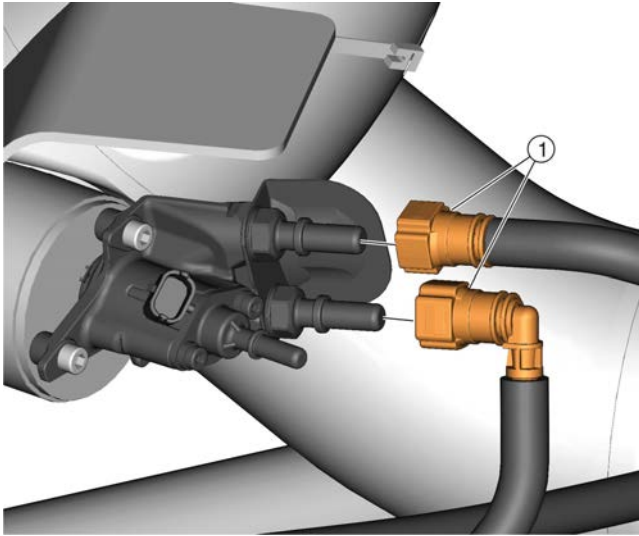
Note: If the aftertreatment DEF line will remain open for an extended period of time, seal the opening to prevent crystallization of fluid in the line.

! CAUTION

Do not use pliers or other tools to release the connector. Tools can damage the retention mechanism and prevent proper sealing when reinstalled. Connectors and lines damaged by improper removal will not be covered under warranty.

7

Disconnect the electrical connector and position away from the aftertreatment DEF dosing valve. Cover the connector with a plastic bag and secure the bag with a tie wrap to protect it from DEF.



W2055615

1 Coolant Lines

8

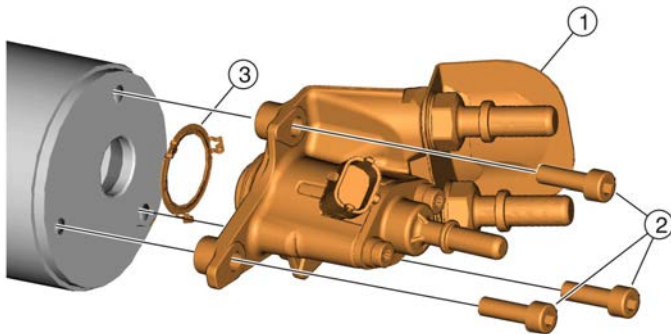
Push the quick connect fitting coupling in the ON direction, squeeze the holding clip lugs on either side of the connector and pull to disconnect the coolant lines from the dosing valve.

CAUTION

Do not use pliers or other tools to release the connector. Tools can damage the retention mechanism and prevent proper sealing when reinstalled. Connectors and lines damaged by improper removal will not be covered under warranty.

CAUTION

Do not clamp nylon coolant lines. Clamps will damage nylon lines.



W2055616

1 Aftertreatment DEF Dosing Valve

2 Fasteners

3 Gasket

9

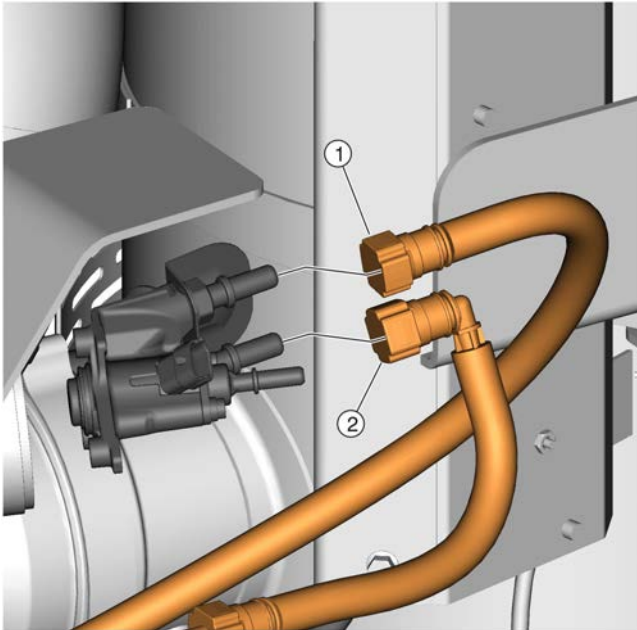
Remove and discard the aftertreatment DEF dosing valve fasteners. Remove the aftertreatment DEF dosing valve from the exhaust pipe.

Note: If the dosing valve will be reused, use plug kit 21376772 to cap the coolant and DEF valve fittings to prevent contamination and crystallization of DEF in the valve.

10

Remove and discard the aftertreatment DEF dosing valve gasket.

Installation

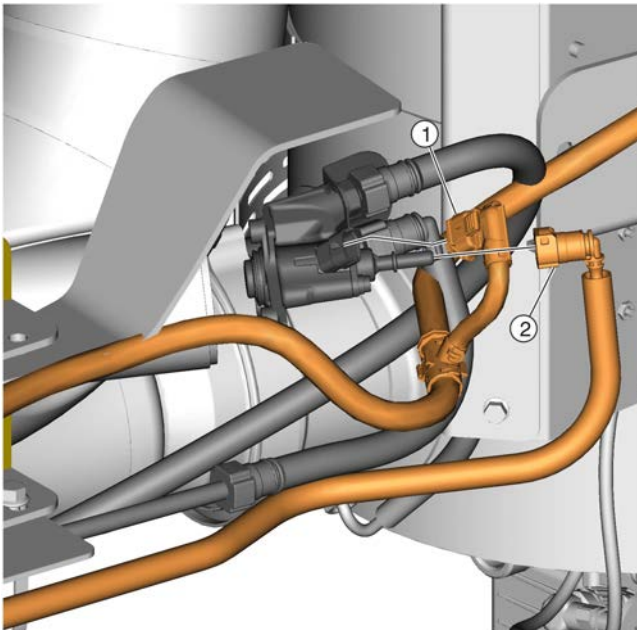


W2056416

- 1 Coolant Line (Inlet)
- 2 Coolant Line (Outlet).

1

Verify the connector is clean and shows no signs of damage. Push the fitting onto the valve until it stops to reconnect the coolant lines to the aftertreatment DEF dosing valve. Pull the fitting in the OFF direction to ensure the connector is locked in place.



W2056417

- 1 Electrical Connector
- 2 Aftertreatment DEF Line

2

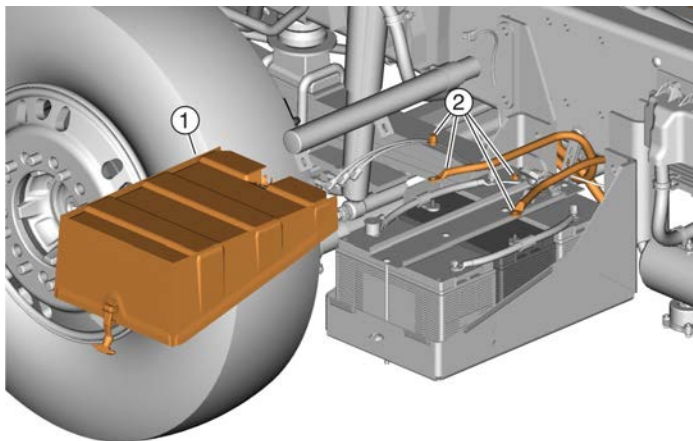
Remove the protective covering and connect the electrical connector to the aftertreatment DEF dosing valve.

3

Verify the connector is clean and shows no signs of damage. Remove the protective covering and push the fitting onto the valve until it stops to reconnect the DEF line to the aftertreatment DEF dosing valve. Pull the fitting in the OFF direction to ensure the connector is locked in place.

4

Install all previously removed cables to the ground (negative) battery terminals and install the battery box cover.



W3055602

1 Battery Box Cover

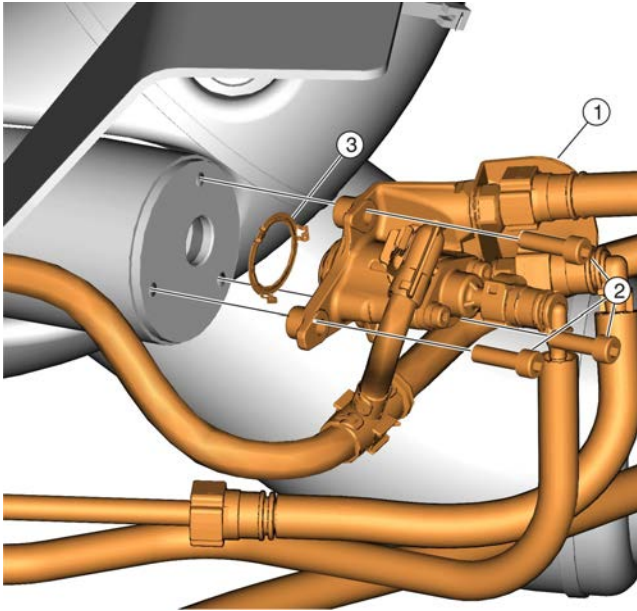
2 Ground (Negative) Battery Cables/Terminals.

5

Connect VCADS and clear any codes. Run SCR Dosing Test 1 in VCADS to fill the line and dosing valve with DEF. Check for any DEF leaks at the connection.

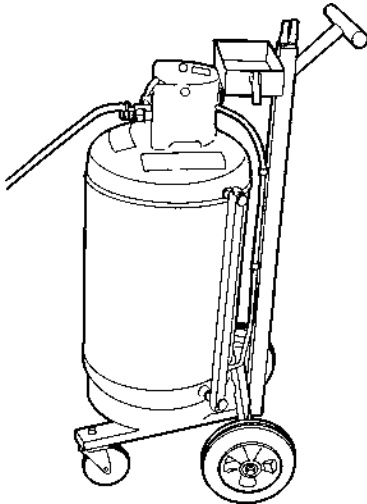
6

Clean the mounting surfaces on the exhaust pipe and the aftertreatment DEF dosing valve.



W2056098

- 1 Aftertreatment DEF Dosing Valve
- 2 Fasteners
- 3 Gasket



W2004191

7

Position a new gasket on the aftertreatment DEF dosing valve and install the valve on the exhaust pipe using new fasteners. Tighten the fasteners to specification.

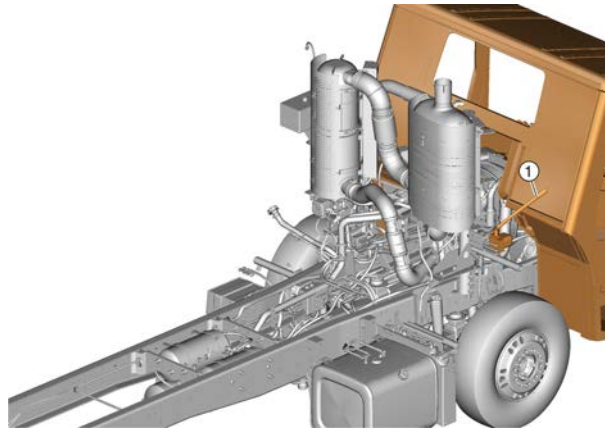
8

Fill the cooling system with the recommended coolant using the coolant extractor.

85112740

9

Clean any residual fluids from the dosing valve and lines. Start the engine and check for coolant leaks at the dosing valve. Run the DEF Tank Heating Valve Activation Test in VCADS to purge air from the coolant lines. Ensure coolant is at the correct level after test. Clear any codes as required. Replenish the engine coolant level as required.



W2055601

1 Pump.

10

Lower the cab to the closed and locked position.