



SB-10044078-3166

Date	Group	No.	Release	Page
3.2012	258	032	01	1(14)

Aftertreatment Diesel Exhaust Fluid (DEF) Filler Neck, Replacement

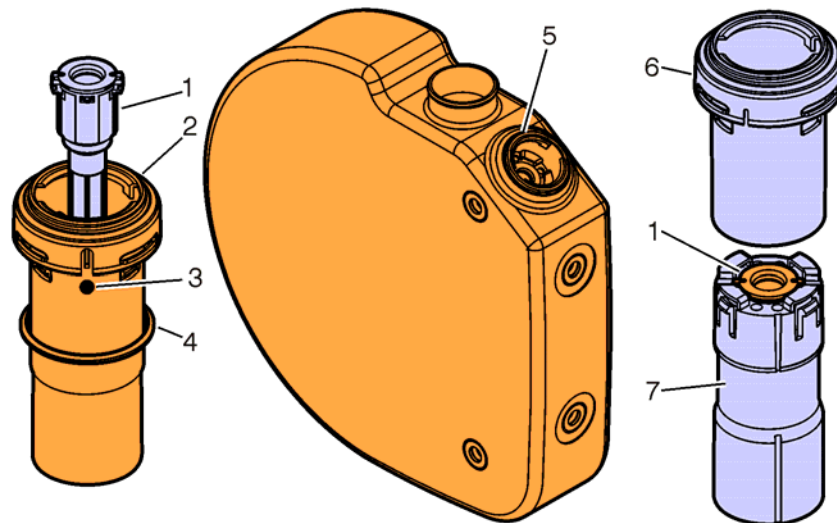
CHU, CXU, GU, TD, LEU, MRU

FSB 258-032, Aftertreatment Diesel Exhaust Fluid (DEF) Tank Filler Neck, Replacement

March 2012

MACK Trucks North America has identified an issue with the Diesel Exhaust Fluid (DEF) tank filler neck inlet falling into the bottom of DEF tanks on CHU, CXU, GU, TD, LEU, and MRU trucks equipped with an aftertreatment system. The truck operator is unable to fill the DEF tank with the magnetic filler neck filter and inlet in the bottom of the tank. The magnetic filler neck filter activates the DEF pump when the pump nozzle is inserted in the filler neck of the DEF tank. Two tank filler neck setups are currently available on the affected trucks. A kit is available for replacement of the snap neck filler inlet containing an assembled snap neck inlet with the inner portion and a replacement o-ring. The parts are fixed together with a stainless steel rivet to prevent the filler neck inlet from falling into the DEF tank. A replacement tank with an improved filler neck is available for replacing an entire welded neck filler tank.

Note: This bulletin does not apply to MACK Trucks Australia.



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Aftertreatment DEF Filler Neck Components		
Item	Qty	Part Descriptions
1	1	Filler Neck Filter, Magnetic
2	1	Assembled Snap Neck Filler Inlet With Inner Portion of Filler Neck
3	1	Stainless Steel Rivet
4	1	O-Ring
5	1	DEF Fluid Tank with Welded Filler Neck
6	1	Old Filler Neck Snap Ring
7	1	Old Inner Portion of Filler Neck

Required Parts

Note: Welded filler neck tanks are replaced instead of repaired.

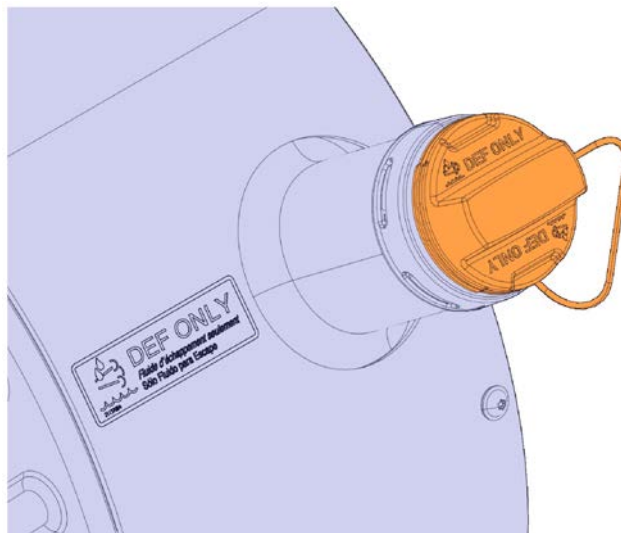
Note: Welded neck tank kits include the new inlet assembly and filler neck filter.

Aftertreatment DEF Filler Neck Inlet and Tank Replacement Kits				
Old DEF Tank	Inlet Type	New DEF Tank Kit	New Inlet Kit	Filter
21203885	Welded Neck	21839950	N/A	N/A
21332138	Snap Neck	N/A	21840784	82269261
21332143	Snap Neck	N/A	21840786	82269261
21332145	Welded Neck	21839994	N/A	N/A
21332147	Snap Neck	N/A	21840786	82269261
21339786	Welded Neck	21840002	N/A	N/A
21539608	Welded Neck	21840005	N/A	N/A

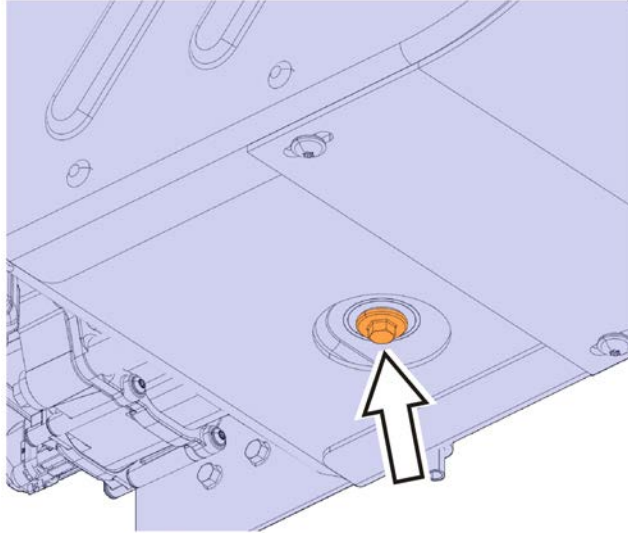
Procedure

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.

- 1 Raise hood, if applicable.
- 2 Remove the side fairing, if applicable.
- 3 Disconnect all cables from the negative (ground) battery terminals to prevent personal injury from electrical shock and prevent damage to electrical components.
- 4 Use coolant extractor/injector 85112740 to drain coolant from cooling system.
- 5 Remove the DEF filler cap.



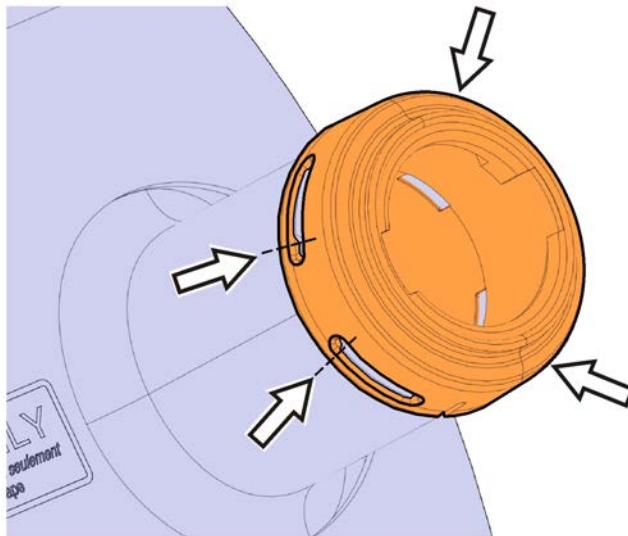
- 6 Remove drain plug from DEF tank and drain DEF fluid into a container.



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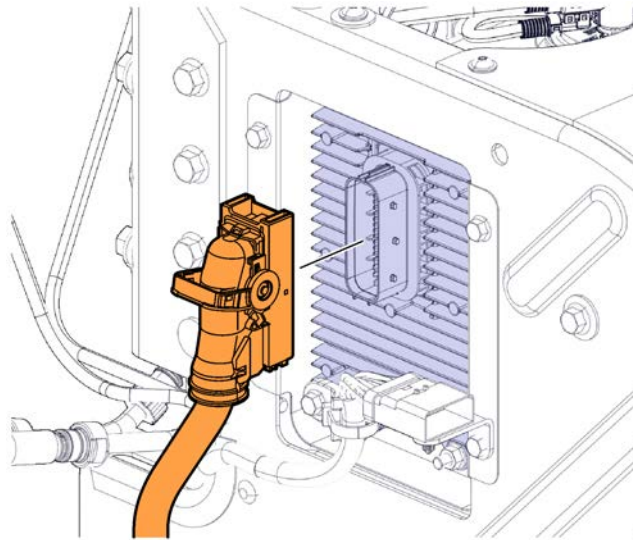
- 7 Cut the lock windows with side cutters, and remove the filler neck.

Note: Step 7 does not apply to DEF tanks with the welded filler neck.



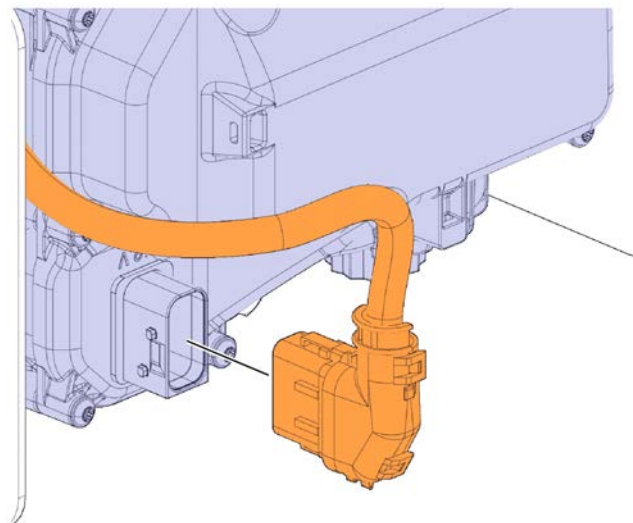
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- 8 Disconnect harness from Aftertreatment Control Module (ACM). Cover harness connector with a plastic bag to protect connector.



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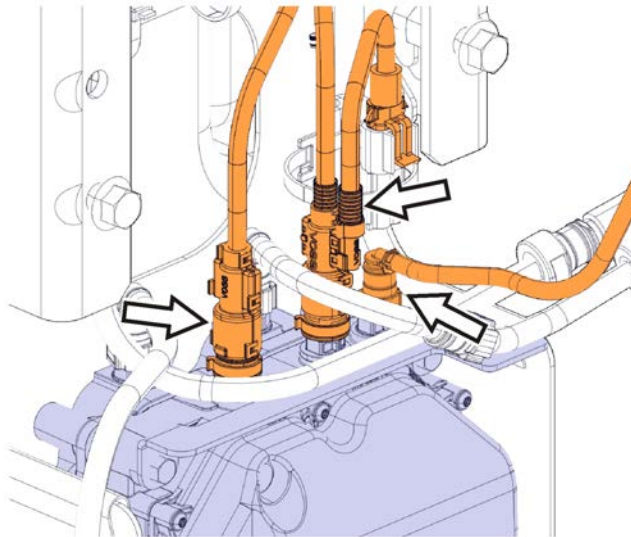
- 9 Disconnect harness from DEF pump. Cover harness connector with a plastic bag to protect connector.



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10 Place container under tank to catch any additional DEF fluid and/or coolant leakage.

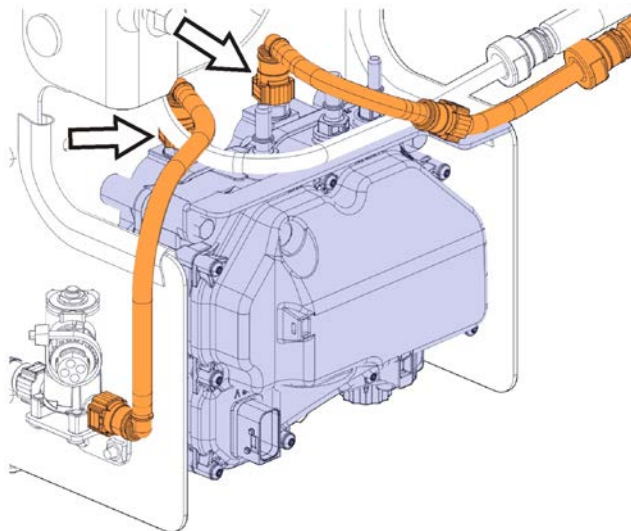
11 Disconnect DEF lines from DEF pump.



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12 Disconnect coolant lines from DEF pump.

Note: See steps 13 through 15 for removing a frame mounted DEF tank. After completion of step 15, skip to step 21.



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13 Remove DEF tank mounting fasteners from bracket bolts.

14 Position floor jack under DEF tank to support the weight of the tank.

15 Remove bolts from mounting bracket and remove DEF tank.

Note: See steps 16 through 20 for removing a fuel tank mounted (integrated) DEF tank. After completion of step 20, continue on with step 21.

16 Remove inner fender (front left side).

17 Remove left side inner fender lower mounting bracket.

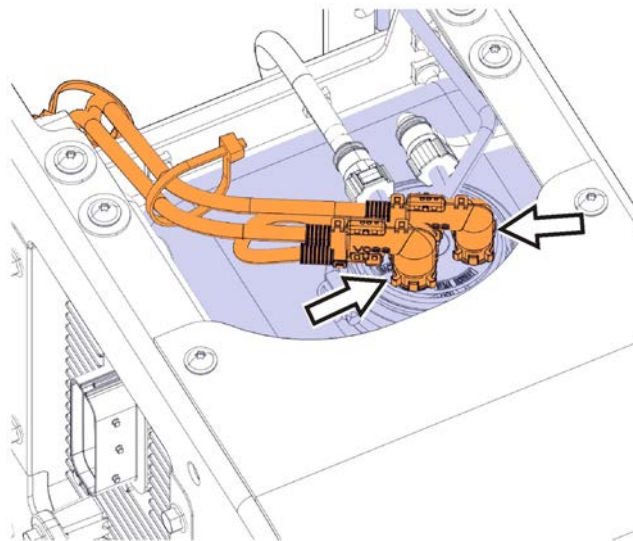
18 Remove pump and bracket assembly. Tie pump and bracket assembly out of the way.

19 Remove DEF tank mounting fasteners.

20 Remove DEF tank.

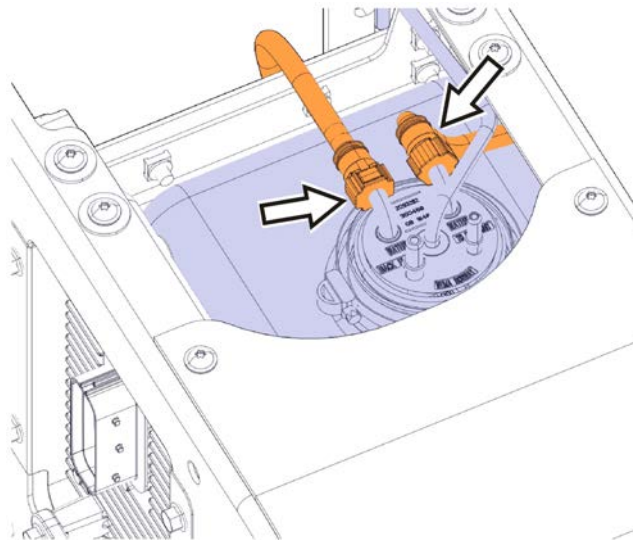
21 Remove DEF lines from level sensor.

Note: Mark the positions of lines before removal. The lines are different sizes.



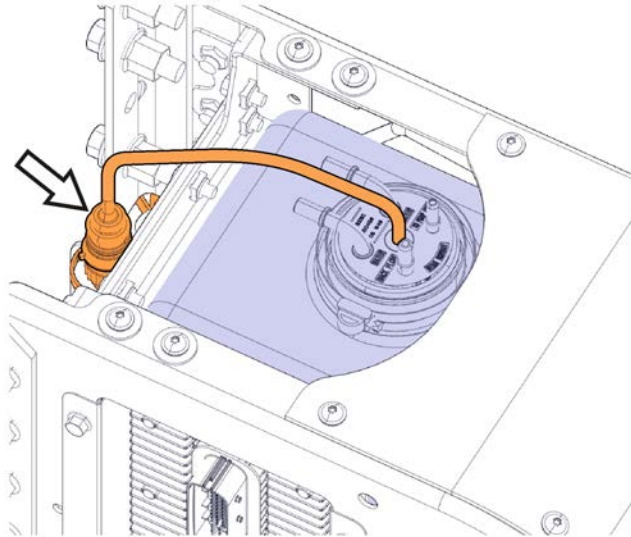
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22 Remove coolant lines from the level sensor.



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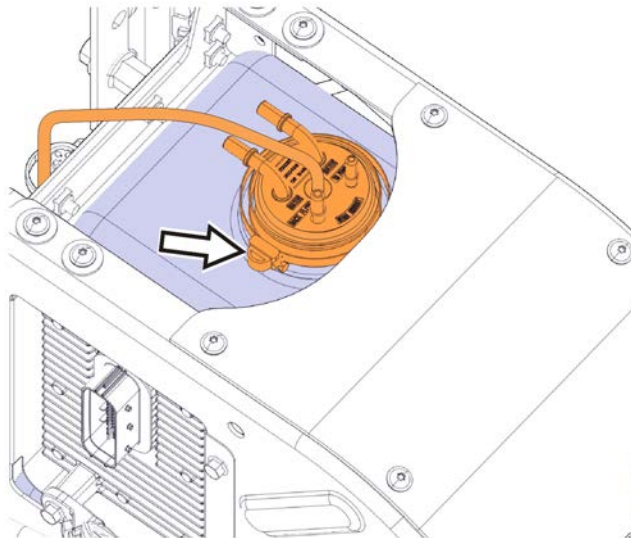
23 Disconnect level sensor harness. Cover harness connector with a plastic bag to protect connector.



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24 Loosen clamp and remove level sensor.

Note: Skip to step 27 for complete tank replacement of a welded neck DEF tank. See table on page 1 for the appropriate replacement tank part number.



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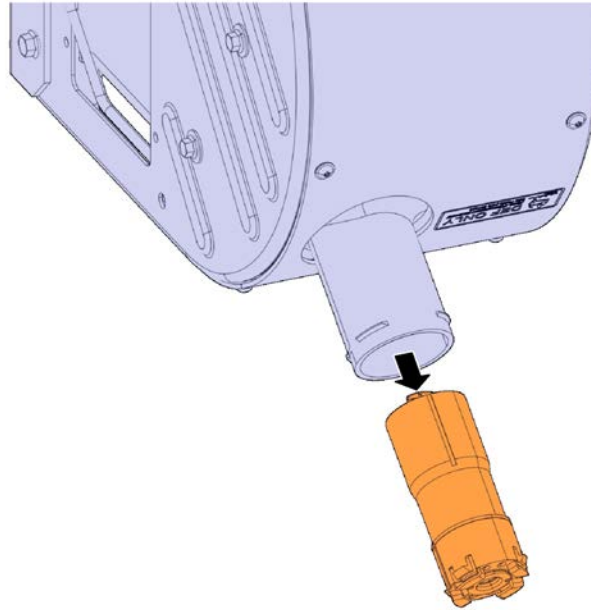
25 Remove the broken section of the filler neck and filler neck filter from the DEF tank through the filler neck opening. Remove filler neck filter from filler neck. Inspect filler neck filter and store for repair of an existing DEF tank if deemed reusable.

Note: Use the level sensor opening to help locate and remove the broken filler neck inlet section.

Note: Step 25 applies to repair of existing DEF tanks equipped with snap neck filler inlets.

Note: If filler neck filter is damaged, replace filter with a new one. See the table on page 2 for the appropriate filter part number.

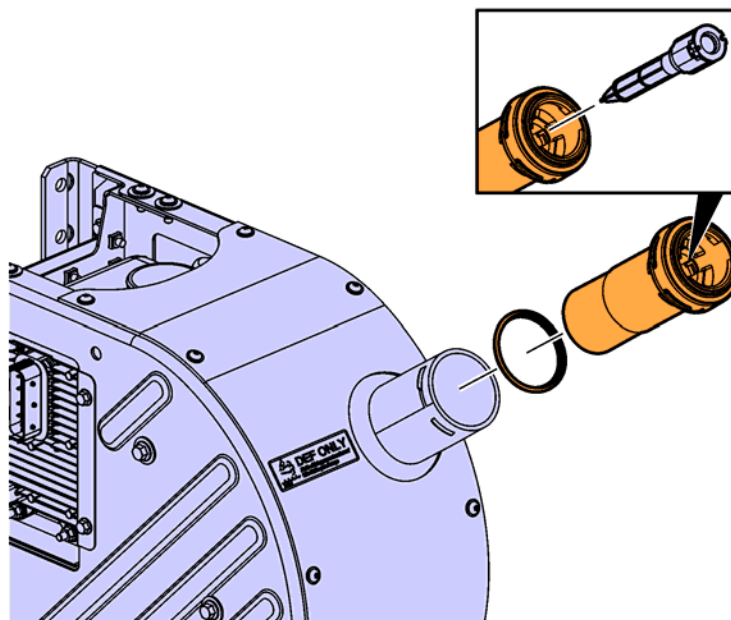
Note: See step 26 for installing the snap neck filler inlet.



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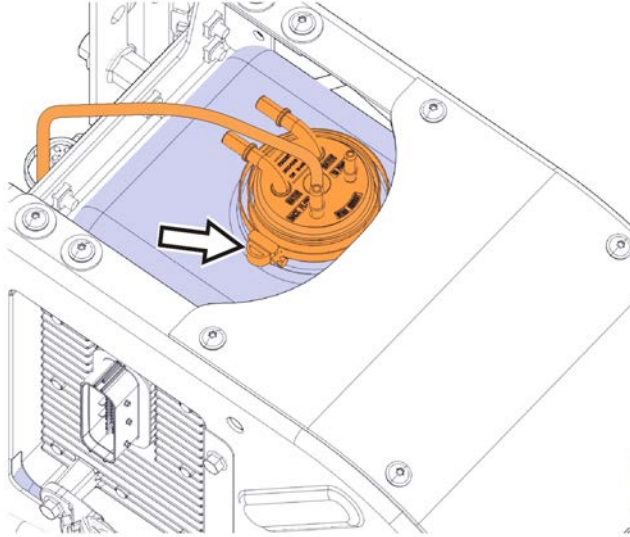
26 Install new snap neck filler inlet, new O-ring, and filler neck filter on existing DEF tank.

Note: Follow steps 27 through 30 for installation of frame mounted DEF tanks.



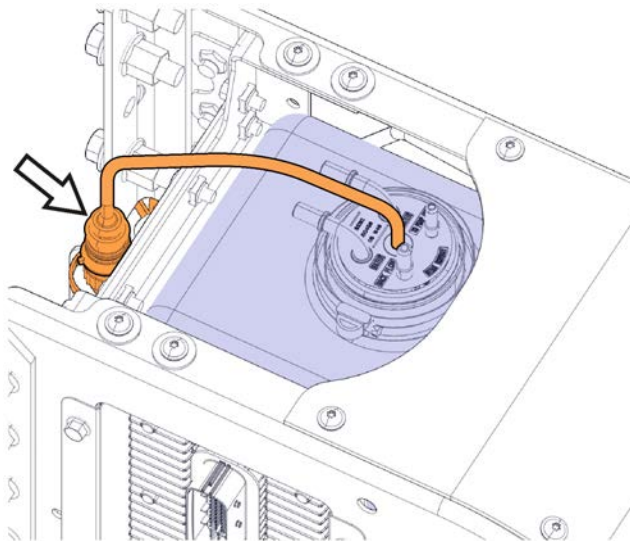
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27 Install level sensor on DEF tank and tighten clamp to $5 + 0.5$ Nm ($44 + 4$ in-lb).



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28 Connect level sensor harness.



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29 Use a floor jack to position and install DEF tank in brackets. Loosely install bolts and fasteners. Lower and remove floor jack.

30 Torque all tank mounting fasteners to 85 ± 15 Nm (63 ± 11 ft-lb).

Note: Follow steps 31 through 35 for fuel tank mounted (integrated) DEF tanks.

31 Install level sensor on DEF tank and tighten clamp to $5 + 0.5$ Nm ($44 + 4$ in-lb).

32 Use a floor jack to position and align mounting fasteners with holes. Loosely install bolts and fasteners. Lower and remove floor jack.

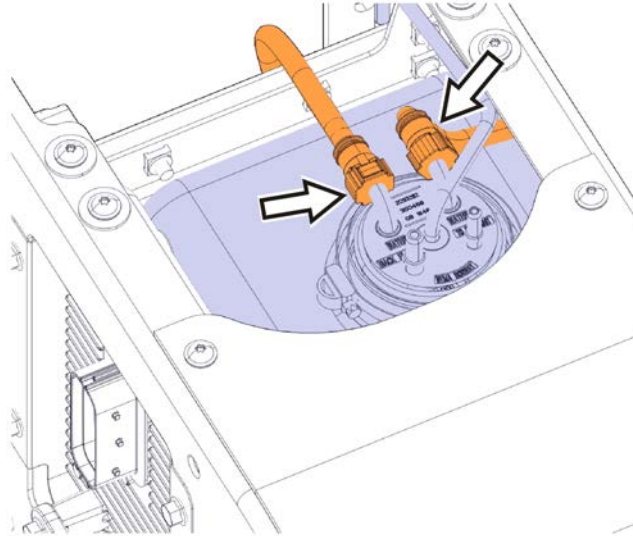
33 Connect level sensor harness.

34 Torque all tank mounting fasteners to 85 ± 15 Nm (63 ± 11 ft-lb).

35 Install DEF pump bracket.

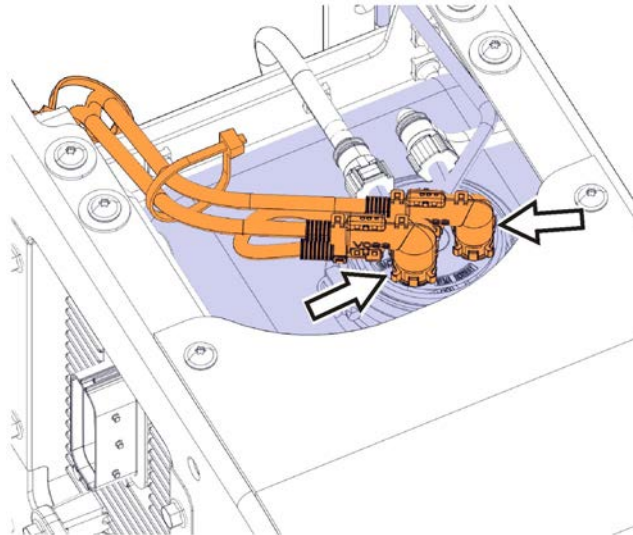
Note: Steps 36 through 50 apply to frame mounted and Fuel tank mounted (integrated) DEF tank installation.

36 Connect coolant lines to the level sensor.



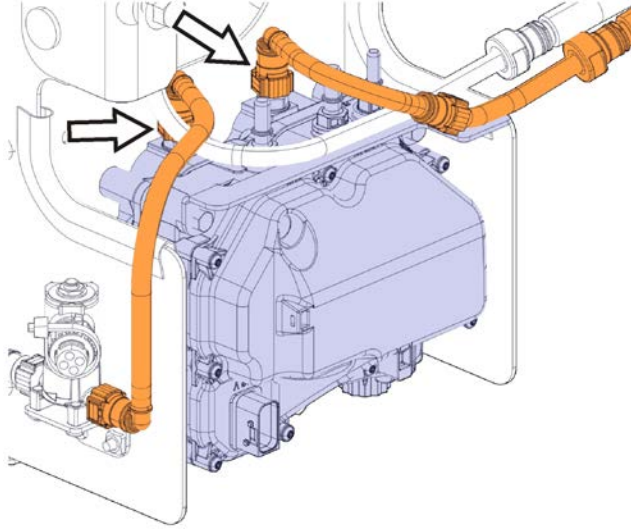
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37 Connect DEF lines to the level sensor.



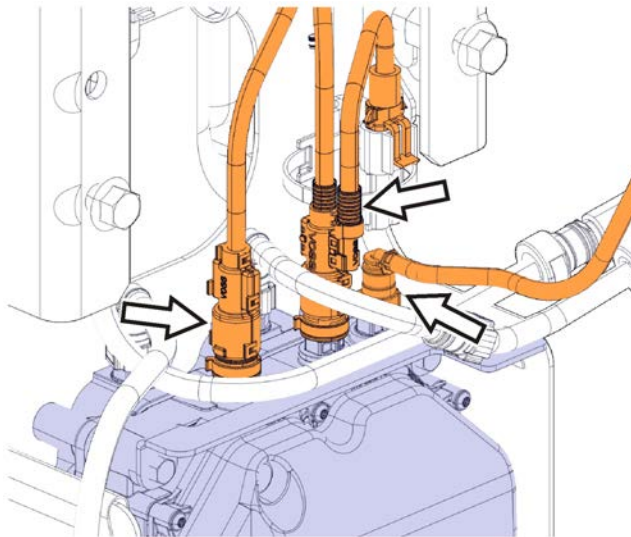
W2072062

38 Connect coolant lines to DEF pump.



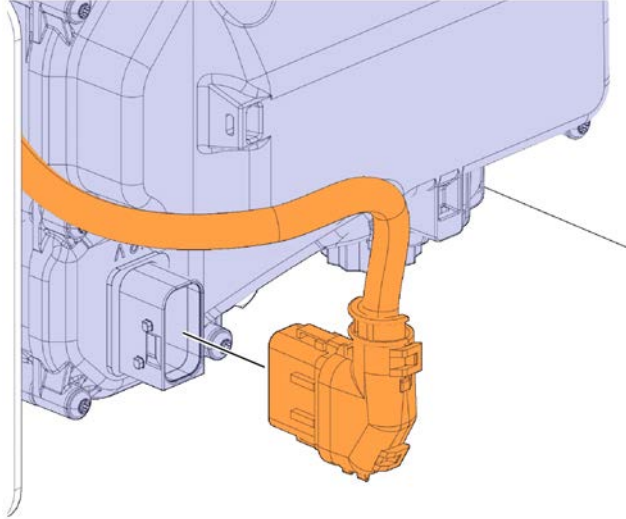
W2072061

39 Connect DEF lines to DEF pump.



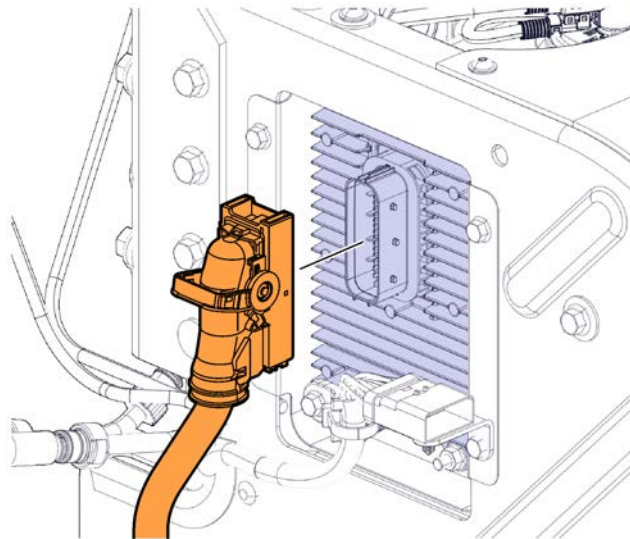
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40 Connect electrical harness to DEF pump and secure harness as needed.



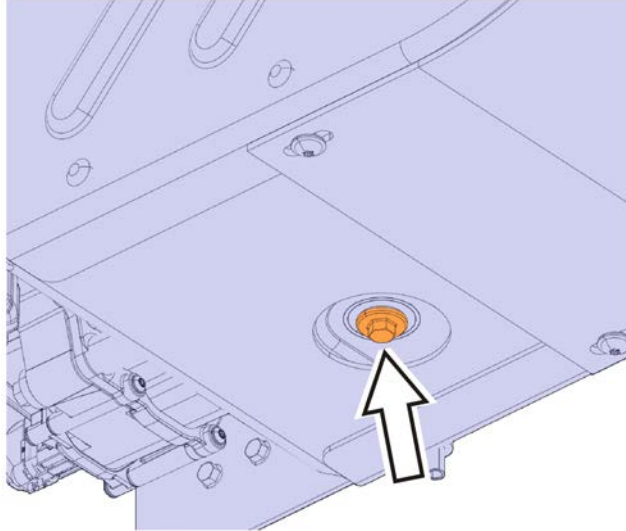
W2072059

41 Connect electrical harness to ACM and secure harness as needed.



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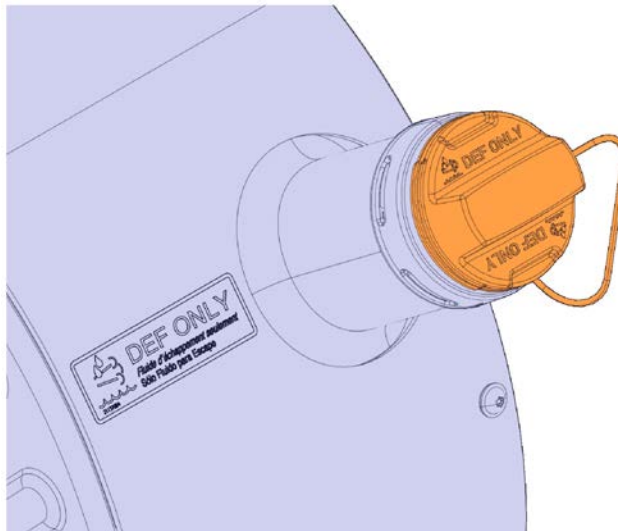
42 Install DEF tank drain plug and ensure drain plug is torqued to 48 ± 8 Nm (35 ± 6 ft-lb).



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43 Fill DEF tank with DEF fluid.

44 Install the DEF filler neck cap.



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45 Use coolant extractor/injector 85112740 to fill cooling system.

46 Reconnect all previously removed cables to the negative (ground) battery terminals.

47 If applicable, install inner fender lower mounting bracket and torque fasteners to specification.

48 If applicable, install inner fender (left front).

49 Install and secure the side fairing, if applicable.

50 Start engine, check for proper operation and check for leaks.

Reimbursement

This repair may be eligible for reimbursement if a product failure was experienced within time and mileage limits of the applicable Warranty coverage. Reimbursement is obtained via the normal claim handling process.	
Claim Type (used only when uploading from the Dealer Bus. Sys.)	W
Labor Code	
Primary Labor Code Frame Mounted DEF Tanks	2352H-42-80 2.0 hrs.
Primary Labor Code Fuel Tank Mounted DEF Tanks (Integrated)	2352J-42-80 1.8 hrs.
Causal Part	21332138

MACK Trucks Inc. engages in a continuous program of testing and evaluating to provide the best possible product. MACK Trucks Inc., however, is not committed to, or liable for updating existing chassis.