

Aftertreatment Diesel Exhaust Fluid (DEF) Tank, Level Sensor, Replacement

M-258-012

(Aug 2023)

Valid for

All Mack MMD Trucks

Case description

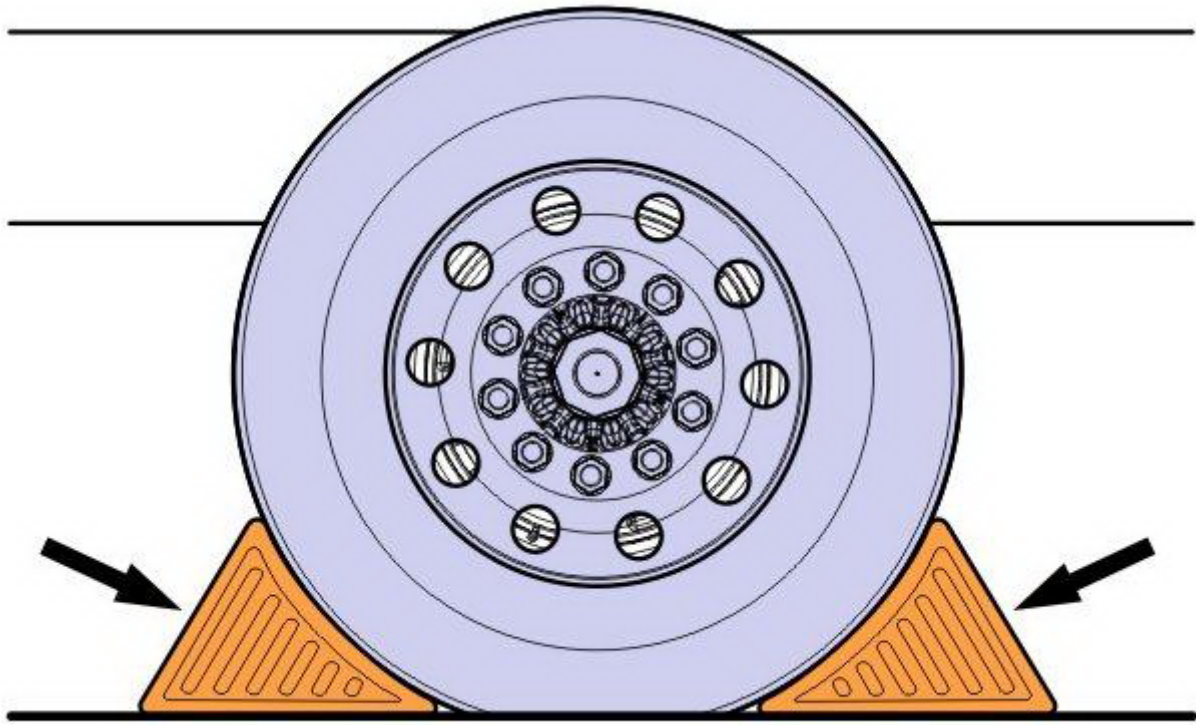
Mack trucks now offer an updated UQLS to improve functionality and reliability. The new sensor will be a direct replace except for a jumper harness used to plug the new sensor to the existing chassis harness connector. Follow the instructions below to install the new UQLS and its jumper harness.

Parts

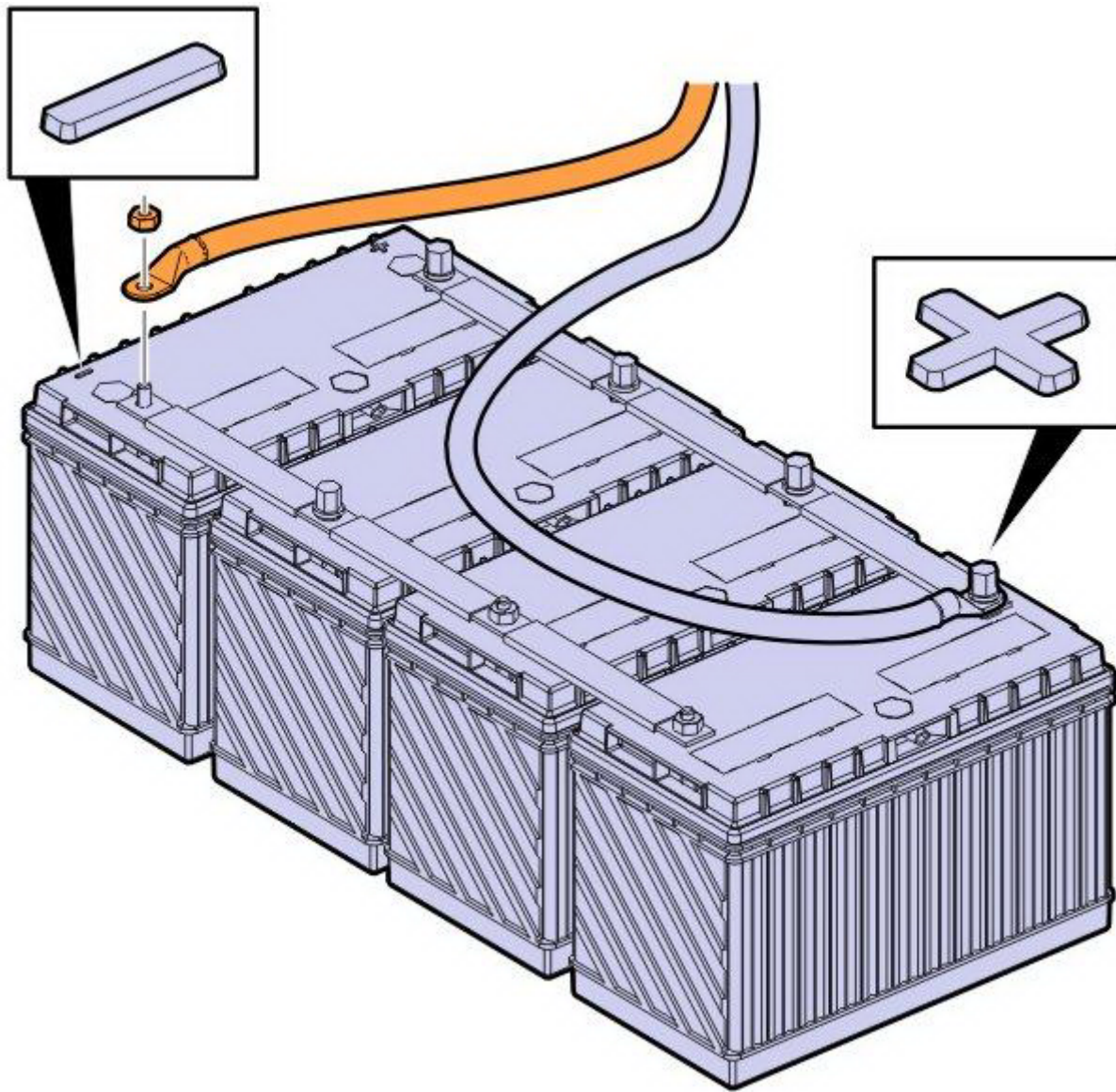
Part Number	Description	Quantity
24015866	UQLS Sensor	1
24399920	Jumper Harness	1

Repair Procedure

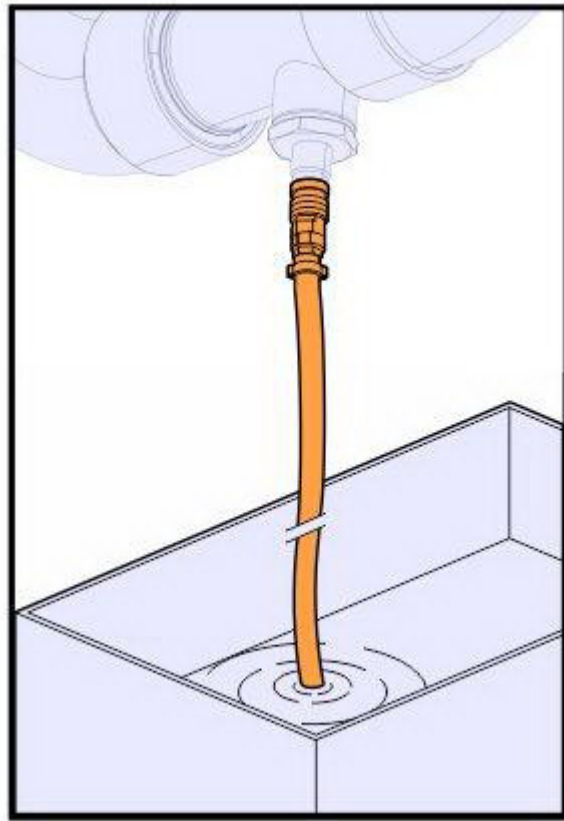
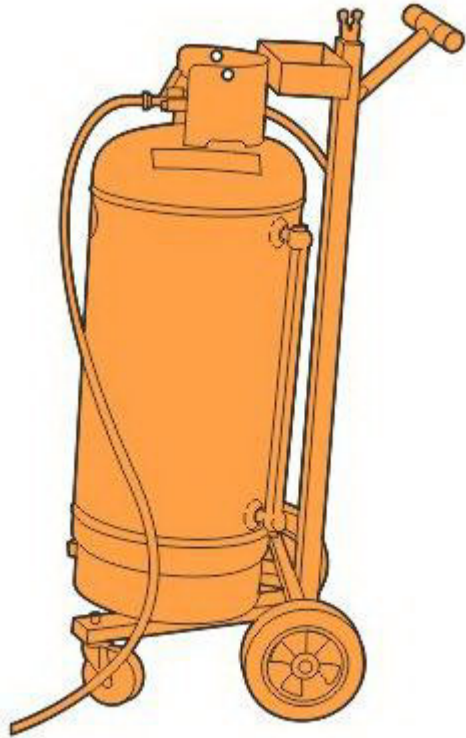
1. Park the vehicle on a level surface.
2. Apply the parking brake.
3. Place the gear lever in neutral.
4. Install the wheel chocks.



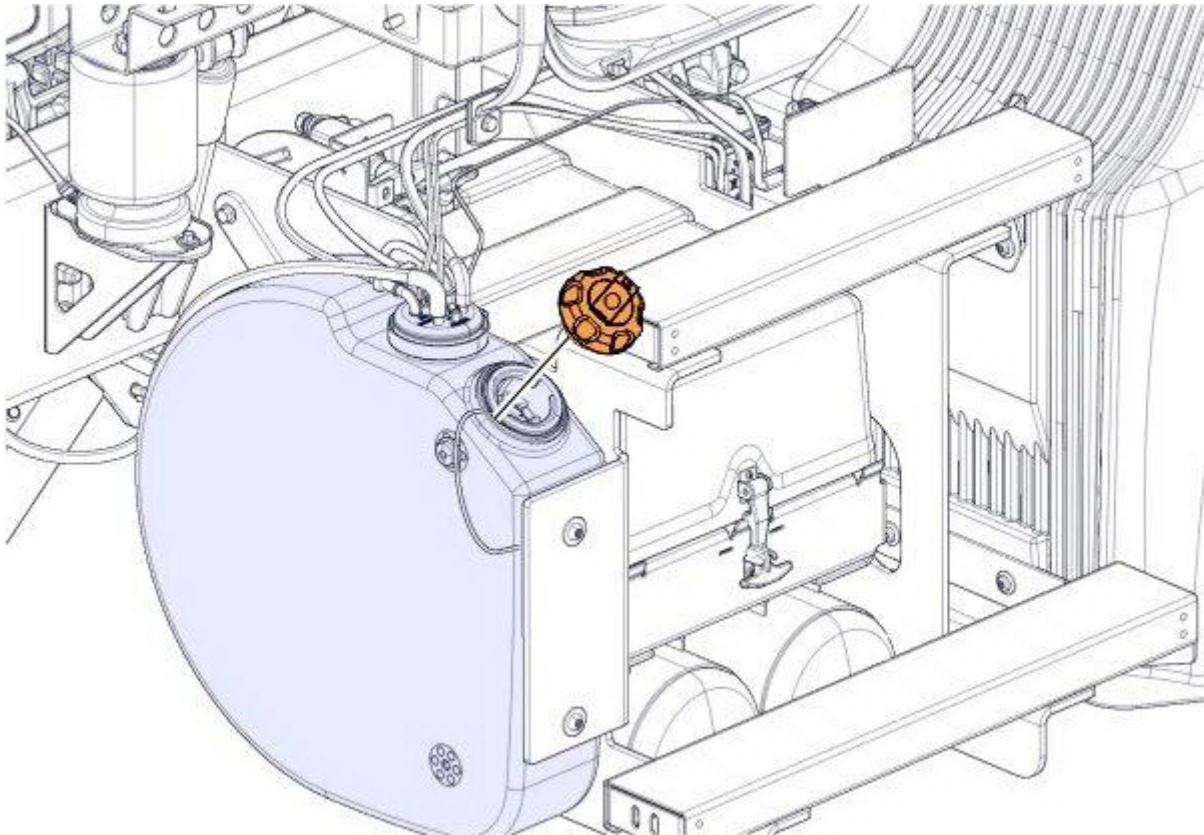
5. Disconnect the cable from the negative terminal.



6. Unlatch and raise the hood.
7. Drain the coolant.

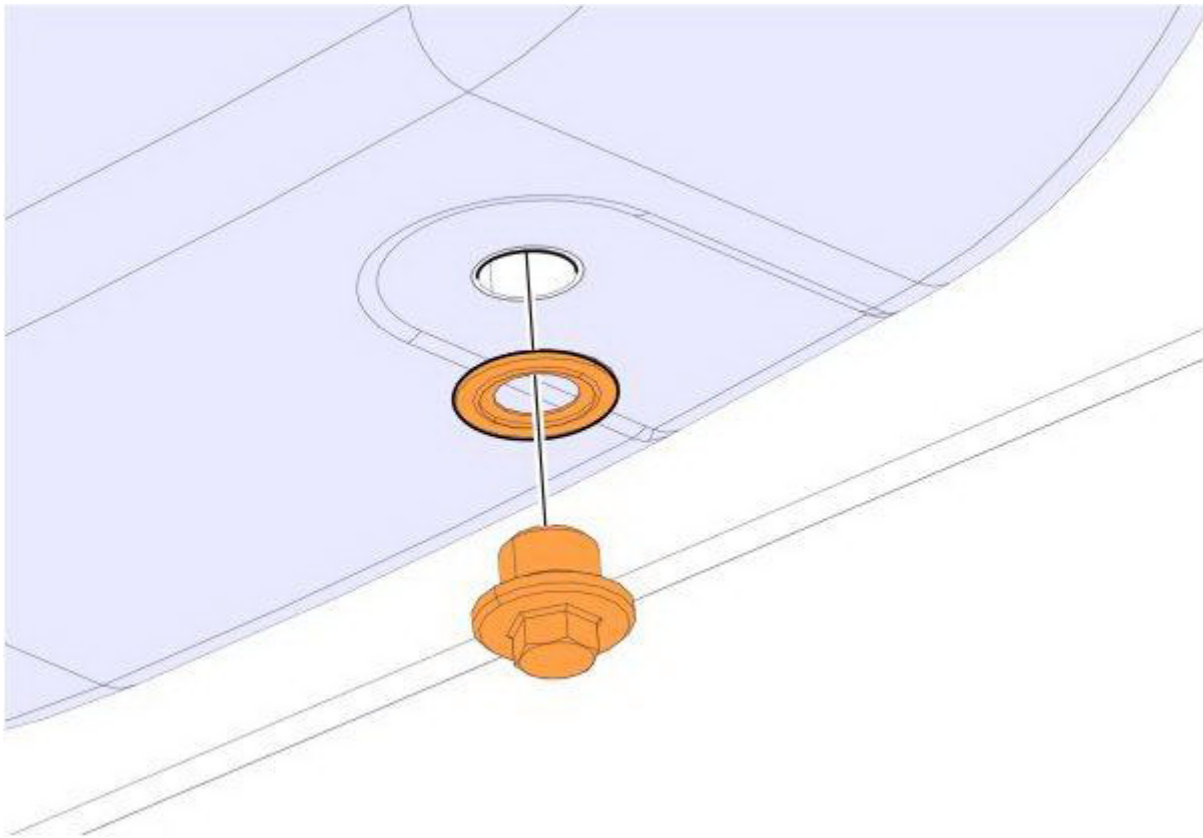


8. Remove the fill cap.

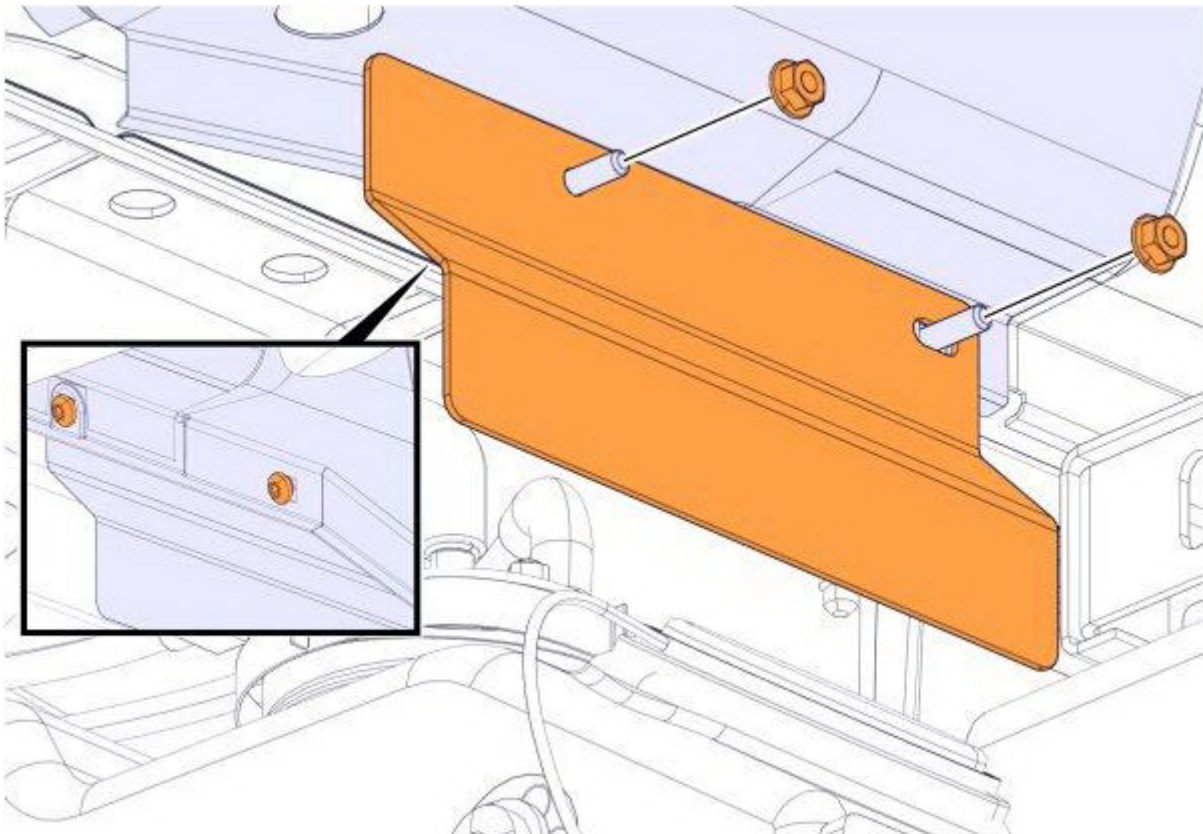


9. Remove the drain plug.

10. Drain the Diesel Exhaust Fluid.

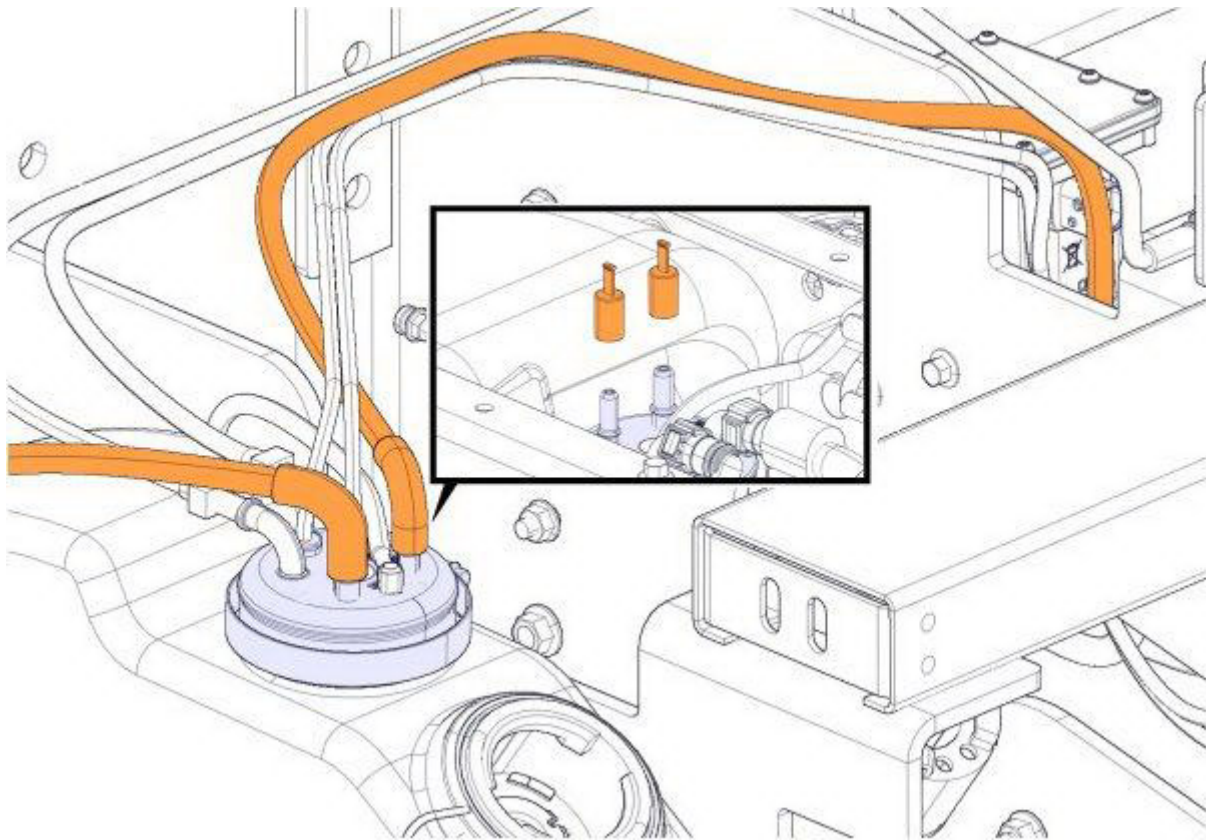


11. Once the fluid is drained, replace the plug and torque to specifications.
12. Install the fill cap.
13. Remove the shield.



14. Remove the cable ties securing the hoses and electrical cables.
15. Remove the hoses.

16. Blank off the holes.



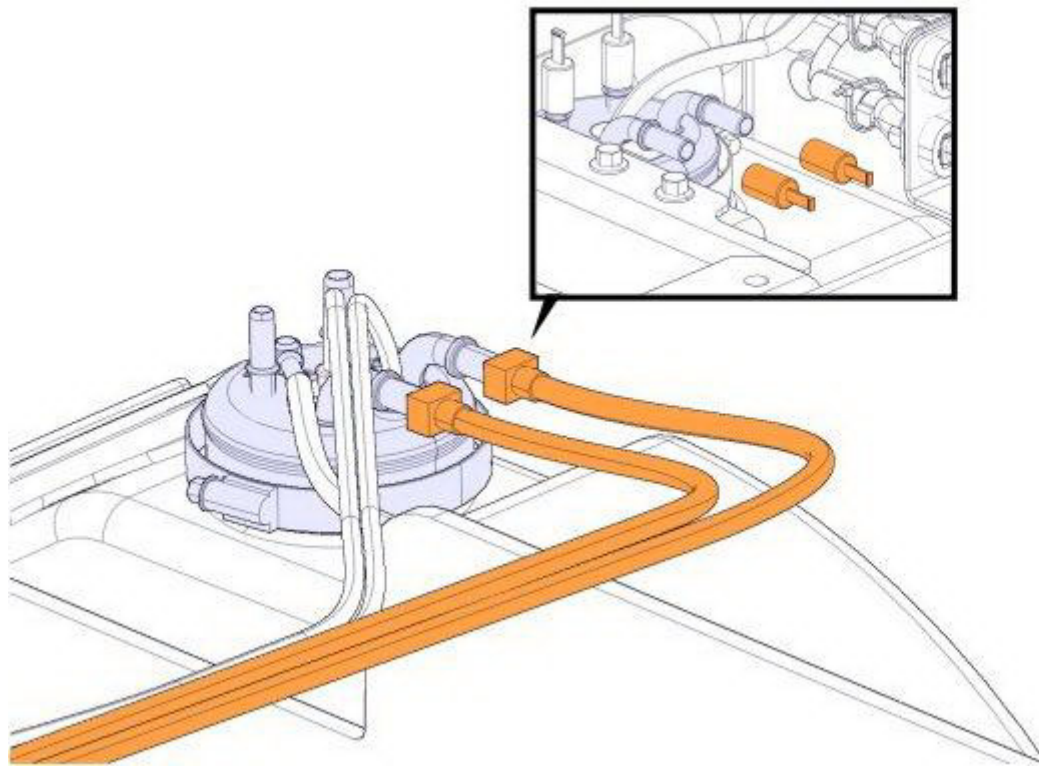
17. Move aside the hoses.

18. Protect the hoses.

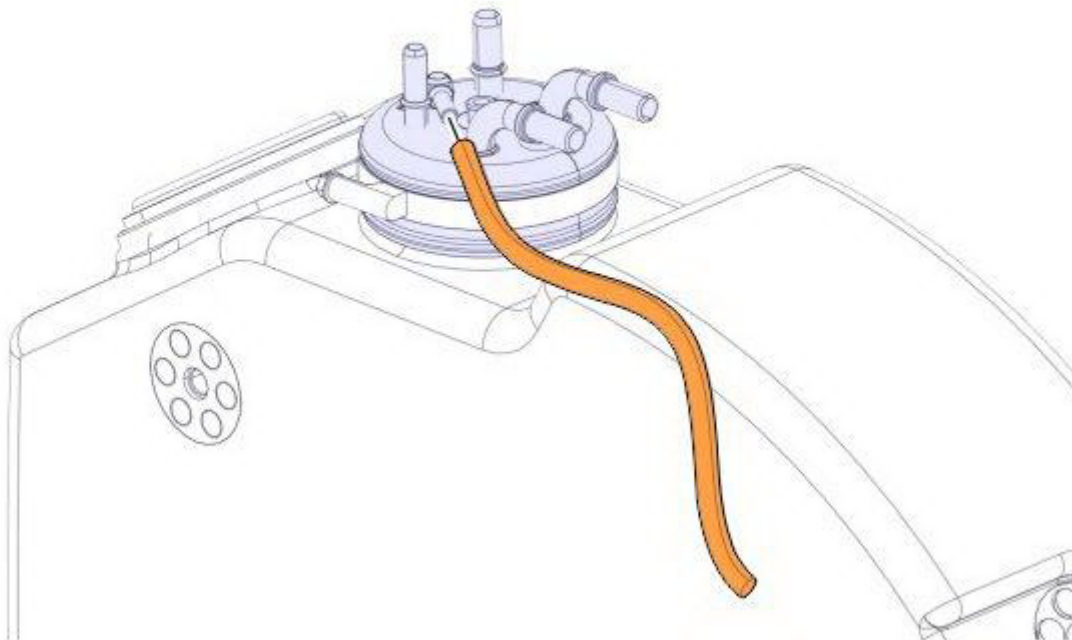


19. Remove the hoses.

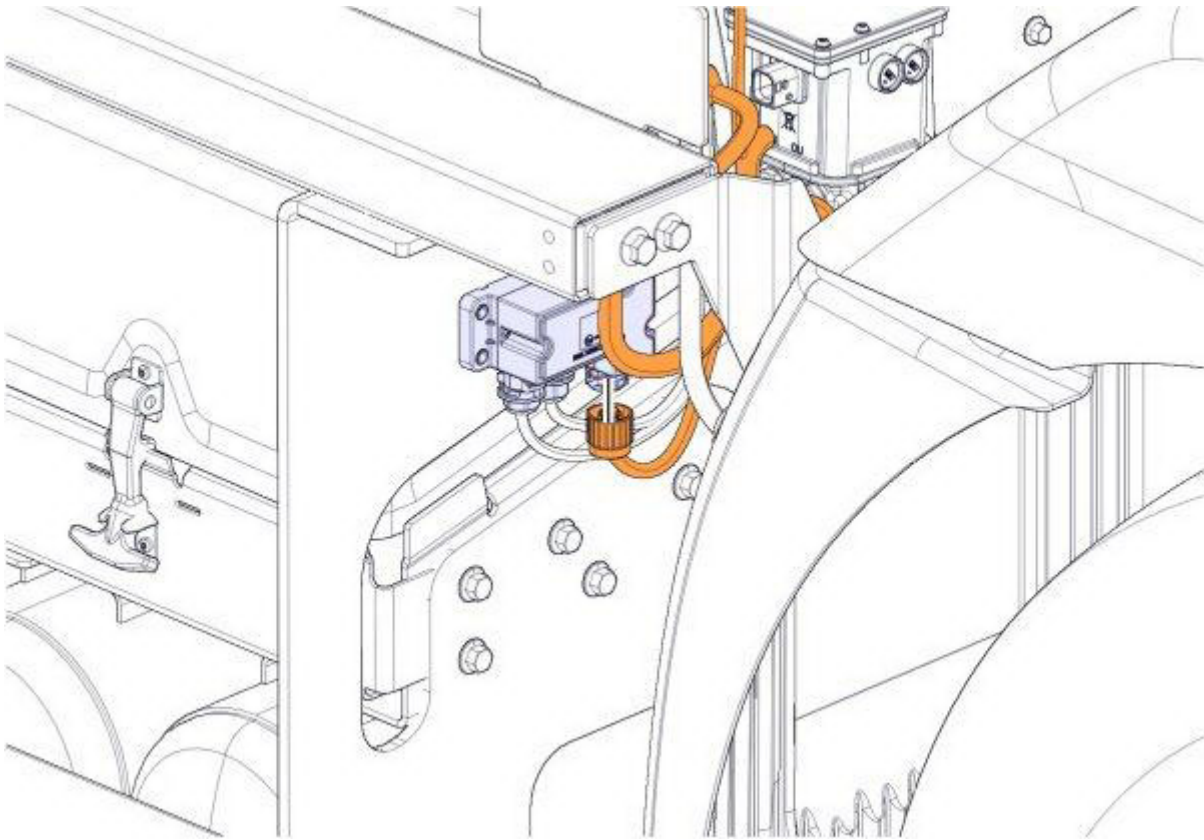
20. Blank off the holes.



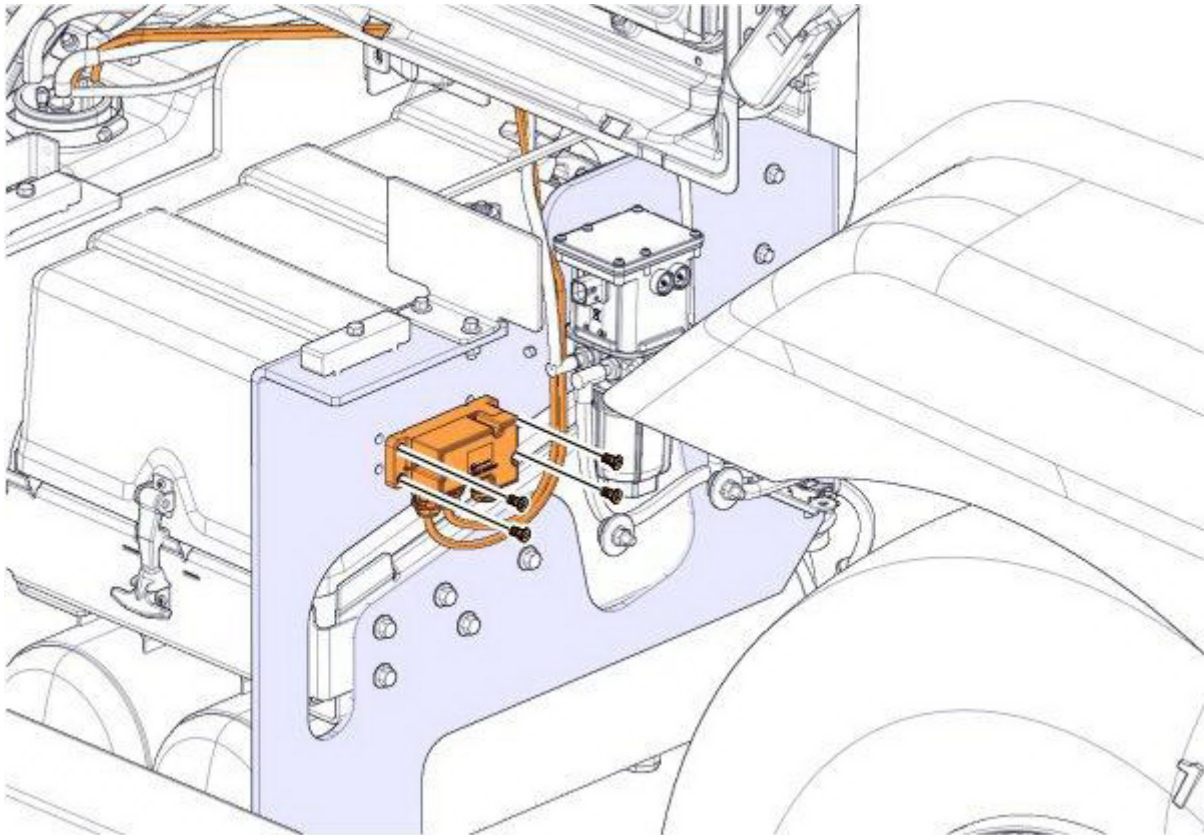
- 21. Move aside the hoses.
- 22. Remove the hose.



- 23. Disconnect the connector.

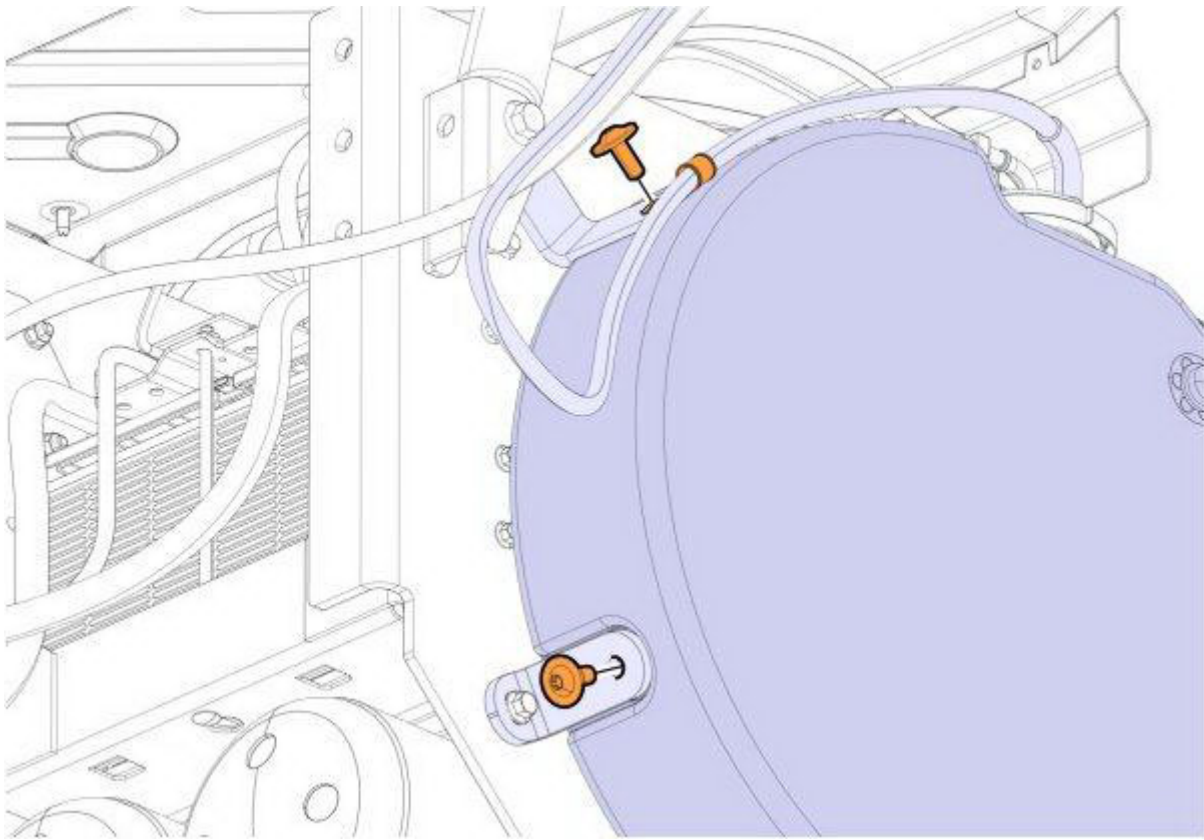


24. Remove the screws and discard.

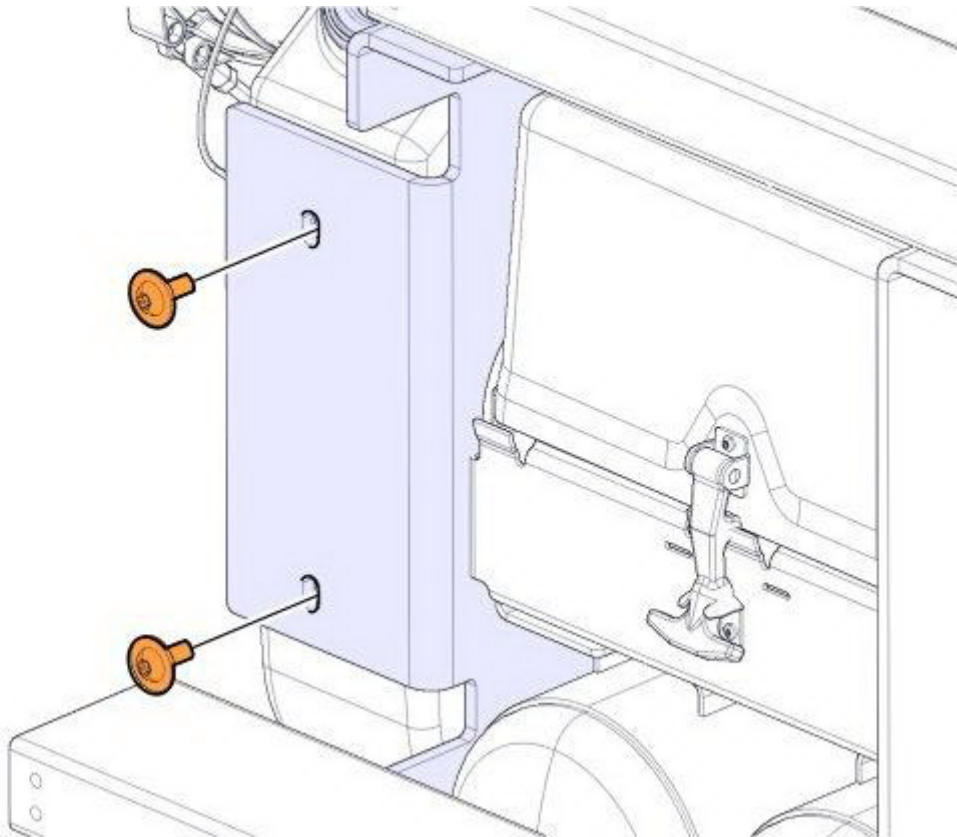


25. Remove the screws.

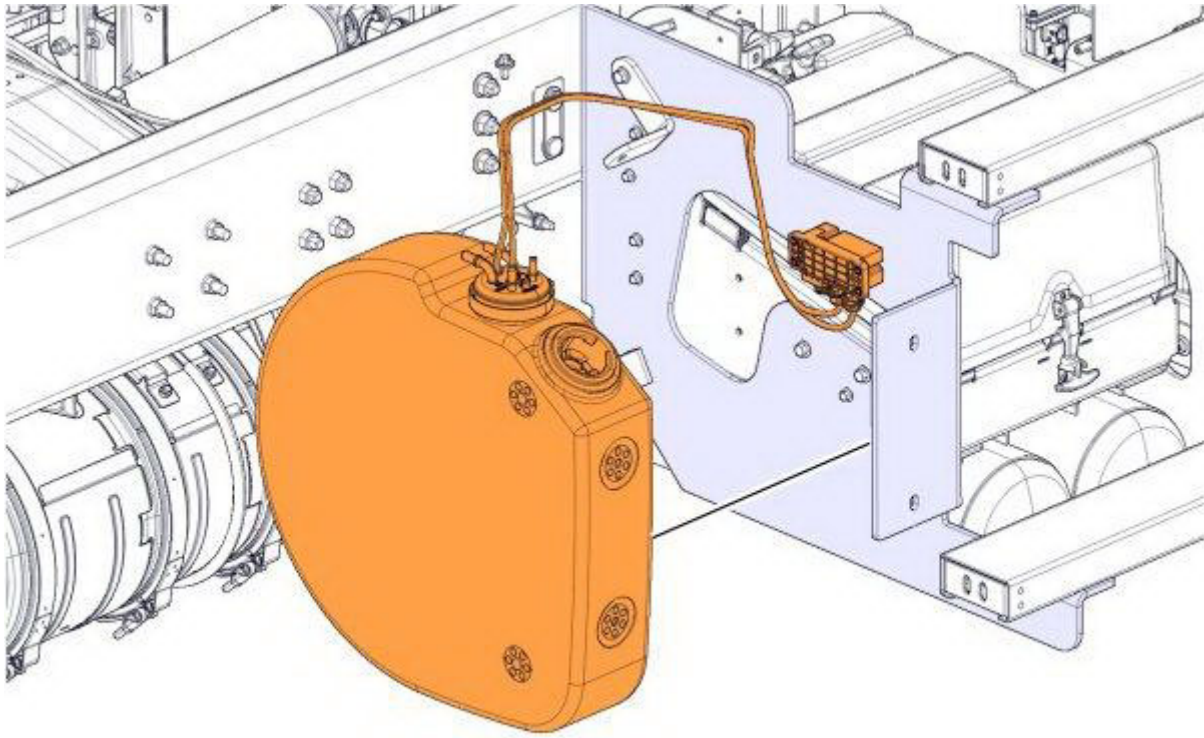
26. Release the clamp.



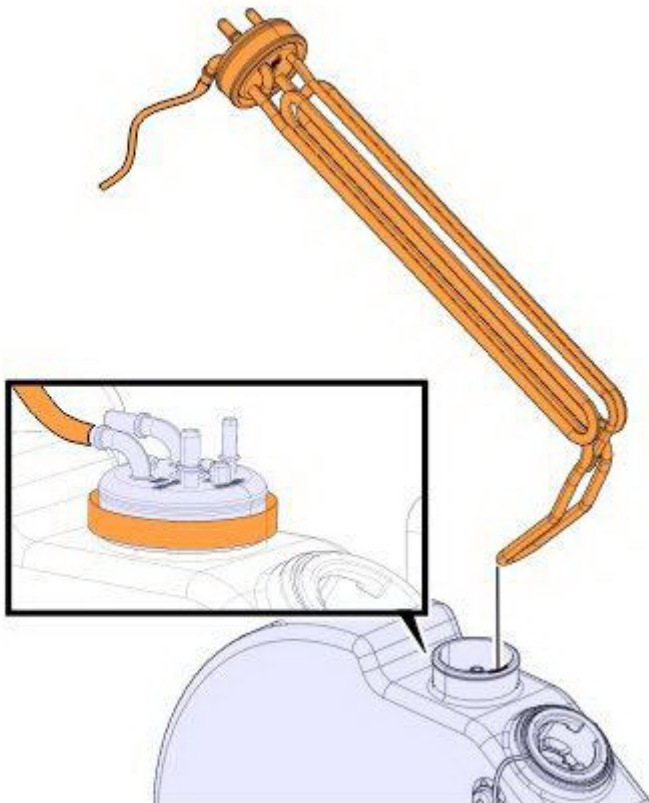
27. Remove the screws.



28. Remove the tank along with the sensor.



- 29. Loosen the clamp.
- 30. Remove the sensor.



- 31. Install the new sensor **24015866**.

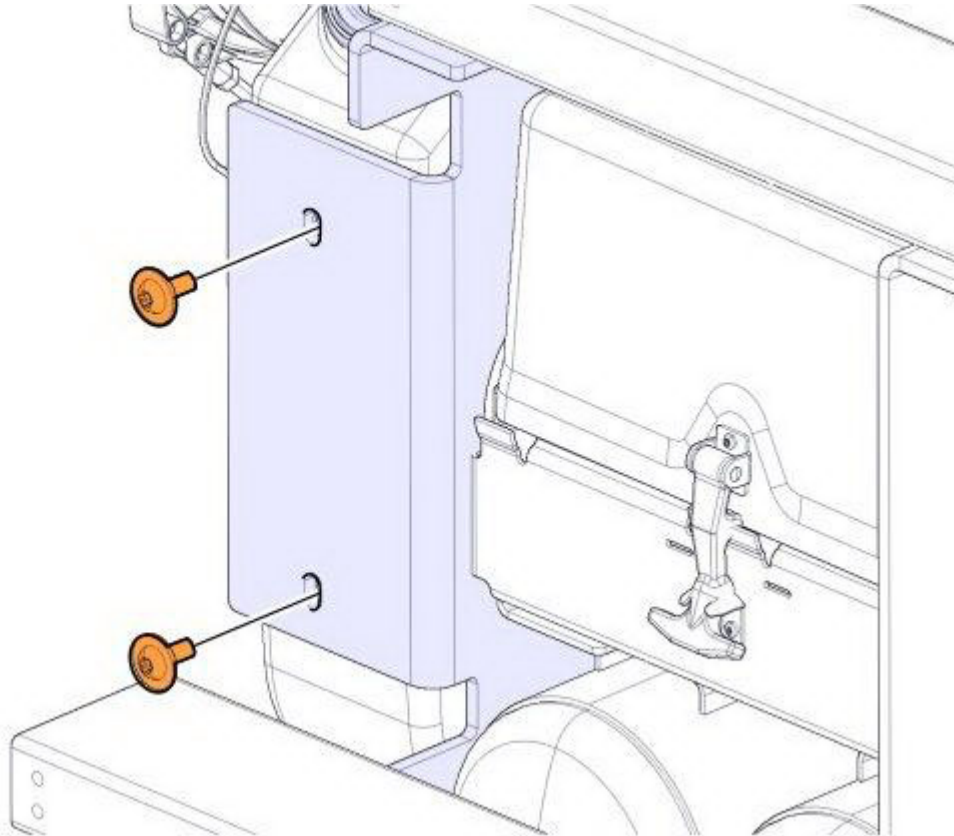
Note: The new UQLS sensor no longer uses the external module and requires a jumper harness.

32. Install the clamp and torque to specifications.

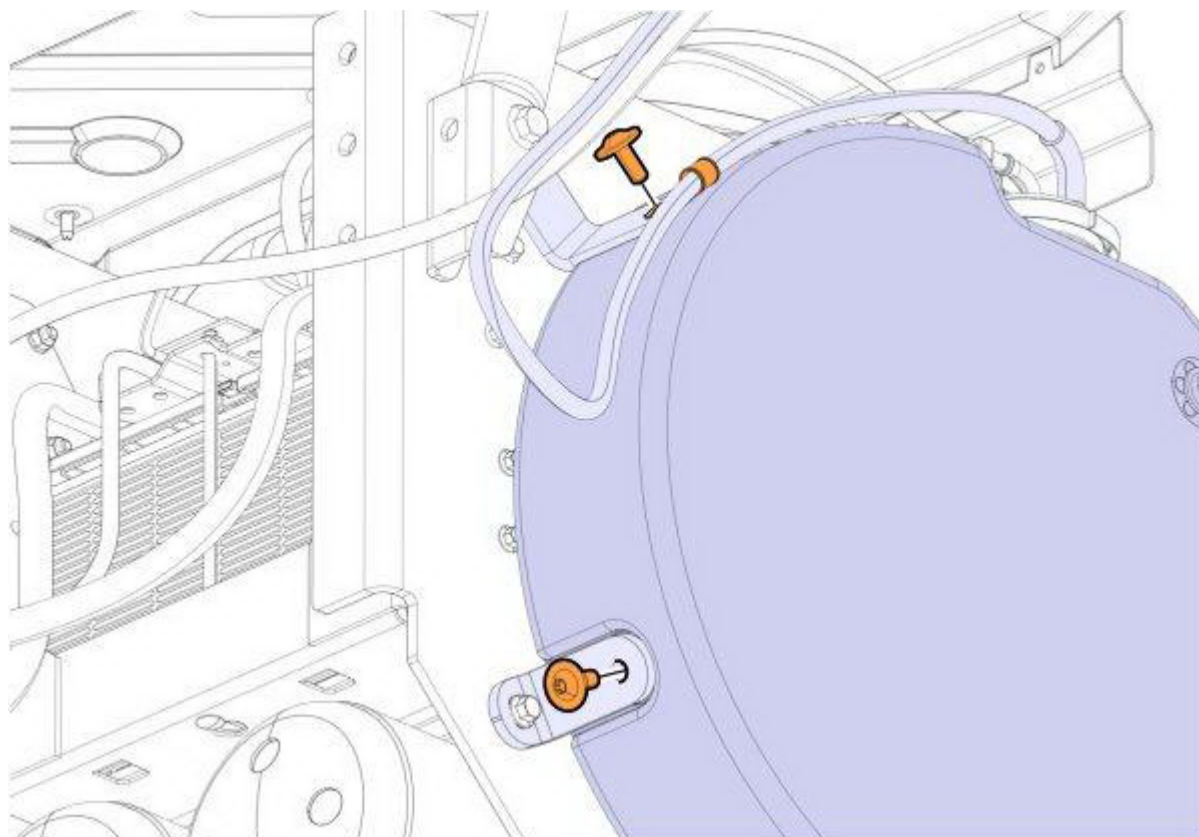
Tightening torque	
Tank, clamp	3 Nm

33. Install the tank.

34. Install the screws.



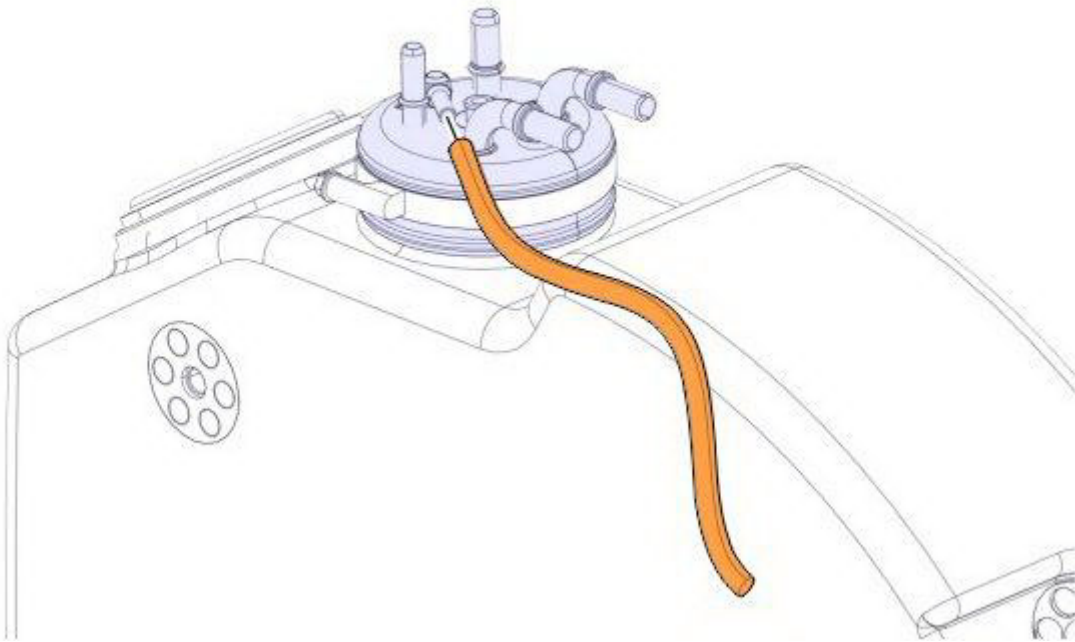
35. Position the clamp.



36. Install the screws and torque to specifications.

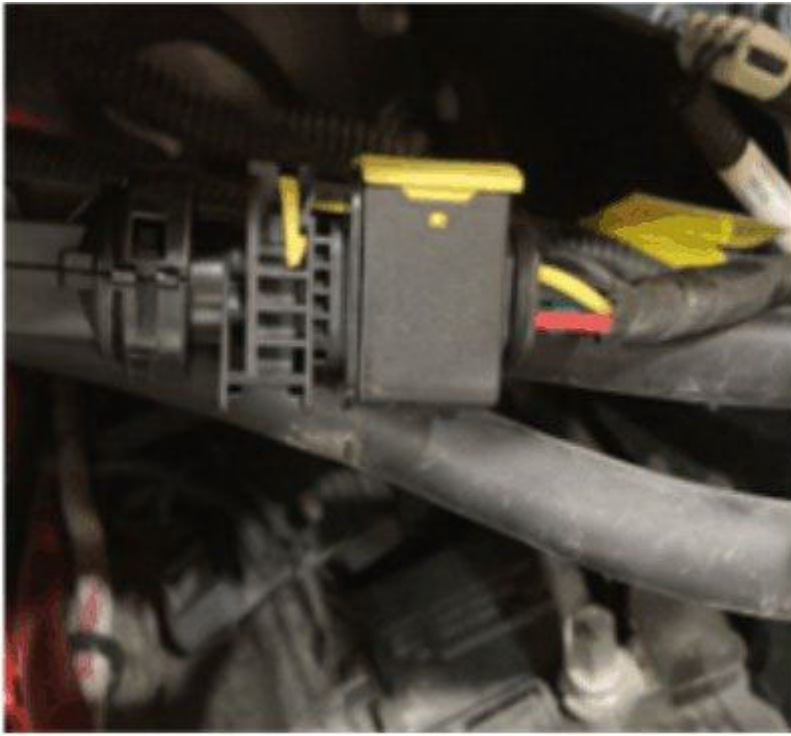
Tightening torque	
Tank, Screws	35 ± 5 Nm

37. Install the hose.

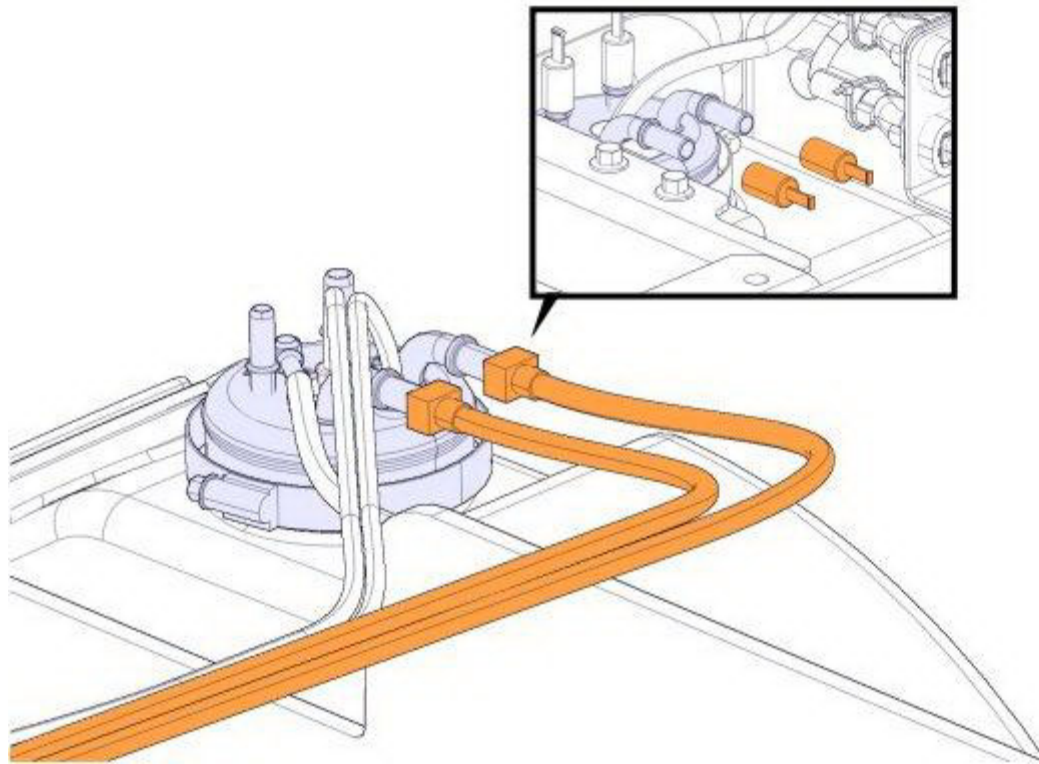


38. Connect the jumper harness 24399920 to the chassis harness and the new sensor.

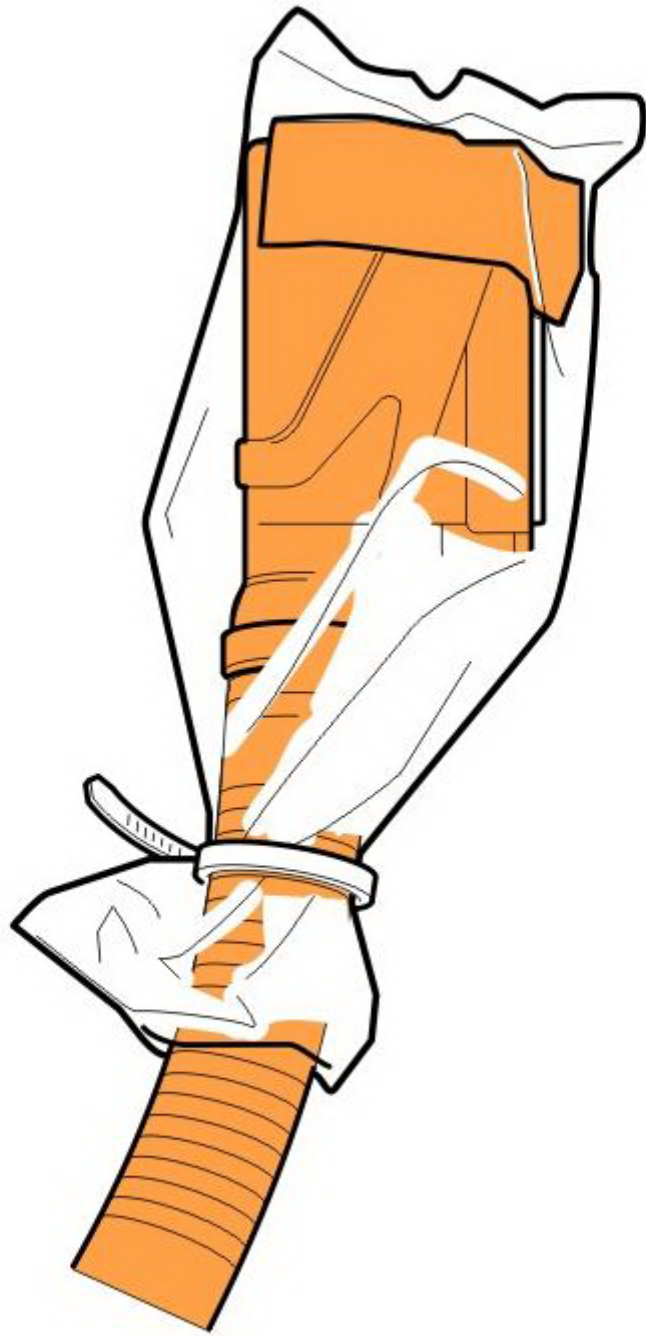




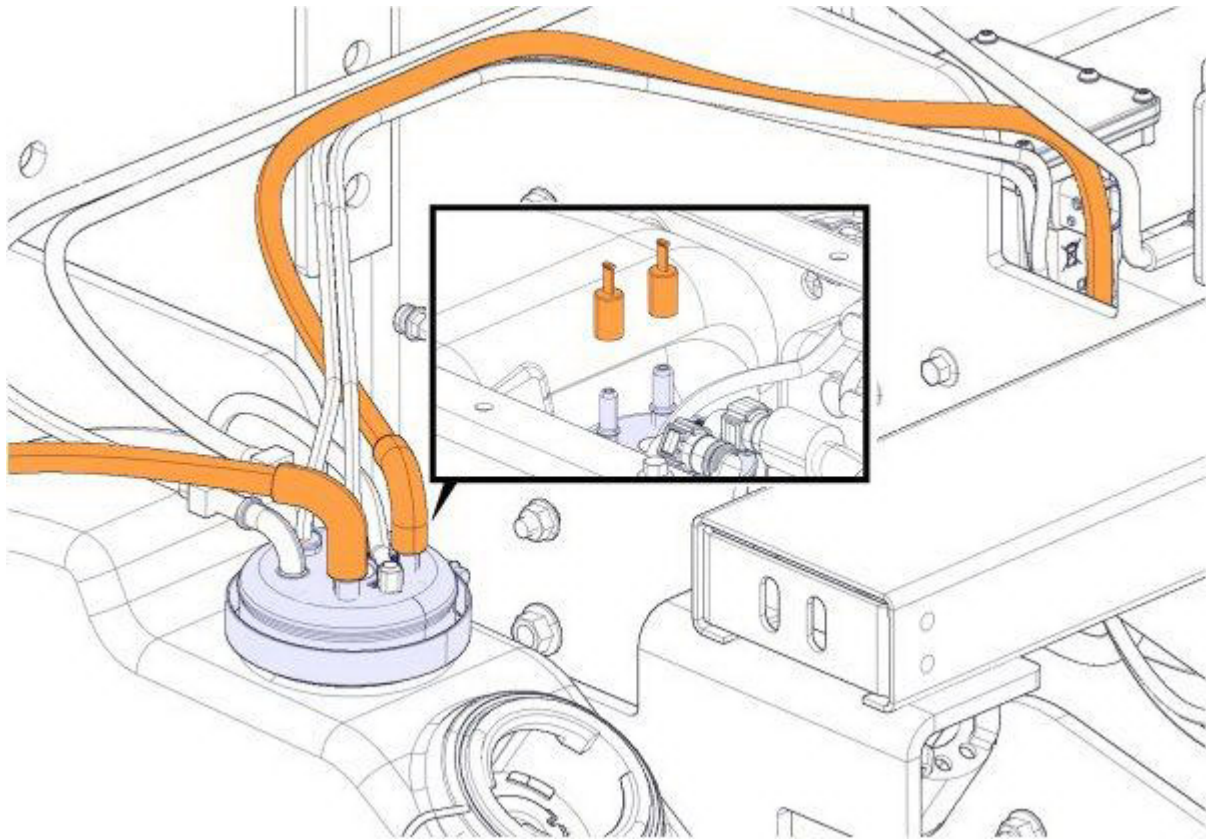
- 39. Remove the blanking.
- 40. Install the hoses.



- 41. Remove the protection.

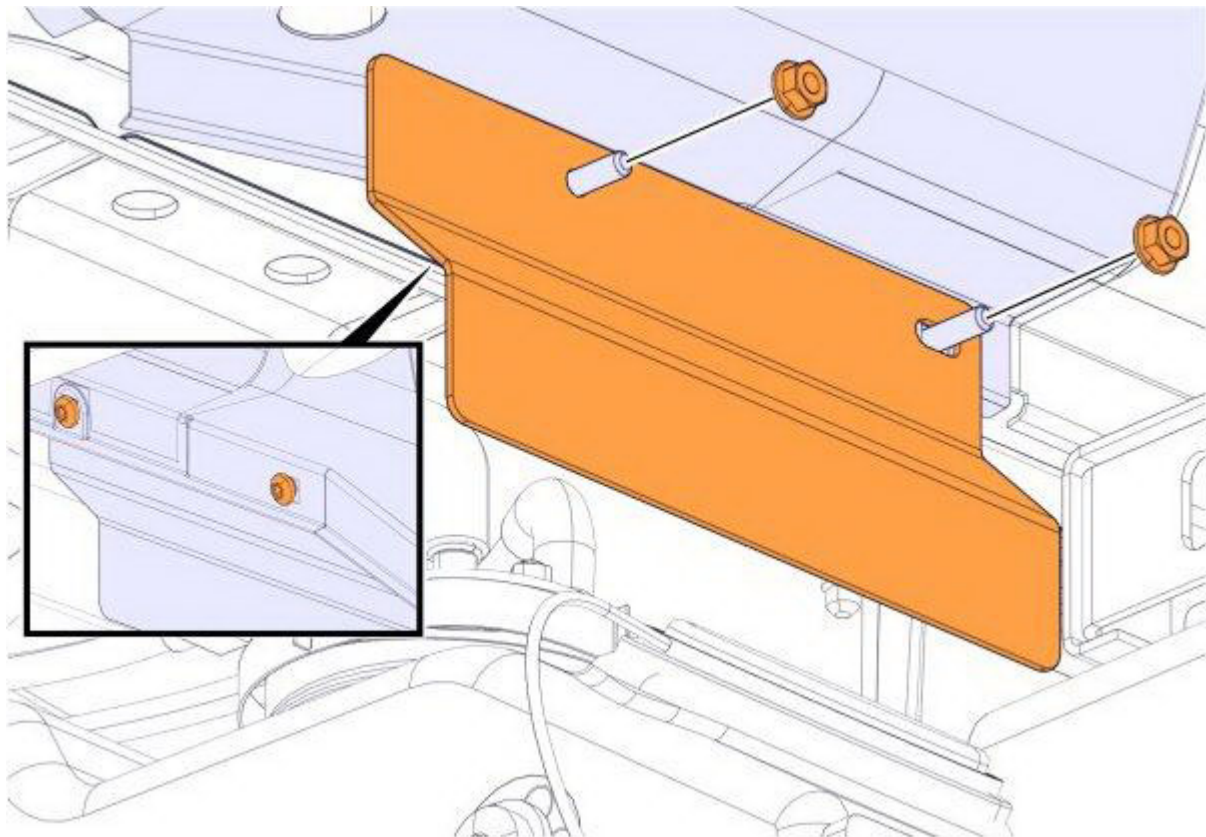


42. Remove the blanking.
43. Install the hoses.



44. Install the shield.

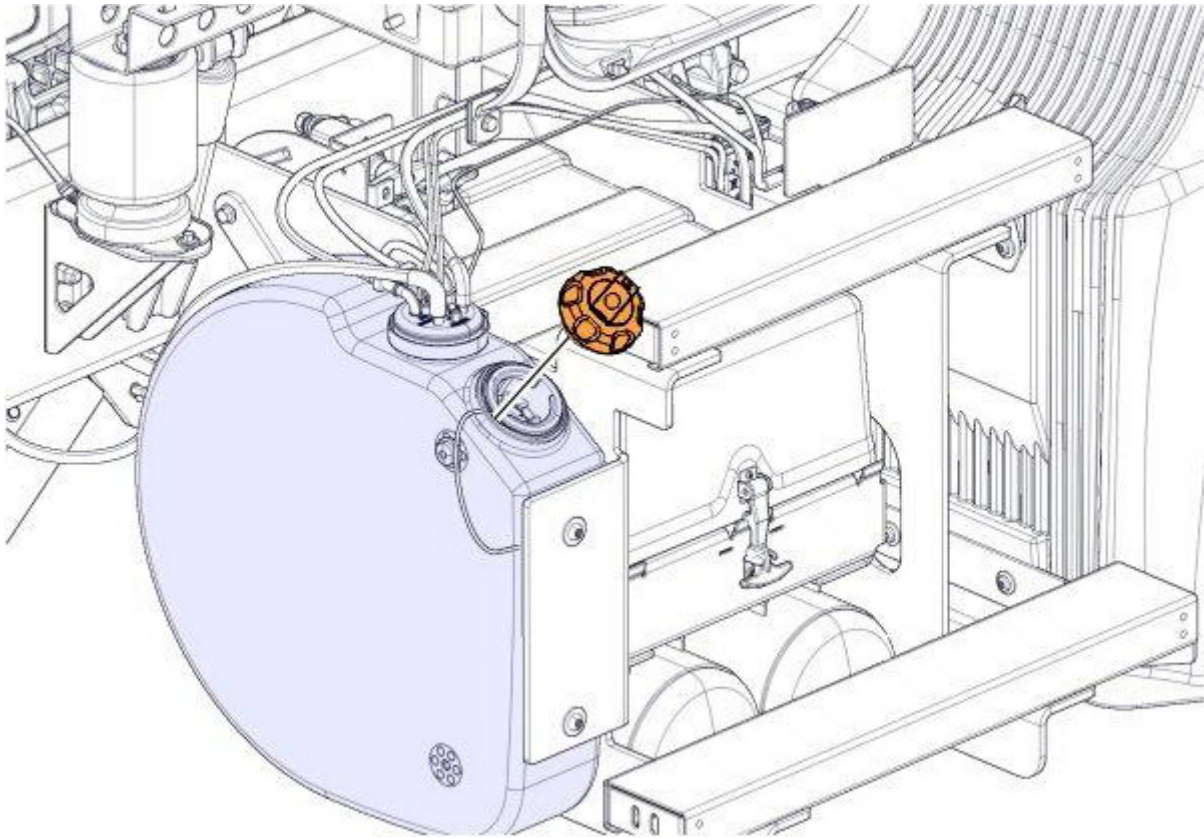
45. Install the screws and the nuts.



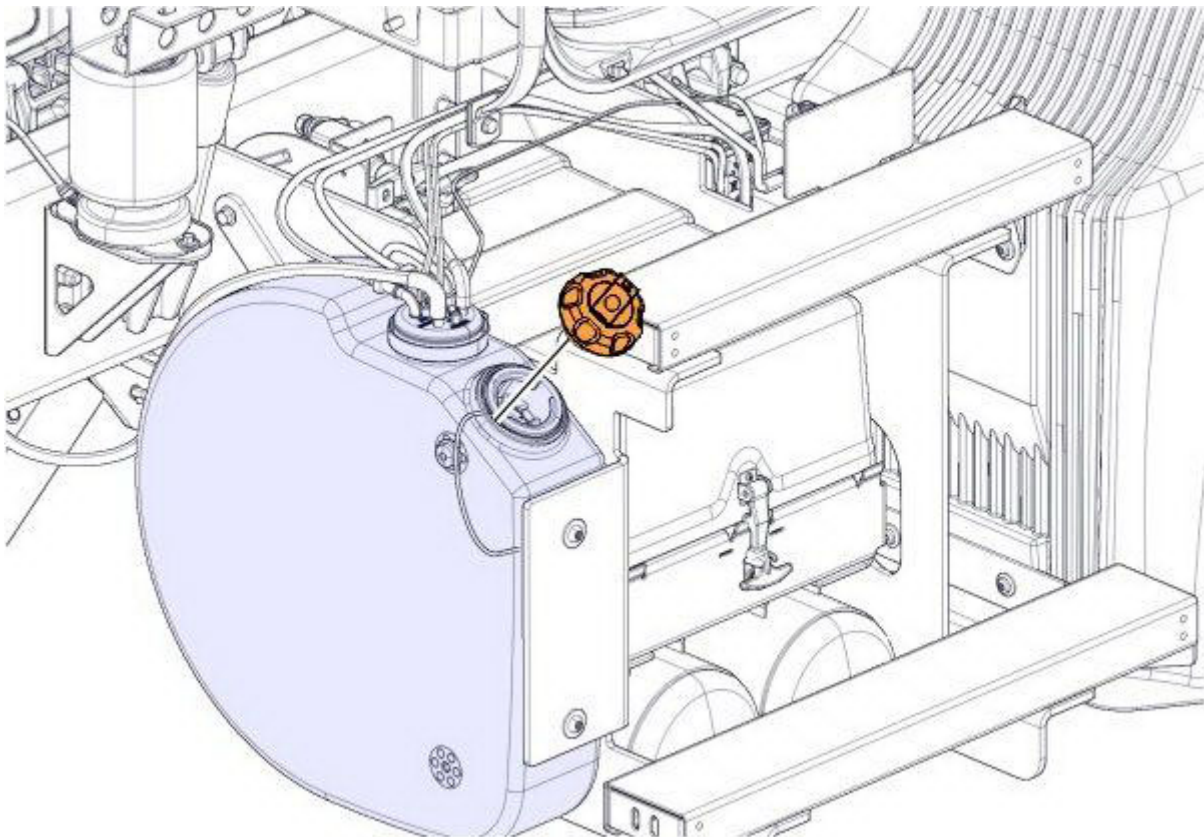
46. Route the new jumper harness, def line and coolant lines over the battery box securing with cable ties as needed.



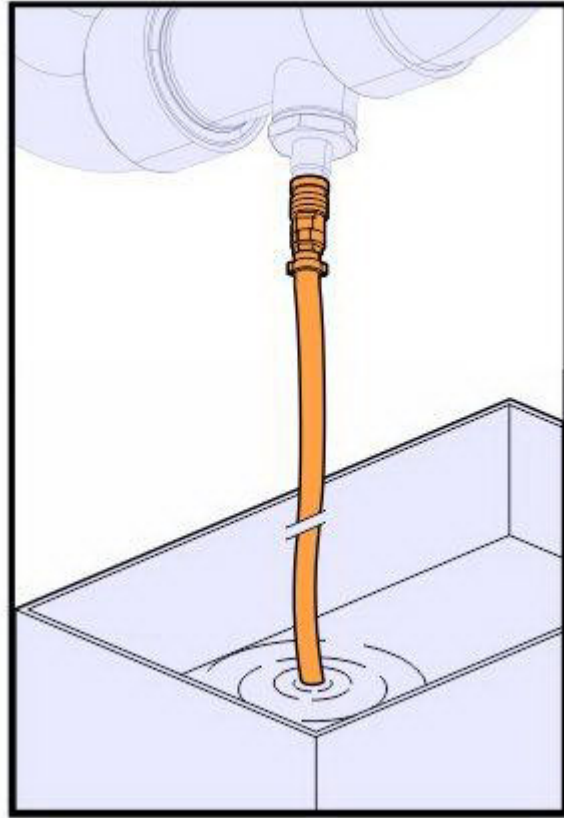
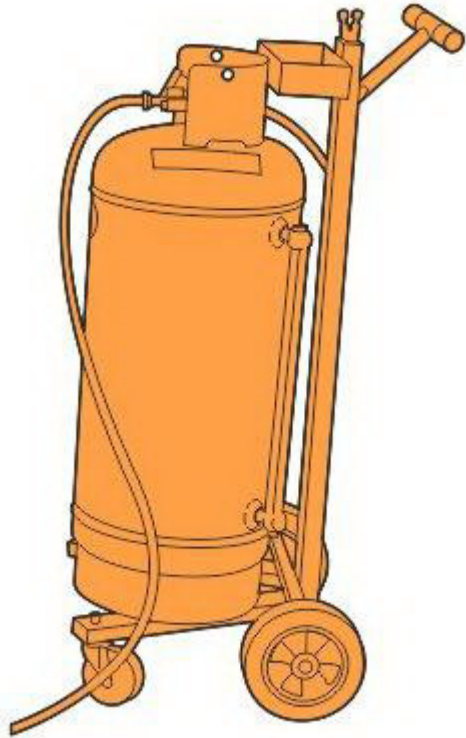
47. Open the filler cap.



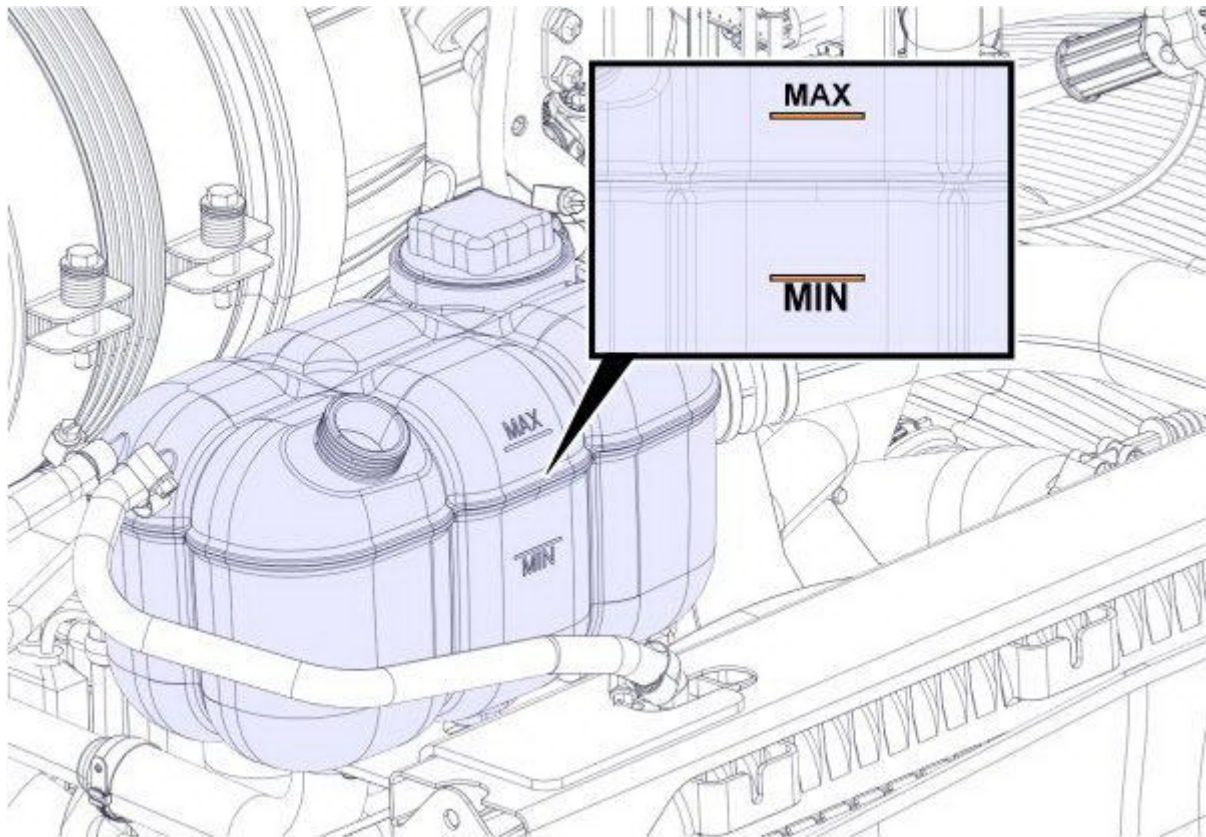
- 48. Fill the tank with reagent (Diesel Exhaust Fluid).
- 49. Close the filler cap.



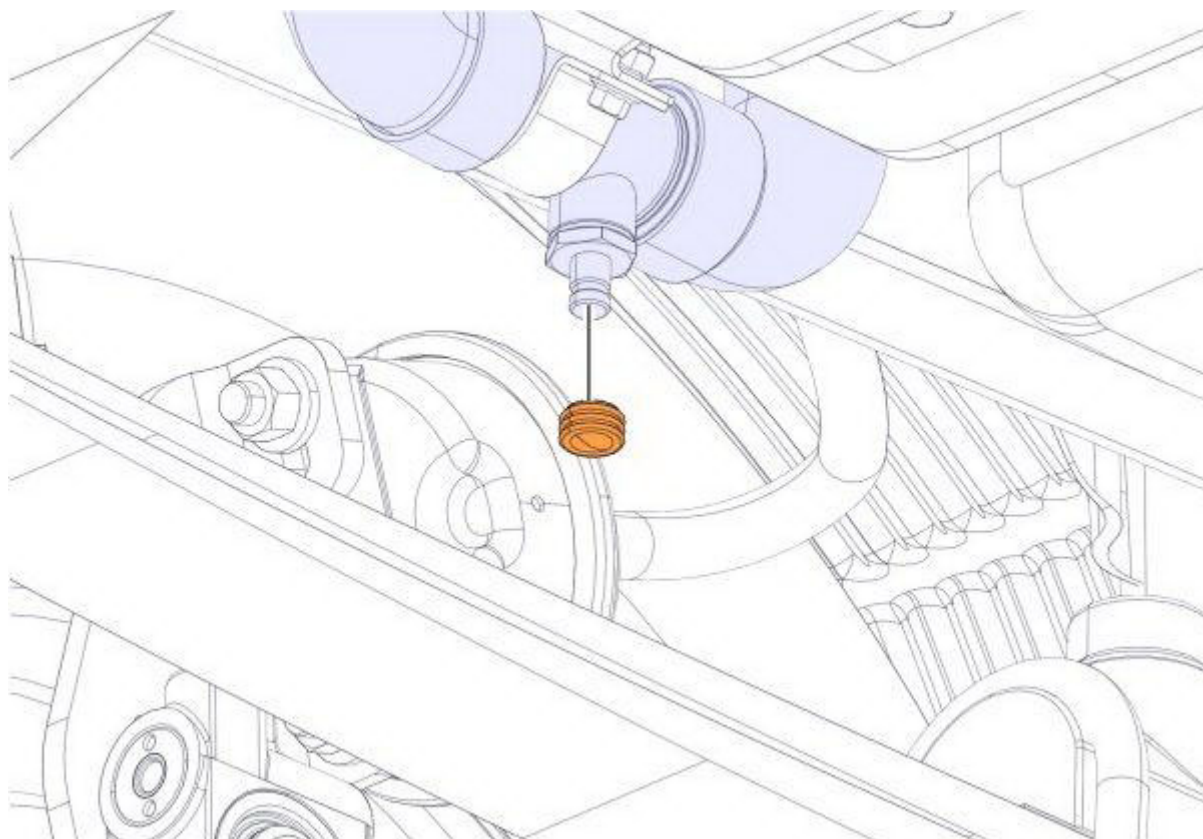
- 50. Fill the coolant system.



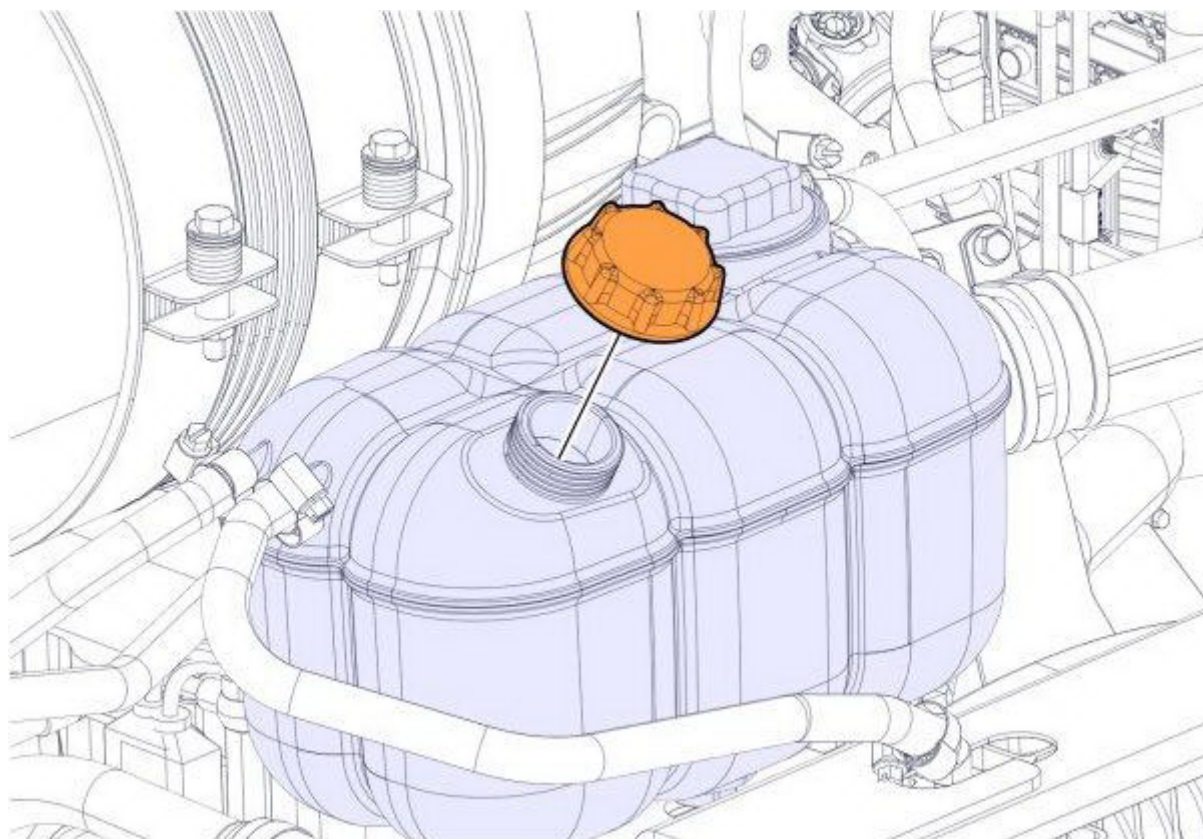
- 51. Check the coolant level.
- 52. Adjust the level if necessary.



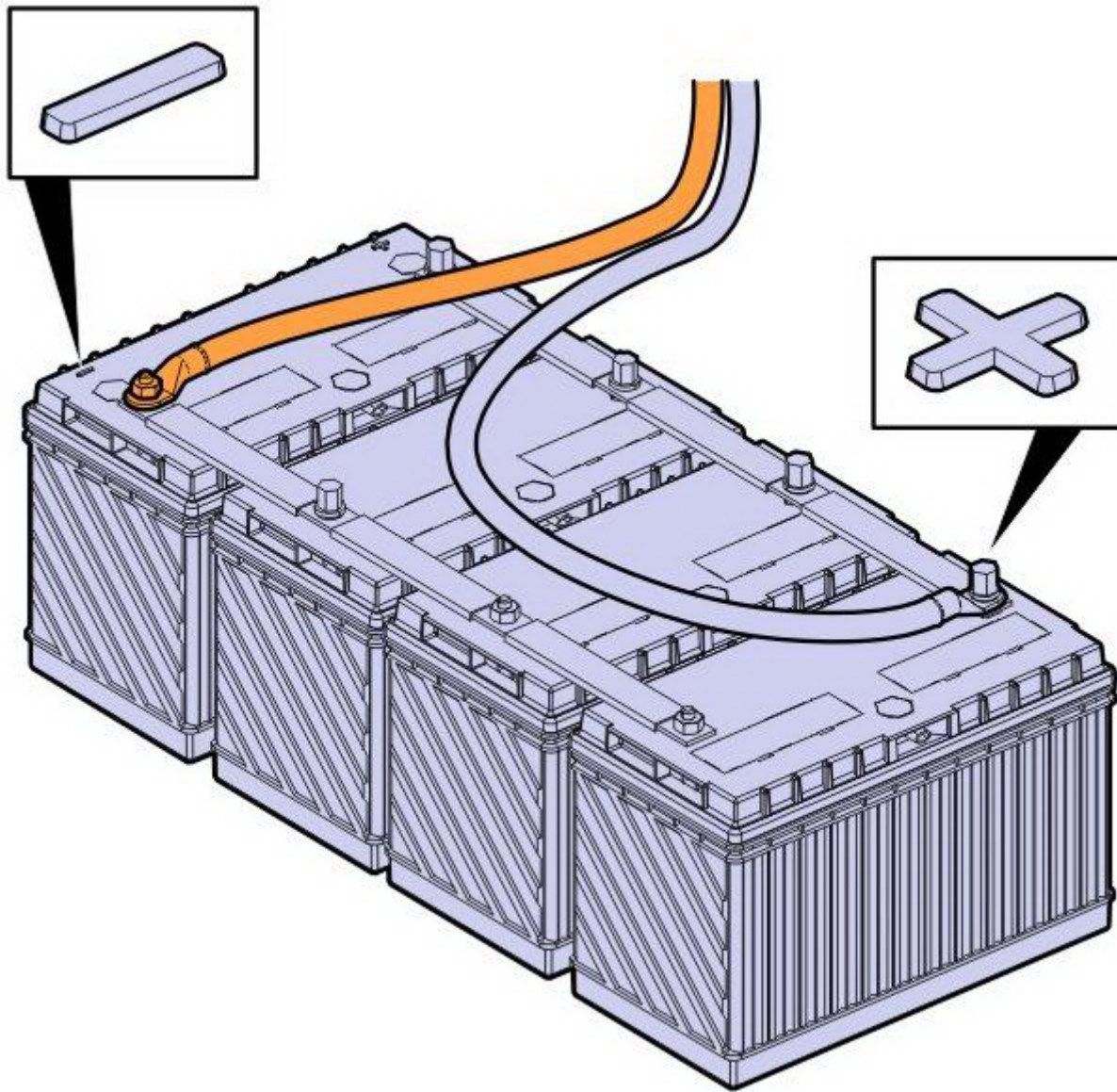
- 53. Install the protecting cap.



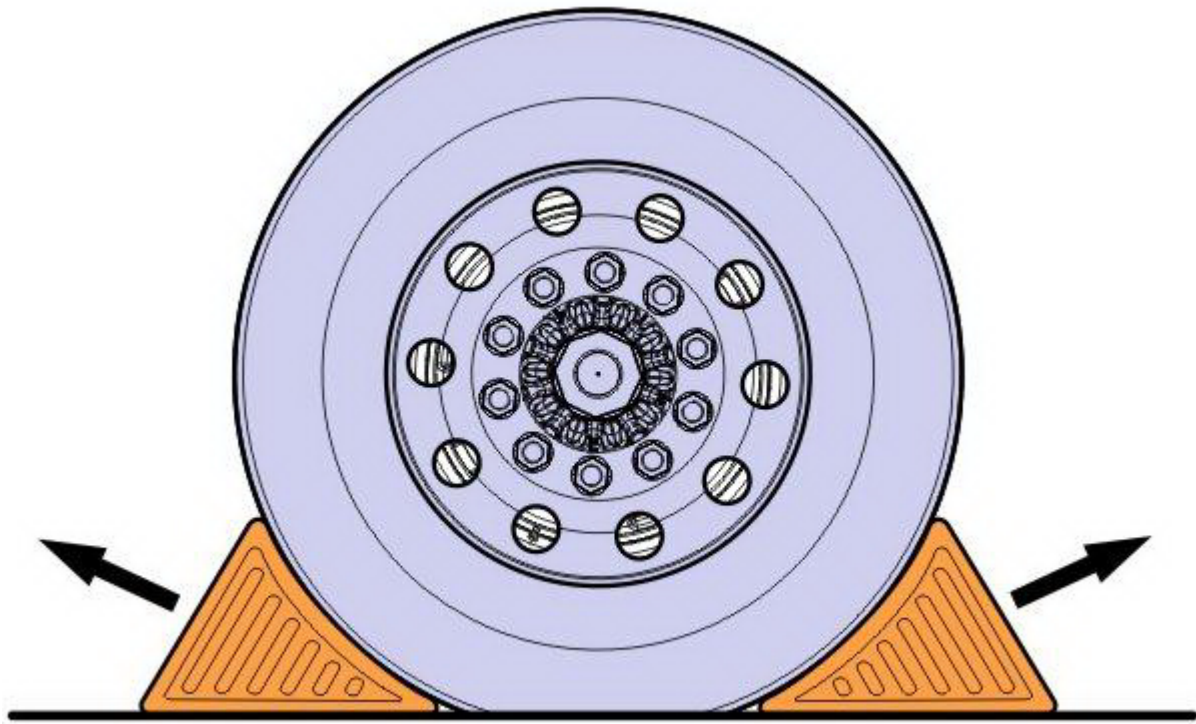
54. Install the expansion tank cap.



55. Connect the cable to the negative terminal.



56. Start the engine and check for any leaks.
57. Check the coolant level.
58. Verify the DEF level is reading in the cluster.
59. Clear any fault codes.
60. Lower the hood.
61. Remove wheel chocks.



62. Release the truck to service.

Warranty information

Reimbursement

<p>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.</p>	<p>UCHP Reimbursement</p>
<p>Claim Type (used only when uploading from the Dealer Bus. Sys.)</p>	<p>W</p>
<p>Labour Code After treatment Diesel Exhaust Fluid (DEF) Tank, Level Sensor, Replacement</p>	<p>2589-03-02-05</p>

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