



**S-Series™**  
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## Technical Service Information Bulletin

### Elkhart DEF Tank Conversion

**Date:** October 25, 2021

**Bulletin Name:** FDM-TSIB-032

**Model:** Oshkosh S-Series

**Units Affected:** MY 2016-2018  
Front Discharge Mixers

### Purpose:

This bulletin provides instruction on replacing a Shaw DEF tank assembly with a Elkhart DEF tank assembly. Installation of the Elkhart DEF tank assembly provides the highest quality electronics currently available at a reasonable price.

### Notice:

- This bulletin should be read and understood in its entirety before performing this procedure.
- All procedures outlined in the bulletin must be performed by skilled service personnel. Refer to the product service manual for descriptions of maintenance procedures.

#### SAFETY NOTICE

Perform your company's Lockout/Tagout procedure. If your company does not have a Lockout/Tagout procedure, follow OSHA 1910.147 and 1910.146 Confined Space as appropriate.

#### SAFETY NOTICE

Use appropriate Personal Protective Equipment (PPE) as required by your company.

### Tools and Equipment Required:

Customer to supply:

- Hand tools
- Zip ties

### Parts Required:

| Item | Part Number | Description                                 | Qty. |
|------|-------------|---------------------------------------------|------|
| 1    | 5092239     | TANK, DEF ASSEMBLY                          | 1    |
| 2    | 5092238     | HOSE, DEF RETURN - 44CA TRUCKS              | 1    |
|      | 5091112     | HOSE, DEF RETURN - 20CA, 32CA & 57CA TRUCKS | 1    |
| 3    | A000D179    | HOSE, BREATHER                              | 1    |

### Procedure:

#### Lockout/Tagout

1. Place unit on a flat surface, engage parking brake, chock truck tires, and perform your company's Lockout/Tagout procedure. If your company does not have a Lockout/Tagout procedure, follow OSHA 1910.147 and 1910.146 Confined Space as appropriate.
2. The vehicle's BATTERY DISCONNECT switch is located on the left-hand side of the battery box. Use the battery disconnect switch when performing any maintenance so the vehicle cannot accidentally be started.
  - a. Turn the battery disconnect switch (Figure A, Item 1) counterclockwise so the hole on the switch aligns with the hole in the bracket (Figure A, Item 2).
  - b. Install the safety lockout device ring (Figure B, Item 1) through the holes on the battery disconnect switch

and the bracket.

c. Install a padlock (Figure B, Item 2) onto the safety lockout device ring, lock it, and put the key in your pocket. If more than one person is working on the vehicle, each person must install his or her own padlock.

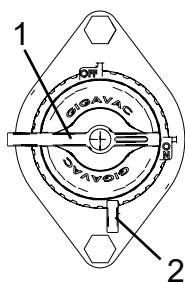


Figure A

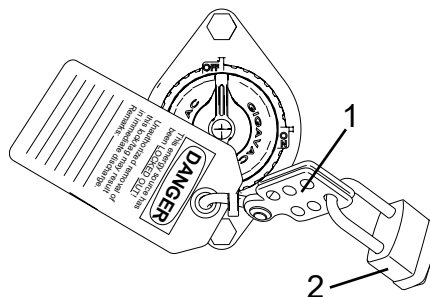


Figure B

### **CAUTION**

**Always allow cooling system to completely cool before working on cooling system components.**

**At normal operating temperature, the coolant can reach several hundred degrees Fahrenheit. Hot coolant can cause serious burns, or cause blindness if coolant gets into eyes.**

3. Allow cooling system to completely cool.

### **Tank Replacement**

4. Mark DEF and coolant hoses connected to DEF tank, see Figure 1.

5. Clamp coolant hoses with pinch pliers to prevent coolant loss when disconnected.

6. Disconnect and remove DEF and coolant hoses from DEF tank, see Figure 1.

7. Disconnect DEF tank electrical connector, see Figure 1.

8. Loosen and remove hardware securing DEF tank U-bolt to tank mount, see Figure 1. Remove U-bolt from DEF tank.

9. Remove DEF tank from tank mount.

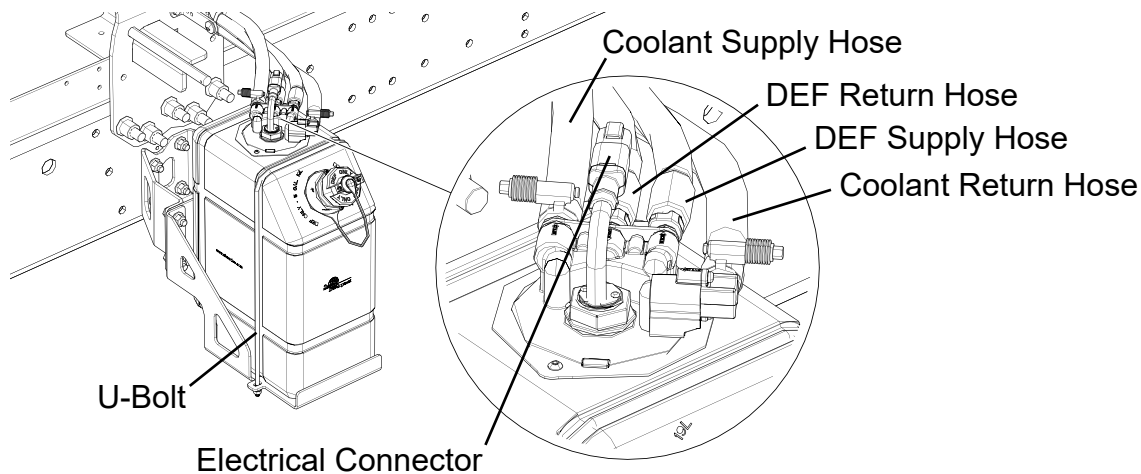


Figure 1

10. Loosen clamps securing DEF and coolant hoses between DEF tank and supply module, see Figure 2.
11. Disconnect original coolant return hose from supply module, see Figure 2.
12. Remove original coolant return hose from vehicle. Coolant return hose will not be reused.
13. Route new coolant return hose (5091112 or 5092238) from DEF tank to supply module, see Figure 2.
14. Connect new coolant return hose (5091112 or 5092238) to supply module, see Figure 2.
15. Remove any slack in DEF and coolant hoses between supply module and DEF tank.

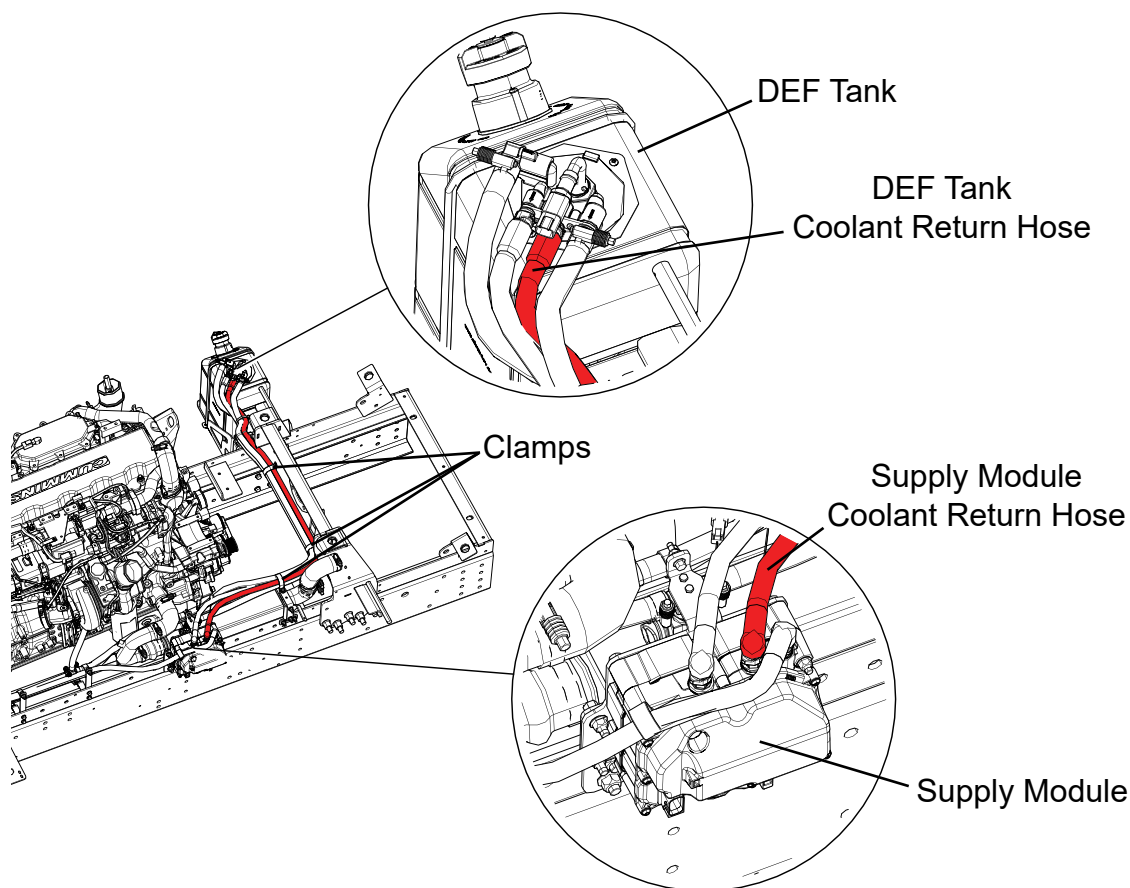


Figure 2

### NOTE

The DEF tank head unit can not be rotated to match the tank being removed. Adjust hose lengths as needs between the supply module and DEF tank to make hose connections.

16. Install new DEF tank (5092239) in tank mount.
17. Reinstall hardware and DEF tank U-bolt removed in Step 8 to secure DEF tank to tank mount.
18. Connect DEF and coolant hoses to DEF tank, see Figure 3.
19. Connect vent hose (A000D179) to DEF tank, see Figure 3.

20. Route vent hose to area under hood to prevent debris from entering vent hose. Secure vent hose with zip ties.

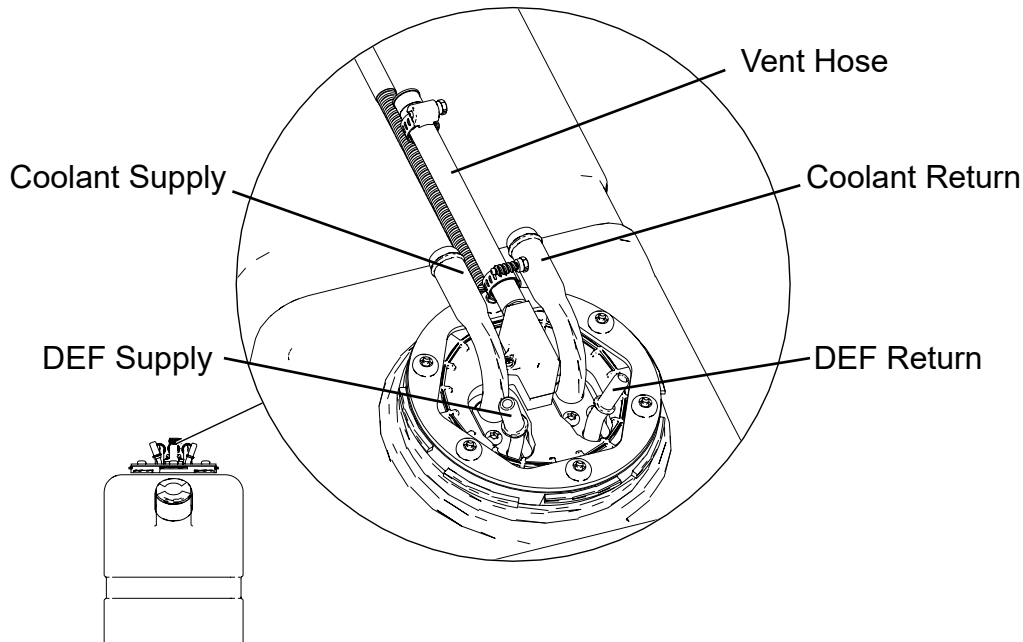


Figure 3

21. Connect DEF tank electrical connector to vehicle connector.
22. Check tank DEF and coolant hose connections for kinks. Adjust hoses as needed to eliminate any kinks.
23. Tighten clamps securing DEF and coolant hoses between DEF tank and supply module.
24. Remove pinch pliers from coolant hoses.
25. Secure any loose hoses with zip ties.
26. Fill DEF tank with DEF fluid.
27. Remove lockout/tagout and tire chocks.
28. Clear any vehicle fault codes and return vehicle to service.

### Continuous Improvement:

The change included in this document is part of the McNeilus Continuous Improvement Process.

*McNeilus's quality policy is providing customer satisfaction through innovative products, dedicated service, and a constant focus on continuous improvement.*



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