



TSB-STO2023-003: Coolant Line Securing Around Transfer Case

Rev07212023

Overview:

This document steps you through how to inspect the coolant lines in the area of concern to verify what repairs are needed, if any, to prevent coolant leaks. Failure to inspect and repair properly as needed could result in loss of coolant and, as a result, vehicle damage. Please contact Storyteller should you have any questions or need any assistance with these instructions.

Safety Alert:

Do not perform these steps unless you feel comfortable doing so. The following inspection will be performed under the van where components are likely to be hot. Only perform these steps once the van has had adequate time to cool down. Exercise extreme caution when attempting to perform these steps. Reach out to Storyteller Overland should you have any questions or concerns.

Flat Rate: 30 minutes

Applicable Vehicles:

All STO Mercedes Sprinter AWD MODEs

Tools and Supplies Needed:

- For Inspection:
 - Flashlight
 - camera (if needed)
- For only zip tie repair:
 - Flush Cutters
 - (2) high-temp heavy duty zip ties*

* Parts required for repair will be provided, as needed, by STO once photo proof of issue/damage is provided.

Diagnostic Procedure:

1. Park the van in a safe area with adequate room to access underneath the van. Allow the van to cool down to a safe working temperature. **NOTE: Inspection will be performed under the van where components are likely to be hot after driving. Only proceed to the next step once the van has had adequate time to cool down. Exercise extreme caution when attempting to perform these steps.**
2. Inspect coolant lines under van

- a. Locate the Rixen heat exchanger that is mounted to the chassis frame just behind the driver side front tire as shown in figure 1.
- b. Follow the (2) coolant lines from the right side of the heat exchanger toward the center of the chassis and between the transmission and battery box. See figure 1



Figure 1

Locate Rixen heat exchanger under the van circled in the figure. Follow the (2) coolant lines between the transmission and battery box as pointed out with an arrow.

- c. Closely inspect the coolant lines at the rear inboard corner of the battery box next to the transfer case as shown in figure 2. Check whether the coolant lines are touching or able to touch the transfer case. Figure 2 shows an example of what is NOT GOOD. We do not want the coolant lines to be able to touch the transfer case at all. **Check for any signs of chafing, wear or damage to the coolant lines in this area and note what is found on the Coolant Line Securing Checklist at the end of this document.**

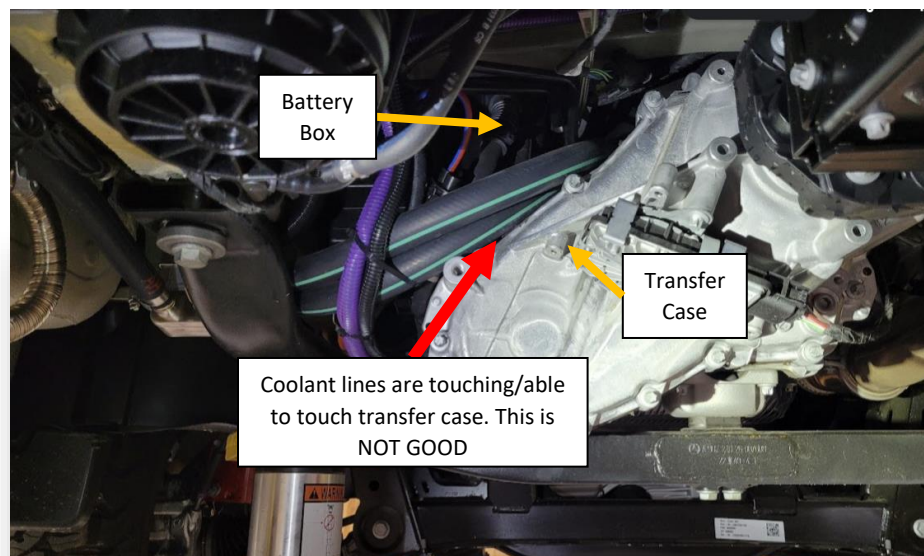


Figure 2

- d. Continue to follow the coolant lines toward the front of the van. Closely inspect the (2) coolant lines in the area between the battery box and the transmission from the transfer case to the front differential above the front drive shaft. **Verify there is a heavy duty zip tie around the coolant lines above the transfer case in front of the white routing mount for the fuel lines and there are at least (2) additional zip ties around the coolant lines securing them to the chassis frame above the front drive shaft so that the coolant lines are not allowed to contact the front drive shaft, transmission or transfer case.** See figures 3a and 3b.
- e. **Check for any signs of chafing, wear or damage to the coolant lines in this area and note what is found on the Coolant Line Securing Checklist at the end of this document.**

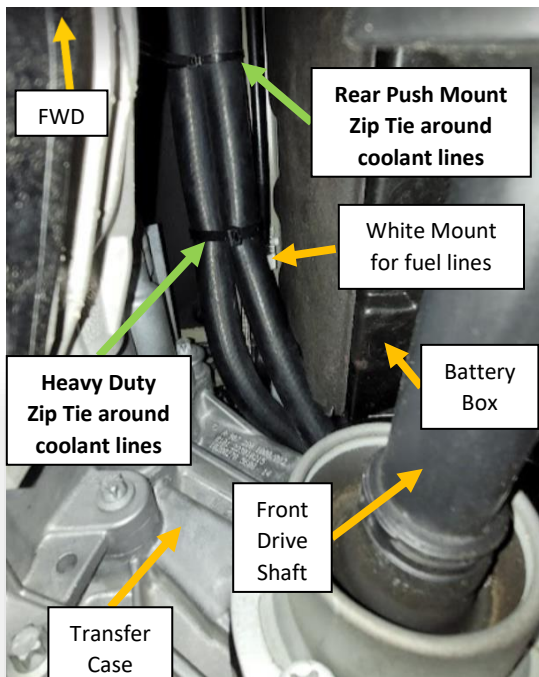


Figure 3a

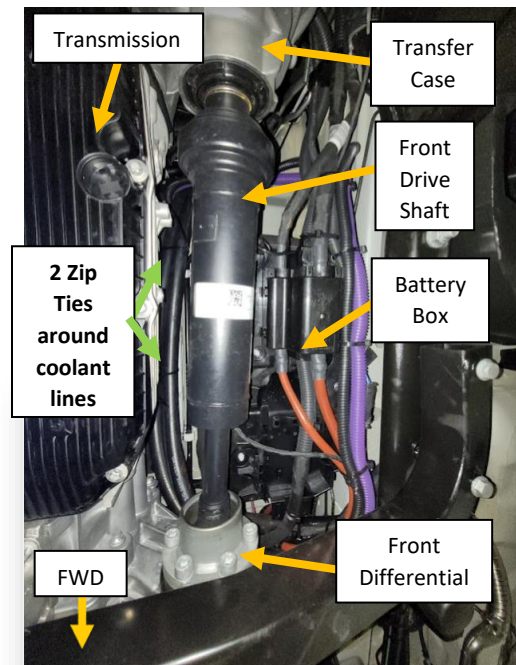


Figure 3b

- f. If your coolant lines are not secured with zip ties and/or if your coolant lines appear to be damaged in any way, document the issues seen in the checklist and take photos of the damaged/unsecured coolant lines.
3. If no issues or concerns are found, complete the checklist at the end of this document, return a copy to warranty@storytelleroverland.com and continue to EXPLORE ENDLESSLY!
4. If coolant lines are not secured and/or damage is found
 - a. Complete the checklist at the end of this document and take photos of the issues found. Send the completed checklist and photos to warranty@storytelleroverland.com to receive repair parts as necessary.
 - b. **If coolant lines were not damaged but need to be secured**, follow the repair steps in the section below once repair parts have been received.
 - c. **If the coolant lines have damage**, additional repair instructions will be provided along with the additional repair parts.

Repair Procedure:

5. If the coolant lines did not show signs of wear or damage when inspected during the steps above and simply need to be zip tied to prevent future risk, proceed to step 6 once repair parts have been received. Note: Some locations may already have zip ties as detailed in the steps below. You may either leave the current zip ties in place or replace them following each step below.
6. Thread (1) of the zip tie mounts onto each of the (2) smaller zip ties so the head of the zip tie faces the same direction as the push mount. See figure 4.



Figure 4

7. Install a push mount (once threaded onto the zip tie) into each of the (2) holes in the chassis frame on the underside of the floor located between the transmission and battery box as pointed out in figure 5a. Make sure the push mounts are pressed fully into each hole to provide a secure hold.
8. Position the coolant lines up against the frame so they are prevented from making contact with the front drive shaft. Wrap each zip tie around both coolant hoses and secure the zip ties so they are snug against the coolant lines but will not restrict coolant flow. See figure 5b
9. Cut off the excess end of the zip tie using a pair of cutters and ensure the coolant lines do not and are not able to make contact with the front drive shaft or any moving component.



Figure 5a

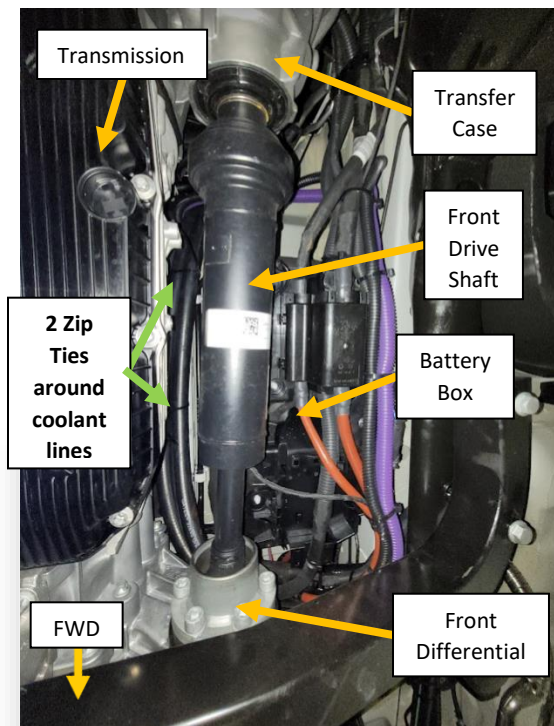


Figure 5b

10. Secure 1 heavy duty zip tie around the coolant lines and the hole in the chassis frame member just in front of the white chassis hose mount that is located between the battery box and the transfer case and above the front driveshaft on the underside of the van body floor. NOTE: Be sure to not bundle the fuel lines that are routed through the white mount with this zip tie. It is easiest to feed the zip tie between the fuel lines and the frame member first, then through the hole in the frame member and then around the coolant lines to secure. See figure 6

11. Cut off the excess end of the zip tie using a pair of cutters and ensure the coolant lines do not and are not able to make contact with the front drive shaft or transfer case in this area.

12. Add the 2nd heavy duty zip tie around the coolant lines and the negative (black) battery cable that comes out the rear inboard corner of the battery box. Position the zip tie toward the top of the battery cable so it pulls the coolant lines away from the transfer case considerably as shown in figure 7.

13. Reach out to STO should you have any further questions or concerns.

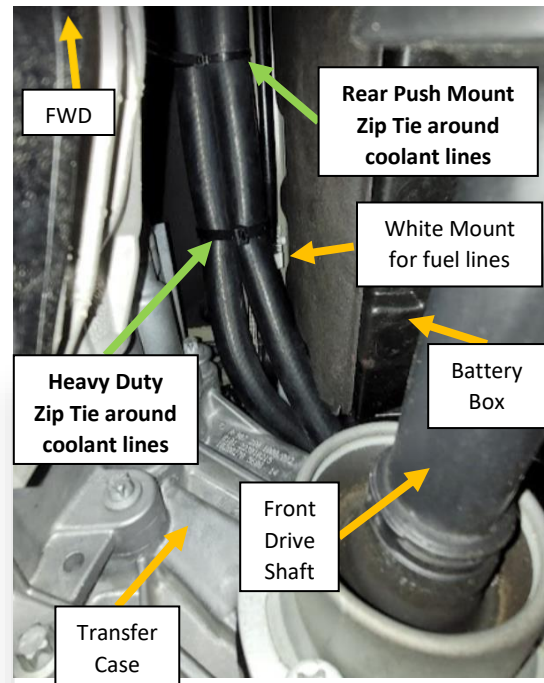


Figure 6

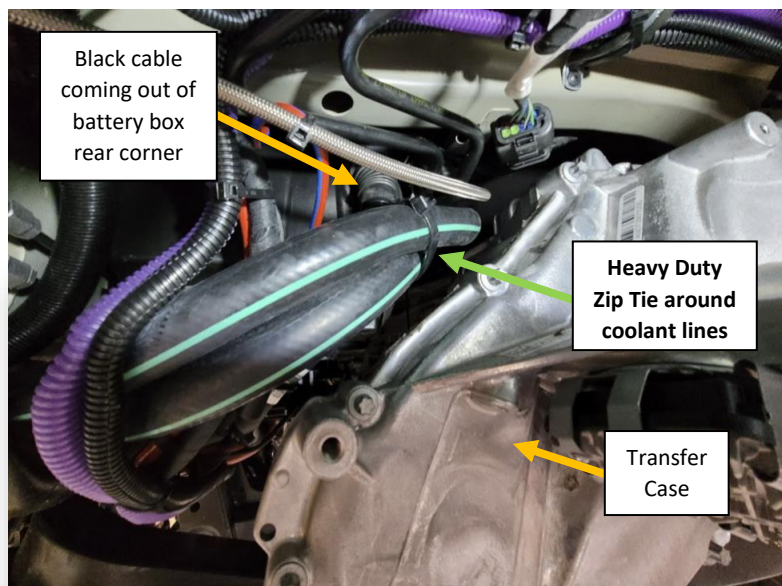


Figure 7

Coolant Line Securing Checklist

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Instructions: Complete this checklist during the procedure outlined in the document "TSB-STO2023-003: Coolant Line Securing Around Transfer Case." Once the checklist and instructions have been completed, supply completed form and necessary photos to Storyteller Overland via email at warranty@storytelleroverland.com

Service Center Name: _____ Date: _____

Name/Employee # of person(s) performing procedure: _____

Van Owner's Name: _____ Van's VIN: _____

NOTE: If you answer yes to any of these questions, take photos to provide to Storyteller Overland

Step 2c: Are the coolant lines touching or able to touch the transfer case? Yes ___ No ___

Are there signs of chafing, wear or damage to the coolant lines in this area? Yes ___ No ___

Description of chafing, damage or wear found: _____

Step 2d: Are there any zip ties missing in the locations detailed in this step? Yes ___ No ___

Step 2e: Are there signs of chafing, wear or damage to the coolant lines in this area? Yes ___ No ___

Description of chafing, damage or wear found: _____

Select one of the options below and initial on the line next to it:

- No issues or concerns found with the coolant lines. I am going to continue Exploring Endlessly! _____
- Coolant lines were not damaged but needed to be secured per these instructions _____
- Coolant lines have damage and I need further instructions. _____