

DEF and Coolant Line and Fitting Leaks

49-12

> Constellation
Heritage
> 4700 Models

> 4800 Models
> 4900 Models

> 5900 Models
> 6900 Models

Western Star
Service Bulletin

General Information

Leaks in the the diesel exhaust fluid (DEF) system are usually attributed to three sources; normal seepage, improper connections, or damage. A small amount of white crystal or powder around a DEF fitting is normal. Excessive crystal buildup (caused by the evaporation of DEF when exposed to the air) and/or dampness is an indication of a leak.

Leaks in coolant lines to the DEF tank are usually caused by improperly installed, or damaged connectors.

Cleaning and Repair, DEF Lines

1. Park the vehicle on a level surface, shut down the engine, and set the parking brake. Chock the tires.
2. Clean the area around the suspected leak thoroughly with hot water.
3. Start the engine to pressurize the DEF system, and inspect the area for leakage.
4. Shut down the engine. On pre-2013 vehicles, allow at least five minutes for the DEF system to purge the lines.

NOTICE

To disconnect a DEF line, push the line coupling in towards the male connector to move the holding clip to the unlocked position, then compress the prongs of the holding clip and pull the line off of the male connector. Failure to properly remove a DEF line can result in damage to a line coupling or DEF fitting.

5. Disconnect any leaking fittings and inspect the lines and fittings for damage. Examine the inside of the fittings for damaged O-rings.

If the line or fittings are damaged, replace the line assembly. Any damage to the O-rings requires replacing the line assembly.

If there is no damage, clean the fitting and line with hot water before connecting it.

NOTICE

To connect a DEF line, push the line coupling onto the DEF port male connector, then pull back gently on the coupling to engage the holding clip in the locked position. Failure to properly connect a DEF line can result in leaks, or damage to a line coupling or DEF fitting.

6. Connect the DEF line. When the line is correctly seated, it will click. Give the line a gentle tug to make sure the holding clip is seated.
7. Secure the line so that it is square with the fitting and not side-loaded.
8. Start the engine to pressurize the DEF system, and check for leaks.

If a connection is still leaking, replace the line assembly.

Cleaning and Repair, DEF Tank Coolant Lines

Engine coolant runs through tubes in the DEF tank to keep the DEF from freezing.

1. Park the vehicle on a level surface, shut down the engine, and set the parking brake. Chock the tires.
2. Clean the area around the suspected leak thoroughly with water.

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3. Check the coolant lines to the DEF tank for proper installation. The lines should be straight on the fitting and fully engaged.
- If a line is properly connected and still leaking or if it is damaged, replace the line and fittings.
- If the connector is not properly engaged, press it in until it is properly seated. When the line is correctly seated, it will click. Give the line a gentle tug to make sure it is correctly seated.
4. Start the engine to pressurize the coolant system, and check for leaks.

Warranty

This bulletin is informational only. Warranty does not apply.