

13–007 Air Compressor Discharge Line Blocked by Ice in Cold Weather

TSB-13-007-FTL

Creation Date:2024-12-18

Engine or Vehicle Affected:

- ▶ eM2
 - ▶ eCascadia
-

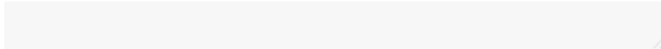
Warranty applies to this described condition. See the warranty information at the end of this bulletin.

Described Condition

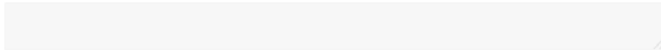
On eCascadia and eM2 vehicles, specific environmental conditions near freezing (both slightly above and below), where significant moisture and humidity are present, can lead to an ice blockage in the compressor discharge line overflow valve. As a result, the compressor will no longer build air and may blow air and mist oil out of a pressure relief valve on the compressor housing. This issue typically occurs upon startup of the vehicle but could also happen during operation under certain rare conditions. Follow the detailed procedure below to fix in the event this occurs, or if a vehicle is operating in conditions where this may occur.

Replace the Overflow Valve

1. Park the vehicle on a level surface, shut down the vehicle, and apply the parking brake. Chock the tires.



2. Drain the air.

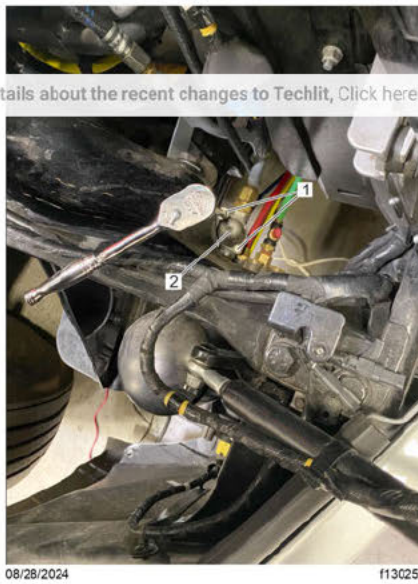


Note: The overflow valve is designed to maintain 100 psi (690 kPa) back-pressure in the compressor discharge line. This is to allow heat build-up in the compressor, and prevent moisture accumulation in the compressor oil.

3. Remove the two bolts from the top of the overflow valve. See Fig. 1.

For more details about the recent changes to Techlit, Click [here](#).

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1. Bolts

2. Spring Chamber Cover

Fig. 1, Removing Bolts of the Overflow Valve

4. Replace the overflow valve.

5. Install the bolts. Tighten the bolts 62–80 lbf-in (700-904 N-cm).

Defrost-Clean-Dry-Reassembling the Valve

6. Drain the air.

7. Remove the two bolts from the top of the overflow valve. See Fig. 1.

8. Remove the spring chamber cover. See Fig. 2.



1. Spring Chamber Cover

2. Upper Spring seat

3. Spring

4. Bolt

5. Diaphragm

6. Valve

Fig. 2, Overflow Valve Assembly

9. Remove the spring, upper spring seat, plastic piston, and diaphragm.

● Important: DO NOT adjust the set screw on the top of the overflow valve spring chamber. This screw setting is precisely calibrated when the valve is manufactured, and changing the screw position will render the valve non-functional. See Fig. 3.

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10. Defrost, clean, and dry the valve.



11. Install the spring, upper spring seat, plastic piston, and diaphragm inside the spring chamber cover.

12. Install the overflow valve.

13. Install the bolts. Tighten the spring chamber fasteners 62–80 lbf·in (700–904 N·cm).

Insulating the Discharge Line

14. Apply insulation (part number 48–02159–124) over the lower metal section of the discharge line and over the overflow valve.

15. Install the tie straps. See Fig. 4.

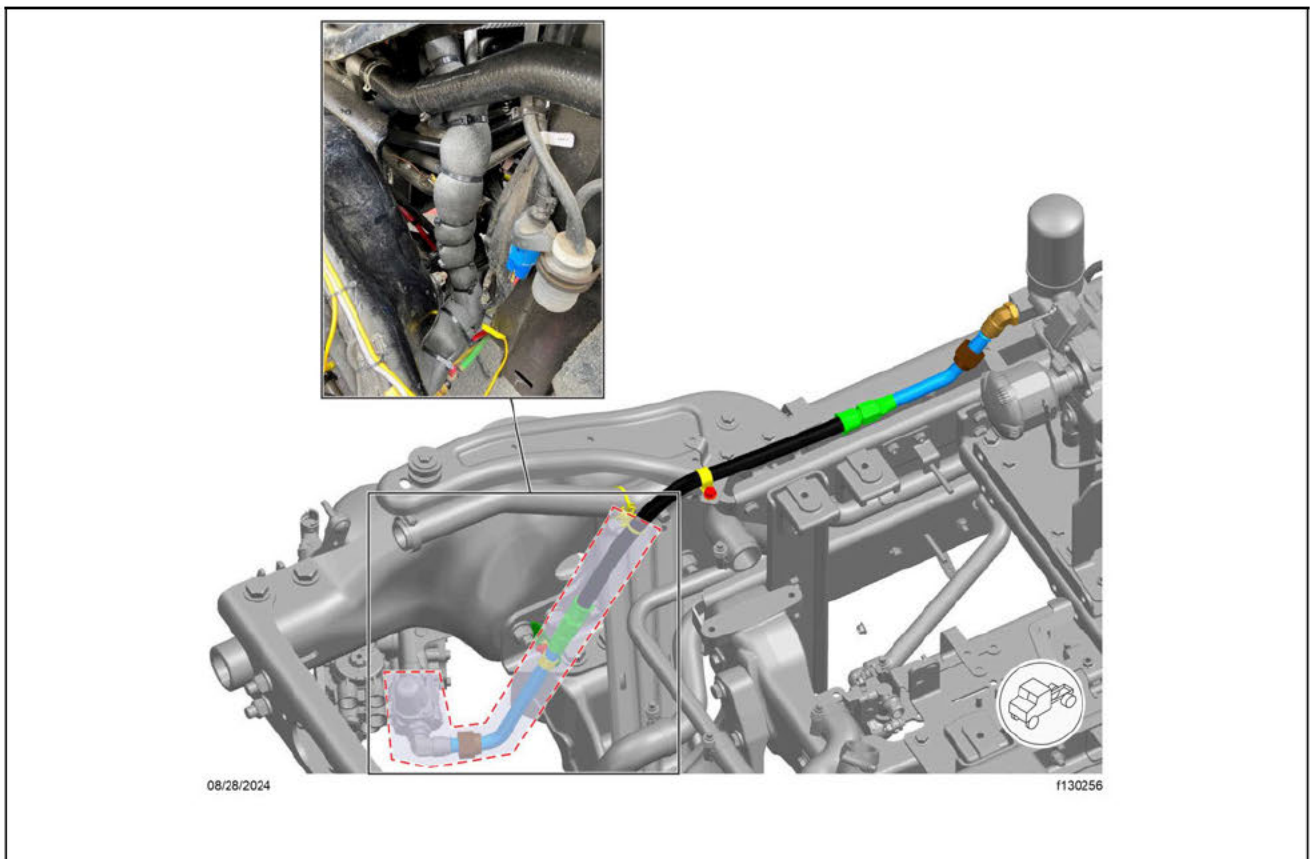


Fig. 4, Insulated Discharge Line

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Warranty

This procedure is warrantable only if the described condition exists and the repair is performed within the applicable base or extended coverage warranty period. If a failure is not found, this procedure is considered preventive and warranty does not apply.

See Table 1 for OWL VMRS codes and labor allowance information. Enter this service bulletin number in the Service Bulletin # field.

Table 1, OWL VMRS Codes and Labor Allowance

Primary Failed Part	Component Code	Cause Code	Correction Code	SRT Code	Description	Hours
A12-23236-017	013-018-024	64	03	3S8-5000A	OVERFLOW VALVE, COLD WEATHER BLOCKAGE, REPLACE (TSB13-007)	0.2
	013-018-024	64	02	3S8-5000B	OVERFLOW VALVE, COLD WEATHER BLOCKAGE, CLEAN (TSB13-007)	0.2
	013-009-023	64	17	3S8-5000C	DISCHARGE LINE, COLD WEATHER BLOCKAGE, INSULATE (TSB13-007)	0.2

Table 1, OWL VMRS Codes and Labor Allowance

Note:

013-018-000
 013-018-001
 013-018-024
 F37
 F38
 F40

REPLACE

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