

04/15/2025
CAL FTL 54-036_Revised

Subject: New Cascadia BCA Electrical Connection Inspection

Make: Freightliner

Model: New Cascadia

Model Year Affected: 2022-2025

Build Date Range: Selected Vehicles Built Between January 1, 2022 and December 31, 2024

Our records indicate that you are the owner of certain vehicles; therefore, DTNA has decided to share the following documentation with you.

Please see the attached communication in this email. We hope you find this information helpful.

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Electrical Connection Inspection – Freightliner Cascadia

Date of Inspection: _____ Odometer Reading: _____

Unit #: _____ Last 6 VIN: _____

Location (City/State): _____ Insp. by (Print Name): _____

Work Instructions

Note: This work instruction must be performed by a Freightliner systems certified technician.

1. Follow all the appropriate safety procedures. To avoid injury, park the vehicle on a level surface, shut down the engine, set the parking brake, and chock the front tires.

Note: Verify the batteries are disconnected prior to starting inspection.

2. Inspect all the electrical contact points and grounds listed below.
3. Tighten to spec as set forth below. Do not over tighten the bolts or nuts.
4. For cable routing and proper installation. See BCA installation drawing (D06-95357).
5. Complete and attach this form to claim.
6. Take photos of the area being inspected both before and after each step and submit with completed form.
7. After completion of the inspection, reconnect battery cables if no further repairs are required.

Inspection Checklist

Complete each step and provide comments regarding the condition of each item and any corrections made. Pictures are attached for reference.

Battery Cable Access (BCA) Inspection	Comments
Identify and note in comments which stud the BCA 30K supply cable is attached to. Remove BCA 30K supply cable and inspect. Neither the heat shrink nor the sealant shall encroach upon the working surface of the terminal. Terminal Insulation spec 4.2.6.4. Trim ring eye heat shrink if interference exists between ring eye and mounting washer or bus bar. See Fig.1	
Inspect the bus bar for damage. See Fig. 2.	

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<p>Install 30K supply cable to the lower right-side post of the BCA using new washer, part no 23-10900-031 (5/16" SST) and new nut part no. 23-14592-008 (SST, M8 patch lock) or reuse existing nut with 271 blue Loctite. Ensure joint is clean and free of interference from heat shrink or resin glue. Retrim or clean as needed. Torque to 15Nm. See Fig. 3.</p>	
<p>Remove BCA cover and ensure that both circuit breaker (CB) nuts and Midi Fuses are torqued to spec.: 5.5Nm for circuit breaker, 4.5Nm for Midi Fuses. Reinstall cover. See Fig.4.</p>	
<p>Visually inspect main power connection left side of BCA for corrosion, signs of arcing or loose connection. Repair or replace as needed. If repairs are made, torque both nuts to 15Nm. See Fig. 5.</p>	
<p>Inspect full routing of 30K cables for any damage or chafing on both supply and ground cables. Refer to installation print D06-95357-000. See Fig. 6, Fig. 7, and Fig. 8.</p>	
<p>Locate and identify the 30L cable that connects the tractor to the trailer. See Fig. 9.</p>	
<p>Inspect the 30L cable for any corrosion, chafing, or separation, at both the single and dual pin connector. Inspect the ground cable to ensure it is secure on the single pin connector and there is no corrosion, chafing or separation. Replace 30L cable if corrosion, chafing, or separation is present at either the connectors or the ground cable. See Fig. 10.</p>	

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Reference Pictures:

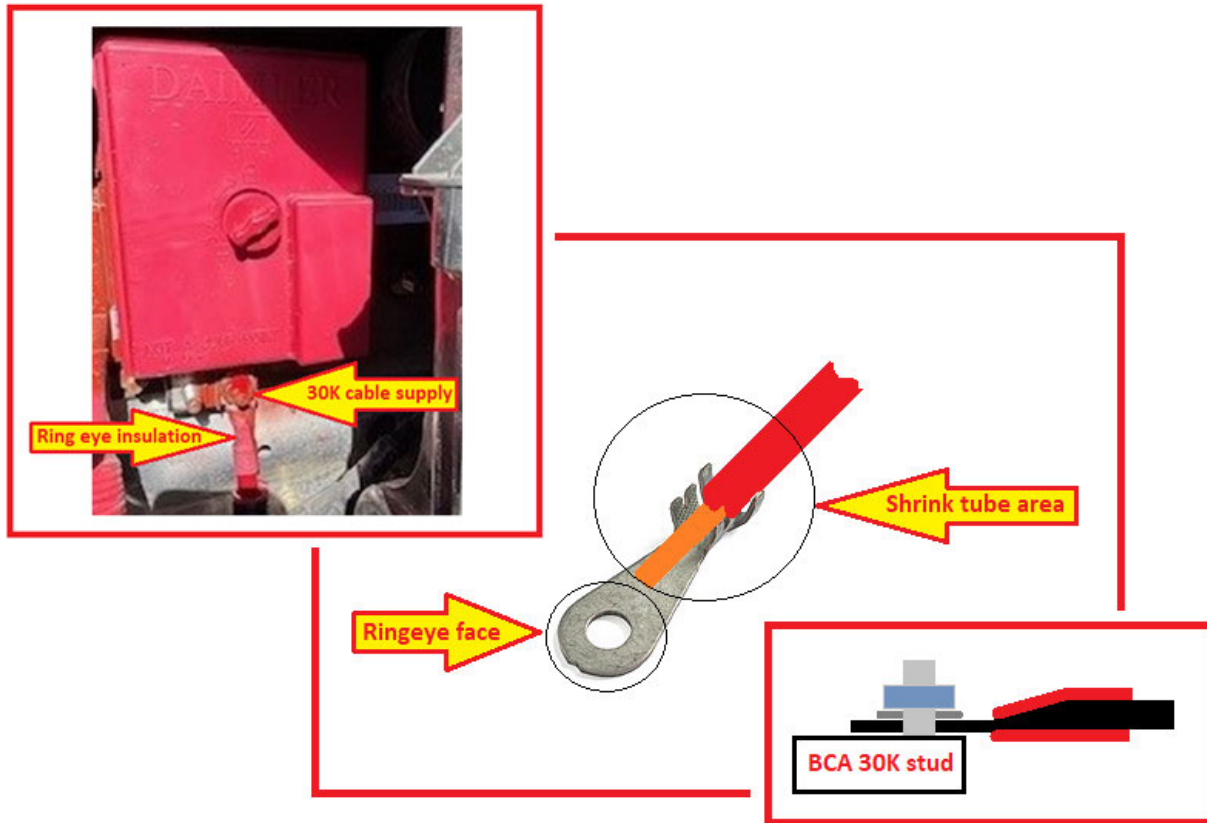


Fig. 1, BCA 30K Cable Location. No Shrink Tube Between Ring Eye and Mounting Washer and Terminal Insulation (heat shrink) spec.

4.2.6 Terminal Insulator

- 4.2.6.1 Apply heat shrinkable tubing when required by the assembly drawing or when required by the ring terminal or splice specification. A nominal diameter tubing may be referenced, but the supplier must utilize the appropriate size to meet the requirements of this document and supplier processes. Harness supplier must send notification to DTNA engineering when heat shrinkable tubing is used which is different than that specified in the harness bill of material.
- 4.2.6.2 The tubing must completely cover the cable strands protruding from the core crimp wings and extend beyond the insulation crimp wings.
- 4.2.6.3 The tubing must completely collapse to encompass the terminal and the insulation diameter.
- 4.2.6.4 Neither the tubing nor the sealant shall encroach upon the working surface of the terminal.

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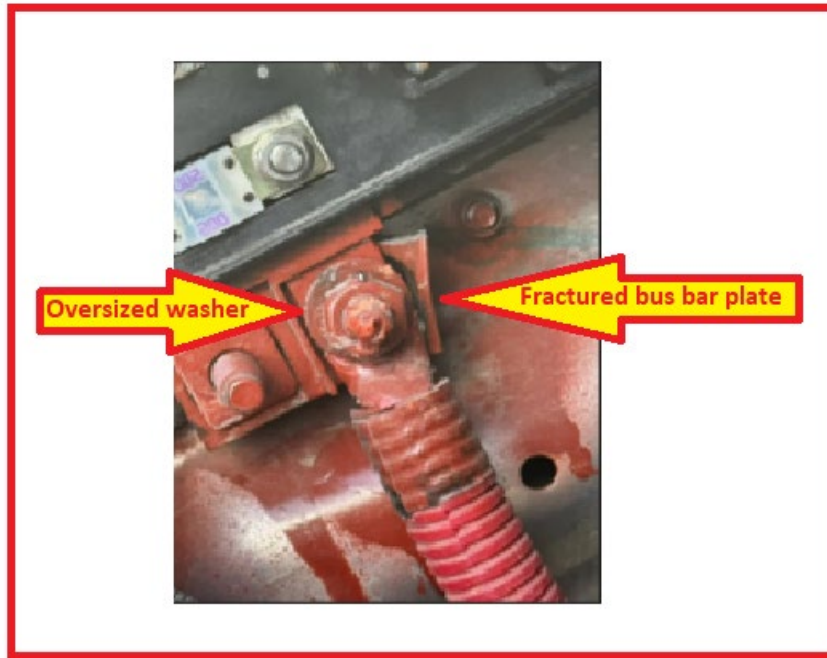


Fig. 2, 30K Cable Inspection At BCA

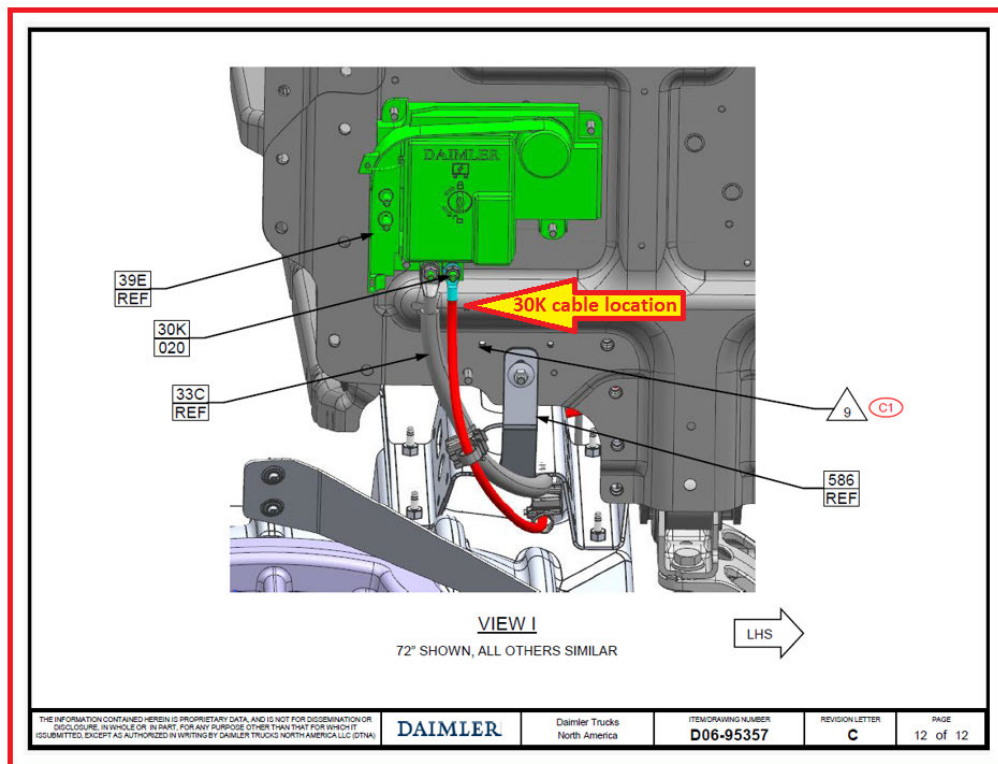


Fig. 3, 30K Cable Location At BCA

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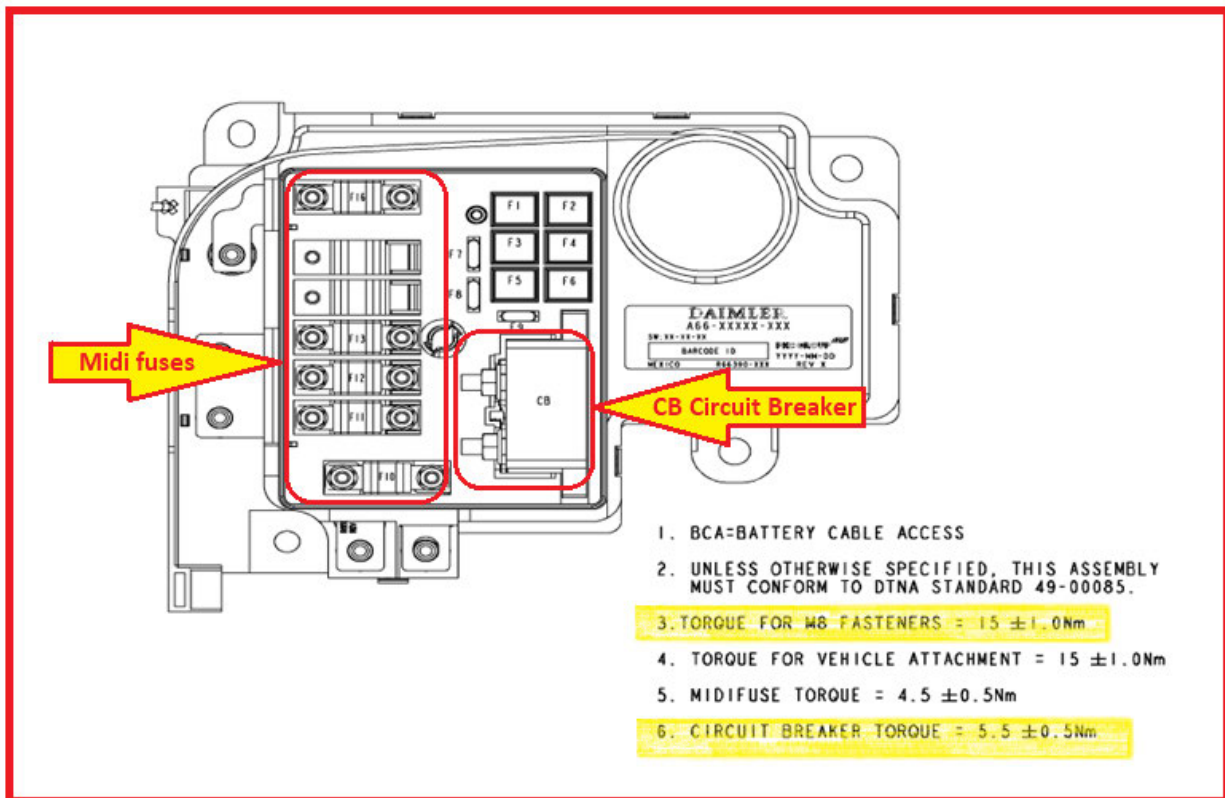


Fig. 4, CB Circuit Breaker and Midi Fuse Torque

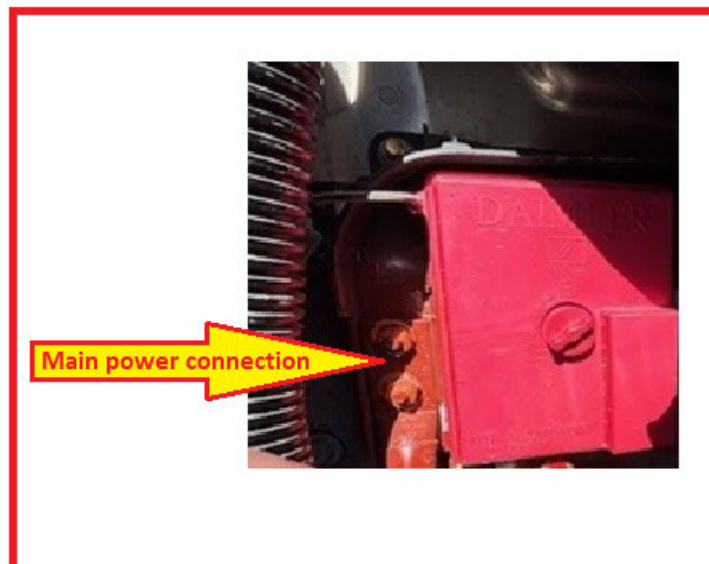


Fig. 5, Main Power Connection

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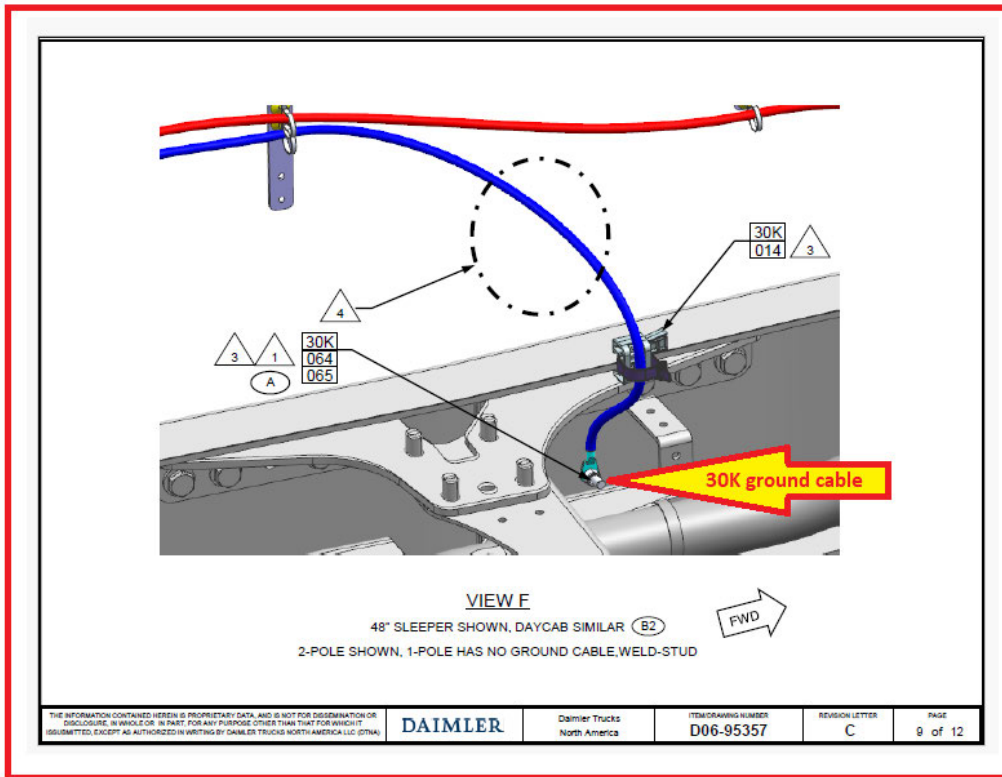


Fig. 6, 30K Ground Cable Location

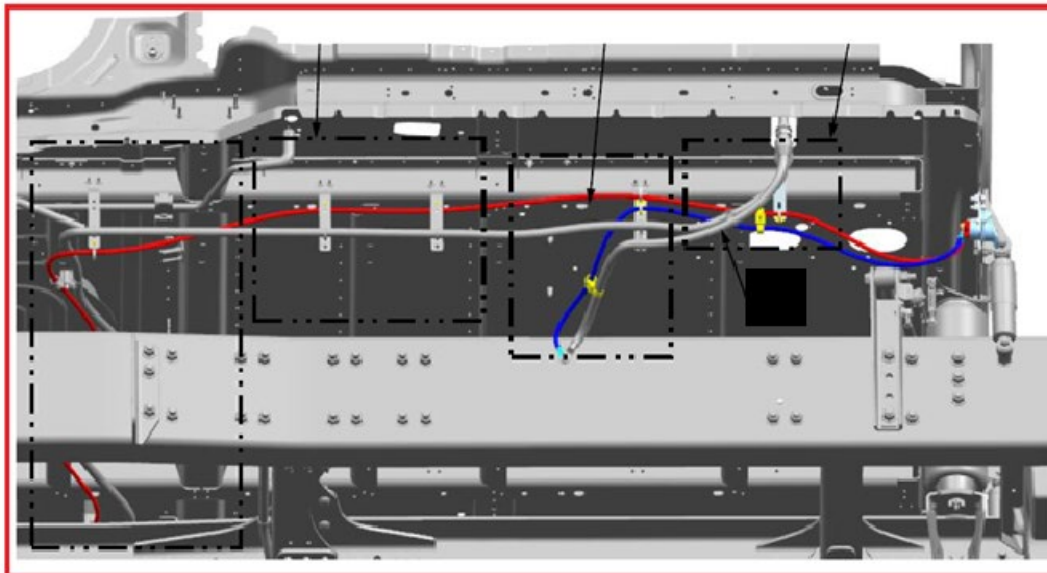


Fig.7, Under cab 30K Cable Routing

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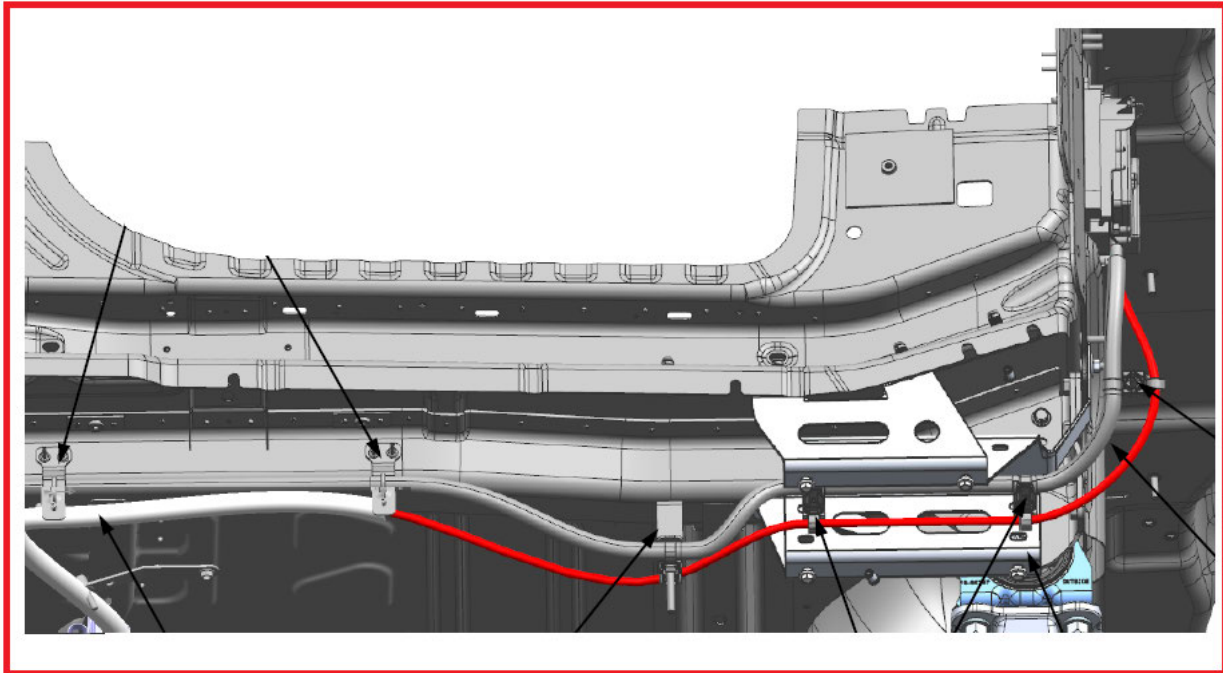


Fig. 8, BCA 30K Cable Routing



Fig. 9, PHM 23 2630 Cable Assembly

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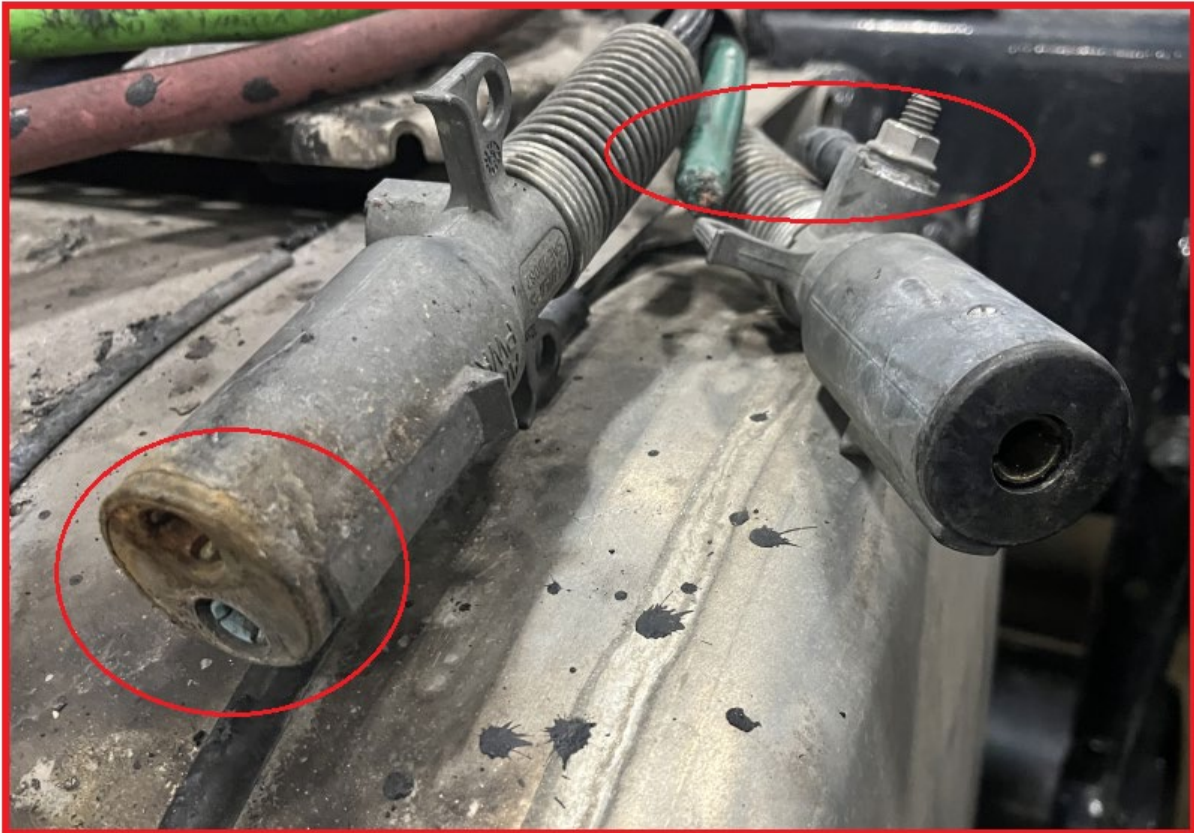


Fig. 10, Inspecting The 30L Cable