## Compressor Bracket Modification to Reduce Harness Chafing

54-330

FLA COE FLB COE FLD Conventional Business Class FLC 112 Conventional Century Class Conventional Argosy Cargo Columbia 122SD and Coronado Business Class M2 Cascadia 108SD/114SD > New Cascadia Freightliner Service Bulletin

#### **General Information**

New Cascadia vehicles with Detroit HDEP engines may experience engine harness chafing at the harness support bracket that mounts on the air compressor. To avoid this issue, a new hole is drilled on the bracket to enhance the spacing with tie straps and reduce harness contact with the mounting bolt. Additional harness wrapping is added to reduce the harness chafing. The following are the possible symptoms that associate with this issue which may include one or more of these.

#### **Possible Symptoms:**

- Check engine light (CEL) ON.
- Blown fuses (Typically VPDM fuse location 6, 49 or BCA fuse location 1).
- · Erratic gauge operation.
- Engine no crank / no start.
- · Active engine fault codes which could include the following:
  - MCM 625/9 Aftertreatment control module PT-CAN DM1 message not received or has stopped arriving.
  - CPC 625/14 PTCAN: MCM System ID/MCM\_MCM.
  - MCM 1231/9 Aftertreatment control module message not received or has stopped arriving.
- In rare cases, the vehicle may shut down.

#### **Air Compressor Support Bracket Modification**

- 1. Park the vehicle on a level surface, shut down the engine, and apply the parking brakes. Chock the tires.
- 2. Disconnect the batteries.
- 3. Open the hood.
- 4. Disconnect and remove all the connectors, clamps, and clippings as needed from the engine harness near the air compressor in order to remove the bracket. See Fig. 1. Repair any harness wiring damage as needed. Refer to SB54-290, Guidelines for Repairing or Replacing an Electrical Harness and to Table 6 for available sizes of twist tube.

## Compressor Bracket Modification to Reduce Harness Chafing

Freightliner Service Bulletin FLA COE FLB COE FLD Conventional Business Class FLC 112 Conventional Century Class Conventional Argosy Cargo Columbia 122SD and Coronado

Business Class M2 Cascadia 108SD/114SD > New Cascadia

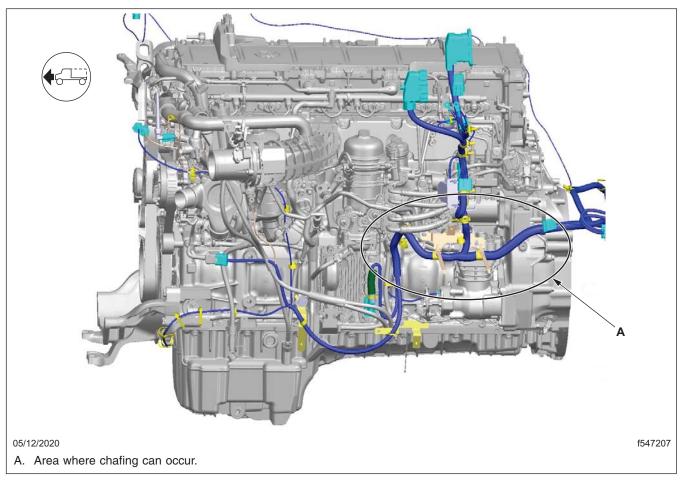


Fig. 1, Area of Concern for Harness Chafing

IMPORTANT: If ordering the twist tube, make sure to use the Bentley Harris part numbers in **Table 6** of **SB54-290**, *Guidelines for Repairing or Replacing an Electrical Harness*.

5. Remove the fasteners and then remove the bracket from the engine. See Fig. 2.

# Compressor Bracket Modification to Reduce Harness Chafing

54-330

FLA COE FLB COE FLD Conventional Business Class FLC 112 Conventional Century Class Conventional Argosy Cargo Columbia 122SD and Coronado

Business Class M2 Cascadia 108SD/114SD > New Cascadia

Freightliner Service Bulletin

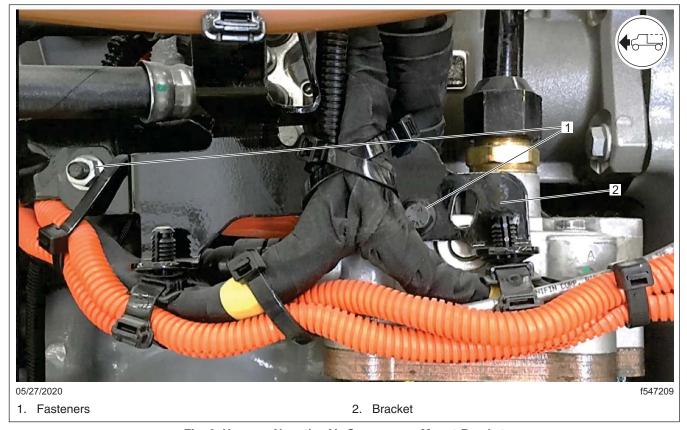


Fig. 2, Harness Near the Air Compressor Mount Bracket

6. Using Fig. 3 as a reference, drill a 3/8 inch hole in the bracket.

### Compressor Bracket Modification to Reduce Harness Chafing

Freightliner Service Bulletin FLA COE FLB COE FLD Conventional Business Class FLC 112 Conventional Century Class Conventional Argosy Cargo Columbia 122SD and Coronado Business Class M2 Cascadia 108SD/114SD > New Cascadia

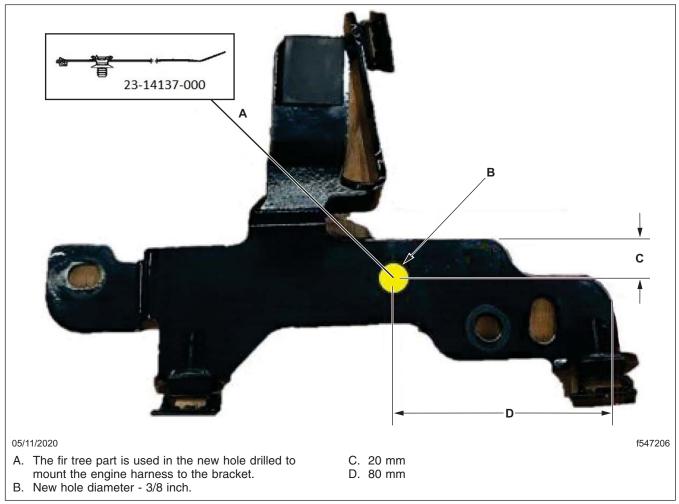


Fig. 3, New Hole Dimensions on the Bracket

7. Add an appropriate sized twist tube to the vertical and horizontal sections of the engine harness as shown in **Fig. 4**. Allow enough twist tube length to cover the harness at all of the bracket clipping points. Secure each end of the twist tube with electrical tape.

54-330

FLA COE FLB COE FLD Conventional Business Class FLC 112 Conventional

Century Class Conventional Argosy Cargo Columbia 122SD and Coronado Business Class M2 Cascadia 108SD/114SD > New Cascadia Freightliner Service Bulletin

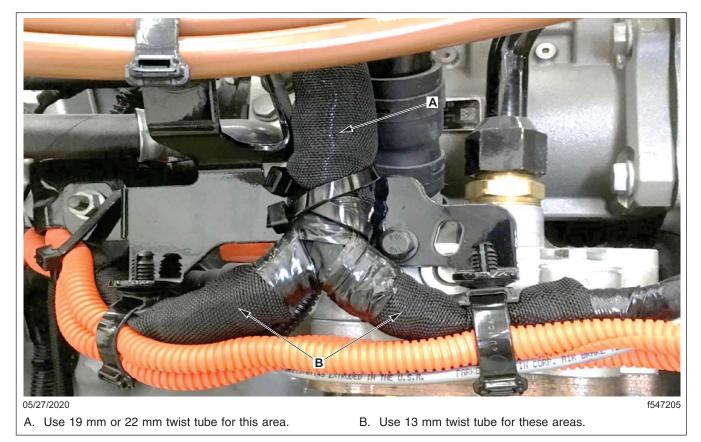


Fig. 4, Twist Tube Cover

8. Install the newly drilled bracket with the fastener. Then, install a fir tree with tie strap (23-14137-000) into the new hole being used to fasten the harness to the bracket. See **Fig. 5**.

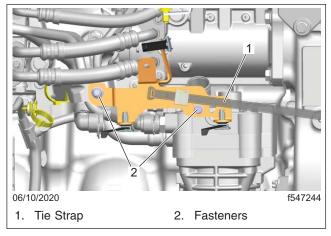


Fig. 5, Newly Drilled Bracket with Tie Strap

### Compressor Bracket Modification to Reduce Harness Chafing

Freightliner Service Bulletin FLA COE FLB COE FLD Conventional Business Class FLC 112 Conventional Century Class Conventional Argosy Cargo Columbia 122SD and Coronado Business Class M2 Cascadia 108SD/114SD > New Cascadia

9. Secure the engine harness to the bracket using the fir tree and tie strap. See Fig. 6.

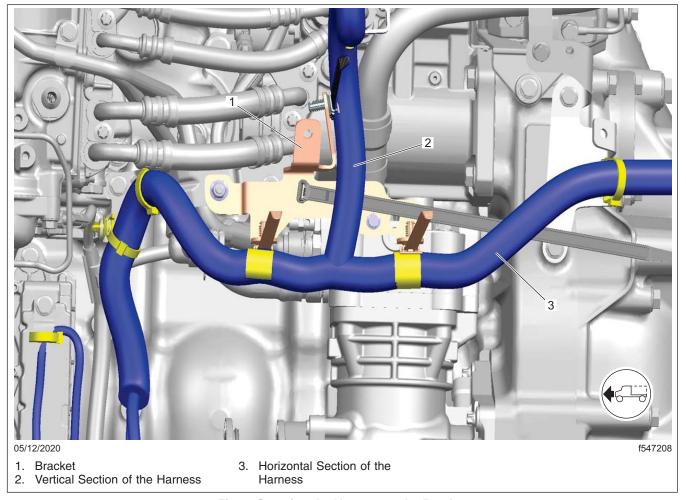


Fig. 6, Securing the Harness to the Bracket

### 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.

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

# Compressor Bracket Modification to Reduce Harness Chafing

54-330

FLA COE FLB COE FLD Conventional Business Class FLC 112 Conventional Century Class Conventional Argosy Cargo Columbia 122SD and Coronado

Business Class M2 Cascadia 108SD/114SD > New Cascadia Freightliner Service Bulletin

OWL VMRS Codes and Labor Allowance					
Primary Failed Part	Component Code	Cause Code	SRT Code	Description	Time: Hours
Harness Support Bracket	034-004-393	01	286-5102A	Bracket, Engine Harness, Modification, SB 54-330	0.6

Table 1, OWL VMRS Codes and Labor Allowance