

Subject: Eaton FR Transmission

Models Affected: Specific Freightliner Cascadia, Business Class M2, 108SD, and 114SD vehicles and Western Star 4700 vehicles manufactured January 4, 2015, through April 24, 2015, with certain Eaton FR 10-speed manual transmissions.

General Information

Daimler Trucks North America LLC, on behalf of its Freightliner Trucks Division and its wholly owned subsidiary, Western Star Truck Sales, has decided that a defect that relates to motor vehicle safety exists on the vehicles mentioned above.

There are 14 vehicles involved in this campaign.

Certain transmissions may have been assembled with incorrect auxiliary drive bearing spacers. When the transmission shift lever is moved from reverse to neutral, the reverse gear may stay engaged. When the transmission shift lever is moved from reverse to a forward gear position, the transmission may mechanically lock (i.e., both the reverse gear and forward gear engage simultaneously), resulting in a possible vehicle crash.

The auxiliary drive bearing spacers will be inspected and replaced if necessary.

Additional Repairs

Dealers must complete all outstanding Recall and Field Service campaigns prior to the sale or delivery of a vehicle. A Dealer will be liable for any progressive damage that results from its failure to complete campaigns before sale or delivery of a vehicle.

Owners may be liable for any progressive damage that results from failure to complete campaigns within a reasonable time after receiving notification.

Work Instructions

Please refer to the attached work instructions. Prior to performing the campaign, check the vehicle for a completion sticker (Form WAR260).

Replacement Parts

Replacement parts are now available and can be obtained by ordering the part number(s) listed below from your facing Parts Distribution Center.

If our records show your dealership has ordered any vehicles involved in campaign number FL693A, a list of the customers and vehicle identification numbers will be available in OWL. Please refer to this list when ordering parts for this recall.

Table 1 - Replacement Parts for FL693A

Campaign Number	Part Number	Part Description	Qty. per Vehicle
FL693A	FUL 4302156	Shift Bar Housing Gasket	1 ea
	FUL 4305294	Shift Tower Gasket	1 ea
	FUL 4302248	Aux-Section Gasket	1 ea
	FUL 4307247	Countershaft Bearing Cover Gasket	2 ea
	FUL 4302313	Spacer	1 ea
	FUL 4302316	Shaft Key	1 ea

Table 1

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Removed Parts

U.S. and Canadian Dealers, please follow Warranty Failed Parts Tracking shipping instructions for the disposition of all removed parts. Export distributors, please destroy removed parts unless otherwise advised.

Labor Allowance

Table 2 - Labor Allowance

Campaign Number	Procedure	Time Allowed (hours)	SRT Code	Corrective Action
FL693A	Inspect Spacer, Bearing, Mainshaft	6.8 (Freightliner Models) 7.2 (Western Star Models)	996-0969A	06-Inspect
	Inspect Spacer, Bearing, Mainshaft w/ over-Slung Cross-Member	8.3 (Freightliner Models)	996-0969B	06-Inspect
	Replace Spacer, Bearing, Mainshaft	10.0 (Freightliner Models) 10.3 (Western Star Models)	996-0969C	12-Repair Recall/ Campaign
	Replace Spacer, Bearing, Mainshaft w/over-Slung Cross-Member	11.4 (Freightliner Models)	996-0969D	12-Repair Recall/ Campaign

Table 2

IMPORTANT: When the Recall has been completed, locate the base completion label in the appropriate location on the vehicle, and attach the red completion sticker provided in the recall kit (Form WAR260). If the vehicle does not have a base completion label, clean a spot on the appropriate location of the vehicle and first attach the base completion label (Form WAR259). If a recall kit is not required or there is no completion sticker in the kit, write the recall number on a blank sticker and attach it to the base completion label.

Claims for Credit

You will be reimbursed for your parts, labor, and handling (landed cost for Export Distributors) by submitting your claim through the Warranty system within 30 days of completing this campaign. Please reference the following information in OWL:

- Claim type is **Recall Campaign**.
- In the Campaign field, enter the campaign number and appropriate group (**FL693-A**).
- In the Primary Failed Part field, enter **25-FL693-000**.
- In the Parts section, enter the appropriate parts number(s) as shown in the Replacement Parts Table.
- In the Labor section, enter the appropriate SRT from the Labor Allowance Table. Administrative time will be included automatically as SRT 939-6010A for 0.3 hours.
- The VMRS Component Code is **026-006-047** and the Cause Code is **A1 - Campaign**.

- **U.S. and Canada – Reimbursement for Prior Repairs.** When a customer asks about reimbursement, please do the following:
 - Accept the documentation of the previous repair.
 - Make a brief check of the customer's paperwork to see if the repair may be eligible for reimbursement. (See the "Copy of Owner Letter" section of this bulletin for reimbursement guidelines.)
 - Submit an OWL Recall Pre-Approval Request for a decision.
 - Attach the documentation to the pre-approval request.
 - If approved, submit a based on claim for the pre-approval.
 - Reimburse the customer the appropriate amount.

IMPORTANT: OWL must be viewed prior to performing the recall to ensure the vehicle is involved and the campaign has not been previously completed. Also, check for a completion sticker prior to beginning work.

For questions, U.S. and Canadian dealers, contact the Warranty Campaigns Department from 7:00 a.m. to 4:00 p.m. Pacific Time, Monday through Friday, via Web inquiry at AccessFreightliner.com / Support / My Tickets and Submit an Inquiry, or the Customer Assistance Center at (800) 385-4357, after normal business hours, if you have any questions or need additional information. Export distributors, submit a Web inquiry or contact your International Service Manager.

U.S. and Canadian Dealers: To return excess kit inventory related to this campaign, U.S. dealers must submit a Parts Authorization Return (PAR) to the Memphis PDC. Canadian dealers must submit a PAR to their facing PDC. All kits must be in resalable condition. PAR requests must include the original purchase invoice number. Export Distributors: Excess inventory is not returnable.

The letter notifying U.S. and Canadian vehicle owners is included for your reference.

Please note that the National Traffic and Motor Vehicle Safety Act, as amended (Title 49, United States Code, Chapter 301), requires the owner's vehicle(s) be corrected within a reasonable time after parts are available to you. The Act states that failure to repair a vehicle within 60 days after tender for repair shall be prima facie evidence of an unreasonable time. However, circumstances of a particular situation may reduce the 60 day period. Failure to repair a vehicle within a reasonable time can result in either the obligation to (a) replace the vehicle with an identical or reasonably equivalent vehicle, without charge, or (b) refund the purchase price in full, less a reasonable allowance for depreciation. The Act further prohibits dealers from selling a vehicle unless all outstanding recalls are performed. Any lessor is required to send a copy of the recall notification to the lessee within 10 days. Any subsequent stage manufacturer is required to forward this notice to its distributors and retail outlets within five working days.

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Copy of Notice to Owners

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For the Notice to U.S. Customers: This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act.

Daimler Trucks North America LLC, on behalf of its Freightliner Trucks Division has decided that a defect that relates to motor vehicle safety exists on specific Freightliner Cascadia, Business Class M2, 108SD, and 114SD vehicles and Western Star 4700 vehicles manufactured January 4, 2015, through April 24, 2015, with certain Eaton FR 10-speed manual transmissions.

Certain transmissions may have been assembled with incorrect auxiliary drive bearing spacers. When the transmission shift lever is moved from reverse to neutral, the reverse gear may stay engaged. When the transmission shift lever is moved from reverse to a forward gear position, the transmission may mechanically lock (i.e., both the reverse gear and forward gear engage simultaneously), resulting in a possible vehicle crash.

The auxiliary drive bearing spacers will be inspected and replaced if necessary.

Please contact an authorized Daimler Trucks North America dealer to arrange to have the Recall performed and to ensure that parts are available at the dealership. To locate an authorized dealer, search online at www.Daimler-TrucksNorthAmerica.com / Contact Us / Find a Dealer. The Recall will take approximately ten hours or more depending on the work needed and will be performed at no charge to you.

You may be liable for any progressive damage that results from your failure to complete the Recall within a reasonable time after receiving notification.

If you do not own the vehicle that corresponds to the identification number(s) which appears on the Recall Notification, please return the notification to the Warranty Campaigns Department with any information you can furnish that will assist us in locating the present owner. If you have leased this vehicle, Federal law requires that you forward this notice to the lessee within 10 days. If you are a subsequent stage manufacturer, Federal law requires that you forward this notice to your distributors and retail outlets within five working days. If you have paid to have this recall condition corrected prior to this notice, you may be eligible to receive reimbursement. Please see the reverse side of this notice for details.

For the Notice to U.S. Customers: If you have questions about this Recall, please contact the Warranty Campaigns Department at (800) 547-0712, 7:00 a.m. to 4:00 p.m. Pacific Time, Monday through Friday, e-mail address DTNA.Warranty.Campaigns@Daimler.com, or the Customer Assistance Center at (800) 385-4357 after normal business hours. If you are not able to have the defect remedied without charge and within a reasonable time, you may wish to submit a complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590; or call the Vehicle Safety Hotline at (888) 327-4236 (TTY: 800-424-9153); or to <http://www.safercar.gov>.

We regret any inconvenience this action may cause but feel certain you understand our interest in motor vehicle safety.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

Reimbursement to Customers for Repairs Performed Prior to Recall

If you have already **paid** to have this recall condition corrected you may be eligible to receive reimbursement.

Requests for reimbursement may include parts and labor. Reimbursement may be limited to the amount the repair would have cost if completed by an authorized Daimler Trucks North America LLC dealer. The following documentation must be presented to your dealer for consideration for reimbursement.

Please provide original or clear copies of all receipts, invoices, and repair orders that show

- The name and address of the person who paid for the repair
- The Vehicle Identification Number (VIN) of the vehicle that was repaired
- What problem occurred, what repair was done, when the repair was done
- Who repaired the vehicle
- The total cost of the repair expense that is being claimed
- Proof of payment for the repair (such as the front and back of a cancelled check or a credit card receipt)

Reimbursement will be made by check from your Daimler Trucks North America LLC dealer.

Please speak with your Daimler Trucks North America LLC authorized dealer concerning this matter.

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Work Instructions

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Models Affected: Specific Freightliner Cascadia, Business Class M2, 108SD, and 114SD vehicles and Western Star 4700 vehicles manufactured January 4, 2015, through April 24, 2015, with certain Eaton FR 10-speed manual transmissions.

Special Tools

The following special tools are required:

- Auxiliary Section Mounting Plate
- Countershaft Support Tools

Bearing Spacer Inspection

1. Check the base label (Form WAR259) for a completion sticker for FL693 (Form WAR260) indicating this work has been done. The base label is usually located on the passenger-side door about 12 inches (30 cm) below the door latch. If a sticker is present, no work is needed. If there is no sticker, proceed with step 2 below.
2. Park the vehicle on a level surface, confirm the transmission is in low range, shut down the engine, and set the parking brake. Chock the tires.
3. Record transmission serial number.
4. Call Eaton Real Time Warranty (RTW) at (800) 826-4357. Use the menu options for manual product warranty.
5. Obtain a ticket number and any additional repair information.
6. Disconnect the batteries.
7. Drain the air system.
8. Drain the transmission oil into a clean container.
9. If the tailpipe is routed inboard of the frame behind the transmission, remove it from the ATD.
10. Remove the driveline from the transmission output and the first driveline carrier support.
11. Remove any plumbing or wire routing from the top of the transmission.
12. Remove the shift boot.

NOTE: If applicable, take care to prevent the shift rail detent springs and balls from dropping into the transmission after removing the shift tower.

13. Remove the shift tower/lever assembly from the top of the transmission.
14. Disconnect the shift control air lines from the transmission.
15. Remove the shift bar housing and prop it up above the transmission case, allowing enough room for the auxiliary section to be removed.
16. Remove the auxiliary section. For additional information, see the published literature on www.RoadRanger.com (Service Manual TRSM-2400).
17. Remove the auxiliary drive gear from the mainshaft.

18. Take photographs clearly showing the mainshaft bearing spacer, submit them to RTW, and follow their instructions to finalize the inspection.

The correct spacer does not have an open spline or a visible part number printed on it. **Fig. 1**, Ref A shows the correct spacer, and Ref B shows the incorrect spacer. Submit photographs to RTW for verification regardless of the spacer installed.

If the spacer has all the possible splines engaged with the mainshaft and no visible part number, go to step 20.

If the spacer has an open spline and the part number 4308241 is visible, go to step 19.

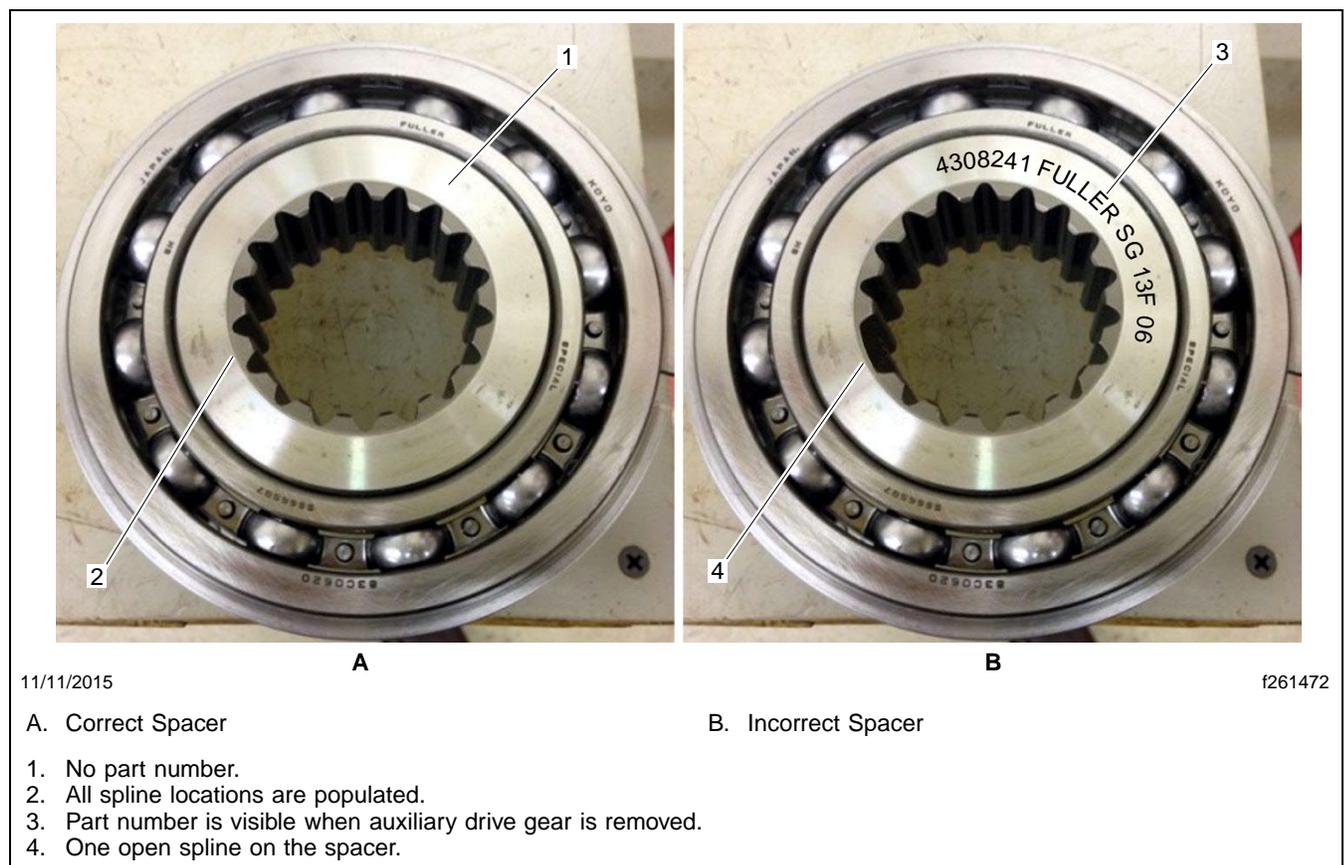


Fig. 1, Spacer Identification

19. Work with RTW to perform a detailed inspection of the main transmission components for damage. If damage is found, remove the transmission; see "Transmission Removal and Installation" in these work instructions.
20. Move the shift bar housing from the top of the transmission.
21. Install the auxiliary drive gear and snap ring.
22. Clean the sealing surfaces of the main case, shift bar housing, auxiliary section, and shift tower.
23. Set a new shift bar housing gasket in place.
24. Position the shift bar housing, using a spacer block to allow the auxiliary section to be installed.
25. Install the auxiliary section. Tighten the capscrews 40 to 45 lbf-ft (54 to 61 N·m).

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26. Install the shift bar housing. Tighten the capscrews 40 to 45 lbf·ft (54 to 61 N·m).
27. Install the shift tower. Tighten the capscrews 35 to 45 lbf·ft (47 to 61 N·m).
28. Connect the shift control air lines.
29. Attach the plumbing and wiring to the top of the transmission.
30. Install the driveline. Tighten the U-joint capscrews as follows:
 - Spicer HD half-round U-joints: 130 to 135 lbf·ft (176 to 183 N·m)
 - Spicer HD full-round U-joints: 38 to 48 lbf·ft (52 to 65 N·m)
 - Meritor SPL250 and RPL25 U-joints: 115 to 135 lbf·ft (156 to 183 N·m).
31. Install the tail pipe, if applicable.
32. Fill the transmission with oil.
33. Connect the batteries.
34. Clean a spot on the base label (Form WAR259), and attach a completion sticker (Form WAR 260) for campaign FL693 to the base label.

Transmission Removal and Installation

1. Disconnect the oil cooler lines.
2. Remove any plumbing or wire routing from the bottom of the transmission.
3. Remove the clutch mechanical linkage or slave cylinder.
4. Support the transmission, and remove the bell housing fasteners.
5. Remove the transmission from the vehicle.
6. Work with RTW to complete the internal repairs.
7. Clean the sealing surfaces of the main case, shift bar housing, auxiliary section, and shift tower.
8. Install the auxiliary section. Tighten the capscrews 40 to 45 lbf·ft (54 to 61 N·m).
9. Install the shift bar housing. Tighten the capscrews 40 to 45 lbf·ft (54 to 61 N·m).
10. Install the transmission. Tighten the capscrews either 43 to 53 lbf·ft (58 to 72 N·m) for Patch-Lok capscrews, or 38 to 45 lbf·ft (52 to 61 N·m) for non-locking capscrews with lockwashers.
11. Install the fasteners for the clutch control rod (tighten 26 lbf·ft [35 N·m]), or slave cylinder (13 lbf·ft [18 N·m]).
12. Connect the cooler lines.
13. Attach any plumbing or wire routing to the bottom of the transmission.
14. Go to step 27 of the "Inspection" instructions, above.