

June 2021  
 FL884 (D21R6)  
 NHTSA #21V-256 (Non-School Bus)  
 NHTSA #21V-255 (School Bus)  
 NHSTA #21E-029  
 Transport Canada #2021-219

**Subject: DETROIT™ Tie Rod & Steer Arm Bolt Replacement**

**Models Affected: DETROIT™ Model 2 and Model 3 Steer Axles**

**General Information**

Daimler Trucks North America LLC, on behalf of its DETROIT™ Powertrain Division, is initiating Recall Campaign D21R6 to replace the four (4) tie rod arm bolts and two (2) steer arm bolts on some front steer axles.

Detroit Model 2 and Model 3 front steer axles with a rating from 10.5k to 12.5k lbs. and built between January 7, 2021 through March 15, 2021 are affected by this recall.

All affected units will require six new bolts to be installed and torqued to specifications.

Replacement parts are now available and can be obtained by ordering the kit and/or part number(s) listed below, from your facing Parts Distribution Center. If your dealership has ordered any vehicle(s) involved in campaign D21R6, you should refer to a list of the customers and vehicle identification numbers available on DTNACconnect. Please refer to this list when ordering parts for this campaign.

There are approximately 14,997 units affected by this Recall Campaign.

**Work Instructions**

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

**Replacement Parts**

**Table 1 – Replacement Parts for D21R6**

Part Number	Part Description	Quantity Required
MBA 308676020025	Capscrew, Steering Arm – M20x1.5x80mm, 10.9	2
MBA 308676020022	Capscrew, Tie Rod Arm – M20x1.5x90mm, 10.9	4

**Labor Allowance**

**Table 2 – Labor Allowance for D21R6**

Procedure	Time Allowed (hours)	SRT Number	Corrective Action
<b>Group A</b>			
<b>BOLTS, STEERING ARM AND TIE ROD ARM, NO AERO BUMPER, R/R (FL884)</b>	1.0	<b>996-R037A</b>	12-Repair Recall/Campaign
<b>Group B</b>			
<b>BOLTS, STEERING ARM AND TIE ROD ARM, WITH AERO BUMPER, R/R (FL884)</b>	1.2	<b>996-R037B</b>	12-Repair Recall/Campaign

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**Claim Reimbursement**

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 recall. Please reference the following information in OWL.

<b>Claim Type</b>	<b>Recall Campaign</b>
<b>Campaign</b>	<b>D21R6</b>
<b>Component Code</b>	<b>015-004-025</b>
<b>Cause Code</b>	<b>A1 - Campaign</b>
<b>Primary Failed Part</b>	<b>MBA 308676020022</b>
<b>Procedure A<sup>1</sup></b>	
<b>Use this labor operation for Campaign Group A.</b>	
<b>Labor Number</b>	<b>996-R037A</b>
<b>Labor Hours</b>	1.0 Hours <b>BOLTS, STEERING ARM AND TIE ROD ARM, NO AERO BUMPER, R/R (FL884)</b>
<b>Part Number</b>	Refer to Replacement Parts list above
<b>Parts Return</b>	<b>SCRAP</b>
<b>Procedure B</b>	
<b>Use this labor operation for Campaign Group B.</b>	
<b>Labor Number</b>	<b>996-R037B</b>
<b>Labor Hours</b>	1.2 Hours <b>BOLTS, STEERING ARM AND TIE ROD ARM, WITH AERO BUMPER, R/R (FL884)</b>
<b>Part Number</b>	Refer to Replacement Parts list above
<b>Parts Return</b>	<b>SCRAP</b>
<sup>1</sup> Administrative time (SRT 939-6010A) for 0.3 hours is automatically added to the claim.	

U.S. and Canadian dealers should contact the Warranty Campaigns Department via Web inquiry at DTNACconnect.com/WSC, if they have any questions or need additional information.

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## **IMPORTANT SAFETY RECALL**

**This notice applies to your vehicle(s)**

### **Subject: DETROIT™ Tie Rod & Steering Arm Bolt Replacement**

**Models Affected: DETROIT™ Model 2 and 3 Steer Axles**

This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act. This is to inform you that your vehicle may contain a defect that could affect the safety of a person.

Daimler Trucks North America LLC, on behalf of its DETROIT™ Powertrain Division, has decided that a defect, which relates to motor vehicle safety, exists on certain Detroit Model 2 and 3 steer axles manufactured between Jan 7th, 2021 and Mar 15th, 2021. DTNA is initiating Recall Campaign D21R6 to replace the tie rod and steering arm bolts.

On certain Detroit Model 2 and 3 steer axles, the tie rod arm and steering arm bolts used to assemble front axle assemblies have a lengthwise “seam” defect which increases stress concentration, potentially leading to bolt failure or loss of pre-load.

Records indicate that your vehicle has one of the affected steering axles. Instructions for this recall campaign were sent to your local Authorized Freightliner Repair Facility and the labor time required to perform this replacement is 1.2 hours.

Please contact an Authorized Freightliner Repair Facility and arrange to have the recall campaign performed. To locate an authorized facility, search online at <https://demanddetroit.com/find-a-dealer>. This service will be completed for you at no charge under the provisions of this notice. 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.

**You must make an appointment with the repair facility, at least two weeks in advance of the actual repair, so the repair facility can stock the replacement part(s) needed to complete this recall campaign. Failure to provide advance notification to the repair facility may result in a delayed repair.**

If you have paid to have this recall condition corrected prior to this notice, 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 a Freightliner Authorized Repair Facility.

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 repaired vehicle.
- What problem occurred, what repair was done and the date of the repair.

- Who repaired the vehicle.
- The total cost of the claimed repair expense.
- 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 Freightliner dealer. Please speak with your authorized Freightliner dealer concerning this matter.

If you have questions about this Recall, please contact the **Detroit Diesel Customer Support Center**, 13400 Outer Drive West, Detroit, MI 48239, or call **(800) 445-1980 (Eastern Standard Time)**. **Detroit Diesel's Customer Support Center is open 24 Hours / 7 Days a Week**. 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 are sorry to cause you this inconvenience. However, we have taken this action in the interest of your continued satisfaction with our products.

**DETROIT WARRANTY CAMPAIGNS DEPARTMENT**

Enclosure

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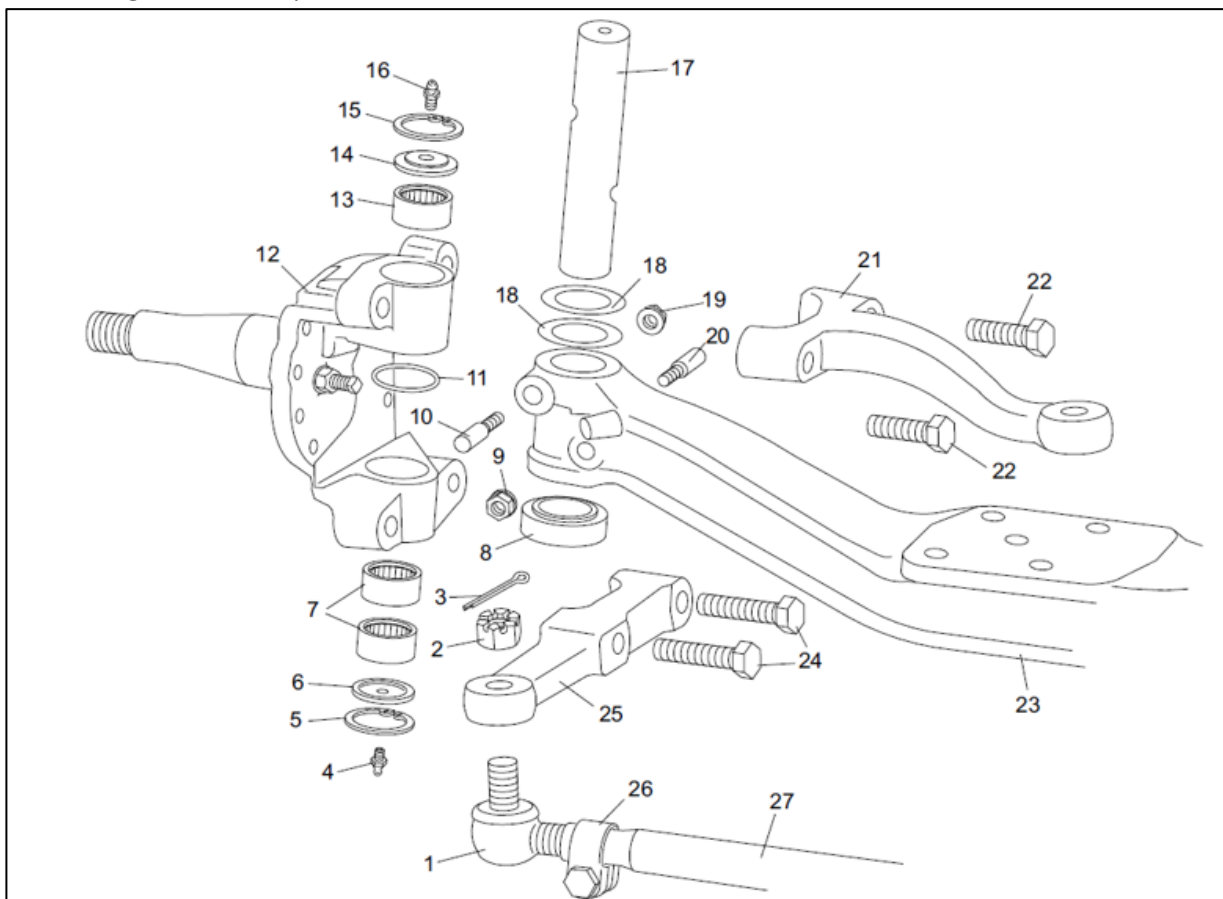
## Work Instructions

### Subject: DETROIT™ Tie Rod & Steering Arm Bolt Replacement

Models: DETROIT™ Model 2 and Model 3 Steer Axles

### Tie Rod and Steering Arm Bolts Replacement

Refer to **Fig. 1** for this repair.



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**NOTE:** The number of upper and lower needle bearing sets may vary, depending on the axle model. Install the same number of bearings as was removed.

- |  |   |                        |
|--|---|------------------------|
| 1. Tie-Rod Ball Joint  | 10. Upper Draw Key                                | 19. Upper Draw Key Nut |
| 2. Castle Nut  | 11. Grease Seal                                   | 20. Lower Draw Key     |
| 3. Cotter Pin  | 12. Steering Knuckle                              | 21. Steering Arm       |
| 4. Lower Grease Fitting  | 13. Upper Needle Bearing (may be one or two sets) | 22. Steering Arm Bolts |
| 5. Lower Snap Ring   | 14. Upper Cover Plate                             | 23. Axle Beam          |
| 6. Lower Cover Plate   | 15. Upper Snap Ring                               | 24. Tie-Rod Arm Bolts  |
| 7. Lower Needle Bearings (may be one or two sets)                        | 16. Upper Grease Fitting                          | 25. Tie-Rod Arm        |
| 8. Thrust Friction Bearing (thrust roller bearing on the passenger side) | 17. Kingpin                                       | 26. Tie-Rod Clamp      |
| 9. Lower Draw Key Nut  | 18. Shim  | 27. Tie-Rod Tube       |

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**Fig. 1, Front Axle Components, Integral Steering Gear (driver side shown)**

1. Check the base label (Form WAR259) for a completion sticker for FL884 (Form WAR260) indicating this work has been completed. For trucks, the base label is usually located on the passenger door about 12 inches (30 cm) below the door latch. For school buses, it is usually located above the driver's window, and for shuttle buses and step vans, it is usually located in the driver's area. If a sticker is present for FL884, no work is needed. If there is no sticker, proceed with the next step.
2. Park the vehicle, shut down the engine, and apply the parking brakes. Chock the tires.

**IMPORTANT:** On New Cascadia vehicles equipped with aerodynamic bumpers, the bumper must be removed before lifting the vehicle.

3. If equipped with an aerodynamic bumper, remove the bumper. Refer to **Group 31** of the *New Cascadia™ Workshop Manual* for instructions.

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## WARNING

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**Never work around or under a vehicle that is supported only by a jack. Always support the vehicle with safety stands. Jacks can slip, allowing the vehicle to fall, which could result in serious injury or death.**

4. Raise the vehicle and support it on jack stands.
5. Open the hood.
6. Remove both front wheels. Refer to **Group 40** of the applicable workshop manual for instructions.
7. Turn the steering wheel to the right full-lock position.

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## NOTICE

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**Only one bolt must be replaced at a time. If both tie-rod arm bolts, or both steering arm bolts are removed at the same time, a full truck alignment is required to be performed, which is not covered in this recall.**

8. At the passenger side, replace one tie-rod arm bolt as follows.
  - 8.1. Remove and discard the bolt.
  - 8.2. Clean the threaded hole from which the bolt was removed, and remove all oil and debris.
  - 8.3. Clean a new bolt, remove any oil, and dry it completely.
  - 8.4. Apply Loctite® 277 to the bolt threads.
  - 8.5. Install the bolt on the steering knuckle. Tighten bolt to 425 lbf.ft (575 N.m).
9. Replace the other passenger side tie-rod arm bolt. Refer to substeps in step 8.
10. Turn the steering wheel to the left full-lock position.
11. At the driver's side, replace one tie-rod arm bolt. Refer to substeps in step 8.
12. Replace the other driver's side tie-rod arm bolt. Refer to substeps in step 8.
13. Replace one steering arm bolt. Refer to substeps in step 8.
14. Replace the other steering arm bolt. Refer to substeps in step 8.
15. Turn the steering wheel to the centered and straight ahead position.

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16. Install all front wheels. Refer to **Group 40** of the applicable workshop manual for instructions.
17. Raise the vehicle, remove the jack stands from the chassis, then lower the vehicle.
18. If removed, install the aerodynamic bumper. Refer to **Group 31** of the *New Cascadia Workshop Manual* for instructions.
19. Repair is complete. Install the completion sticker.

## Completion Stickers

- Upon completion of Recall Campaign **FL884 (D21R6)**, clean a spot on the base label (Form WAR259), write the Recall Campaign Number **FL884 (D21R6)** on a blank, completion sticker (Form WAR260), and attach the completion sticker to the base label.
- Label ordering info: DTNAConnect > Services and Reference > Publications & Warranty Supplies > Warranty