Daimler Truck North America LLC

Recall Campaign

January 2022
FL903A
NHTSA #21V-741

Subject: TBB Minotour CNG Solenoid

Models Affected: Specific model years 2015-2018 Thomas Built Buses Minotour school buses built on a General Motors (GM) chassis and manufactured December 14, 2013, through June 29, 2017, and equipped with an IMPCO Automotive Compressed Natural Gas (CNG) conversion.

General Information

Daimler Truck North America LLC (DTNA), on behalf of its wholly owned subsidiary, Thomas Built Buses (TBB), has decided that a defect that relates to motor vehicle safety exists on the vehicles mentioned above.

On certain vehicles, the underbody shutoff solenoid connector to a CNG fuel tank may corrode and could form a high-resistance short in the connector, potentially causing overheating or, in rare circumstances, a self-extinguishing flame. If there is a fuel leak or other combustible material in the vicinity, there is a risk of fire.

The CNG fuel shutoff solenoid will be replaced.

There are approximately 90 vehicles involved.

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.

Please contact Warranty Campaigns for consideration of additional charges prior to performing the repair.

Work Instructions

Please refer to the attached work instructions.

Replacement Parts

Installation kits for the CNG fuel shutoff solenoid have been sent directly to the specific dealers who will install them on the affected buses. **If you have not been contacted by TBB, then your location will not be performing this recall.**

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 1 - Labor Allowance

Campaign Number	Procedure	Time Allowed (hours)	SRT Codes	Corrective Action
FL903A	Replace CNG fuel shutoff solenoid	4.2	996-R134A	12-Repair Recall/Campaign

Table 1

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 condition code (**FL903-A**).
- In the Primary Failed Part field, enter **25-FL903-000**.
- Do not enter anything in the parts section, dealers will be provided kits from TBB.
- In the Labor section, enter the appropriate SRT from the Labor Allowance Table.
- The VMRS Component Code is **F99-999-005** 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.
    - Include the approved amount on your claim in the Other Charges section.
    - 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.

U.S. and Canadian dealers, contact the Warranty Campaigns Department via Web inquiry at DTNAConnect.com/WSC, 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.

Copy of Notice to Owners

Subject: TBB Minotour CNG Solenoid

This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act.

Daimler Truck North America LLC (DTNA), on behalf of its wholly owned subsidiary, Thomas Built Buses (TBB) has decided that a defect, which relates to motor vehicle safety exists on specific model years 2015-2018 TBB Minotour school buses built on a General Motors (GM) chassis and manufactured December 14, 2013, through June 29, 2017, and equipped with an IMPCO Automotive Compressed Natural Gas (CNG) conversion.

On certain vehicles, the underbody shutoff solenoid connector to a CNG fuel tank may corrode and could form a high-resistance short in the connector, potentially causing overheating or, in rare circumstances, a self-extinguishing flame. If there is a fuel leak or other combustible material in the vicinity, there is a risk of fire.

The CNG fuel shutoff solenoid will be replaced. Repairs will be performed by Daimler Truck North America authorized service facilities.

Please contact an authorized Daimler Truck 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, go to www.Daimler-TrucksNorthAmerica.com. On the menu tab, select “Contact,” scroll down to “Find a Dealer,” and select the appropriate brand. The Recall will take approximately four hours and will be performed at no charge to you. You may also confirm your vehicle’s involvement in this recall at this URL: https://dtna-dlrinfo.prd.freightliner.com:48518/VinLookup/vin-module/getVinLookupPage.

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.

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@Daimlertruck.com. 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 Truck 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 Truck North America LLC dealer.

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

Work Instructions

Subject: TBB Minotour CNG Solenoid

Models Affected: Specific model year 2015-2018 Thomas Built Buses Minotour school buses built on a General Motors (GM) chassis and manufactured December 14, 2013, through June 29, 2017, and equipped with an IMPCO Automotive Compressed Natural Gas (CNG) conversion.

CNG Fuel Shutoff Solenoid Replacement

1. Park the vehicle on a level surface, turn engine OFF, place in park, chock tires, and turn the body circuit breaker to the OFF position.
2. Disconnect negative battery cables at the batteries.

Fuse replacement

3. Remove the under hood electrical center cover (fuse center). See **Fig. 1**.

Fig. 1, Electrical Center in Engine Compartment

4. Locate the 30-AMP fuel pump fuse and remove it from the under hood electrical center.
5. Discard the 30-AMP fuse.

6. Replace the fuse with the appropriate fuse as follows:
    - If vehicle has three CNG tanks, then replace with a 5 AMP fuse.
    - If vehicle has four CNG tanks, then replace with a 7.5 AMP fuse.
7. Reinstall the under hood electrical center cover.

Remove the Midship and the Aft Axle Tank Shield

8. Lift the vehicle and support it.
9. Using a 17 mm socket, 16 mm socket and a #3 Phillips bit. Remove the eight bolts holding the driver's side, and sixteen screws holding the passenger side midship tank shields in place; then remove shields. See **Fig. 3**.
10. Using a 16 mm socket, remove the twelve bolts securing the AFT axle tank shield; then remove shield. See **Fig. 2**.

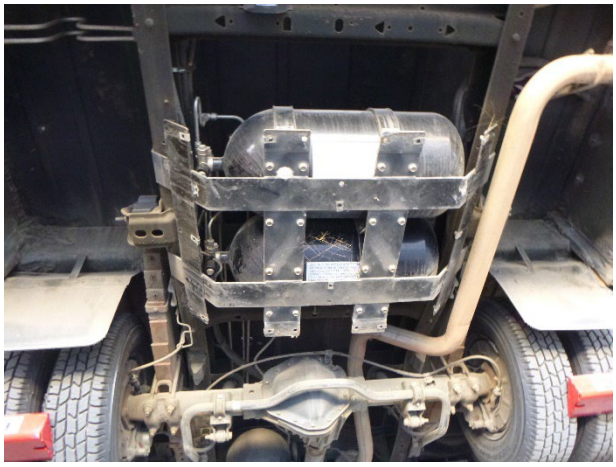

Fig. 2, Aft-Tanks, Shield Not Shown

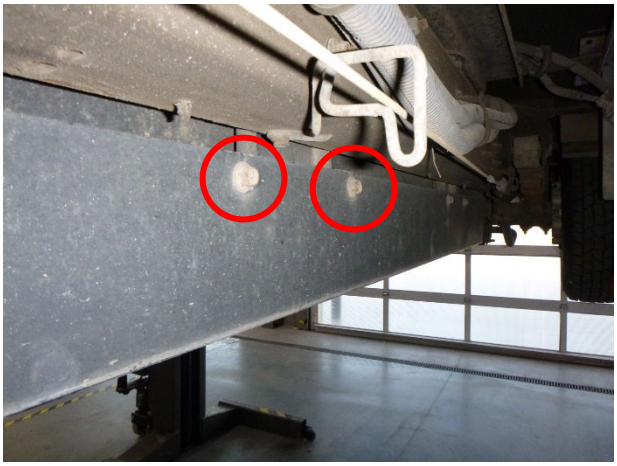

Fig. 3, Midship Shield Bolts Location

Midship Tank Repair Work.

11. Close the main shutoff valve for the midship tanks. See **Fig. 4**.

Fig. 4, Main Shutoff Valve One Per Tank

12. Disconnect the high-pressure lockoff (HPL) solenoid electrical connector, and cut the zip tie holding it to the HPL solenoid.

NOTICE

Due to HPL solenoid supply issues, some of these new parts have blue and brown wires, and others have red and black wires.

13. Cut the harness and replace the connector making sure to splice the matching wire colors (**blue-to-blue, and brown-to-brown**) shown in **Fig. 5**, or **red-to-blue, and black-to-brown** referenced in **Fig. 6**. To minimize water intrusion, use a moisture resistant type of splice that is equal to IP67 protection.

14. Put a mark on the valve to indicate the orientation of solenoid to ensure proper installation of the new solenoid.

Fig. 5, New Connector Shown With Blue and Brown Wires

Fig. 6, New Connector Shown With Red and Black Wires

15. Remove the 7/8” HPL solenoid coil retaining nut.

16. Remove the HPL solenoid coil and discard it.

17. Remove the old HPL seal, and install a new one, then apply lubrication to the new seal.
18. Remove the old seal of the HPL solenoid-retaining nut. Apply lubrication to the new seal, then install.
19. Using the reference mark from step 14, install the new HPL solenoid coil.
20. Install the HPL solenoid coil-retaining nut. Tighten the retaining nut to 6.5 NM **(57.5 lbf·in).**
21. Apply dielectric grease on the electrical connector and reinstall it.
22. Zip tie the harness back up making sure there is no strain on the harness. See **Fig. 7**.

Fig. 7, When Securing the Harness and Connector, Allow for Strain Relief

AFT Axle Tank Repair Work

23. Close the manual shutoff valve.
24. Disconnect the HPL solenoid electrical harness and cut the zip tie holding it to the solenoid.
25. Replace the HPL electrical harness with the harness provided.
26. Mark the correct orientation of the solenoid on the valve using this mark to ensure the correct installation of the new solenoid.
27. Remove the HPL solenoid coil-retaining nut.
28. Remove the HPL solenoid coil and discard.

29. With solenoid removed, inspect the stem for any dirt or debris. See **Fig. 8**.
30. Remove and replace the HPL solenoid coil seal and apply lubrication.
31. Remove and replace the HPL solenoid coil retaining nut seal and apply lubrication. See **Fig. 9**.
32. Install the new HPL solenoid coil and retaining nut. Tighten to 6.5 NM **(57.5 lbf·in)**.
33. Apply dielectric grease on the electrical connector and reinstall it.
34. Install a new zip tie making sure the harness wiring has strain relief at the connector.

Fig. 8, Solenoid Removed Mount Location

Fig. 9, Solenoid Assembled View, Mounting Nut

CNG Fuel System Check

35. Lower the vehicle.
36. Connect the negative battery cable, and turn the body circuit breaker ON.
37. Start the engine.
38. Raise and support the vehicle.
39. Verify operation of the solenoid by performing a magnetic function test on the CNG HPL solenoid.
40. With the engine running, place a paper clip or equivalent on the HPL retaining nut.
41. Determine if the HPL solenoid-retaining nut is magnetic. If it is magnetic, it is working properly.
42. Lower the vehicle.

43. Turn engine off.
44. Raise vehicle and support.
45. Install the midship tank shield and bolts.
46. Install the AFT axle tank shield and bolts.
47. Lower vehicle, and return to service.