

DAIMLER

INFORMATION Redacted PURSUANT TO THE FREEDOM OF

INFORMATION ACT (FOIA), 5 U.S.C. 552(B)(6)

Daimler Trucks North America  
Nasser Zamani, Senior Manager  
Compliance and Regulatory Affairs

November 15, 2011

VIA FEDERAL EXPRESS - 7977 3844 0823

The Chief Counsel  
National Highway Traffic Safety Administration  
1200 New Jersey Avenue, S.E.  
West Building W41-227  
Washington D.C. 20590

**Re: Request for Confidential Treatment/PE11-029**

Dear Chief Counsel:

Pursuant to 49 CFR Part 512, this letter respectfully requests confidential treatment for information provided in response to Preliminary Evaluation (PE) 11-029 dated October 12, 2011 investigating potential insufficient clearance resulting in unintended contact with CNG fuel tanks on certain Saf-T-Liner HDX school buses. This request for confidentiality pertains to, Question (1) "Production data".

Question (1) asks Daimler Trucks North America (DTNA) to provide detailed production information by model and options. DTNA asks that the information provided in response to this request be given confidentiality pursuant to 49 CFR 512.15(a)&(b). While overall production by vehicle class is published, production data by model and options is proprietary information, is a trade secret and would be likely to cause substantial harm to DTNA's competitive position if disclosed. Describing DTNA's production by individual model and option usage would reveal DTNA's strengths and weaknesses in the market, marketing strategies and market trends, and thus cause harm to Daimler Trucks' competitive position. DTNA requests this information be granted confidential treatment for an indefinite period.

Please note that two redacted copies of DTNA's response to the information requested for PE11-029 along with a copy of this request have been submitted to Bruce York in the Office of Defect Investigations.

Please contact me if you have any questions.

Sincerely yours,



Nasser Zamani

Enclosure (2 CD's)

A Daimler Company

Daimler Trucks North America LLC  
4747 N. Channel Avenue  
Portland OR 97217-7699  
503-745-6910 Phone  
503-745-5544 Fax  
Nasser.Zamani@Daimler.com

# DAIMLER

Daimler Trucks North America  
Nasser Zamani, Senior Manager  
Compliance and Regulatory Affairs

November 15, 2011

**VIA FEDERAL EXPRESS - 7954 0809 3421**

Bruce York, Chief  
Medium and Heavy Duty Vehicles Division  
Office of Defects Investigation  
National Highway Traffic Safety Administration  
1200 New Jersey Avenue S.E.  
Washington D.C. 20590

## **Re: PE11-029, CNG Tanks and Caged Mounting System**

Dear Mr. York,

This letter is in response to your October 12, 2011, Information Request regarding CNG fuel tank clearance on certain Thomas Built Buses school buses. Over the ten years the design in question has been in production there has been only one report of insufficient clearance and unintended contact which resulted in non-structural damage to the CNG fuel tank. In this case the damage did not pose a risk to motor vehicle safety, and the tank was placed back into service after a sealer was applied to the affected area.

Following the report of this incident Thomas Bus conducted a thorough investigation, including inspecting a cross section of buses operated by various fleets in several states, and found no indication that insufficient clearance exists on other vehicles. As an established practice, service manuals require a thorough inspection of the vehicle's CNG tanks and mounting system be performed by a trained CNG system inspector at a minimum of every three years. Any potential settling or movement of the CNG fuel tank resulting in reduced clearance and potential damage to the tank or mounting system would be detectable during those inspections.

A Daimler Company

Daimler Trucks North America LLC  
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Nasser.Zamani@Daimler.com

DTNA has conducted a thorough investigation and analysis of the subject CNG fuel tank clearance including inspection of 55 buses using the procedures listed in TBB's proposed Vehicle Owners Notification. Over the ten years the subject fuel tank system has been in production, there has been only one report of tank damage due to insufficient clearance. This tank was found to be serviceable and remains on the bus. DTNA has not found a systematic issue of unreasonable risk to motor vehicle safety.

Daimler Trucks has requested confidentiality for its response to portions of this Request. A copy of the letter sent to The Chief Counsel requesting confidential treatment of this information is attached. Additionally Daimler Trucks North America requests NHTSA redact the last six characters of any and all VINs supplied, as well as all customer names, to safeguard the identity of those individuals.

Please contact me if you have any questions.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Nasser Zamani". The signature is fluid and cursive, with the first name "Nasser" and last name "Zamani" clearly distinguishable.

Nasser Zamani

Enclosures (1 CD)

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## CONFIDENTIAL BUSINESS INFORMATION

1. State, by model and model year, how many subject vehicles TBB has manufactured for sale or lease in the United States. For each vehicle provide the following:

- VIN;
- Make;
- Model;
- Model Year;
- Date of manufacture;
- Date warranty coverage commenced; and
- The part number of the subject component installed on the vehicle as original equipment.

Provide the table in MS Access or a compatible format, entitled "PRODUCTION DATA." A pre-formatted table that provides further details regarding this submission will be emailed to you.

Response:

| Model       | Model Year | Count      |
|-------------|------------|------------|
| PUSHER (ER) | 2003       | [REDACTED] |
| HDX         | 2003       | [REDACTED] |
| HDX         | 2004       | [REDACTED] |
| HDX         | 2005       | [REDACTED] |
| HDX         | 2006       | [REDACTED] |
| HDX         | 2007       | [REDACTED] |
| HDX         | 2008       | [REDACTED] |
| HDX         | 2009       | [REDACTED] |
| HDX         | 2010       | [REDACTED] |
| HDX         | 2011       | [REDACTED] |
| HDX         | 2012       | [REDACTED] |

See file "PRODUCTION DATA.xls" for response to parts a. through g. Data was obtained initially on 9/22/11 and the last buses on the list were added with an additional query on 10/25/11. The information sources are historical TBB production, BOM, and registration data.

2. State the number and provide copies of each of the following, received by TBB, which relate to, or may relate to, the alleged defect in the subject components in the subject vehicles:

- Consumer / fleet complaints;
- Field reports;
- Reports involving a crash, injury, or fatality;
- Reports involving a fire;
- Property damage claims;
- Third-party arbitration proceedings where TBB is or was a party to the arbitration; and
- Lawsuits, both pending and closed, in which TBB is or was a defendant or codefendant.

For subparts "a" through "g," state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same unit are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint). For "f" and "g," provide a summary of the event.

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Response:

- a. Consumer / fleet complaints - None
- b. Field reports - One
- c. Reports involving a crash, injury, or fatality - None
- d. Reports involving a fire - None
- e. Property damage claims - None
- f. Third-party arbitration proceedings where TBB is or was a party to the arbitration - None
- g. Lawsuits, both pending and closed, in which TBB is or was a defendant or codefendant - None

See file "Ticket 4004259.pdf" for a copy of the field report. Information obtained 10/25/2011.

**3. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:**

- a. VIN;
- b. Vehicle's owner or fleet name (and fleet contact person), address, and telephone number;
- c. Vehicle's make, model and model year;
- d. Vehicle's mileage at time of incident, if known;
- e. Part number;
- f. Incident date;
- g. Report date;
- h. Date of manufacture; and
- i. Date warranty coverage commenced.

**Provide this information in MS Access or a compatible format, entitled "REQUEST NUMBER TWO DATA." A pre-formatted table that provides further details regarding this submission will be emailed to you.**

Response:

See file "REQUEST NUMBER TWO DATA.xls". Information obtained 10/25/2011.

**4. State, by make, model, and model year, a total count for all of the following categories of claims, collectively, that have been paid by TBB to date that relate to, or may relate to, the alleged defect in the subject components: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.**

**Separately, for each such claim, state the following information:**

- a. TBB's claim number;
- b. VIN;
- c. Vehicle's owner or fleet name (and fleet contact person) and telephone number;
- d. Vehicle's make, model, and model year;
- e. Vehicle's build date;
- f. Warranty start date;
- g. Incident date;
- h. Report date;
- i. Vehicle's mileage at time of repair;
- j. Repairing facility's name, telephone number, and address;
- k. Labor operation number;

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- l. Problem code;**
- m. Replacement part number(s) and description(s);**
- n. Concern stated by customer; and**
- o. Comment, if any, by dealer/technician relating to claim and/or repair.**

**Provide this information in MS Access or a compatible format, entitled "WARRANTY DATA." A pre-formatted table that provides further details regarding this submission will be emailed to you.**

Response:

Thomas Built Buses had received no claims related to the alleged defect on the subject component on the subject vehicles. Information obtained 10/25/2011.

**5. Provide copies of any service or technical bulletins, product improvement campaigns, announcements, or advisories, and all other communications concerning the alleged defect in the subject vehicles that TBB has issued or is considering issuing to fleets, dealers, zone offices, or field offices. If TBB has drafted any such communications, furnish a copy of the draft. For any such communication that has been issued, identify, by name, address, telephone number, and contact person, each entity to which it was sent, the date on which the communication was sent, and the specific equipment to which the communication pertained. For each such communication:**

- a. Provide a complete chronology, listing all activities or events, including, but not limited to, incidents, which led TBB to issue the communication;**
- b. Provide a listing (in chronological order) of all testing through which the need for the communication was identified and/or assessed, even if the testing was being conducted for another purpose. Please provide a copy of all relevant information from each test listed; and**
- c. State the number of repairs and/or replacements paid for by TBB that resulted from the communication identified. List your response by repairing dealer (and include the dealer's name, address, and telephone number).**

Response:

Item #1

The attached "Information Only" Product Support Bulletin entitled "04 Natural Gas Veh Insp. Prog\_27-04c.pdf" was made to all authorized Thomas Built Buses service facilities in February 1994. This bulletin applies to all natural gas vehicles produced by Thomas Built Buses and is still available to authorized Thomas Built Buses service facilities. The chronology of events that lead to the issuance of this bulletin are not available. Since this bulletin was for information only, no payment for repairs or replacements resulted from the issuance of this bulletin.

Items #2 and 3

The attached documents entitled "Inspection Instructions - HDX CNG Tank Clearance.pdf" and "HDX CNG Tank Clearance Inspection Form.xls" were issued to the two authorized Thomas Built Buses service facilities on the dates indicated. Copies of this information were also provided to NHTSA, and this information may have found its way into the hands of other service facilities. This information was distributed in order to collect more information about the alleged defect, and was the result of the single complaint received and the subsequent inspection conducted on September 20, 2011.

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|                                                                                                                                                                             |                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Thomas Bus Sales of New York<br>202 South Fehr Way, Bay Shore, NY 11706<br>Phone 631 243 4500 (cell 631 974 4099)<br>Keith Vanemmerick - Service Manager<br>Sent on 10/6/11 | Auto Safety House<br>2630 W. Buckeye Rd, Phoenix, Az. 85009<br>Phone 800 352 5355<br>Lisa Causse, Nick Franklin<br>Sent on 10/04/2011 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|

## Item #4

The attached draft document entitled "DRAFT VON Letter.pdf" is being considered for direct mailing to individual owners as a reminder of, and supplement to, the required CNG tank and mounting system inspection. This draft is the result of the single complaint received, and the subsequent inspection conducted on September 20, 2011.

Information obtained 10/25/2011.

**6. State, by model and model year, all the vehicles equipped with the same or substantially similar subject component TBB has manufactured for sale or lease in the United States.**

Response:

Please see response to Question 1.

**7. Provide a detailed chronology of all events regarding the alleged defect starting from the time TBB first became aware of this issue to present. Describe how TBB first became aware of the alleged defect and state the date on which TBB first became aware of the possibility of the alleged defect. Include all information including dates of both internal and external meetings, meetings with fleets, manufacturers, or any others involved in this issue and discuss the resolution, planned action, and/or the manner in which TBB plans to address this issue. Also separately, provide a copy of any/all document(s) and presentation materials that were used during the meeting(s) whether TBB generated the document(s) or the document(s) were generated by others.**

Response:

| <u>Date</u> | <u>Fact of Event</u>                                                                                                                                                                                                                        |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8/17/2011   | BusWest Carson CA. location notified TBB of abraded CNG tank at LA Unified School District Sun Valley Garage.                                                                                                                               |
| 8/31/2011   | NHTSA Informed DTNA it had received a complaint regarding an abraded CNG tank at LA Unified School District Sun Valley.                                                                                                                     |
| 9/6/2011    | VIN for affected vehicle identified and Remedy ticket entered into system. NHTSA opens PE 11-029 to investigate clearance between CNG tank and frame on 2003 - 2012 Thomas Built Saf-T-Liner HDX compressed natural gas (CNG) school buses. |
| 9/12/2011   | TBB/DTNA/FCCC teleconference to review facts and next steps regarding potential CNG tank clearance issue.                                                                                                                                   |
| 9/14/2011   | TBB/FCCC reviews clearance on current CNG units, determines that tank movement does not occurs when the bus is driven, and investigates possible alternatives for increasing clearance if required.                                         |
| 9/20/2011   | Joint inspection with NHTSA, TBB, FCCC, Dynetek, Dealer, and Customer at LA Unified School District Sun Valley Garage in CA. Additional inspection with TBB, Dealer, and Customer followed at LA Unified School District Gardena            |

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Garage. No additional units with incorrect tank clearance were found.

|            |                                                                                                                                                                                |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9/30/2011  | TBB completes draft CNG tank inspection procedure.                                                                                                                             |
| 10/4/2011  | TBB sends inspection procedure and request to perform CNG tank clearance check to Auto Safety House in Tucson, AZ.                                                             |
| 10/6/2011  | TBB sends inspection procedure and request to perform CNG tank clearance check to Thomas Bus Sales of New York in Long Beach, NY.                                              |
| 10/12/2011 | NHTSA issues IR letter for PE 11-029.                                                                                                                                          |
| 10/13/2011 | TBB completes draft of VON letter for potential direct mailing to individual owners as a reminder of, and supplement to, the required CNG tank and mounting system inspection. |
| 10/14/2011 | TBB receives inspection results from Long Beach, NY inspection of 20 units; results show no tank contact with cage or frame rails.                                             |
| 10/20/2011 | TBB receives inspection results from Tucson, AZ inspection of 33 units; results show no tank contact with cage or frame rails.                                                 |

8. Describe all modifications or changes made by, or on behalf of, TBB in the design, material composition, manufacture, quality control, supply, or installation of the subject components, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject vehicle. For each such modification or change, provide the following information:

- a. The date on which the change was incorporated into production;
- b. A detailed description of the change;
- c. The reason(s) for the change;
- d. The part numbers (service and engineering) of the original component;
- e. The part number (service and engineering) of the modified component;
- f. Whether the original unmodified component was withdrawn from production, inventory(s) and/or sale, and if so, when;
- g. When the modified component was made available as a service component; and
- h. Whether the modified component can be interchanged with earlier production components.

Response:

Thomas Built Buses is not aware of any modifications or design changes to the subject components from start of production to date that may relate to the alleged defect. On May 30, 2008 production of the cage assembly used to mount and protect the tanks was outsourced. Prior to that time this assembly was manufactured in house. The fixture used to assemble the cage was transferred to the outsourced location when production of the cage was moved.

9. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, TBB. For each such action, provide the following information:

- a. Action title or identifier;
  - b. The actual or planned start date;
  - c. The actual or expected end date;
  - d. Brief summary of the subject and objective of the action;
  - e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action;
- and
- f. A brief summary of the findings and/or conclusions resulting from the action.

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## Response:

### Item #1 – Joint inspection at LA Unified Schools Sun Valley garage

Joint inspection conducted on September 20, 2011, to review CNG tank damage and evaluate tank mounting system and clearances. Inspection included representatives from LA Unified Schools, Buswest, Dynetek, The National Highway Traffic Safety Administration, Freightliner Custom Chassis, Thomas Built Buses, and Daimler Trucks North America. The CNG tank was observed to have non structural damage in the form of a series of small indentations with a maximum depth of 0.52mm caused by contact with a gusset on the mounting cage.

### Item #2 – Review of clearance and tank movement

Thomas Bus and Freightliner Chassis engineering conducted testing on a vehicle during the week of September 14, 2011, to evaluate static clearance, tank movement when the vehicle was in operation, and potential alternatives for increasing tank clearance if necessary. Tank clearance was determined to be adequate, and no tank movement was observed with the vehicle in motion. No alternatives for increasing clearance were proposed.

### Item #3 – Develop inspection procedures for acceptable clearance

Thomas bus developed initial procedures to be used to inspect for acceptable clearance between the CNG tank and mounting cage or vehicles frame rails the week of September 26, 2011.

### Item #4 – Clearance inspection Long Beach NY

Long Beach NY location completed clearance inspection of 20 units on October 14, 2011. All units found to have adequate clearance.

### Item #5 – Clearance inspection Tucson AZ

Tucson AZ location completed clearance inspection of 33 units on October 20, 2011. All units found to have adequate clearance.

**Note:** See documents previously provided to NHTSA during September 20, 2011 Joint inspection.

## 10. Furnish TBB's assessment of the alleged defect in the subject vehicle, including:

- a. The causal or contributory factor(s);
- b. The failure mechanism(s);
- c. The failure mode(s);
- d. The risk to motor engine safety that it poses; and
- e. What warnings, if any, the operator and other people both inside and outside the engine would have that the alleged defect had occurred?

## Response:

There has been a single field report for insufficient clearance which lead to unintended contact and non-structural damage to the CNG fuel tank covering. This was caused by a mounting bracket that was attached to the fuel tank cage in a way that it encroached on the area intended for the CNG tank. Non-structural damage to the CNG tank covering does not pose a risk to motor vehicle safety. As an established practice, a thorough inspection of the CNG tanks and mounting system performed by a trained CNG system inspector is required at a minimum of every three years. Any potential settling or movement of the CNG fuel tank resulting in reduced clearance and potential damage to the tank or mounting system would be detectable during those inspections.

PE11-029

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04 Natural Gas Veh Insp.

Prog\_27-04c



# PRODUCT SUPPORT BULLETIN

CHASSIS

**Model:** MVPs

**Subject:** Natural Gas Vehicle Inspection Program

**Date:** 02/21/94

**Index:** 27

**Page:** 1 of 3

**Bulletin:** 4

The Natural Gas Vehicle Coalition recently reinforced the need for operators of Natural Gas Vehicles (NGV) to conduct periodic inspections of their vehicles to ensure safe operation.

The enclosed Natural Gas Vehicle Inspection Program position paper was developed to guide you in that process.

We ask you to forward this to any customer that operates natural gas vehicles, and advise them to perform this inspection at their first opportunity.

**Warranty Status**  
Information Only



## **NATURAL GAS VEHICLE INSPECTION PROGRAM**

There have been two cylinder failure incidents which have resulted in injuries to the vehicle operators. As NGVs become more widely used, and since we continue to stress safety as one of NGV's benefits, we must ensure that a sense of complacency does not set in. We want to remind NGV users that one important aspect of safe operation is the fuel cylinder visual inspection, at the frequency established by State or Local jurisdictions or, at a minimum at least once a year. This inspection is intended to insure that the cylinders have not been damaged and made unfit for service. In the case of fiber reinforced cylinders, the composite wrap plays a major structural role and any damage must be carefully evaluated. The following are suggested guidelines for those inspections.

### **SUGGESTED CYLINDER INSPECTION AREAS**

#### **Steel Cylinders - Inspect for:**

- External corrosion;
- Cuts, digs, gouges;
- Dents, or impact damage;
- Arc and torch burns;
- Bulges;
- Neck defects;
- Heat or fire damage.

#### **Fiber Reinforced Cylinders - Inspect for:**

- Exposed metal surface damage;
- Abrasion, or cuts;
- Missing pieces of composite;
- Impact damage;
- Structural damage;
- Heat, fire or Ultra Violet (UV) damage.

#### **Mounting Brackets - Inspect for:**

- Corrosion;
- Mechanical damage;
- Fastener tightness;
- Integrity of attachments to the vehicle;
- Condition and integrity of bracket liners where they contact the cylinder wall.

**Mounting Location - Inspect for:**

- If the cylinders are mounted externally, whether in the frame, bed or rear cab mountings, check for cylinder contact with frame members, suspension members, brake cables, or exhaust components.
- If the cylinders are mounted internally, check the condition of venting system enclosure, fuel lines and fittings.

Over-pressurization is a practice used by some operators to increase vehicle range, but it also is a type of cylinder mechanical abuse. Vehicles and dispenser hoses should, therefore, be fitted with NGV1 type receptacles and nozzles to prevent over-pressurization. Compressor controls and relief valves periodically should be checked to insure that dispensed pressures are within operational limits of each type of cylinder.

**CYLINDER VISUAL INSPECTION**

Periodic visual inspections of NGV fuel containers, their mounting brackets, fuel lines and fittings should be done in accordance with the latest editions of the appropriate Compressed Gas Association pamphlet, as listed below, and the specific recommendations of the cylinder manufacturers:

- |           |                                                                                                  |
|-----------|--------------------------------------------------------------------------------------------------|
| CGA C-6   | Standards for Visual Inspection of Steel Compressed Gas Cylinders                                |
| CGA C-6.1 | Standards for Visual Inspection of High Pressure Aluminum Compressed Gas Cylinders               |
| CGA C-6.2 | Guidelines for Visual Inspection and Requalification of Fiber Reinforced High Pressure Cylinders |

Compressed Gas Association publications may be ordered by calling the Publication Order Desk, (703)412-0900, Ext. 799; or by FAX: (703)412-0128.

PE11-029

DAMLER

11-15-2011

DRAFT VON Letter

**Thomas Built Buses, Inc.**

To: 2007 ENGINE TEST  
From: Tracy Sauerbrey  
Subject: CNG Tank Clearance  
Date: Friday, October 14, 2011

Dear Thomas Customer:

Thomas Built Buses has been notified about a potential for contact of the compressed natural gas tank and the frame rail on your unit(s) listed below. As a precaution we are asking you to follow the enclosed inspection procedure to insure there is no contact.

After inspection, if contact is found, contact your local Thomas Built Bus dealer to schedule a repair. To find your nearest authorized Thomas Built Bus dealer please visit [www.thomasbus.com](http://www.thomasbus.com)

Thomas is asking all inspections be completed within 60 days from this notification. After inspections are complete, please sign off for each VIN verifying a completed inspection below. In addition, please indicate if contact was found or not found. We have enclosed a postage paid envelope for the return of completion verification. If you prefer, you may fax to the attention of Tracy Sauerbrey at 336-878-4104 or scan in and e-mail to [tracy.sauerbrey@daimler.com](mailto:tracy.sauerbrey@daimler.com).

We thank you for your timely response in this matter. As always, safety

| Vin               | Inspection Completed (Y/N) | Contact Found (Y/N) |
|-------------------|----------------------------|---------------------|
| 1T7YU4F2191110167 |                            |                     |

Total Units 1

PE11-029

DAMLER

11-15-2011

Inspection Instructions - HDX  
CNG Tank Clearance



Because every mile matters.™



# INSPECTION INSTRUCTIONS

**Subject: Saf-T-Liner HDX CNG Tank Clearance Inspection**

**Date: 10/5/2011**

**Page: 1 of 3**

This document is intended to provide general guidance for inspecting the clearance above the Saf-T-Liner HDX CNG tanks. The tanks are located under the unit, mounted in cages that are suspended from the chassis frame rails. Thomas Built Buses currently builds units with five (5) CNG tanks standard. Early sales codes, that are now inactive, had tanks options numbering from two (2) to eight (8) CNG tanks suspended from the frame rails. The inspection is to check that there is no contact between the CNG tanks and the upper tank cage / unit frame rails. Please record inspection findings or any observations that vary from the norm and forward to Thomas Built Buses.

**Note: CNG Tanks must be filled to operating capacity for clearance inspection.**

1. Record the body number (digits between hyphens), VIN (last 8 digits), inspection date, and mileage in the corresponding fields of the Inspection Log provided.
2. Make sure the ignition is in the "Off" position. Chock the tires.
3. The inspection can be made from the front and rear of the CNG tank cage assemblies. Access the front and rear of the cage assemblies to perform the inspection.



Front of Cage Assembly



Rear of Cage Assembly

Note: The no-contact test gauge shown in the following steps was made from 1/32" thick banding material and painted red for visibility in pictures.

# INSPECTION INSTRUCTIONS

4. From between the chassis frame rails, sweep the test gauge over each CNG tank and under the frame rail / tank cage. The gauge should move between the frame rail / tank cage and the CNG tank easily.

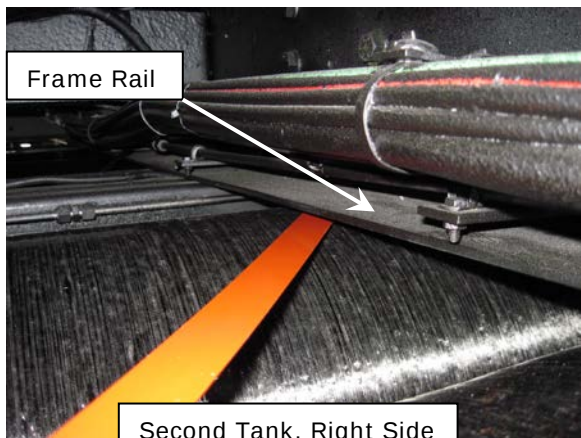


First Tank, Left Side  
(Inside Frame Rails)

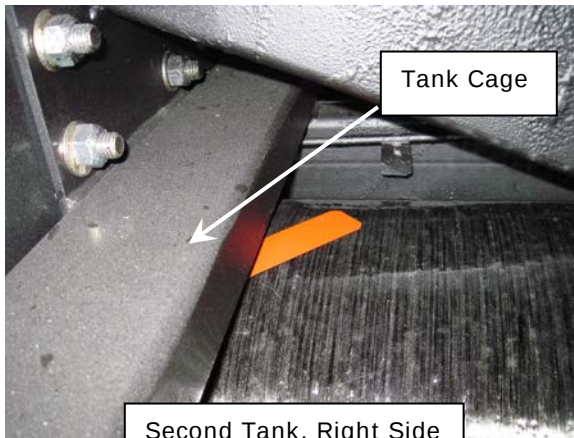


Second Tank, Left Side  
(Inside Frame Rails)

5. While performing each sweep of the gauge, be sure the test gauge is extended past the CNG tank cage on the outside of the frame rail. This allows one sweep per tank end to confirm clearance of both frame rail and tank cage.



Second Tank, Right Side  
(Inside Frame Rails)



Second Tank, Right Side  
(Outside Frame Rails)

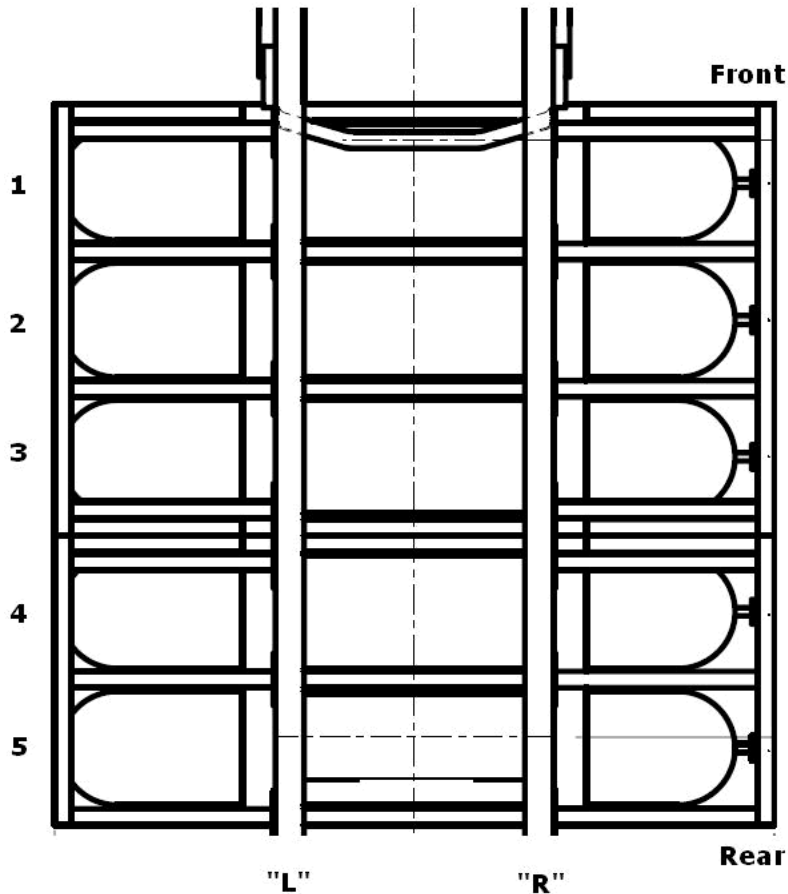
Note: There are fuel line supports blocks and unused fuel line support boss on the under-side of the tank cage member shown above. If the test gauge strikes an object, confirm first that it is not a fuel line support block or unused boss in that location. These are located between CNG tanks, but may be an obstacle for the test gauge when sweeping from one tank to the next.



# INSPECTION INSTRUCTIONS

6. Proceed to test the clearance on each side of each CNG tank. If the test gauge fails to pass between the CNG Tank and the Frame Rail / Tank Cage (confirm gauge did not strike a surrounding object), record its location on the form provided. Use the diagram below to describe the location where a sweep of the test gauge fails to pass. Tanks, depending on sales option, can number from one (1) to eight (8). A five (5) tank option is shown.

Examples: "1L" First Tank, Left Side; "3R" Third Tank, Right Side



7. When inspection is complete, remove the tire chocks.

Warranty Code: 77004

SRT Code: 80-06, Time Allowance – 0.2

PE11-029

DAMLER

11-15-2011

Ticket 4004259

# CONFIDENTIAL

CSR:JDominick 11/2/2011 9:03:56 AM  
Reference No 000000004004259

## Problem Ticket Report

### Contact Information

**Caller** [REDACTED] [REDACTED] [REDACTED] **Contact Type** Sales Manager

### Location

[REDACTED] REET  
Carson, CA  
[REDACTED]

### Ticket Details

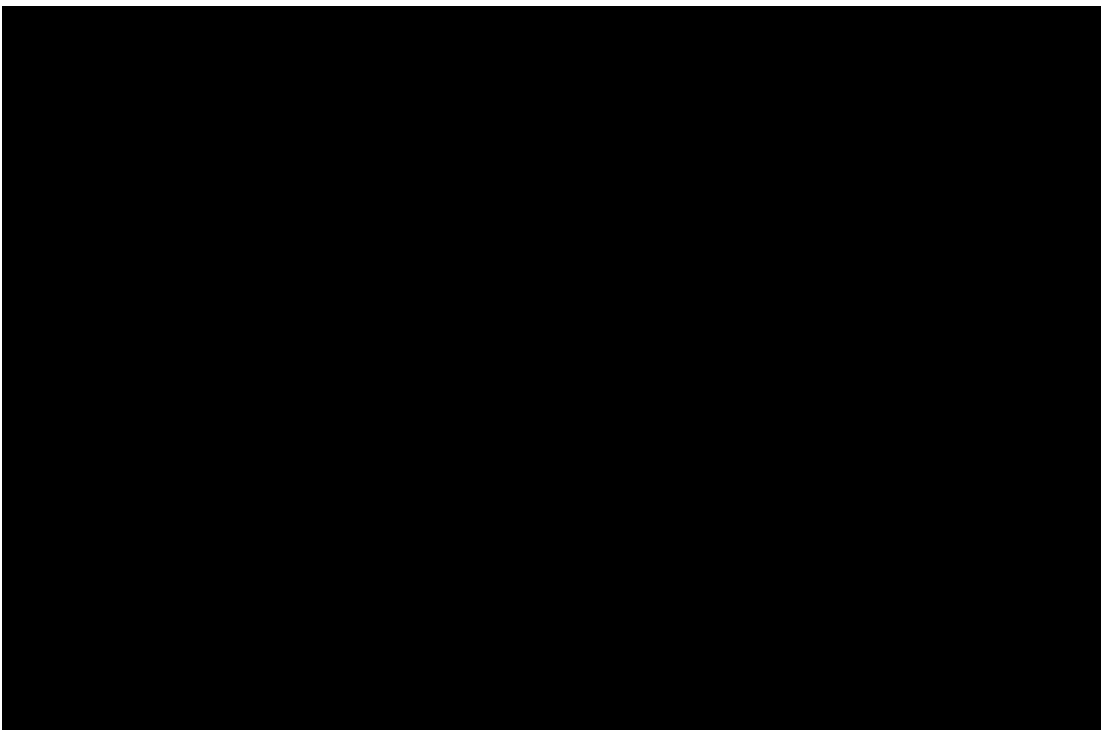
**System** Comments and Concerns **Category** Product Issue **Reason for Call** Useability

### Call Details

**VIN/Serial No** 1T7YU4F2731 [REDACTED] **Base Model**  
**Make** [REDACTED] **Model Year** 2003 **Vehicle Mileage Symptoms**

### Work Log

| Date/Time                          | User    | Work Description                                                                             |
|------------------------------------|---------|----------------------------------------------------------------------------------------------|
| Tue<br>9/6/2011<br>7:43:56<br>AM   | MMiller | Customer has a concern with the CNG tank rubbing the frame rail. Unit has an isd of 2/25/03. |
| Tue<br>9/6/2011<br>8:13:20<br>AM   | MMiller | Customer reports that all of the tanks on the unit measure 49" in diameter.                  |
| Mon<br>10/31/2011<br>5:36:32<br>AM | MMiller | Trip report, tank inspection, and incident report added.                                     |



Please visit us at [REDACTED]m

**From:** [REDACTED]  
**Sent:** Wednesday, July 20, 2011 7:19 AM  
**To:** Todd Franssen (BW)  
**Cc:** Salas, Ricardo; Mooklar, Charles  
**Subject:** FW: CNG Tank Clearance 6137  
**Importance:** High

Todd,

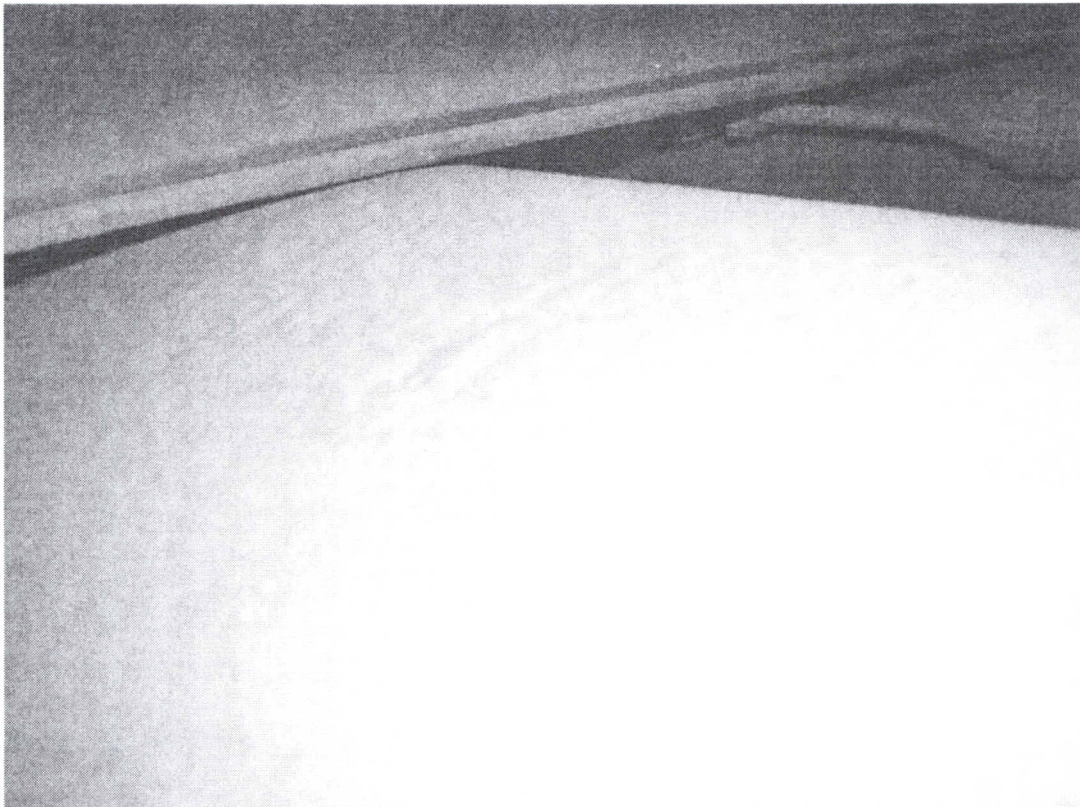
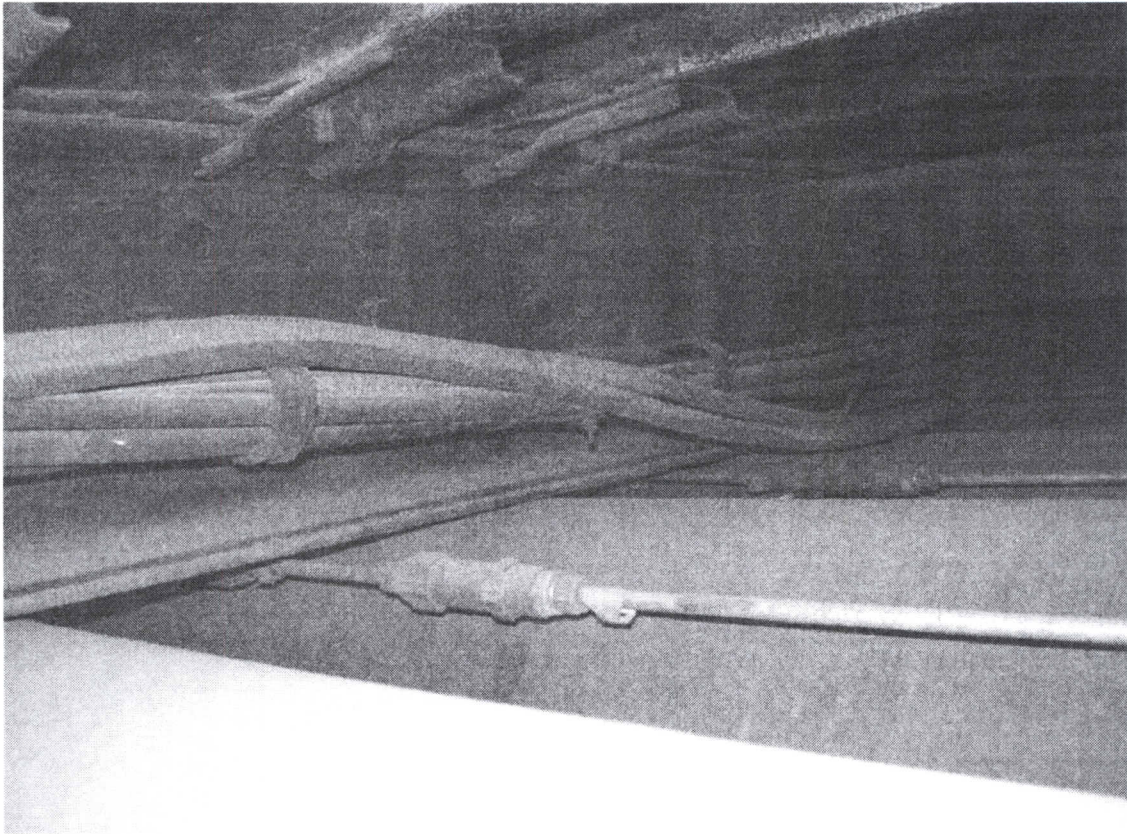
Take a look at the included photo. This was found on the tank inspection. The tank is rubbing the frame rail.  
Can Thomas do something with this?

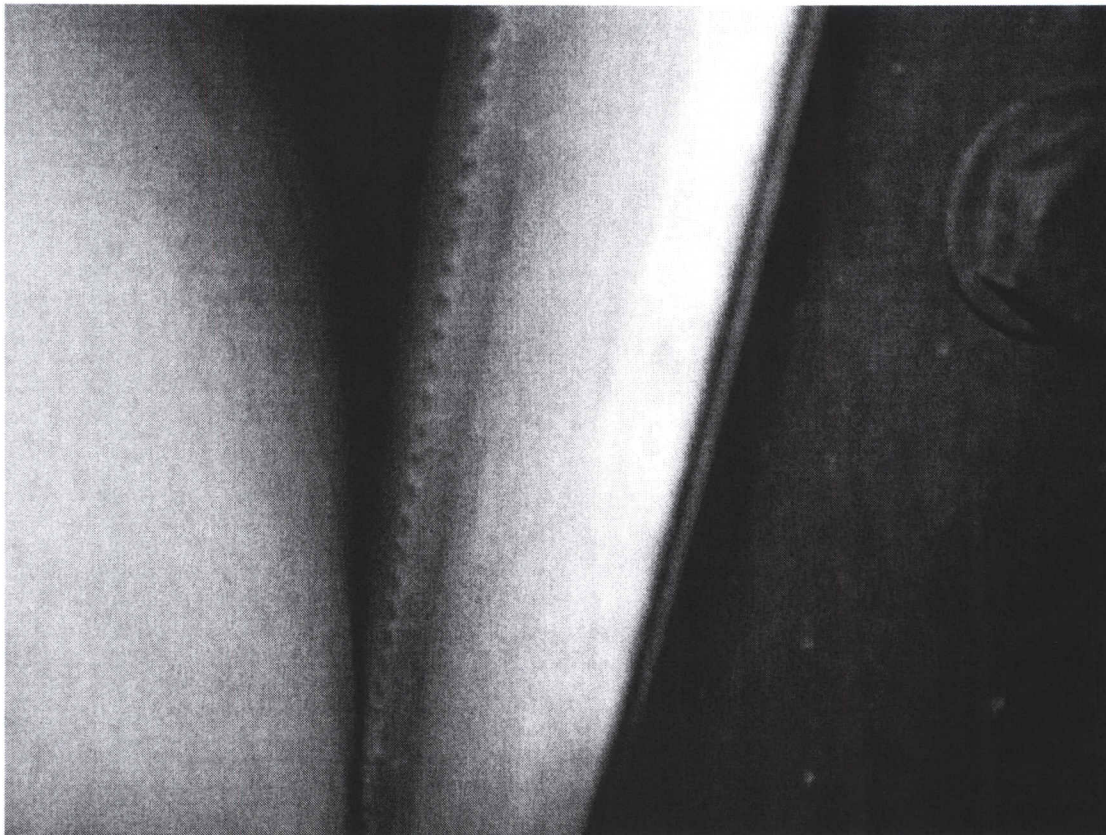
Frank

**From:** Mooklar, Charles  
**Sent:** Tuesday, July 19, 2011 10:34 AM  
**To:** [REDACTED]  
[REDACTED] Salas, Ricardo; Maclean, Andrew; Webb, Matt  
**Subject:** CNG Tank Clearance 6137  
**Importance:** High

Frank,

We have a 2003 Thomas bus that has a chassis frame rail actually contacting a CNG tank. This bus has not been in an accident or altered in any way. Would Thomas still have some responsibility in this situation?





██████████r  
██████████r  
7 | ██████████s  
██████████  
██████████p / my ██████████B

