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OFFICE OF DEFECTS
INVESTIGATION

[Handwritten Signature]
1/21/08

Daimler Trucks North America
Nasser Zamani
Manager
Compliance and Regulatory Affairs

February 18, 2008

Richard Boyd, Chief
Medium and Heavy Duty Vehicle Division
Office of Defects Investigation
National Highway Traffic Safety Administration
1200 North Jersey Avenue S.E.
Washington D.C. 20590

Re: PE07-054, TBB Emergency Exit Door Handle

Mr. Boyd

On behalf of Thomas Built Buses, a wholly-owned subsidiary of Daimler Trucks North America, LLC, I hereby submit the attached in response to the above referenced request for information concerning allegations of a defect in the emergency exit door handle on certain Thomas Built Buses.

Your specific requests, with identifications codes, are repeated verbatim in the following pages. Daimler Trucks North America, LLC's response follows each request in bold.

Please contact me if you have any questions.

Sincerely yours,

Nasser Zamani
Nasser Zamani

Attachments
Mailed via FedEx

A Daimler Company

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

DAIMLER

Richard Boyd
February 11, 2008
PE07-054

Page 1 of 13

1. State, by model year, and model, the number of subject vehicles Freightliner has manufactured for sale or lease in the United States.

Provide the table in Microsoft Access 2000, or a compatible format, entitled "PRODUCTION DATA."

See file "PRODUCTION DATA.xls" on attached CD (Production data as of January 18, 2008, production data not in electronic format prior to 1980)

2. State, by model year, and model, the total number of each of the following, received by Freightliner, or of which Freightliner is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles. Provide a copy of each such claim:

a. Consumer complaints, including those from fleet operators;
NONE (Consumer complaint data not available prior to 2000)

b. Field reports, including dealer field reports;

Model Year	Model	Count
1995	Minotour	1
1997	Minotour	2
1997	MVP-EF	41
1998	Conventional	2
1998	FS-65	1
1998	Minotour	1
1998	MVP-EF	1
1999	Conventional	31
1999	Minotour	3
2000	Conventional	4
2001	FS-65	1
2001	MVP-EF	1
2003	FS-65	5
2004	FS-65	19
2004	HDX	3
2004	Minotour	1
2005	MVP-EF	3
2006	FS-65	1

(Field report data not available prior to 2000)

c. Reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;

NONE

d. Property damage claims;

NONE

DAIMLER

Richard Boyd
February 11, 2008
PE07-054

Page 2 of 13

e. Third-party arbitration proceedings where Freightliner is or was a party to the arbitration; and,

NONE

f. Lawsuits, both pending and closed, in which Freightliner is or was a defendant, or codefendant.

NONE

Responses to Question 2 as of 12/6/2007

For subparts "a" through "d," state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vehicle 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).

In addition, for items "c" through "f," provide a summary description of the alleged problem and causal and contributing factors and Freightliner's assessment of the problem, with a summary of the significant underlying facts and evidence. For items e and f, identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

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. Freightliner's file number or other identifier used;
- b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
- c. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
- d. Vehicle's VIN;
- e. Vehicle's make, model, and model year;
- f. Vehicle's mileage at time of incident;
- g. Incident date;
- h. Report or claim date;
- i. Whether the handle detached from the door;
- j. Number of alleged injuries, if any;
- k. Number of alleged fatalities, if any;
- l. Summary description of the complaints; and,
- m. Freightliner' opinion/assessment of the incidents. Provide a copy of the claim or repair order, any/all field reports and any documents related to or produced by freightliner during their evaluation of this issue.

See attachment 1 - "Response to Question 3.m, copies of field reports"

DAIMLER

Richard Boyd
February 11, 2008
PE07-054

Page 3 of 13

Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO DATA."

See file "REQUEST NUMBER TWO DATA.xls" on attached CD

4. State, by model year, and model, a total count for all of the following categories of claims, collectively, that have been paid by Freightliner to date that relate to, or may relate to, the alleged defect in the subject vehicles:

a. Warranty claims;

Model Year	Model	Count
1995	ER	5
1995	Conventional	1
1996	ER	3
1997	Conventional	3
1997	MVP-EF	44
1998	Minotour	2
1998	MVP-EF	2
1998	Conventional	6
1999	Conventional	25
1999	FS-65	2
1999	Minotour	2
1999	MVP-EF	6
2000	FS-65	18
2000	Minotour	5
2000	MVP-EF	9
2000	Conventional	1
2001	Conventional	1
2001	FS-65	41
2001	ER	1
2001	MVP-EF	11
2002	FS-65	23
2002	Minotour	3
2002	MVP-EF	3
2003	FS-65	13
2003	Minotour	5
2004	FS-65	101
2004	HDX	4
2004	Minotour	9
2004	MVP-EF	30
2005	FS-65	207
2005	HDX	7
2005	Minotour	23
2005	MVP-EF	12

DAIMLER

Richard Boyd
February 11, 2008
PE07-054

Page 4 of 13

2006	C2	84
2006	FS-65	46
2006	HDX	8
2006	Minotour	11
2006	MVP-EF	29
2007	C2	133
2007	FS-65	24
2007	HDX	1
2007	MVP-EF	21
2008	C2	26
2008	HDX	1
2008	MVP-EF	5

***Warranty data as of 12/12/2007 (Warranty data not available prior to 2000)**

b. Extended warranty claims;

None

c. Claims for good will services that were provided;

Included in warranty claims data

d. Field, zone, or similar adjustments and reimbursements; and

None

e. Warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

None

Separately, for each such claim, state the following documentation/information:

- a. Freightliner's claim number;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. VIN;
- d. Repair date;
- e. Vehicle mileage at time of repair;
- f. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- g. Labor operation number;
- h. Problem code;
- i. Replacement part number(s) and description(s);
- j. Concern stated by customer, did the handle detach from the door;
- k. Provide a copy of any related document including the claim or repair order;
- l. Comment, if any, by dealer/technician relating to claim and/or repair; and.
- m. Freightliner's assessment.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "WARRANTY DATA."

See files "WARRANTY DATA.xls" and "WARRANTY_CLAIMS_PE07-054.PDF" on attached CD

DAIMLER

Richard Boyd
February 11, 2008
PE07-054

Page 5 of 13

5. Describe in detail the search criteria used by Freightliner to identify the claims identified in response to Request No. 2 and No. 5, including the labor operations, problem codes, part numbers and any other pertinent parameters used.

Warranty reports were search by the three part numbers for the handle, 24062376, 64007138 and 64008802. The word handle was searched in the Problem Description category to cover all affected Fail Component Groups and Quality Codes.

Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject vehicles.

Failure codes/description include:

Q01 - Various;
V01 - Vendor Part Defective;
V07 - Vendor Workmanship (Poor);
W09 - Improper Installation;
W19 - Part Cracked/Deformed/Broken;
W39 - Corrosion, Surface;
W41 - Corrosion, Perforation;
W47 - Paint Application;
W49 - Paint Adhesion (Insufficient);
W51 - Poor Adhesion (Lettering, Glued-on Components);
W66 - Corrosion; X09 - Incorrect Design - Mechanical

Failed Component Codes/description include:

243 - Side Emergency - Latch/Hinge/Prop;
249 - Rear Emergency - Latch/Hinge/Prop;
255 - Lift (Single Door) - Latch/Hinge/Prop;
267 - Vandalock - Rear Emergency;
363 - Exterior Sheet Metal - Trim;
0201 - Service, O/O - Shell;
0203 - Service, O/O - Seal;
0205 - Service, O/O - Control/Hinge/Cylinder/Linkage;
0211 - Service, JK - Control/Hinge/Cylinder/Linkage;
0223 - Service, Plug - Control/Hinge/Cylinder/Linkage;
0231 - Side Exit, Std. - Control/Hinge/Cylinder/Linkage;
0237 - Side Exit, Plug - Control/Hinge/Cylinder/Linkage;
0245 - Rear Emergency - Shell;
0247 - Rear Emergency - Seal;
0265 - Vandalock - Side Emergency;
0273 - Roof Hatch - Components (Handle,Switch,Hinge etc);
0301 - Front Assembly Structure;
0309 - Service Steps;
0351 - Rear Assembly Construction;
0353 - Rear Assembly Sheet Metal - Right Exterior;
0357 - Exterior Side Sheets - Right;
0359 - Exterior Side Sheets - Left;

DAIMLER

Richard Boyd
February 11, 2008
PE07-054

Page 6 of 13

- 0367 - Roof Sheets and Hoods;**
- 0437 - Luggage Compartment and Door;**
- 0457 - Assist Rails and Handles;**
- 0465 - Lettering, Numbers, and Graphics;**
- 0563 - Passenger Advisory System**

State, by make and model year, the terms of the new vehicle warranty coverage offered by Freightliner on the subject vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that Freightliner offered for the subject vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.

Make	Model Year	Warranty Coverage	
		Months	Miles
TBB	2000-2008	12	Unlimited

6. Describe how Freightliner first became aware of the alleged defect and state the date on which Freightliner first became aware of the possibility of the alleged defect. Provide a detailed chronology of all known door handle failures regarding the subject defect, starting from the time Freightliner first became aware of this issue to present. Include all information and provide a copy of any document used at any internal/external meeting(s), meetings with the part supplier, or other manufacturers.

Thomas Built Buses first became aware of a broken handle by means of a warranty claim on 6/18/99 (on a 1996 model vehicle - claim seq. # 1005884). The first warranty claim that mentioned corrosion on the handle was 9/22/99 (on a 2000 model vehicle - claim seq. # 1010350). There was no evidence at the time that the earlier breakage had any linkage to corrosion. The first warranty report that mentioned "handle is corroded and breaking" was 11/16/01 (on a 1999 model vehicle - claim seq. # 1167483) Thomas Built Buses could not discern from the claims exactly how the breakage was occurring i.e. due to misuse, abuse etc. and did not believe corrosion to be a contributing factor.

7. Produce copies of any/all service bulletins, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that Freightliner has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that Freightliner is planning to issue within the next 120 days.

NONE

DAIMLER

Richard Boyd
February 11, 2008
PE07-054

Page 7 of 13

8. For each such document provide in responding to question 7, provide a detail explanation as to what precipitated the issuance of the service bulletin/document and its relevancy to the alleged defect.

Not Applicable

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, Freightliner. 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.

• **Action 1**

- a.) **ECR_2182, ECR_2183**
- b.) **Start date 4/27/2006**
- c.) **Cancelled on 05/22/2007**
- d.) **Replace current handle with a more corrosion resistant handle. TBB Engineering changed door handle material from 380 aluminum to a K Alloy. Change was cancelled due to inability of vendor to source specific alloy in location of current manufacturing.**
- e.) **TBB Engineering**
- f.) **Final material change was not implemented due to availability of K Alloy.**

• **Action 2**

- a.) **ECR_3856, ECR_3857**
- b.) **Start date 4/30/2007**
- c.) **Expected end date 01/31/2008**
- d.) **Redesign door handle from a different material. Evaluate designs from alternative materials to determine their suitability for this application.**
- e.) **TBB Engineering and Surfacing Solutions**
- f.) **Action is not completed at this point and time. Initial design proposals incorporate a handle with similar geometry made from glass filled nylon with a stainless steel load-bearing insert.**

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

See attachment 1 - "Response to Question 9, copies of documents related to actions"

DAIMLER

Richard Boyd
February 11, 2008
PE07-054

Page 8 of 13

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

- a. The date or approximate date on which the modification or change was incorporated into vehicle production;
- b. A detailed description of the modification or change;
- c. The reason(s) for the modification or 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 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.

24062376 – Rev N (see drawing 24128365N in attachment 3 – “Question 10 Drawings”)

- a. **March 29, 2000**
- b. **Revised drawing for existing part and added coating specification.**
- c. **Unknown**
- d. **24062376**
- e. **24062376**
- f. **N/A**
- g. **N/A**
- h. **Yes**

****No drawing file prior to an N revision is available for 24062376.**

24062376 – Rev P (see drawing 24128365P in attachment 3 – “Question 10 Drawings”)

- a. **April 17, 2000**
- b. **Inactivate 24062376 and release new emergency door handle to replace current door handle as standard equipment and for all lift doors.**
- c. **Originally needed for South Carolina**
- d. **24062376**
- e. **N/A**
- f. **Yes, it was removed from production on 11/10/2000**
- g. **11/10/2000**
- h. **Yes**

64007138 – Rev A (see drawing 64007138A in attachment 3 – “Question 10 Drawings”)

- a. **April 17, 2000**
- b. **Release new emergency door handle to replace current door handle as standard equipment and for all lift doors.**
- c. **Originally needed for South Carolina**
- d. **24062376**
- e. **64007138**
- f. **Yes, it was removed from production on 11/10/2000**
- g. **11/10/2000**
- h. **Yes**

DAIMLER

Richard Boyd
February 11, 2008
PE07-054

Page 9 of 13

64007138 – Rev B (see drawing 64007138B in attachment 3 – “Question 10 Drawings”)

- a. May 25, 2000
- b. Identified four dimensions on drawing as “Critical feature dimensions. This feature needs to be controlled by the solid model.”
Added the following notes to the drawing:
Cast Finish: Surface imperfections should be removed by automatic buffing.
All cavity dimensions in solid model are minimum. Cavity can be up to 0.004 inches larger.
- c. Revise drawing to include additional information for manufacturing.
- d. 64007138
- e. 64007138
- f. N/A
- g. N/A
- h. Yes

64007138 – Rev C (see drawing 64007138C in attachment 3 – “Question 10 Drawings”)

- a. July 8, 2000
- b. Revised general profile for ease of production
- c. For ease of production
- d. 64007138
- e. 64007138
- f. N/A
- g. N/A
- h. Yes

64007138 – Rev D (see drawing 64007138D in attachment 3 – “Question 10 Drawings”)

- a. October 17, 2000
- b. Revised hole location on drawing to match part.
- c. Drawing correction
- d. 64007138
- e. 64007138
- f. N/A
- g. N/A
- h. Yes

64007138 – Rev E (see drawing 64007138E in attachment 3 – “Question 10 Drawings”)

- a. January 4, 2001
- b. Revise drawing to match part
- c. Drawing correction
- d. 64007138
- e. 64007138
- f. N/A
- g. N/A
- h. Yes

DAIMLER

Richard Boyd
February 11, 2008
PE07-054

Page 10 of 13

64007138 – Rev F (see drawing 64007138F in attachment 3 – “Question 10 Drawings”)

- a. November 14, 2001
- b. Inactivate part number and replace it with 64008802
- c. Changed supplier for part
- d. 64007138
- e. 64008802
- f. March 26, 2002
- g. March 27, 2002
- h. Yes

64008802 – Rev A (see drawing 64008802A in attachment 3 – “Question 10 Drawings”)

- a. March 27, 2002
- b. Revision to emergency door handles regarding clearance between handle and door.
- c. Decreased the clearance between the handle and the door for the state of NY.
- d. 64007138
- e. 64008802
- f. Yes, on March 26, 2002
- g. Yes, on March 27, 2002
- h. Yes

64008802 – Rev B (see drawing 64008802B in attachment 3 – “Question 10 Drawings”)

- a. November 7, 2001
- b. Changed vendor to RPM Engineering and changed finish callout on drawing from black dull gloss coating per 68001238 to gloss black powder coating.
- c. Improve appearance, re-sourcing part
- d. 64008802
- e. 64008802
- f. N/A
- g. N/A
- h. Yes

64008802 – Rev C (see drawing 64008802C in attachment 3 – “Question 10 Drawings”)

- a. May 22, 2002
- b. Revised handle model so vendor can use the correct model for tooling.
- c. Enhanced manufacturability
- d. 64008802
- e. 64008802
- f. N/A
- g. N/A
- h. Yes

DAIMLER

Richard Boyd
February 11, 2008
PE07-054

Page 11 of 13

Also, provide the above information for any modification or change that Freightliner is aware of which may be incorporated into vehicle production within the next 120 days.

As described in question 9 above; TBB currently has plans to release a new handle design.

Based on information currently available:

- a. **Potentially within the next 90 days**
- b. **Redesign door handle from a different material. Evaluate designs from alternative materials to determine their suitability for this application.**
- c. **Design a new door handle from an alternative material to eliminate effects of corrosion.**
- d. **64008802**
- e. **N/A**
- f. **N/A**
- g. **N/A**
- h. **Interchangeability is a design requirement.**

11. Produce one the following:

a. Any replacement part or kits that have been released, or developed, by Freightliner for use in service repairs to the subject component/assembly which relate, or may relate, to the alleged defect in the subject vehicles: and

NONE

b. An exemplar of the current door handle(s) used on the subject buses. ODI has observed a variety of materials used for the subject door handle. Please provide a sample of each material.

An exemplar handle is included. TBB has only specified one material type for the subject vehicles.

12. State the number of each of the following that Freightliner has sold that may be used in the subject vehicles by component name, part number (both service and engineering/production), model, model year of the vehicle, and material of the handle in which it is used and month/year of sale (including the cut-off date for sales, if applicable):

a. Replacement door handles;

From January 2002 to December 2007, 36,982 replacement door handles have been sold (sales figure only available for last 5 years). Vehicle data is not available as to the models and model years these replacements have been sold for.

b. Any kits that have been released, or developed, by Freightliner for use in service repairs to the subject component/assembly; and

NONE

c. Any replacement part that have been released, or developed, by Freightliner for use in service repairs to the subject component/assembly.

NONE

DAIMLER

Richard Boyd
February 11, 2008
PE07-054

Page 12 of 13

For each component part number, provide the supplier's name, address, and appropriate point of contact (name, title, and telephone number)

24062376

TTE Casting Technologies Incorporated
1017 Alvin Weinberg Drive
Oak Ridge, Tennessee 37830
Telephone: (865) 482-7778 Voice, (865) 482-8697 Fax
E-mail: info@ttecasting.com Web: www.ttecasting.com

64007138

TTE Casting Technologies Incorporated
1017 Alvin Weinberg Drive
Oak Ridge, Tennessee 37830
Telephone: (865) 482-7778 Voice, (865) 482-8697 Fax
E-mail: info@ttecasting.com Web: www.ttecasting.com

64008802

RPM Engineering – Ron Waynick (title?)
1616 Centerville Turnpike
Suite 209
Virginia Beach, VA 23464
888-467-0818

Also identify by make, model and model year, any other vehicles of which Freightliner is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

See response to question number 1 for chart. Part number 24062376 was released into production in 1976 and has been used on all product lines until it was replaced in production on 11/10/2000 by 64007138. 64007138 was used until it was replaced by 64008802 on 3/27/2002. 64008802 is currently in production.

Also, provide a detail description of the door handle including the material composition of the handle and the securing pin, the manufacturing process of each, and provide the drawing depicting the dimensional measurements of each component.

The handle is made from a 380 aluminum alloy. It is made by a die cast process. The securing pin is a spring pin that is 1.00 inch long and made for a nominal 0.125 inch diameter hole. The spring pin is made from 0.028 inch thick, zinc coated, SAE 1070 – 1095 steel.

See attachment 3 – “Response to Question 10 - Drawings”

DAIMLER

Richard Boyd
February 11, 2008
PE07-054

Page 13 of 13

13. Furnish Freightliner's assessment of the alleged defect in the subject vehicle, including:
- a. The causal or contributory factor(s);
De-icing agents used on roadways particularly in cold climates during inclement weather
 - b. The failure mechanism(s);
Corrosion
 - c. The failure mode(s);
Cracking/breakage due to corrosion
 - d. The risk to motor vehicle safety that it poses;
Unknown
 - e. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the alleged- defect was occurring or subject component was malfunctioning; and
Peeling/chipping paint on the handle is the first indicator that the material is corroding. This is a common factor in the warranty claims.
 - f. The reports included with this inquiry.
Peeling/chipping paint on the handle is the first indicator that the material is corroding. This is a common factor in the warranty claims.
14. Identify what action Freightliner intends to take in this matter.
Thomas Built Buses is pursuing a new design from an alternative material to address corrosion.