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13V-487
(6 pages)

Safety Defect and Noncompliance Report Guide for Vehicles

PART 573 Defect and Noncompliance Report[1]

On 24 September of 2013, New Flyer Industries Canada ULC and New Flyer of America Inc. (together "New Flyer") decided, that a non-compliance which relates to motor vehicle safety exists in the motor vehicles listed below, and is furnishing notification to the National Highway Traffic Safety Administration in accordance with 49 CFR Part 573 Defect and Noncompliance Reports.

Date this report was prepared: 30 September 2013

Furnish the manufacturer's identification code for this recall (if applicable): R13-023

1. Identify the full corporate name of the fabricating manufacturer of the vehicle being recalled. If the recalled vehicle is imported, provide the name and mailing address of the designated agent as prescribed by 49 U.S.C. §30164.

New Flyer Industries Canada ULC

711 Kernaghan Ave., Winnipeg, MB Canada R2C 3T4

Identify the corporate official, by name and title, whom the agency should contact with respect to this recall.

Mr. Kerry Legg

Vehicle Safety & Regulatory Compliance Manager

Telephone Number: (204) 224-6706 **Fax No.:** (204) 224-0248

Name and Title of Person who prepared this report.

Same as above

Signed:

[1]Each manufacturer must furnish a report, to the Associate Administrator for Safety Assurance, for each defect or noncompliance condition which relates to motor vehicle safety.

I. Identify the Vehicle Models Involved in the Recall

2. Identify the Vehicles Involved in the Recall:

Make(s): New Flyer **Model Years Involved**: 2013 **Model(s)**: XD40

Production Dates: **Beginning**: 24 May 2013 **Ending**: 05 Sep 2013

VIN Range: **Beginning**: 041849 **Ending**: 041903

Vehicle Type: Heavy Duty Transit Bus **Body style**: Xcelsior Diesel Forty Foot

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall:

The color coded air lines to the E-6 brake treadle valve will be properly installed in accordance with Installation documents.

Make(s): New Flyer **Model Years Involved**: 2013 **Model(s)**: XN40

Production Dates: **Beginning**: 18 Apr 2013 **Ending**: 11 Sep 2013

VIN Range: **Beginning**: 041776 **Ending**: 041783

VIN Range: **Beginning**: 041915 **Ending**: 041943

VIN Range: **Beginning**: 042234 **Ending**: 042235

VIN Range: **Beginning**: 042237

VIN Range: **Beginning**: 042239

VIN Range: **Beginning**: 042241 **Ending**: 042242

VIN Range: **Beginning**: 042244 **Ending**: 042245

Vehicle Type: Heavy Duty Transit Bus **Body style**: Xcelsior Compressed Natural Gas Forty Foot

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall:

The color coded air lines to the E-6 brake treadle valve will be properly installed in accordance with Installation documents.

Make(s): New Flyer **Model Years Involved**: 2013 **Model(s)**: XD60

Production Dates: **Beginning**: 31 May 2013 **Ending**: 05 Sep 2013

VIN Range: **Beginning**: 041789 **Ending**: 041795

VIN Range: **Beginning**: 041797 **Ending**: 041800

VIN Range: **Beginning**: 041802 **Ending**: 041805

Vehicle Type: Heavy Duty Transit Bus **Body style**: Xcelsior Diesel Sixty Foot

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall:

The color coded air lines to the E-6 brake treadle valve will be properly installed in accordance with Installation documents.

Make(s): New Flyer **Model Years Involved**: 2013 **Model(s)**: XDE40

Production Dates: **Beginning**: 17 May 2013 **Ending**: 17 May 2013

VIN Range: **Beginning**: 041812 **Ending**: 041815

Vehicle Type: Heavy Duty Transit Bus **Body style**: Xcelsior Diesel Electric Forty Foot

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall:

The color coded air lines to the E-6 brake treadle valve will be properly installed in accordance with Installation documents.

Identify the approximate percentage of the production of all the recalled models manufactured by your company between the inclusive dates of manufacture provided above, that the recalled model population represents.

42 %

II. Identify the Recall Population

3. Furnish the total number of vehicles recalled potentially containing the defect or noncompliance.

Model	Year	Number of Vehicles Potentially Involved
XD40	2013	55
XN40	2013	45
XD60	2013	15
XDE40	2013	04

Total Number Potentially Affected by the Recall: 119

4. Furnish the approximate percentage of the total number of vehicles estimated to actually contain the defect or noncompliance: 95.8%

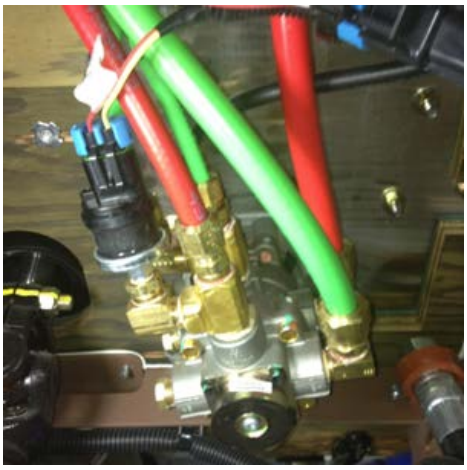
Identify and describe how the recall population was determined--in particular how the recalled models were selected and the basis for the beginning and final dates of manufacture of the recalled vehicles:

Recall population is based on New Flyer production records, vehicle shipping records and confirmed by on-site visual inspection at multiple customer locations of multiple air system configurations.

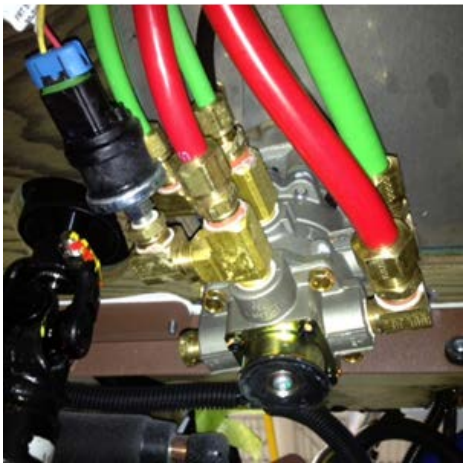
III. Describe the Defect or Noncompliance

5. Describe the defect or noncompliance. The description should address the nature and physical location of the defect or noncompliance. Illustrations should be provided as appropriate.

During vehicle assembly, the color coded front and rear air brake circuit supply lines to the E-6 brake treadle valve may have been crossed. This resulted in rear air reservoir supplying pressure to the front brake circuit through the treadle valve, and, the front air reservoir supplying pressure to function the rear relay valve and brake circuit through the brake treadle valve. In effect, the rear reservoir was being used to supply air pressure to both the front and rear brake circuits.



Incorrect Installation



Correct Installation

Describe the cause(s) of the defect or noncompliance condition.

This error was due to inattention to the available and correct installation documentation and procedures.

Describe the consequence(s) of the defect or noncompliance condition.

Analysis of the effect of crossing the supply lines determined that no noticeable effect to air brake function during normal vehicle operation. However, in the event of a catastrophic loss of air supply pressure in the rear air reservoir (or the center air reservoir on an 60 foot articulated bus), because rear pressure is being used to function the front brake circuit, there would be no front brake function. The front circuit would deliver front system pressure from the treadle valve to the rear relay valve, but there would be no rear reservoir pressure available to function the rear brake circuit. Additionally there would be no front brake signal pressure to the Spring Brake Control Valve to modulate the spring brakes to simulate rear brake function with loss of rear reservoir pressure. The net result of such a catastrophic failure would be a loss of service braking effect on both front and rear axles. The emergency brake system would remain fully functional.

Identify any warning which can (a) precede or (b) occur.

Air system pressure warnings both audible and visual, would occur prior to the complete loss of air pressure in the rear air reservoir. The immediate actions for such a warning would be to pull over and stop the vehicle.

If the defect or noncompliance is in a component or assembly purchased from a supplier, identify the supplier by corporate name and address.

N/A

Identify the name and title of the chief executive officer or knowledgeable representative of the supplier:

N/A

IV. Provide the Chronology in Determining the Defect/Noncompliance

If the recall is for a defect, complete item 6, otherwise item 7.

6. With respect to a defect, furnish a chronological summary (including dates) of all the principle events that were the basis for the determination of the defect. The summary should include, but not be limited to, the number of reports, accidents, injuries, fatalities, and warranty claims.

7. With respect to a noncompliance, identify and provide the test results or other data (in chronological order and including dates) on which the noncompliance was determined.

During brake testing of newly manufactured buses, inconsistencies were noted. Troubleshooting of the air brake system determined that the air reservoir supply lines to the brake treadle were crossed. An investigation started on 12 September at both production facilities for all vehicles. At one of the production faculties no errors were noted. At the other almost 100% of the vehicles checked with a specific air system configuration needed to be reworked. New Flyer identified all production vehicles for this issue and started a campaign to inspect and correct as required. On September 23rd an Engineering analysis of this improper installation determined that the air brake system was no longer in compliance with FMVSS 121, This is because with a catastrophic loss of pressure to the rear air reservoir, there would be no resulting modulation of the spring brakes to compensate.

This is contrary to FMVSS § 571.121 - Air Brake Systems S5.7 Emergency brake system for trucks and buses.

On September 23rd New Flyer determined that a recall for non-compliance would need to be declared.

V. Identify the Remedy

8. Furnish a description of the manufacturer's remedy for the defect or noncompliance. Clearly describe the differences between the recall condition and the remedy.

All vehicles identified within the specific production range will be inspected and corrected for the condition shown in Part III of this document.

Clearly describe the distinguishing characteristics of the remedy component/assembly versus the recalled component/assembly.

Color coded air lines will be plumbed to the proper ports on the E-6 brake treadle valve in accordance with the repair instruction.

Identify and describe how and when the recall condition was corrected in production. If the production remedy was identical to the recall remedy in the field, so state. If the product was discontinued, so state.

The production and field remedy were the same. Production has included additional visual and functional checks to confirm air line installation for all air system configurations on all vehicles.

VI. Identify the Recall Schedule

Furnish a schedule or agenda (with specific dates) for notification to other manufacturers, dealers/retailers, and purchasers. Please, identify any foreseeable problems with implementing the recall.

New Flyer customer notification will proceed immediately once a recall code is assigned by the NHTSA office of Recall Management and approval of sample customer letter. As of the date of this submission, 98% of the customers vehicles identified as requiring inspection and correction have been completed.

VII. Furnish Recall Communications

9. Furnish a final copy of all notices, bulletins, and other communications that relate directly to the defect or noncompliance and which are sent to more than one manufacturer, distributor, or purchaser. This includes all communications (including both original and follow-up) concerning this recall from the time your company determines the defect or noncompliance condition on, not just the initial notification. ***A DRAFT copy of the notification documents should be submitted to this office by Fax (202-366-7882) for review prior to mailing.***

Note that these documents are to be submitted separately from those provided in accordance with Part 573.8 requirements.