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12V-518
(10 pages) Amended



3 December 2012

VIA EMAIL

Chief - Recall Management Division

US DOT – National Highway Traffic Safety Administration
Office of Defects Investigation (NVS-215)
1200 New Jersey Ave. SE,
Washington, DC 20590

Subject: Safety Recall 12V-518 - MGM Integrated Guide Brake Chambers

To whom it may concern:

New Flyer Industries Canada ULC and New Flyer of America Inc. (together “New Flyer”), has determined that the original recall population, as identified in the 573 defect report submitted to the National Highway Traffic Safety Administration (NHTSA) on 24 October 2012, was incorrect.

Recall population for 12V-518 has been reduced from 1494 vehicles to 1041 vehicles. New Flyer hereby submits a revision to the 573 defect report (attached).

If you have any further questions please contact me.

Sincerely,

NEW FLYER OF AMERICA INC.

NEW FLYER INDUSTRIES CANADA ULC



By: Kerry Legg
Vehicle Safety & Regulatory Compliance Manager
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Safety Defect and Noncompliance Report Guide for Vehicles
PART 573 Defect and Noncompliance Report¹

On 10 October 2012, New Flyer Industries Canada ULC [MFR] decided that a defect which relates to motor vehicle safety existed in the motor vehicles listed below, and furnished notification to the National Highway Traffic Safety Administration in accordance with 49 CFR Part 573 Defect and Noncompliance Reports.

NHTSA recall code assigned: 12V-518

On 28 November 2012, New Flyer became aware that the original listing of vehicles identified for 12V-518 included many vehicles which were NOT affected by the subject recall. New Flyer hereby submits a revision to the original defect report, with a revised listing of effected vehicles.

Date the original report was prepared: 24 October 2012

Date the revised report was prepared: 3 December 2012

Furnish the manufacturer's identification code for this recall (if applicable): R12-031

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
Corporate Headquarters
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:

¹Each 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:** 2011

Model(s): C40LF

VIN Range: Beginning: 038660 **Ending:** 038661

VIN Range: Beginning: 039460 **Ending:** 039582

VIN Range: Beginning: 039640 **Ending:** 039899

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

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall: Recalled vehicles have spring brake chambers with date codes between 011211 to 121311.

Make(s): New Flyer **Model Years Involved:** 2011

Model(s): C40LFR

VIN Range: Beginning: 038891 **Ending:** 038916

VIN Range: Beginning: 039202 **Ending:** 039221

VIN Range: Beginning: 039988 **Ending:** 039991

VIN Range: Beginning: 040094 **Ending:** 040104

Vehicle Type: Heavy Duty Transit Bus **Body style:** Compressed Natural Gas Forty Foot Low Floor Restyled

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall: Recalled vehicles have spring brake chambers with date codes between 011211 to 121311.

Make(s): New Flyer **Model Years Involved:** 2011

Model(s): D35LFR

VIN Range: Beginning: 040108 **Ending:** 040112

Vehicle Type: Heavy Duty Transit Bus **Body style:** Diesel Thirty Five Foot Low Floor Restyled

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall: Recalled vehicles have spring brake chambers with date codes between 011211 to 121311.

Make(s): New Flyer **Model Years Involved:** 2011

Model(s): D40LFR

VIN Range: Beginning: 039312 **Ending:** 039319

Vehicle Type: Heavy Duty Transit Bus **Body style:** Diesel Forty Foot Low Floor Restyled

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall: Recalled vehicles have spring brake chambers with date codes between 011211 to 121311.

Make(s): New Flyer **Model Years Involved:** 2011

Model(s): D60LFR

VIN Range: Beginning: 038665 **Ending:** 038665

VIN Range: Beginning: 039284 **Ending:** 039308

VIN Range: Beginning: 039593 **Ending:** 039627

Vehicle Type: Heavy Duty Transit Bus **Body style:** Diesel Sixty Foot Low Floor Restyled

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall: Recalled vehicles have spring brake chambers with date codes between 011211 to 121311.

Make(s): New Flyer **Model Years Involved:** 2010 - 2011

Model(s): XD35

VIN Range: Beginning: 038226 **Ending:** 038242

VIN Range: Beginning: 039905 **Ending:** 039909

VIN Range: Beginning: 039975 **Ending:** 039975

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

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall: Recalled vehicles have spring brake chambers with date codes between 112310 to 120611.

Make(s): New Flyer **Model Years Involved:** 2011

Model(s): XD40

VIN Range: Beginning: 038577 **Ending:** 038585

VIN Range: Beginning: 038759 **Ending:** 038789

VIN Range: Beginning: 039073 **Ending:** 039147

VIN Range: Beginning: 039339 **Ending:** 039375

VIN Range: Beginning: 039628 **Ending:** 039639

VIN Range: Beginning: 040071 **Ending:** 040084

VIN Range: Beginning: 040124 **Ending:** 040128

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: Recalled vehicles have spring brake chambers with date codes between 112310 to 120611.

Make(s): New Flyer **Model Years Involved:** 2011 - 2012

Model(s): XN40

VIN Range: Beginning: 039910 **Ending:** 039920

VIN Range: Beginning: 040090 **Ending:** 040093

VIN Range: Beginning: 040224 **Ending:** 040239

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: Recalled vehicles have spring brake chambers with date codes between 112310 to 120611.

Make(s): New Flyer **Model Years Involved:** 2010 - 2011

Model(s): XDE35

VIN Range: Beginning: 038262 **Ending:** 038278

VIN Range: Beginning: 038586 **Ending:** 038587

VIN Range: Beginning: 040146 **Ending:** 040149

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

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall: Recalled vehicles have spring brake chambers with date codes between 112310 to 120611.

Make(s): New Flyer **Model Years Involved:** 2010 - 2012

Model(s): XDE40

VIN Range: Beginning: 038140 **Ending:** 038153

VIN Range: Beginning: 038491 **Ending:** 038542

VIN Range: Beginning: 038588 **Ending:** 038602

VIN Range: Beginning: 038920 **Ending:** 038926

VIN Range: Beginning: 039035 **Ending:** 039072

VIN Range: Beginning: 039222 **Ending:** 039222

VIN Range: Beginning: 039226 **Ending:** 039272

VIN Range: Beginning: 039309 **Ending:** 039311

VIN Range: Beginning: 039376 **Ending:** 039442

VIN Range: Beginning: 039583 **Ending:** 039592

VIN Range: Beginning: 040122 **Ending:** 040123

VIN Range: Beginning: 040150 **Ending:** 040153

VIN Range: Beginning: 040158 **Ending:** 040158

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: Recalled vehicles have spring brake chambers with date codes between 112310 to 120611.

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.

59.1 %

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
C40LF		385
C40LFR		61
D35LFR		5
D40LFR		8
D60LFR		61
XD35		23
XD40		183
XN40		31
XDE35		23
XDE40		261

Total Number Potentially Affected by the Recall:

1041

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

67%

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:

Sales and purchase orders of MGM brake chambers were reviewed to correlate receipt, and use in New Flyer production. In November of 2012 an audit of the Bill of Materials for vehicles identified in the original 573 defect report indicated that many vehicle models were incorrectly added to the recall population. Effected population size has been adjusted to reflect actual installations.

Due to the inconsistencies with supply stock and usage, the recall population also includes buses from the same build order which were on the production line both before and after the time period specified. All vehicles will be inspected for applicable brake chamber date codes, to identify those brake chambers which will require replacement.

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.

Under certain intermittent conditions, brake chambers have been found to leak sufficient pressure from the parking brake circuit to allow for brake drag when the parking brake is supposed to be released.

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

Cause is believed to be related to modification of the internal seal of the spring brake chamber piston.

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

May produce brake drag at sufficient speed and duration creating an overheat condition, and can possibly result in fire.

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

Brake drag can and will result in smoking brakes due to overheated brake components.

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

MGM Brakes
Transit Business Unit
8530 Cliff Cameron Dr.
Charlotte, NC 28269

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

Henry Dangson
Director Quality Assurance

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.

In late October of 2011, New Flyer began receiving field reports from a single customer indicating hot brake conditions had been detected on a drum style rear brake system. New Flyer incorporated the engineering assistance of our axle and brake component suppliers in an effort to troubleshoot for root cause. Between that time and February of 2012, they explored the slack adjuster geometry, brake shoe design, brake lining composition, springs and hardware, brake retarder set-up and pressure, vehicle programming for retarder and interlock control, regional or environmental factors. No specific root cause was identified. Complicating the issue was the lack of similar or related occurrences at other nationwide locations operating buses with the same components and vehicle programming. New Flyer installed data loggers, brake monitoring systems and modified control system software in an effort to prevent the events. By the 6th of February, twelve hot brake incidents had been recorded which escalated the issue to fleet defect proportions at that customer location. Brake chamber leakage seemed to be the primary cause.

On 22 February 2012, New Flyer attended the testing lab for MGM in an effort to replicate the failures. The following items remained as a focus, slack adjuster geometry, interlock function combined with park brake application and the affects of the assembly grease used in the chamber manufacture.

MGM also disclosed at this time that there had been an internal design modification to the MGM spring brake chambers which was incorporated into their production in November of 2010. The original design had a single lip seal and an O-ring guiding the piston within the bore of the chamber. The new design, replaced the seal and o-ring with a single larger integrated guide (seal). This design was proven to provide better sealing qualities at lower ambient temperatures (approaching -40 degrees F) than the original design. As there were no specific changes to the fit, form or function of the brake chamber, no changes to the component part number were made nor were any notifications sent to the end user.

MGM also made a decision to revert back to the original brake chamber design in December of 2011, once again no notifications were sent to end users. The concept of replacing the new brake chamber design with the exiting brake chamber design is explored, while continuing to review vehicle programming changes (modification of retarder function, interlock application and pressure, and anti-rollback features) and the incorporation of brake monitoring systems.

On 28 Feb 2012 New Flyer issues an instruction (ITS4919) to this customer to inspect and replace all rear brake chambers within specified date codes.

In March of 2012 New Flyer receives reports of hot brake incidents from four more customers. One of these is has vehicle with a disk brake design. Root cause analysis is conducted to determine if these events are related to the original. MGM commits to supplying replacement brake chambers of the original design for these campaigns.

Between April and June of 2012, two more disk brake equipped customers report hot brake conditions. New Flyer develops instructions to replace the brake chambers on disk brake equipped models. New Flyer and MGM review shipping and production records in order to determine which New Flyer customers are potentially effected during that year of production.

Final approval of both the instructions is delayed by customer approval process. ITS5094 was created for MGM type 2024 disk brake for date codes from 112310 to 120611 (November 23 2010 to December 6, 2011), and ITS5095 was created for type 3024 drum brakes for date codes from, 011211 to 121311 (January 12, 2011 to December 13, 2011). Both instructions are finalized and released in September of 2012, during the interim two more customers report hot brake events.

October 2012, New Flyer decides to declare recall and conduct inspections on all vehicles and fleets which were in production during the applicable time frame to determine if the brake chambers require replacement. Additional Instructions are created for variations of the MGM type 3024 drum brake chamber (Long Stroke, E Stroke, Etc.).

In late November 2012 an audit of the recall population as originally reported was conducted, and it was determined that the list of effected vehicles was reduced from 1494 to 1041. New Flyer submits a revision to the 573 Defect Report.

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.

N/A

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.

Vehicles built within a specific date range will be inspected to determine the date coding on the rear (and center) axle brake chambers to determine if the brake chambers require replacement. Those 2024 disk brake chambers which were manufactured by MGM with date codes from 112310 to 120611 (November 23 2010 to December 6, 2011), and those 3024 drum brake chambers manufactured by MGM with date codes from, 011211 to 121311 (January 12, 2011 to December 13, 2011) will be replaced.

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

MGM type 2024 disk brake chambers manufactured with date codes from 112310 to 120611 (November 23 2010 to December 6, 2011), and MGM type 3024 drum brake chambers manufactured with date codes from, 011211 to 121311 (January 12, 2011 to December 13, 2011) will be replaced.

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.

New Flyer began receiving the originally designed brake chambers (correction for recall) for use in production in December of 2011.

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.

Recall notifications to owners have all been issued. New Flyer and MGM are currently already engaged recall preventative actions at many of our customer locations. At this time, of the 2233 chambers shipped to New Flyer approximately 57% have been identified and replaced.

For those customers who originally received recall notices for vehicles which are not affected, retraction notices have been issued.

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 electronically or 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.