

Safety Defect and Noncompliance Report Guide for Vehicles
PART 573 Defect and Noncompliance Report

SECOND REVISION

On January 26, 2004, New Flyer decided that a defect which relates to motor vehicle safety exists in the motor vehicles listed below, and is furnish notification to the National Highway Traffic Safety Administration in accordance with 49 CFR Part 573 Defect and Noncompliance Reports.

THIS THE SECOND REVISION to that original notification which contains details of a revised solution implementation.

Date this report was prepared: 27 February 2008

Furnish the manufacturer's identification code for this recall (if applicable): NHTSA code 04V-042

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
Customer Services Head Office
25 DeBaets St.
Winnipeg, MB Canada
R2J 4G5

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

Kerry Legg,
Safety and Compliance Manager
Ph. (204) 934-4876
Fax. (204) 224-0248

Name and Title of Person who prepared this report.

Same as above

Signed:

A handwritten signature in blue ink, appearing to read 'Kerry Legg', with a stylized flourish at the end.

I. Identify the Vehicle Models Involved in the Recall

2. Identify the Vehicles Involved in the Recall:

New Flyer 60 Foot High Floor Articulated buses manufactured between 1991 and 2007 and delivered to customers located in "Salt Belt" States, (specifically Minnesota, Iowa and New York) as specified in the 1991 Transportation Research Board report.

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
D60HF	1994-2007	782

Total Number Potentially Affected by the Recall: 782

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

100%

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:

All reports of center axle lock-up have been for D60HF's manufactured by New Flyer and delivered to salt belt States. Manufacture of D60HF model began with a prototype in 1988, but first model was delivered to a salt belt State (Minnesota) in 1991.

No incidents of this type have been reported on this bus model in States not listed in the salt belt.

Between 1988 and 2007 a total of 1352 D60LF model buses have been built, 807 of those D60LF buses have been delivered to customers located in the States of Minnesota, Iowa, and New York. This represents 57.9 percent of total production of this model of bus, but only 4.9% of total bus production for that same time period.

The 1991 buses (25 units) have been scrapped/retired since recall was declared. The oldest active units in salt belt States were delivered in 1994, thus lowering the recall population to 782 vehicles.

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.

When the vehicle is parked for an extended period of time, the center axle wheel end brakes have a potential to not release.

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

Concentrations of moisture, dust, salt and certain temperatures result in the brake linings adhering to the brake drums when the brake is applied for an extended period, due to an iron oxide weld formed between the drum inner surface and the brake lining material. Adhesion is typically stronger than can be normally overcome by the brake return springs.

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

After vehicle has been parked for an extended period of time and while driving away from parked position, driver can lose control of the vehicle if the failure of the brakes to release on the center axle, is not detected by the operator.

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

Rear (drive) axle can push the locked center axle into a "jack-knife" situation when cornering. The operator may also perceive vehicle as having de-rated power while trying to pull away.

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

Arvin Meritor, 2135 W. Maple Road, Troy, MI 48084

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

Niran Audimoolan,
Project Manager - Product Safety and Compliance

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.

One customer reported multiple incidents of center axle lock-up to New Flyer. Three of these incidents have involved a crash resulting in minor property damage. These incidents have all happened at the depot level with a professional driver at the controls, immediately after moving a vehicle which had been parked for an extended period of time.

Testing to assess a specialized treatment process of the brake drum was conducted by Power Brake LLC of Tampa, FL. This process prevented the formation of attractive materials (typically referred to as Iron Oxide Welding) between the brake drum inner surface and the brake lining material, which could result in a brake lock-up condition. This was one of multiple parallel projects conducted over a three years to determine a corrective action for this issue.

In June of 2007, while New Flyer was in the midst of implementing a complex warning system as a corrective action (refer to 573 Defect and Noncompliance Report issued by New Flyer in February of 2007), we were informed by Power Brake that they had successfully passed dynamometer testing of the treated brake drum solution. New Flyer suspended the warning system implementation in order to fully assess the potential for a corrective action which involved a simple component change. Successful FMVSS 121 testing was conducted on a New Flyer D60HF bus equipped with the treated brake drums at the Link-Radlinski Testing Facility in East Liberty Ohio in September of 2007.

In October 2007, New Flyer decided to implement the treated drum solution for this recall, as it incorporates a simple component change and would lessen the burden on the consumer for additional parts, upkeep and training required with the originally recommended warning system. We were then informed that Brake Pro, who manufacture the lining of choice (CMT24) had closed its doors and the lining materials were no longer available. New Flyer, in conjunction with Power Brake, then conducted a series of Dynamometer tests on various common brake linings and combinations of brake chamber and slack adjuster types in order to find the best suited lining to work with the treated drums.

In February of 2008, we were in contact with Affinia Group, who purchased Brake Pro in late 2007 and were told that the lining materials were once again available.

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.

The treatment process modifies the interior surface of the brake drum to prevent the formation of attractive materials between the brake lining and the brake drum, and therefore prevents the brake lock-up condition described in part 5. The treatment process formula currently developed has proven to only be effective with specific formulations of brake lining materials. A final approved list of lining materials to use with the treated drums will be generated upon completion of testing with the majority of available brands of lining materials.

Untreated brake drums may result in brakes failing to release after being parked for an extended period of time, this lock-up of the center axle brakes can result in control issues during cornering. The addition of the treated brake drum, prevents the brake linings from adhering to the drum surface, and no lock-up occurs.

Clearly describe the distinguishing characteristics of the remedy vehicle versus the recalled vehicle.

Treated brake drums installed on the center axle in combination with approved brake lining materials and long stroke brake chambers. Brake drums will be OEM supplied and will be identified by a red band, a special New Flyer part number painted on the exterior of the drum, and a Power Brake formula/date/batch code identifier which will be physically stamped into the exterior wheel mating surface of each drum.

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.

There are currently no confirmed orders for this model of bus. All future production of this model bus bound for salt belt states will have recall incorporated.

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.

Customers will be notified of the revised corrective action once confirmation of this document and sample customer letter is received.

Recall will commence once the parts to complete the modifications are available in sufficient quantities (March 2008).

Some vehicles identified in the recall population (1991 models) have been retired and/or scrapped.

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.