

Safety Defect and Noncompliance Report Guide for Vehicles
PART 573 Defect and Noncompliance Report¹

On 2 August 2011, New Flyer Industries Canada ULC [MFR] decided that a defect 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: 5 August 2011

Furnish the manufacturer's identification code for this recall (if applicable): R11-017

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.

Mr. Kerry Legg
Vehicle Safety & Regulatory Compliance Manager

Telephone Number: (204) 934-4876

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, for each make and model or applicable vehicle line (provide illustrations or photographs as necessary to describe the vehicle), provide:

Make(s): New Flyer **Model Years Involved:** 2007

Model(s): DE40LF

VIN Range: Beginning: 030513 **Ending:** 030522

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

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall: Recalled vehicles have a hybrid drive propulsion system designed by ISE Corporation.

Make(s): New Flyer **Model Years Involved:** 2008 - 2010

Model(s): GE35LFR

VIN Range: Beginning: 035057 **Ending:** 035068

VIN Range: Beginning: 035814 **Ending:** 035817

VIN Range: Beginning: 036721 **Ending:** 036728

VIN Range: Beginning: 037086 **Ending:** 037088

VIN Range: Beginning: 038070 **Ending:** 038073

Vehicle Type: Heavy Duty Transit Bus **Body style:** Gas/Electric 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 a hybrid drive propulsion system designed by ISE Corporation.

Make(s): New Flyer **Model Years Involved:** 2005, 2007, 2009 - 2010

Model(s): GE40LF

VIN Range: Beginning: 027844 **Ending:** 027844

VIN Range: Beginning: 028009 **Ending:** 028034

VIN Range: Beginning: 028155 **Ending:** 028156

VIN Range: Beginning: 028325 **Ending:** 028344

VIN Range: Beginning: 028442 **Ending:** 028446

VIN Range: Beginning: 028448 **Ending:** 028449

VIN Range: Beginning: 028720 **Ending:** 028737

VIN Range: Beginning: 028847 **Ending:** 028848

VIN Range: Beginning: 029367 **Ending:** 029367

VIN Range: Beginning: 032142 **Ending:** 032156

VIN Range: Beginning: 036069 **Ending:** 036082

VIN Range: Beginning: 037062 **Ending:** 037075

VIN Range: Beginning: 037568 **Ending:** 037574

Vehicle Type: Heavy Duty Transit Bus **Body style:** Gas/Electric Forty Foot Low Floor

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall: Recalled vehicles have a hybrid drive propulsion system designed by ISE Corporation.

Make(s): New Flyer **Model Years Involved:** 2008

Model(s): GE40LFA

VIN Range: Beginning: 034709 **Ending:** 034733

Vehicle Type: Heavy Duty Transit Bus **Body style:** Gas/Electric Forty Foot Low Floor Advanced

Descriptive information which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall: Recalled vehicles have a hybrid drive propulsion system designed by ISE Corporation.

Make(s): New Flyer **Model Years Involved:** 2008 – 2009

Model(s): GE40LFR

VIN Range: Beginning: 035933 **Ending:** 035933

VIN Range: Beginning: 033688 **Ending:** 033702

VIN Range: Beginning: 035564 **Ending:** 035567

VIN Range: Beginning: 035808 **Ending:** 035813

VIN Range: Beginning: 036831 **Ending:** 036857

Vehicle Type: Heavy Duty Transit Bus **Body style:** Gas/Electric 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 a hybrid drive propulsion system designed by ISE Corporation.

Make(s): New Flyer **Model Years Involved:** 2007

Model(s): H40LFR

VIN Range: Beginning: 032611 **Ending:** 032611

Vehicle Type: Heavy Duty Transit Bus **Body style:** Hydrogen 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 a hybrid drive propulsion system designed by ISE Corporation.

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. For example, if the recall involved Widgets equipped with certain items of equipment from January 1, 1996 through April 1, 1997, then what was the percentage of the recalled Widgets of all Widgets manufactured during that time period.

3.8 %

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
DE40LF	2007	10
GE35LFR	2008 - 2010	31
GE40LF	2005, 2007, 2009 - 2010	127
GE40LFA	2008	25
GE40LFR	2008 - 2009	53
H40LFR	2007	1

Total Number Potentially Affected by the Recall:

247

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 models of New Flyer buses which have a hybrid drive propulsion package designed and installed by ISE Corporation coupled to the rear drive axle.

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.

The three bolts securing the output flange of the hybrid drive combination gearbox to the driveshaft are failing.

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

The bolts are failing due to reverse bending fatigue.

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

Failure of the bolts could result in the separation of a portion of the driveshaft from the vehicle. This creates the potential for bodily injury to bystanders and other property damages.

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

Loss of engine torque response to rear drive axle due to disconnection of drive shaft and output flange from splined shaft of the hybrid drive gearbox. Increased noise from driveshaft area after bolt failure due to continued rotation of the driveshaft, but before driveshaft separation.

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

ISE Corporation
Formerly of:
12302 Kerran St.
Poway, CA 92064

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

ISE Corporation has gone into bankruptcy and its assets have been sold.

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 2010 one of our customers reported several drive shaft separations on vehicles equipped with ISE hybrid drive systems. Inspection of these vehicles revealed that the output flange from the hybrid drive gearbox which connects to the vehicle driveshaft, had separated due to a failure of the three retaining bolts on the flange. The failed bolts were sent for metallurgical analysis which revealed that the bolts had failed due to reverse bending fatigue.

As a precaution New Flyer replaced all the output flange bolts on all ISE drive vehicles during the January-February 2011 time period.

In the fall of 2010, ISE corporation which designed the drive system went into bankruptcy protection, and eventually was sold to a European interest, Bluways, based in Holland. That company has since started a North American operation at the same address as the former ISE Corporation under the name Bluways USA Inc. The Bluways purchase agreements did not require them to honor any warranty or service agreements made by the former ISE Corporation. New Flyer has made the commitment to honor those agreements with our customers.

New Flyer contacted the manufacture of the gearbox assembly (Flender) which is a division of Siemens Industry Inc. and together New Flyer and Siemens are working to resolve this issue.

In July of 2011, New Flyer was informed that the bolts replaced at the beginning of 2011 had began to fail again.

To date there have been no reported accidents, injuries or fatalities due to these drive line separations. Some property damage (to the vehicle itself) occurs with each instance. Each associated failure repair has been covered under warranty by New Flyer.

Due to the potential for separated components to injure bystanders or create property damages New Flyer decided to declare a recall.

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 output flange, O-ring, clamping plate and bolts will be inspected and the bolts replaced. As part of normal and continuing Preventative Maintenance (PM), this inspection and replacement will occur every three months or 8,000 miles (whichever comes first).

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

The bolts used for the remedy are identical to the original manufactures components. Both New Flyer and the Transit agencies will be responsible for documenting and coordinating their preventative maintenance actions. New Flyer will provide assistance where required to complete the recurring maintenance action.

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.

This hybrid drive system has been discontinued.

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 is preparing to replace inspect and replace the bolts on all ISE hybrid drive vehicles. Recall notifications to owners will be sent out within 10 days of notification receipt of this document from the NHTSA Recalls Office, and the assignment of the Recall Code.

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.