



2006 FEB -7 A ID: 52
REPORT INVESTIGATION

6 February, 2006

George Person
Head - Recall Management Division
US DOT – National Highway Traffic Safety Administration
Office of Defects Investigation (NVS-215)
400 Seventh St. S.W.
Washington, DC 20590

*06V-034
(12 pages)*

Subject: Safety Recall – **Wheelchair Ramp Hinge Assembly - New Flyer Part Number 220346.**

Dear Mr. Person:

This letter is written to inform you of New Flyer Industries' intention to recall a hinge assembly which attaches the wheelchair ramp to the frame of the vehicle. The hinge assemblies were manufactured by Champ Industries, and installed by New Flyer, on vehicles between October 2004 and August 2005.

A defect was determined after production, and consists of a potential for the spot welds which hold the hinge assembly together to fail. A failure of the hinge assembly spot-welds could result in the ramp separating from the vehicle. Separation of the ramp from the vehicle could result in injury due to a fall of less than one foot in height.

Post failure examination, and destructive testing of hinges sent back from the field determined that the process for spot-welding was not done to specification. This resulted in welds with lower adhesion than was necessary to maintain our self imposed load carrying limit of 600 lb. with a safety factor of three (similar to the weight limits for wheelchair lifts).

The correction to be employed involves the addition of new hardware to the hinges which will make the spot-welding redundant. This will restore the load carrying limit for the ramp assembly. Champ Industries has since modified its production and quality assurance practices. New Flyer has also redesigned to hinge to make the spot-welding redundant.

The window for the recall was determined due to failures in the field which have been reported on buses manufactured from November 2004 to June 2005. Shipping records from Champ were compared with production records from New Flyer and we determined that the components in question, were potentially installed on 682 vehicles which were bound for the United States marketplace.

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Winnipeg Facility**

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R2C 3J4 Canada

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**Customer
Services**

25 DeBaets Street
Winnipeg, Manitoba
R2J 4G5 Canada

Ph: (204) 982-8400

**New Jersey Service
Support Center**

808 Garfield Avenue
Jersey City, New Jersey
07305-4423 USA

Ph: (201) 369-1200
Fx: (201) 369-0345

**New Product
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Unit 7, 45 Beghin Avenue
Winnipeg, Manitoba
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Ph: (204) 982-8413
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**Crookston
Facility**

214 5th Avenue SW
Crookston, Minnesota
56716 USA

Ph: (218) 281-5752
Fx: (218) 281-5672

**St. Cloud
Facility**

6200 Glenn Carlson Drive
St. Cloud, Minnesota
56301 USA

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www.newflyer.com

Not all of the vehicles to be recalled will have hinges prone to failure, and some of the buses being recalled were manufactured before or after time period selected, as they were in mid-production. Bus Orders partially manufactured during the recall time frame, will be retrofitted to maintain consistency at the customer level.

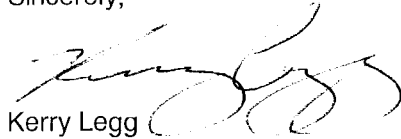
New Flyer will contact the customers who purchased these buses with parts and instructions on how to complete this recall (see sample letter attached).

New Flyer is in agreement with Champ Industries that this is a safety recall and New Flyer is filing the appropriate 573 report (see attached Defect Report). New Flyer will manage all quarterly reporting for this recall.

New Flyer is the only vehicle manufacture presently using this component.

If you have any further questions please contact me.

Sincerely,



Kerry Legg
Safety and Compliance Manager
Customer Service Support
Office (204) 934-4876
Fax (204) 224-0248
email kerry_legg@newflyer.com .

cc: H. Peper, C. Murray, D. Bean, S. Halbesma, J. Funari

Attachments: 573 Defect Report,
Sample Letter to Customer,

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

On 31 January, 2006, New Flyer 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: 6 February, 2006

Furnish the manufacturer's identification code for this recall (if applicable): N/A

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 Limited
711 Kernaghan Ave,
Winnipeg, Manitoba, Canada,
R2C 3T4

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

Mr. Kerry Legg,
Safety and Compliance Manager
PH: 204-934-4876
Fax: 204-224-0248

Name and Title of Person who prepared this report.

Kerry Legg, Safety and Compliance Manager

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.

This guide was developed from 49 CFR Part 573, "Defect and Noncompliance Reports" and also outlines information currently requested. Any questions, please consult the complete Part 573 or contact Mr. Jon White at (202) 366-5227 or by FAX at (202) 366-7882.

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:** 2004-2005 **Model(s):** D30LF

Production Dates: Beginning: October 2004 **Ending:** August 2005

VIN Range: Beginning: 027352 **Ending:** 027354

Beginning: 027641 **Ending:** 027642

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Low Floor

Make(s): NEW FLYER **Model Years Involved:** 2004-2005 **Model(s):** C30LF

Production Dates: Beginning: October 2004 **Ending:** August 2005

VIN Range: Beginning: 027881 **Ending:** 027890

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Low Floor

Make(s): NEW FLYER **Model Years Involved:** 2004-2005 **Model(s):** D35LF

Production Dates: Beginning: October 2004 **Ending:** August 2005

VIN Range: Beginning: 027157

Beginning: 027197 **Ending:** 027250

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Low Floor

Make(s): NEW FLYER **Model Years Involved:** 2004-2005 **Model(s):** C35LF

Production Dates: Beginning: October 2004 **Ending:** August 2005

VIN Range: Beginning: 027195

Beginning: 027282 **Ending:** 027305

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Low Floor

Make(s): NEW FLYER **Model Years Involved:** 2004-2005 **Model(s):** D40LF

Production Dates: **Beginning:** October 2004 **Ending:** August 2005

VIN Range: **Beginning:** 027107 **Ending:** 027121

Beginning: 027274 **Ending:** 027278

Beginning: 027348 **Ending:** 027351

Beginning: 027473 **Ending:** 027475

Beginning: 027604 **Ending:** 027609

Beginning: 027634 **Ending:** 027818

Beginning: 027923 **Ending:** 027925

Beginning: 028224 **Ending:** 028269

Beginning: 028418 **Ending:** 028419

Beginning: 028486 **Ending:** 028523

Beginning: 028738 **Ending:** 028757

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Low Floor

Make(s): NEW FLYER **Model Years Involved:** 2004-2005 **Model(s):** C40LF

Production Dates: **Beginning:** October 2004 **Ending:** August 2005

VIN Range: **Beginning:** 027158 **Ending:** 027177

Beginning: 027251 **Ending:** 027273

Beginning: 027866

Beginning: 027868 **Ending:** 027880

Beginning: 028038 **Ending:** 028047

Beginning: 028142

Beginning: 028202 **Ending:** 028223

Beginning: 028385 **Ending:** 028417

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Low Floor

Make(s): NEW FLYER **Model Years Involved:** 2004-2005 **Model(s):** GE40LF

Production Dates: **Beginning:** October 2004 **Ending:** August 2005

VIN Range: **Beginning:** 027844

Beginning: 028009 **Ending:** 028034

Beginning: 028155 **Ending:** 028156

Beginning: 028325 **Ending:** 028344

Beginning: 028442 **Ending:** 028446

Beginning: 028448 **Ending:** 028449

Beginning: 028720 **Ending:** 028737

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Low Floor

Make(s): NEW FLYER **Model Years Involved:** 2004-2005 **Model(s):** D60LF

Production Dates: **Beginning:** October 2004 **Ending:** August 2005

VIN Range: **Beginning:** 027462 **Ending:** 027472

Beginning: 027527 **Ending:** 027531

Beginning: 027572 **Ending:** 027601

Beginning: 027820 **Ending:** 027835

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Low Floor

Make(s): NEW FLYER **Model Years Involved:** 2004-2005 **Model(s):** DE60LF

Production Dates: **Beginning:** October 2004 **Ending:** August 2005

VIN Range: **Beginning:** 027035 **Ending:** 027044

Vehicle Type: Heavy Duty Transit Bus **Body Style:** Low Floor

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

Recalled vehicles have a wheelchair ramp incorporating a hinge assembly NF PN220346, and were manufactured between October 2004 and August 2005

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.

50 %

II. Identify the Recall Population

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

<u>Model</u>	<u>Year</u>	<u>Number of Vehicles Potentially Involved</u>
D30LF	2004-2005	5
C30LF	2004-2005	10
D35LF	2004-2005	55
C35LF	2004-2005	25
D40LF	2004-2005	318
C40LF	2004-2005	123
GE40LF	2004-2005	74
D60LF	2004-2005	62
DE60LF	2004-2005	10

Total Number Potentially Affected by the Recall: 682

4. Furnish the approximate percentage of the total number of vehicles estimated to actually contain the defect or noncompliance: less than 10%

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:

The window for the recall was determined due to failures in the field which have been reported on buses manufactured from November 2004 to June 2005. Based on failures reported, vehicles manufactured between October 2004 and August 2005 will be retrofitted.

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.

A defect was determined after production, and consists of a potential for the spot welds which hold the hinge assembly together to fail. Post failure examination, and destructive testing of hinges sent back from the field determined that the process for spot-welding was not done to specification. This resulted in welds with lower adhesion than was necessary to maintain our self imposed load carrying limit of 600 lb. with a safety factor of three (similar to the weight limits for wheelchair lifts).

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

Gaps appearing between ramp and hinge plate are an indication that the spot-welds have insufficient bonding in the hinge assembly.

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

Champ Industries
360 Dawson Rd. North
Winnipeg, MB Canada
R2J 0S7

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

Greg Wynnobel
Quality Assurance Supervisor

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.

Initial report in late June of 2005 indicated that a failure had occurred of a ramp assembly of a newly delivered bus. A fleet wide inspection of that customer (197 buses) found three more confirmed failures. Two more customers with smaller fleets also reported failures, bringing the total to nine. Post failure examination and destructive testing was carried out to determine cause. Production practices and QA at the vendor which supplies the hinge to New Flyer were corrected. All three customers had all hinges replaced with known good components. During this replacement campaign, a fourth customer also reported a failure (Late December 2005), this one involved a ramp failing while a wheelchair bound passenger was on the ramp. This customer also had all ramp hinges replaced.

New Flyer's Safety Committee determined that all hinges needed to be either fixed or replaced. A fix was determined and tested in late January/early February of 2006. These hinge assemblies were incorporated into buses built for both the United States and Canada. In total 338 pre-recall corrections were carried out, post examination of the hinges determined 22 hinges which had either failed or were likely to fail. The person who was occupying the ramp when it failed has not filed an injury claim to date. To date, injuries or fatalities have been reported which are associated with this defect.

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.

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.

New attaching hardware will be incorporated between the hinge and the ramp. The new hardware will render the spot-welding redundant.

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

Non-retrofitted assemblies will be the same as the hinge we have been installing for over 15 years. On that hinge assembly, the top and bottom plates of the hinge are spot-welded together at 39 points. Eight recessed #10 pan head screws attach the lower plate of the hinge to the ramp. Screws will be replaced with #10 countersunk screws and a aviation grade stainless steel countersunk washer. The new screws and washers will create a clamping force equal to or better than the previous spot-welding between both upper and lower portions of the hinge assembly. The existing spot-welds with then become a redundant holding force.

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 has redesigned the hinge assembly to incorporate a countersunk screw, and once again spot-welding becomes redundant.

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 prior to 15 February, 2006. Champ Industries and New Flyer Regional Managers will coordinate labor for completion of the recall.

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.



7 February, 2006

<<Name>>
<<Title>>
<<Company>>
<<Address 1>>
<<Address 2>>

Re: **Recall 06V-XXX – Wheelchair Ramp Hinge Assembly - New Flyer PN 220346**

Dear <<Name>>,

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

New Flyer has decided that a defect which relates to motor vehicle safety exists in certain New Flyer transit vehicles. Further investigation has revealed that the following vehicles, operated by <<Company>> are affected:

Make: New Flyer Transit Vehicle

Model:

VIN Range (last 6 digits): XXXXXX to XXXXXX.

We regret any inconvenience which this action may cause you. However, we are concerned about your safety. The subject hinge assembly requires a modification to the attachment hardware. Several Hinges manufactured between November 2004 and June of 2005 were identified as having faulty spot-welding. The installation of the new hardware is required to make the spot-welding redundant.

Failure of the hinge assembly spot-welds could cause the ramp to separate, when deployed under load, from the bus frame, causing a falling injury to passengers on the ramp.

For specific information or assistance with regards to this defect, contact either your Regional Product Support Manager <<RPSM>> or New Flyer Customer Services at (204) 934-4874. If you no longer own this vehicle, please inform us when you call.

Federal regulations require that any vehicle lessor receiving this notice, must forward a copy of this notice to the lessee within ten days.

**Headquarters/
Winnipeg Facility**

711 Kernaghan Ave.
Winnipeg, Manitoba
R3C 3T4 Canada

Ph: (204) 224-1251
Fx: (204) 224-0551
e-mail: buses@newflyer.com

**Customer
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Winnipeg, Manitoba
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Ph: (204) 982-8400

**Winnipeg Service
Support Center**

111 Elan Blvd.
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Ph: (204) 982-9128
Fx: (204) 233-4857

**New Jersey Service
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Ph: (201) 369-1200
Fx: (201) 369-0345

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Ph: (204) 982-8413
Fx: (204) 654-4941

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Ph: (218) 281-5752
Fx: (218) 281-5672

**St. Cloud
Facility**

6200 Glenn Carlson Dr.
St. Cloud, Minnesota
56301 USA

Ph: (320) 203-0576
Fx: (320) 203-0584

This recall is being managed by New Flyer for Champ Industries Ltd. Parts and labor required to accomplish the recall in accordance with an Instruction to Service (ITSXXXX) will be provided. The replacement of the ramp attaching hardware should take two persons, 30 minutes per vehicle to complete.

If you had this repair performed before you received this letter, you may be eligible to receive reimbursement for the cost of obtaining a pre-notification remedy of the problem associated with this recall. For more information please contact the New Flyer Warranty Department at (204) 934-4803.

If we fail, or we are unable to remedy this defect without charge and within a reasonable time, you may submit a written complaint to:

Administrator
National Highway Traffic Safety Administration
400 Seventh Street, SW
Washington, DC, 20590

or call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY: 1-800-424-9153);
or go to: <http://www.safercar.gov>

Thank you for your attention to this important matter.

Sincerely,

Kerry Legg
Safety and Compliance Manager
New Flyer Customer Service Support

cc: <<RPSM>>, Joe Funari, Hans Peper, Cliff Murray, Don Bean, Scott Halbesma.

Attachment: Instruction to Service ITSXXXX