NEW FLYER

06V-015
(16 Pages)

17 January, 2006

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

Subject: Safety Recall – Relay Valve Assembly - New Flyer Part Number 252499.

Dear Sir or Madam:

This letter is written to inform you of New Flyer Industries' intention to recall an air brake system relay valve assembly with a specific date code, which is manufactured by Haldex/Midland, distributed by Meritor/Wabco and installed by New Flyer, on vehicles between December 2004 and February 2005.

A defect was determined after production, and consists of a potential for the valves to have been contaminated some time during the manufacture, shipping or installation of the valve. The contamination causes a softening of the internal rubber components of the valve resulting in a failure for it to respond properly.

The result is there is a potential for loss of rear service brake function, resulting in lengthened stopping distances. This is because only the front brakes and transmission retarder are applying deceleration forces required to stop the vehicle.

All of the effected valves were manufactured on the same day and have the date code "342A4K" on the assembly. Shipping records from Haldex and Meritor were compared with production records from New Flyer and we determined that the components in question, were potentially installed on 103 vehicles which were bound for the United States marketplace.

Not all of these vehicles will have valves with this date code, and not all valves with this date code will be subject to failure. All valves with this date code will be replaced.

Headquarters/ Winnipeg Facility
711 Kernaghan Avenue
Winnipeg, Manitoba
R2C 3T4 Canada
Ph: (204) 224-1251
Fx: (204) 224-0551
E: bussales@newflyer.com

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 Development
Unit 7, 45 Beghin Avenue
Winnipeg, Manitoba
R2J 4B9 Canada
Ph: (204) 982-8413
Fx: (204) 654-4941

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

www.newflyer.com

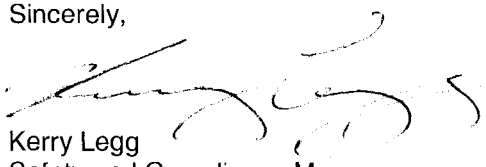
New Flyer will contact the customers who purchased these buse with parts and instructions on how to complete this recall (see attached). Haldex is providing new valves as a one-for-one replacement if the inspection of the valve reveals the suspect date code.

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

According to both Haldex/Midland and Meritor/Wabco, 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

Attachments: 573 Defect Report,
Sample Letter to Customer,
Instruction to Service ITS2823

Safety Defect and Noncompliance Report Guide for Vehicles

PART 573 Defect and Noncompliance Report[1]

On 13 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: 16 January, 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,

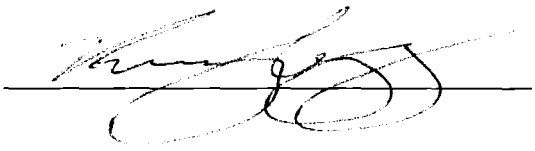
Safety and Compliance Manager

PH: 204-934-4876

Fax: 204-224-0248

Name and Title of Person who prepared this report.

Kerry Legg, Safety and Compliance Manager

Signed: 

[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.

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):** D40i

Production Dates: Beginning: December 2004 **Ending:** February 2005

VIN Range: Beginning: 027622 Ending: 027637

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: December 2004 **Ending:** February 2005

VIN Range: Beginning: 027610 Ending: 027620

VIN Range: Beginning: 027836 Ending: 027839

VIN Range: Beginning: 027866

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

Make(s): NEW FLYER **Model Years Involved:** 2004-2005 **Model(s):** L40LF

Production Dates: Beginning: December 2004 **Ending:** February 2005

VIN Range: Beginning: 027478

VIN Range: Beginning: 027486 Ending: 027526

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: December 2004 **Ending:** February 2005

VIN Range: Beginning: 027844

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: December 2004 **Ending:** February 2005

VIN Range: Beginning: 027604 Ending: 027609

VIN Range: Beginning: 027623 Ending: 027624

VIN Range: Beginning: 027643 Ending: 027664

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 employ a relay valve in the rear axle service brake circuit, manufactured by Haldex/Midland, distributed by Meritor/Wabco, with a date code stamp of 342A4K.

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.

55.4 %

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
D40i	2004-2005	16
C40LF	2004-2005	16
L40LF	2004-2005	42
GE40LF	2004-2005	1
D40LF	2004-2005	28

Total Number Potentially Affected by the Recall: 103

4. Furnish the approximate percentage of the total number of vehicles estimated to actually contain the defect or noncompliance: <30%

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:

This recall is for vehicles equipped with a relay valve built by Haldex/Midland (PN KN28054) and distributed by Meritor/Wabco (PN N30111E) and installed by New Flyer (PN 252499). This valve which is installed in the rear axle air brake circuit, can fail, resulting in a loss of air pressure to the rear service brakes. This recall is for those vehicles which had the relay valve installed between the dates of Dec 22, 2004 and Feb 10, 2005.

Reported failures in the field, occurring during vehicle acceptance inspections by customers, led to testing by New Flyer and Meritor/Wabco. The testing indicated that certain internal rubber components of the valves had been softened by an unknown contaminant. It has not yet been determined where or how the contamination of the valves occurred. A replacement campaign at one customer site revealed several more valves with compromised rubber components. All valves were manufactured on the same day and had the same date code stamp from the manufacture attached to the body of the valve.

Shipments of this batch of valves was tracked from the manufacture, to the distributor, to New Flyer, and were compared with production records and known failures. From this we created a window during which time valves would have been installed and added a one week safety factor to each end of the suspect window to produce the time frame for this recall.

The date code in question which can be found on the valve body is 342A4K. It should be noted that not all the valves with this date code have been found to be contaminated, but all the failed valves had this code. This campaign will request that customers inspect the installed valves for date code 342A4K, and if the date code is found, replace and return the valve. According to both Haldex/Midland and Meritor/Wabco, New Flyer is the only vehicle manufacture currently using this valve assembly.

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.

Rear axle service brake relay valves (New Flyer PN 252499 with date code 342A4K may not function properly.

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

Contamination is suspected to have effected this batch of valves.

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

Potential for loss of application air pressure to the rear brake system.

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

(b) braking distances may increase as only front brake circuit and transmission retarder are active.

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

Haldex/Midland
10930 North Pamona Ave.
Kansas City, Missouri, 64153

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

Don Myers
Director of 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.

The first failure was reported on 9 July 2005. One customer had several reported failures and a 100% replacement campaign was conducted for their new fleet of 55 vehicles. During that campaign New Flyer found several failed units, all with date code 342A4K. Three of those valves were sent to Haldex for testing to determine cause of failure (Buses completed during this campaign have not been listed in the totals for this recall for two reasons, first only a 27 of them were manufactured during the target window and second they have already been retrofitted with new valves).

Haldex determined that the rubber diaphragm inside the relay valve had been contaminated, causing the rubber to soften, and affecting the operation of the valve. Inspection of air systems at affected properties, installation procedures at the installer (New Flyer) and production procedures at the manufacture could not determine how the relay valves had become contaminated.

Once it was determined that all the valves came from the same batch, we compared production information to shipments of valves received. These valves were incorporated into buses built for both the United States and Canada.

To date no accidents, injuries or fatalities 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.

Identified vehicles will be inspected to see if installed relay valve has date code 342A4K, if installed valve is to be replaced.

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

Subject valve assembly limited to a specific batch

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.

Target batch was identified more than six months after production was completed.

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.

Extra valves will be sent to customers once they have received the recall notification, and additional stock is on reserve for over-night delivery if required.

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.

Attached are two documents, a sample customer notification letter and the Instruction to Service (ITS) detailing the repair procedure.

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.

NEW FLYER

16 January, 2006

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

Re: **Recall 06V-XXX – Air Brake Relay Valve Assembly - New Flyer PN 252499**

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 components require replacement due to potential internal contamination of the valve which is manufactured by Haldex/Midland and distributed by Meritor/Wabco. The contamination causes the rubber diaphragm to soften, and the valve does not respond properly. The valves in question have a specific date code, "**342A4K**" attached to the body of the valve. All valves with this date code must be replaced.

Failure of the valve would disable the rear axle service brake circuit and result in extended stopping distances.

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.

This recall is being managed by New Flyer for Haldex. We will furnish the parts and labor required to accomplish the recall in accordance with an Instruction to Service (ITS) #2823 (see attached).

Headquarters/ Winnipeg Facility
711 Kernaghan Avenue
Winnipeg, Manitoba
R2C 3T4 Canada
Ph: (204) 224-1251
Fx: (204) 224-0551
E: bussales@newflyer.com

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 Development
Unit 7, 45 Beghin Avenue
Winnipeg, Manitoba
R2J 4B9 Canada
Ph: (204) 982-8413
Fx: (204) 654-4941

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

www.newflyer.com

The inspection of the valve to determine if it has the suspect date code will take a maximum of 20 minutes to complete. The replacement of the valve assembly (if required) will take a maximum of 90 minutes to complete. Failed components must be returned for evaluation.

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 compliant 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 ITS2823

INSTRUCTION TO SERVICE ITS: 2823

SECTION:	MODEL:	TYPE:	WRITTEN BY:
246	☒30FT ☒35FT ☒40FT ☒ 60FT	☐ HIGH FLOOR	Corey Dyck
Air, Brakes, & Leveling System	☒DSL ☒CNG ☒ LNG ☒ ELEC	☒ LOW FLOOR	

OBJECTIVE/SUBJECT:

Inspect and replace rear brake relay valve

PROCEDURE:

Stage 1: Inspection

1. Turn the main battery disconnect switch to the "OFF" position.
2. Raise coach in accordance with the New Flyer Service Manual.
3. Locate the rear brake valve plate mounted to the chassis ahead of the rear axle.
4. Locate the rear brake relay valve, as shown in Figure 1.

... ITS continued

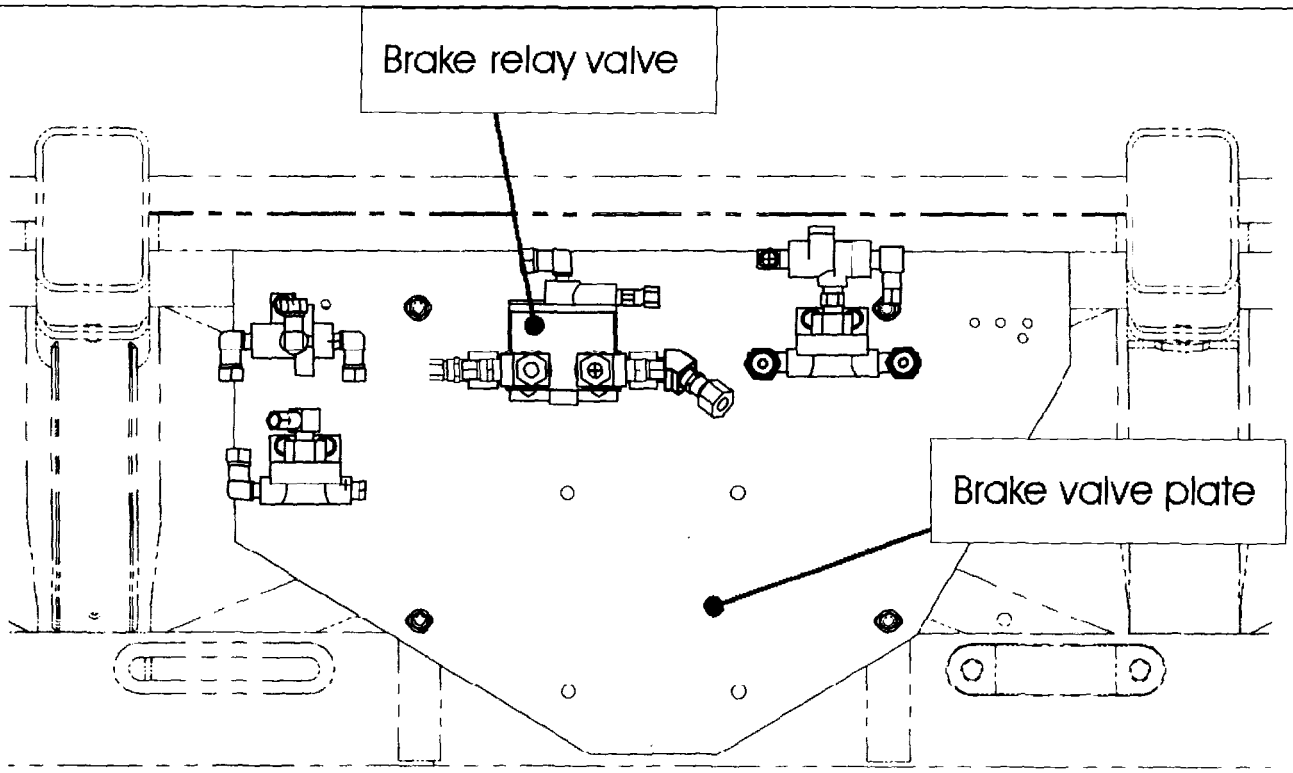


Figure 1: Brake relay valve location

5. Locate and wipe down the brake relay valve ID tag, as shown in Figure 2. Tag location may vary between the four bolts on top of the valve.

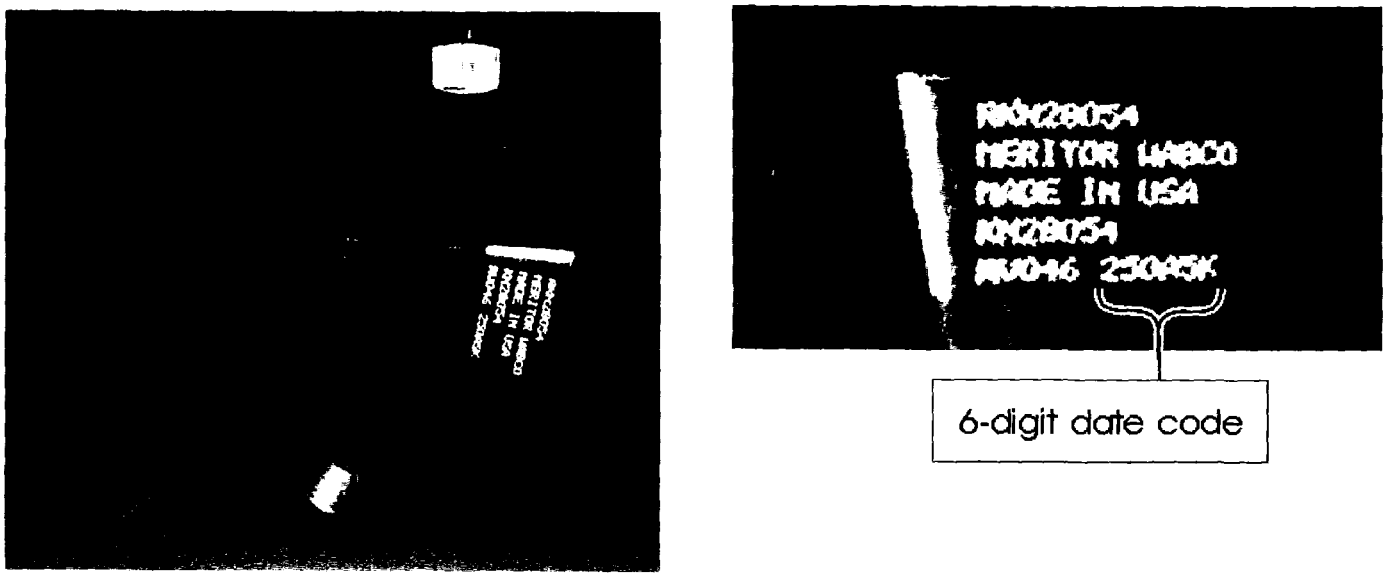


Figure 2: Brake relay valve ID tag

6. The date code will be the last 6 letters on the tag, the format will be ###A#A, where '#' is a number and 'A' is a letter. Examples: 255B5L and 136B4K
7. Write the date code on the attached chart along with current date, bus #, and inspector's initials.
8. If the date code is **342A4K**, proceed to Stage 2: Replacement.
9. If the date code is **anything** other than 342A4K, lower coach in accordance with the New Flyer Service Manual and turn the main battery disconnect switch to the "ON" position. Return coach to service.

Stage 2: Replacement (only performed if valve date code is 342A4K)

10. Mark all air lines and fittings locations.
11. Remove air lines and fittings from brake relay valve.
12. Remove brake relay valve from brake valve plate.
13. Mark date code of new brake relay valve on attached chart.
14. Install new brake relay valve onto brake valve plate using old hardware, torque mounting bolts to 27 ft-lbs. Packaging will be reused to return valve to address shown on page 3.
15. Apply Loctite PST (PN 8110442) to all threaded fittings and install in new brake relay valve in locations marked previously.
16. Turn the main battery disconnect switch to the "ON" position.
17. Check for air leaks in repair area.
18. Mark each threaded connection position with a torque stripe.
19. Lower coach in accordance with the New Flyer Service Manual.
20. Package old valve in box from new valve. Mark outside of box with coach number and property name.
21. Ship any brake relay valves with date code 342A4K to:

Don Myers
c/o Haldex
10930 N. Pomona Ave.
Kansas City, MO
64153

LABOUR ESTIMATE

	Operation	Men	Hours	Labour Time M X HR
1	Stage 1: Inspect rear brake relay valve	1	.33	.33
2	Stage 2: Replace rear brake relay valve (only performed if valve date code is 342A4K)	1	1.5	1.5

PARTS REQUIRED

Item	Part Number	Description	Qty. per Coach	Units	Notes
1	252499	VALVE-RELAY BRAKE	1	EA	
2	8110442	LOCTITE PST	0.1	EA	

NEW FLYER | CUSTOMER SERVICES

ITS: 2823

Property Name: _____ SR: _____

Total quantity of buses to be inspected: _____

#	Property Unit Number	Current Valve Date Code	Replacement Valve Date Code (if necessary)	Current Date	Initials	Comments
1						
2						
3						
4						
5						
6						
7						
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11						
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Send completed form to your New Flyer RPSM.