Part 573 Safety Recall Report 17V-130

Manufacturer Name : New Flyer Industries Ltd.
Submission Date : MAR 01, 2017
NHTSA Recall No. : 17V-130
Manufacturer Recall No. : R17-002

Manufacturer Information :

Manufacturer Name : New Flyer Industries Ltd.
Address : 711 Kernaghan Avenue
Winnipeg, MB Canada 00 R2C3T4
Company phone : 204-224-6706

Population :

Number of potentially involved : 2,337
Estimated percentage with defect : 10 %

Vehicle Information :

Vehicle 1 : 2006-2006 New Flyer L40LF
Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES
Body Style : OTHER
Power Train : CNG/LPG
Descriptive Information : Liquid Petroleum Gas 40 Foot Low Floor Heavy Duty Transit Bus
Production Dates : JUN 21, 2006 - JUN 23, 2006
VIN Range 1 : Begin : 5FYL4FP135C029405 End : 5FYL4FP145C029414 ☐ Not sequential

Vehicle 2 : 2006-2007 New Flyer C35LF
Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES
Body Style : OTHER
Power Train : CNG/LPG
Descriptive Information : Compressed Natural Gas 35 Foot Low Floor Heavy Duty Transit Bus
Production Dates : MAR 30, 2006 - MAY 18, 2007
VIN Range 1 : Begin : 5FYC4KP156C029710 End : 5FYC4KP097C031310 ☑ Not sequential

Vehicle 3 : 2005-2007 New Flyer C40LF
Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES
Body Style : OTHER
Power Train : CNG/LPG
Descriptive Information : Compressed Natural Gas 40 Foot Low Floor Heavy Duty Transit Bus
Production Dates : MAY 13, 2005 - OCT 16, 2007
VIN Range 1 : Begin : 5FYC4FP105C027952 End : 5FYC4FP027C032533 ☑ Not sequential

Vehicle 4 :	2006-2007 New Flyer C40LFR
Vehicle Type :	BUSES, MEDIUM & HEAVY VEHICLES
Body Style :	OTHER
Power Train :	CNG/LPG
Descriptive Information :	Compressed Natural Gas 40 Foot Low Floor Restyled Heavy Duty Transit Bus
Production Dates :	MAR 09, 2006 - MAR 27, 2008
VIN Range 1 :	Begin : 5FYC5FZ196C029551 End : 5FYC5FP147C034886 ☑ Not sequential

Vehicle 5 :	2006-2007 New Flyer D35LF
Vehicle Type :	BUSES, MEDIUM & HEAVY VEHICLES
Body Style :	OTHER
Power Train :	DIESEL
Descriptive Information :	Diesel 35 Foot Low Floor Heavy Duty Transit Bus
Production Dates :	MAR 15, 2006 - JUL 23, 2007
VIN Range 1 :	Begin : 5FYD4KV136B029640 End : 5FYD4KV117C032158 ☑ Not sequential

Vehicle 6 :	2007-2007 New Flyer D35LFR
Vehicle Type :	BUSES, MEDIUM & HEAVY VEHICLES
Body Style :	OTHER
Power Train :	DIESEL
Descriptive Information :	Diesel 35 Foot Low Floor Restyled Heavy Duty Transit Bus
Production Dates :	AUG 18, 2007 - SEP 14, 2007
VIN Range 1 :	Begin : 5FYD5KV157C032340 End : 5FYD5KV097C032364 ☑ Not sequential

Vehicle 7 :	2005-2007 New Flyer D40LF
Vehicle Type :	BUSES, MEDIUM & HEAVY VEHICLES
Body Style :	OTHER
Power Train :	DIESEL
Descriptive Information :	Diesel 40 Foot Low Floor Heavy Duty Transit Bus
Production Dates :	JUN 10, 2005 - MAR 28, 2008
VIN Range 1 :	Begin : 5FYD4FS195B028048 End : 5FYD4FV147B032569 ☑ Not sequential

Vehicle 8 :	2006-2007 New Flyer D40LFR
Vehicle Type :	BUSES, MEDIUM & HEAVY VEHICLES
Body Style :	OTHER
Power Train :	DIESEL
Descriptive Information :	Diesel 40 Foot Low Floor Restyled Heavy Duty Transit Bus
Production Dates :	AUG 10, 2006 - AUG 18, 2007
VIN Range 1 :	Begin : 5FYD5FV156B030339 End : 5FYD5FV0X7B032323 ☑ Not sequential

Vehicle 9 :	2005-2007 New Flyer D60LF
Vehicle Type :	BUSES, MEDIUM & HEAVY VEHICLES
Body Style :	OTHER
Power Train :	DIESEL
Descriptive Information :	Diesel 60 Foot Low Floor Heavy Duty Transit Bus
Production Dates :	OCT 16, 2005 - NOV 06, 2007
VIN Range 1 :	Begin : 5FYD4YW095C028879 End : 5FYD4YW187C032076 ☑ Not sequential

Vehicle 10 :	2006-2007 New Flyer D60LFR
Vehicle Type :	BUSES, MEDIUM & HEAVY VEHICLES
Body Style :	OTHER
Power Train :	DIESEL
Descriptive Information :	Diesel 60 Foot Low Floor Restyled Heavy Duty Transit Bus
Production Dates :	FEB 27, 2007 - JUL 26, 2007
VIN Range 1 :	Begin : 5FYD5YW016C031113 End : 5FYD5YS137B031748 ☑ Not sequential

Vehicle 11 :	2006-2007 New Flyer DE40LF
Vehicle Type :	BUSES, MEDIUM & HEAVY VEHICLES
Body Style :	OTHER
Power Train :	HYBRID ELECTRIC
Descriptive Information :	Diesel/Electric 40 Foot Low Floor Heavy Duty Transit Bus
Production Dates :	DEC 11, 2006 - SEP 23, 2007
VIN Range 1 :	Begin : 5FYH4FV126B030934 End : 5FYH4FR117B031522 ☑ Not sequential

Vehicle 12 :	2006-2007 New Flyer DE40LFR
Vehicle Type :	BUSES, MEDIUM & HEAVY VEHICLES
Body Style :	OTHER
Power Train :	HYBRID ELECTRIC
Descriptive Information :	Diesel/Electric 40 Foot Low Floor Restyled Heavy Duty Transit Bus
Production Dates :	JUL 07, 2006 - NOV 13, 2007
VIN Range 1 :	Begin : 5FYH5FV026C030169 End : 5FYH5FV017C032514 ☑ Not sequential

Vehicle 13 :	2006-2006 New Flyer DE60LF
Vehicle Type :	BUSES, MEDIUM & HEAVY VEHICLES
Body Style :	OTHER
Power Train :	HYBRID ELECTRIC
Descriptive Information :	Diesel/Electric 60 Foot Low Floor Heavy Duty Transit Bus
Production Dates :	JAN 24, 2007 - FEB 07, 2007
VIN Range 1 :	Begin : 5FYH4YW076C031072 End : 5FYH4YW066C031077 ☐ Not sequential

Vehicle 14 :	2005-2007 New Flyer DE60LFA
Vehicle Type :	BUSES, MEDIUM & HEAVY VEHICLES
Body Style :	OTHER
Power Train :	HYBRID ELECTRIC
Descriptive Information :	Diesel/Electric 60 Foot Low Floor Advanced Heavy Duty Transit Bus
Production Dates :	NOV 15, 2005 - DEC 05, 2007
VIN Range 1 :	Begin : 5FYH7YW065C029383 End : 5FYH7YW047C032544 ☑ Not sequential

Vehicle 15 :	2007-2007 New Flyer DE60LFR
Vehicle Type :	BUSES, MEDIUM & HEAVY VEHICLES
Body Style :	OTHER
Power Train :	HYBRID ELECTRIC
Descriptive Information :	Diesel/Electric 60 Foot Low Floor Restyled Heavy Duty Transit Bus
Production Dates :	JUL 13, 2007 - SEP 11, 2007
VIN Range 1 :	Begin : 5FYH5YW047C032159 End : 5FYH5YW087C032360 ☑ Not sequential

Vehicle 16 :	2005-2007 New Flyer GE40LF
Vehicle Type :	BUSES, MEDIUM & HEAVY VEHICLES
Body Style :	OTHER
Power Train :	HYBRID ELECTRIC
Descriptive Information :	Gasoline/Electric 40 Foot Low Floor Heavy Duty Transit Bus
Production Dates :	JUN 17, 2005 - AUG 23, 2007
VIN Range 1 :	Begin : 5FYU4FY085C028325 End : 5FYU4FY057C032156 ☑ Not sequential

Description of Defect :

Description of the Defect :	On older vehicles, cracks have been detected on both the upper and/or lower surface of MAN V8-65L axle beams, These cracks follow the post forging trim line on the upper and lower surface of the axle beam. This is a low stress area of the beam and does not degrade the overall strength of the axle beam. However, if left unattended these cracks can eventually extend the entire length of the axle beam. If the crack begins to transverse the circumference of the beam, this would eventually result in an axle beam failure.
FMVSS 1 :	NR
FMVSS 2 :	NR
Description of the Safety Risk :	A failure of the front axle beam could result in a loss of vehicle control.
Description of the Cause :	Root cause for the failure is currently undetermined. Cracks could be the result of inferior steel, complications in the forging, quenching and machining of the beam during manufacture, or environmental factors and stresses applied to the beam post production. All cracked axles found to date, were forged with steel from the same sub-supplier. All axle beams using steel from this sub-supplier

Identification of Any Warning that can Occur :	have been identified for inspection. Additional beams from other steel suppliers during that time period will also be checked to validate the concern. Observations from the initial analysis of the failed components indicates that cracks take a long time to form to the extent where a failure of the axle beam can occur, and should be easily visible during normal preventative maintenance inspections of the axle suspension components. However, use of centerline hydraulic hoists to lift the vehicle by the axle beam for maintenance and inspection, may restrict the view of the upper and lower surfaces of the axle beam.

Supplier Identification :

Component Manufacturer

Name :	MAN Engines & Components Inc.
Address :	601 S.W. 13th Terrace Pompano Beach FLORIDA 33069
Country :	United States

Chronology :

On 13 December 2016 a non-U.S. based customer reported to New Flyer that a ten year old MAN V8-65L front axle beam had failed on bus while in operation. The bus was not in motion when the axle failed. Inspection of the customers buses from that same production build determined that 70% of those vehicles also had visible cracks on the axle beam. Cracks found on the failed components examined to date all appeared in the same location on the beam (parallel to the post forging trim line).
On 5 January 2017 eight axle beams, including the one which failed, were returned to MAN in Germany for inspection and analysis, estimated completion time 3 months.
On 20 January 2017 one cracked axle beam was returned to New Flyer for independent analysis by a local metallurgist.
Initial analysis of the beams by both entities has not yet determined if the cause was due to the use of inferior steel, complications in the forging, quenching and machining of the beam during manufacture, or environmental factors and stresses applied to the beam post production (i.e. curb strikes) over a ten year time period. However, MAN's records indicate that all the axles which displayed cracks on the beam, had steel from the same sub-supplier.
On 9 February 2017 MAN recommended that axle beams made with steel from the same sub-supplier during the 2005 to 2007 time period be inspected for cracks, and if found, the axle beams should then be replaced.
On 21 February 2017 MAN met with New Flyer to discuss the available analysis results and future actions.
On 22 February 2017 New Flyer executive determined that a recall should be declared with NHTSA.

Description of Remedy :

Description of Remedy Program :	Vehicle owners will be asked to inspect the subject vehicles in accordance with supplied inspection criteria. Owners will be reimbursed for the time required to conduct the inspections on these older vehicles, in the form of a parts credit. Data from the inspections will be used to finalize root cause determination, as well as any further actions which are required. Mixed in with the recall population are vehicles with axle beams made with steel from two other steel sub-suppliers for comparison.
How Remedy Component Differs from Recalled Component :	The recalled component has a forging heat codes stamped into the face of the axle beam which identify the steel supplier, as well, the manufacturing year is part of the axle serial number. Replaced components will not fall into the identified inspection criteria.
Identify How/When Recall Condition was Corrected in Production :	This model axle is no longer used in production.

Recall Schedule :

Description of Recall Schedule :	A pre-recall letter may be issued if necessary, as soon as the technical instruction is available. Formal recall letters will be issued to customer with the technical instruction attached as soon as the recall is acknowledged by the ODI.
Planned Dealer Notification Date :	NR - NR
Planned Owner Notification Date :	MAR 08, 2017 - MAR 10, 2017

* NR - Not Reported