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OFFICE OF
DEFECTS INVESTIGATION



North American
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February 25, 2005

Associate Administrator for Enforcement
National Highway Traffic Safety Administration
400 Seventh Street, S. W.
Washington, D.C. 20590

Subject: NABI Safety Recall #20052

05V-088
(4 pages)

Dear Sir:

Attached is a vehicle defect initial information report which is submitted pursuant to Parts 573.5, 151 (1), and 153 (1-6) of the National Traffic And Motor Vehicle Safety Act.

The undersigned should be contacted for any additional information regarding this recall.

Very truly yours,

North American Bus Industries (NABI)

A handwritten signature in black ink that reads "Dan C. Allen". The signature is written in a cursive, flowing style.

Dan C. Allen
Director of Product Engineering

Enclosures

NORTH AMERICAN BUS INDUSTRIES (NABI)

VEHICLE DEFECT
INITIAL INFORMATION REPORT

Date: February 25, 2005

NABI Recall No. 20052

MAKE	MODEL	MODEL YEAR	NUMBER OF VEHICLES	MANUFACTURED DATES		OTHER IDENTIFICATION NECESSARY TO DESCRIBE VEHICLE
				FROM	THROUGH	
NABI	60LFW, 35LFW, 40LFW, 40CLFW, 45CLFW	1998-2005	3680*	7/1/98	2/20/05	35', 40', 45' and 60' Low Floor City Transit Buses

Total Number of Vehicles: *Approximately 3680 Percent Potentially Containing Defect: 100%

NORTH AMERICAN BUS INDUSTRIES, Inc. (NABI)

NABI RECALL NO. 20052

VEHICLE DEFECT INITIAL INFORMATION REPORT

DESCRIPTION OF DEFECT: On certain NABI buses, the front axle stops and the power steering gear hydraulic limit valves were found to be out of adjustment. These buses were built with the axle spindle contacting the axle stops in a full turn before the hydraulic valves could relieve the pressure from the steering gear. The buses should have had the hydraulic limit valves set to relieve the hydraulic pressure before contacting the axle stops, thus significantly reducing the force on the steering components. However, during the investigation of this problem with the adjustment of the hydraulic limit valves, another problem was uncovered. While analyzing and conducting several tests on the installation, excessive flexing of the steering drag link was noticed. It was subsequently determined that under certain conditions, the drag link may experience permanent deformation due to the steering load. Further study has indicated that the strength of the drag link may not be adequate to withstand the loads that may be encountered, and that under certain conditions of repeated loading, the steering drag link may be permanently deformed. These conditions are aggravated when the steering gear hydraulic limit valves or the front axle wheel stops are improperly adjusted.

RISK TO MOTOR VEHICLE SAFETY: Under the conditions described above, the drag link may be permanently deformed. During long term operation involving repeated flexing of the drag link, further deformation of the drag link may take place and the drag link may eventually crack due to this repeated flexing. Once a crack starts in the drag link, it can quickly progress to a point where the drag link can break. Should the drag link break, the driver will no longer have steering control of the vehicle. An accident could result, causing injury or death.

1) CHRONOLOGY OF PRINCIPAL EVENTS WHICH LED TO DETERMINATION OF DEFECT:

- In December 2004, NABI received a report of a broken drag link. This did not result in an accident. NABI investigated this incident and found that some of the hydraulic limiting valves on certain buses at the location were not set properly.

- In late December, NABI sent out a Service Bulletin advising our customers to inspect their fleets for proper hydraulic limit adjustment on the power steering gears. They were also advised to check the condition of all the steering components, including the drag links. The purpose of this Bulletin was to clarify and reinforce the information contained in the NABI Maintenance Manual.
- In January 2005, NABI received another report of a broken drag link. No accident was reported. NABI received reports of bent drag links found as a result of the Service Bulletin that had been sent in December.
- As a result of these reports of bent drag links, NABI Rt. immediately contacted the manufacturer of the drag link and began testing and verification of design with them, to determine the root cause of the bending of the drag links that had been reported.
- In mid February 2005, NABI received another field report of a broken drag link on a bus that had not yet been inspected. This did not result in an accident.
- On February 18, 2005 NABI Rt. completed their testing and determined that the drag link could bend when subjected to the maximum hydraulic force from the steering gear at the extreme end of the wheel cut.
- On February 21, 2005, NABI decided to initiate a recall of all LFW buses that were equipped with this drag link.
- NABI is not aware of any accidents attributed to this issue.

- 2) MEASURES TO BE TAKEN TO REPAIR VEHICLE: The owners will be officially notified of the defect and NABI will arrange to have the vehicles inspected and will replace the drag links with a stronger drag link on all buses affected by this recall. In order to minimize the loads that can be applied to the drag link, NABI will arrange for an inspection of the steering gear hydraulic limit valve settings and frequent inspection of the current drag links until the drag link can be changed out.
- 3) REMEDY EXPENSE: NABI, Inc. will inspect and repair the vehicles free of charge.
- 4) EARLIEST DATE TO BE REMEDIED: March 2005
- 5) PUBLIC ANNOUNCEMENT DATE: There will be no public announcement.
- 6) OWNER LETTER: A draft of the customer notification letter will be sent to NHTSA for review and approval prior to mailing to the owners.