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North American
Bus Industries, Inc.

11V-444
(9 pages)

BY FACSIMILE (202-366-7882) & U.S. MAIL

August 18, 2011

Daniel C. Smith, Esq.
Associate Administrator for Enforcement
National Highway Traffic Safety Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Subject: NABI Safety Recall #20111

Dear Mr. Smith:

Attached is a Vehicle Defect Initial Information Report, which is being submitted by North American Bus Industries, Inc. pursuant to 49 C.F.R. Part 573.

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

Sincerely,

A handwritten signature in black ink that reads "Dan Allen". The signature is fluid and cursive, with the first name "Dan" and last name "Allen" clearly distinguishable.

North American Bus Industries, Inc. (NABI)
Dan Allen
Chief Engineer Product Design
256-453-2242

Enclosures (2)

- *Cummins, Inc. Safety Recall Submission*
- *Vehicle Defect Initial Information Report*

NORTH AMERICAN BUS INDUSTRIES (NABI)

VEHICLE DEFECT
INITIAL INFORMATION REPORT

Date: August 12, 2011

NABI Recall No. 20111

MAKE	MODEL	MODEL YEAR	NUMBER OF VEHICLES	MANUFACTURED DATES		OTHER IDENTIFICATION NECESSARY TO DESCRIBE VEHICLE
				FROM	THROUGH	
NABI	40SF	2010-2011	87	9/1/2010	2/28/2011	Certain city transit buses equipped with certain V-Band clamps provided by Cummins, Inc.

Total Number of Vehicles: 87

Percent Potentially Containing Defect: Estimated 100%

VEHICLE DEFECT
INITIAL INFORMATION REPORT

DESCRIPTION OF DEFECT: Certain city transit buses, manufactured by NABI, are equipped with the Cummins V-Band clamp assembly which may be susceptible to fracture or failure when subjected to stress or load. The affected buses are equipped with V-Band clamps (part #s Q187684, Q187685 and Q187686). Cummins Inc. manufactured date codes are from **09/01/2010** to **12/31/2010**. NABI is not aware of any vehicle accident or injury related to this defect.

RISK TO MOTOR VEHICLE SAFETY: Should the inlet or outlet sections disconnect, hot exhaust gases can vent prior to exiting the tailpipe, creating a risk of combustion or damage to adjacent materials. In cases where resilient mounting is employed, the Diesel Oxidation Catalyst (DOC)/Diesel Particulate Filter (DPF) housing could disconnect completely from the exhaust system or vehicle in the unlikely event that both V-Band clamps were to fail or loosen.

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

- On August 08, 2011, NABI received a recall notice from Cummins Inc. NHTSA Recall # 11E-031. (copy attached)
- NABI initiated an investigation.
- NABI decided to initiate a recall on August 12, 2011.

2) **REMEDY EXPENSE:** Cummins Inc. will inspect and repair of vehicles free of charge.

3) **EARLIEST DATE TO BE REMEDIED:** September 1, 2011

4) **PUBLIC ANNOUNCEMENT DATE:** There will be no public announcement.

5) **OWNER LETTER:** A draft notification letter will be provided by Cummins Inc. for review and approval by NHTSA.



August 8, 2011

Claude H. Harris
Acting Associate Administrator for Enforcement
National Highway Traffic Safety Administration
1200 New Jersey Ave., S.E.
Washington, DC 20590

Dear Mr. Harris:

Cummins Inc. (and one of its separate business units, Cummins Emission Solutions) has decided that certain V-Band clamps shipped with 2010 Cummins ISB6.7, ISC8.3, ISL9, ISX11.9 and ISX15 engines from September 2010 through December 2010 may contain a safety-related defect when installed in certain vehicle types (i.e., recreational vehicles, emergency vehicles, bus and truck applications). The following information is submitted in accordance with the National Highway Traffic Safety Administration's defect reporting regulations, 49 CFR Part 573.6.

1. Product identification and customer channels.

This notice involves V-Band clamps, Part Numbers Q187684, Q187685, and Q187686, manufactured from September 1, 2010 through December 31, 2010, that were supplied to the OEM customers listed in Attachment 1. The subject clamps are used to connect the inlet and outlet cone sections to the Diesel Oxidation Catalyst (DOC)/Diesel Particulate Filter (DPF).

Only V-Band clamps that were installed in recreational vehicles, emergency vehicles, bus and certain truck applications are covered by this notice. A total of 11912 units are involved. A complete listing of the estimated populations by vehicle manufacturer is provided in Attachment 1.

The supplier of the component is:

NAME: R.G. Ray Corporation
ADDRESS: 900 Busch Parkway
Buffalo Grove, IL 60089
CONTACT: Mr. Keith Hadjuk
847-229-4434

2. Estimated extent of defect population.

We cannot estimate the number of units that actually contain the defect, but Cummins will pursue a 100% recall on all products within the affected population, subject to the concurrence of Cummins' OEM customers.

Cummins Inc.
500 Jackson Street
Columbus, IN 47201 USA
Phone 1 812 377 5000
cummins.com



3. Description of defect.

Due to an error in the component supplier's plating process, the T-bolt included on the V-Band clamp assembly may be susceptible to fracture or failure when subjected to stress or load. A fracture or failure of the T-Bolt may cause the clamp to loosen and the inlet or outlet sections attached to the DOC/DPF housing to disconnect. If the inlet or outlet sections disconnect, hot exhaust gases can vent prior to exiting the tailpipe, creating a risk of combustion or damage to adjacent materials. In cases where resilient mounting is employed, the DOC/DPF housing could disconnect completely from the exhaust system or vehicle in the unlikely event that that both V-Band clamps were to fail or loosen. In either case, the vehicle's check engine light will illuminate.

As a result of these risks, Cummins has determined that this condition may constitute a safety-related defect with respect to vehicles that have flammable or combustible materials in close proximity to the DOC/DPF. This includes buses, recreational vehicles, emergency vehicles and some trucks. Vehicles that utilize resilient mounting are also covered by this notice, due to the potential for a complete separation of the DOC/DPF housing.

4. Chronology of events.

On February 3, 2011, a customer advised Cummins of a check engine light and excessive engine noise. Troubleshooting fault codes and excessive exhaust noise led preliminarily to identification of a broken V-Band clamp securing the DOC/DPF to the outlet sections. After further inspection, the V-Band clamps were found to be loose, with the T-bolt broken at the lock nut-to-clamp interface. The resulting separation between the DOC/DPF and the outlet sections caused exhaust leaks and progressive damage to surrounding components (wiring harness, pressure sensor and tubes).

Cummins commenced an investigation of this issue. As part of its investigation, Cummins conducted material analysis and concluded that the T-bolt failed by intergranular corrosion. These results were shared with Cummins' supplier, which conducted its own analysis and confirmed the root cause.

On February 15, the material of the T-bolt was changed and a plating process was removed.

On April 14, after further investigation of the sub-assembly process, the assembly torque on the T-bolt was lowered to 20 NM and torque-monitoring checks were implemented on the production line.

During May and June, visual assessments of recreational vehicles and buses were conducted. The objective of the assessment was to determine what types of materials were in proximity to the DOC/DPF. It was learned that flammable/combustible materials could be in the area.



Following this assessment, the hazard analysis was updated based on these findings. In addition, a vibration and oscillation load test was completed to assess the impact to the T-bolt durability.

On August 1, 2011, based on this investigation, Cummins determined that this condition may constitute a safety-related defect with respect to the vehicle applications identified above.

To date, Cummins is not aware of any injuries, fatalities, accidents/crashes or fires related to this condition.

5. Remedy program.

Cummins will notify affected OEM customers of this defect and the potential safety consequences, and will work with them to identify and notify affected owners. Cummins will install new V-Band clamps, without charge, through Cummins' service network. The new clamps will be recognizable by new part numbers Q187688, Q187689, and Q187690. Replacement clamps are currently available.

6. Part 577 notice letter; dealer bulletins.

A draft owner notification letter will be submitted to the agency for review and approval as soon as possible. A representative copy of Cummins' distributor bulletin will be provided within five business days after it is sent.

7. Customer/owner notifications.

Cummins will begin notifying its OEM customers by August 9, 2011. The timing of owner notification will be determined in consultation with Cummins' OEM customers. However, Cummins is prepared to begin notifying owners and providing the necessary repairs promptly upon receipt of each OEM's owner list.

8. Pre-Notification Remedy Reimbursement.

Pursuant to 49 CFR §577.11(e), Cummins requests that it be exempt from providing notification of a reimbursement plan. Any pre-notification product failure would have been replaced under the manufacturer's limited warranty. Accordingly, no person would be eligible for reimbursement pursuant to §573.13.

* * *

Please advise the undersigned of the recall campaign number assigned by the Office of Defects Investigation to this recall. Cummins' campaign code for this recall will be C1154.



Sincerely yours,

A handwritten signature in black ink that reads 'Steven R. Butler'.

Steven R. Butler
Director – Product Safety

Email: steven.r.butler@cummins.com



**Cummins Inc. V-Band Clamp Recall
Original Equipment Manufactures'**

Volume	OEM	OEM Contact Information
39	American LaFrance	Mr. Stan Gornick 1090 Newton Way Summerville, SC 29483-7430 843-486-7634
1074	Bluebird Body Company	Mr. Bruce Miles P.O. Box 937 Fort Valley, Ga. 31030 478-822-2089
8495	Daimler Trucks North America (exclude Thomas, Orion)	Mr. Dave Stanley Daimler Trucks North America 4747 N. Channel Avenue Portland, Oregon 97217 503-745-7926
107	Daimler Buses N.A. Orion Bus Industries	Mr. Dave Trevors 350 Hazelhurst Road Mississauga, Ontario Canada L5J 4T8 905 403-7832 ext 3277
29	El Dorado National	Mr. Tony Wayne 9670 Galena Street Riverside, CA 92509 951-727-9307
33	E - One	Mr. Bill Miles 1601 S.W. 37th Avenue Ocala, FL 34474 352-861-3223
563	Gillig Corporation	Mr. Greg Vismara 25800 Clawiter Road Hayward, CA 94545 510-264-5037



2	HME	Mr. Greg Brock 1950 Byron Center Avenue Wyoming, Michigan 49519 616-534-1463
362	New Flyer	Mr. Scott Halbesma 711 Kernaghan Avenue Winnipeg, Manitoba R2C 3T4 CANADA 204-934-4882
5	KME - Kovatch	Mr. John Kovatch IV 1 Industrial Complex Nesquehoning, PA 18240 570-669-9461
12	Motor Coach Industries	Mr. Paul Murphy 1700 East Golf Road Schaumburg, IL 60173 204 287-4982
87	North American Bus Industries (NABI)	Mr. Dan Allen 106 National Drive Anniston, AL 36207 256-241-1274
254	Novabus	Mr. Francis St. Cyr 155 Marie-Victorin Boulevard St-François-du-Lac, Quebec, Canada J0G 1M0 450-974-6063
13 20	Oshkosh Corporation Pierce Manufacturing	Mr. Roger Lackore 2307 Oregon St. Oshkosh, WI 54902 920-237-4237
251	Spartan Motors Inc.	Mr. Wes Chestnut 1541 Reynolds Road Charlotte, Michigan 48813 517-543-6400 x 3275
12	Sutphen Corporation	Mr. Bob Meyer 1653 W. County Line Road Springfield, Ohio 45502 937-969-8851
375	Thomas Built Bus	Mr. Dave Stanley 4747 N. Channel Avenue