

5.6.2 Engine and Passenger Compartment Heating

⚠ WARNING

Potential skin and eye burn risk. When working on the coolant system, allow the engine and coolant to cool down and open the radiator cap carefully.

Heater Cores arranged in Series

A series heating system works in this fashion:

Heated water (coolant) from the engine travels through the first heater core in the circuit, then on to the next heater core in the circuit, and on to the next, etc. Each core adds some restriction, resulting in decreased water flow. Not only is water flow reduced, but also water temperature is reduced by each successive heater core resulting in the last core receiving water that is usually too cool to be effective. A fuel fired Webasto heater equipped with a high capacity coolant pump can significantly increase the available heat supplied to a series plumbed system. The advantages are increased coolant volume and flow through the system ensuring efficient interior heating through all heater cores.

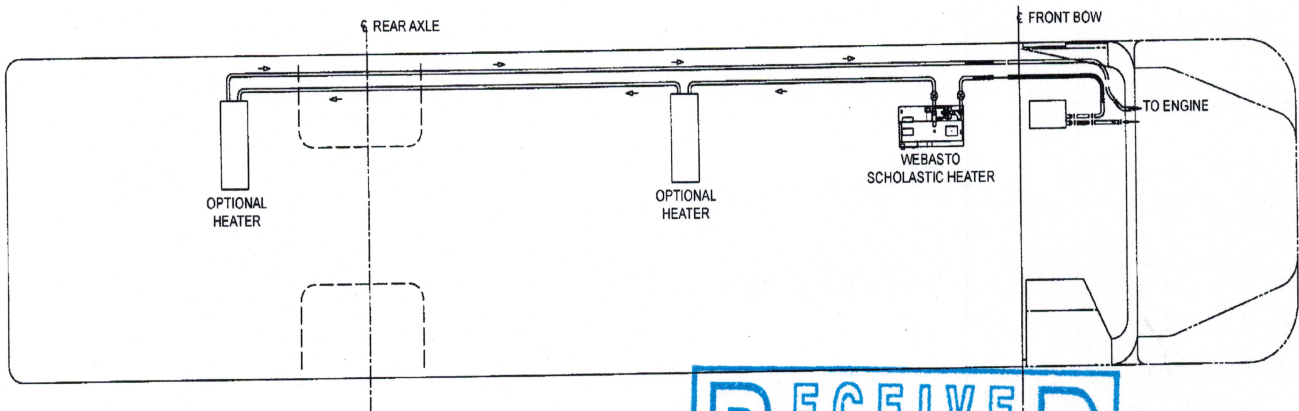


Fig. 5-4: Series Plumbing Circuit - Conventional Model

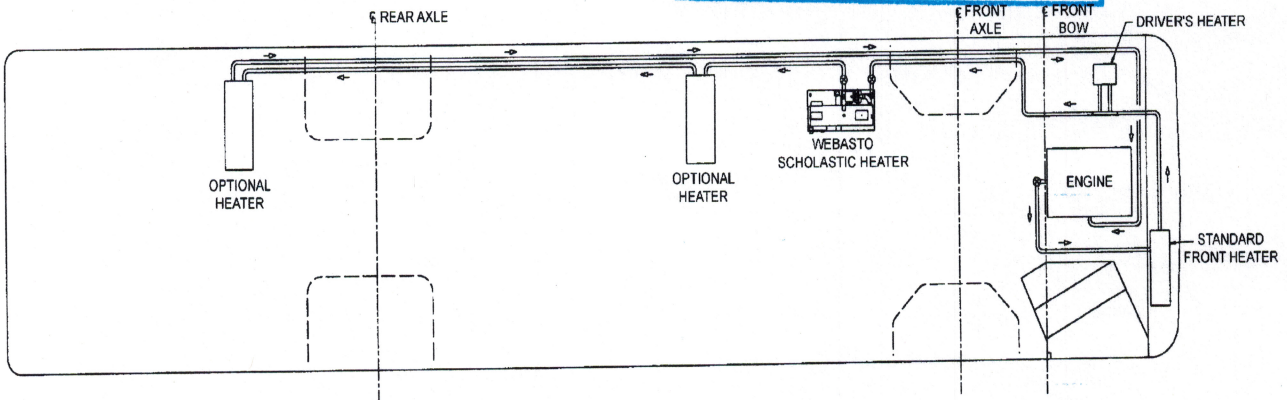
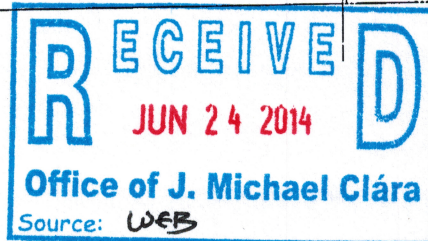


Fig. 5-5: Series Plumbing Circuit - Transit Model (Engine Front)



Re: Transportation Meeting

1 message

Michael Clára <donmiguelslc@gmail.com>

Wed, Jun 25, 2014 at 11:05 AM

To: Patrick Garcia <Patrick.Garcia@slcschools.org>, Steve Woods <Steve.Woods@slcschools.org>, Shawn Tucker <shawn.tucker@slcschools.org>

Cc: "kj524@msn.com" <kj524@msn.com>, "susana.danso@gmail.com" <susana.danso@gmail.com>

Bcc: Michael Clara <donmiguelslc@gmail.com>

Patrick, Steve & Shawn,

I want to thank the three of you for taking the time to meet with me Susana and the Jensens. It was extremely helpful to hear the detailed circumstances surrounding the accident. It was also enlightening to see the actual bus and the malfunctioning parts. I was gratified to hear the procedural steps that will be put in place so as to avoid any miss-communication during an emergency situation.

I did however, leave the meeting with the impression that the overall conclusion was that this was an isolated incident based on conversations with other transportation departments and the manufacture. If I drew the wrong impression please correct me.

If I am correct, I would argue that this incident is part of an ongoing pattern that has played out across the country. At the very least, I am hopeful that some type of shielding can be put in place to protect the driver and the students.

I am attaching two documents for your consideration:

#1 - U.S. Department of Transportation

#2 - Blue Bird School Bus Company

I wish to draw your attention to document #2 Blue Bird - Item #6. At the end of that section they discuss a thermostat problem that causes a "pulsation in the coolant flow" that "weakens the hose". This may or may not be related to our local incident.

I am however, intrigued with #7 - that states the following: "In addition, a cover will be added at the underseat heater hose connection under the passenger seats and a rubber seal will be added to the heater hose transition cover..." Based on my limited knowledge and the description of the incident, I would think that this solution is promising.

Do either of these documents offer any solutions that could be implemented with our buses?

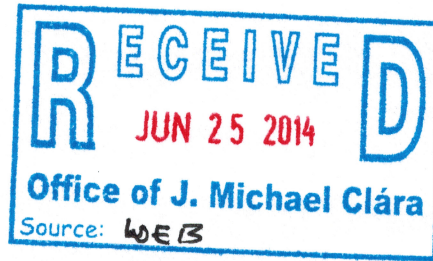


U.S. Department of Transportation
**National Highway Traffic Safety
Administration**

1200 New Jersey Avenue SE
Washington, DC 20590

June 19, 2014

Mr. William Coleman
Corporate Recall Administrator
Blue Bird Body Company
PO Box 937
Fort Valley, GA 31030



NVS-215KS
14V-313

Subject: Heater Hose may Rupture Resulting in Burns

Dear Mr. Coleman:

This letter serves to acknowledge Blue Bird Body Company's notification to the National Highway Traffic Safety Administration (NHTSA) of a safety recall which will be conducted pursuant to Federal law for the product(s) listed below. Please review the following information to ensure that it conforms to your records as this information is being made available to the public. If the information does not agree with your records, please contact us immediately to discuss your concerns.

Makes/Models/Model Years:

BLUE BIRD/ALL AMERICAN/2008-2013

Mfr's Report Date: June 11, 2014

NHTSA Campaign Number: 14V-313

Components:

ENGINE AND ENGINE COOLING:COOLING SYSTEM

Potential Number of Units Affected: 1,935

Problem Description:

Blue Bird Body Company (Blue Bird) is recalling certain model year 2008-2013 All American rear engine school buses manufactured April 3, 2007, to December 15, 2012. Due to the design of the thermostat, a heater hose may rupture which could result in hot coolant entering the passenger compartment.

Consequence:

Hot coolant leaking into the passenger compartment increases the risk of injury to the passengers.

Remedy:

Blue Bird will notify owners, and dealers will replace the thermostat and change the passenger compartment heater supply hose, free of charge. The recall is expected to begin on July 11, 2014. Owners may contact Blue Bird customer service at 1-478-822-2242. Blue Bird's number for this recall is R14XF.

Notes:

Owners may also contact the National Highway Traffic Safety Administration Vehicle Safety Hotline at 1-888-327-4236 (TTY 1-800-424-9153), or go to www.safercar.gov.

Please be reminded of the following requirements:

You are required to submit a draft owner notification letter to this office no less than five days prior to mailing it to the customers. Also, copies of all notices, bulletins, dealer notifications, and other communications that relate to this recall, including a copy of the final owner notification letter and any subsequent owner follow-up notification letter(s), are required to be submitted to this office no later than 5 days after they are originally sent (if they are sent to more than one manufacturer, distributor, dealer, or purchaser/owner).

As stated in Part 573.7, submission of the first of six consecutive quarterly status reports is required within one month after the close of the calendar quarter in which notification to purchasers occurs. Therefore, the first quarterly report will be due on, or before, 30 days after the close of the calendar quarter.

Your contact for this recall will be Kelly Schuler who may be reached by phone at (202) 366-5227, or by email at kelly.schuler@dot.gov or through the office email at rmd.odi@dot.gov. We look forward to working with you.

Sincerely,

A handwritten signature in black ink, appearing to read "Jennifer Timian". The signature is fluid and cursive, with the first name being the most prominent.

Jennifer Timian
Chief, Recall Management Division
Office of Defects Investigations
Enforcement



BLUE BIRD

RECEIVED

By Recall Management Division at 2:21 pm, Jun 11, 2014

14V-313
(3 pages)

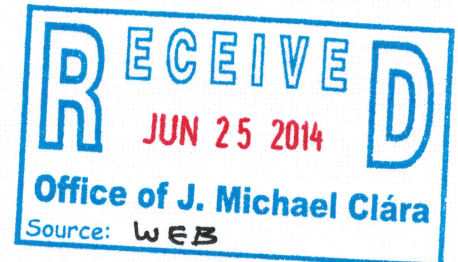
PART 573.6 Defect and Noncompliance Reporting

Defect Report: School Bus

Report Date: June 11, 2014

1. Vehicles affected are manufactured by:

Blue Bird Corporation
P. O. Box 937
Fort Valley, GA 31030



2. The following vehicles are being recalled:

Certain 2008 through 2013 Model Year Blue Bird All American Rear engine school buses manufactured from April 03, 2007 through December 15, 2012.

3. The total number of vehicles recalled potentially containing the defect are:

1,935

4. The approximate percentage of the total number of vehicles estimated to actually contain the defect is:

Unknown

5. The defect consists of:

The heater hose in the passenger compartment could rupture allowing hot coolant to enter the passenger compartment which may result in personal injury.

6. The following data is the basis for the determination of the defect.

On October 10, 2013 Blue Bird received a report of hot coolant on the floor of a school bus in St Johns County, Florida. Several passengers were reported to have received injuries from the hot coolant on the floor as they exited the bus. Blue Bird representatives inspected the bus and found the heater hose in the passenger compartment had failed allowing hot coolant to flow onto the floor. The heater hoses were changed by St Johns County Public Schools.

BLUE BIRD BODY COMPANY

P.O. Box 937 – 402 Blue Bird Blvd – Fort Valley, Georgia – (478) 825-2021



BLUE BIRD

On October 14, 2013 Blue Bird received a report from Camp Pendleton California of a coolant leak inside the bus at the rear wheel housing. A ruptured heater hose was reported as the source of the coolant.

On January 21, 2014 Blue Bird received a report of a heater hose failure in the passenger compartment on a school bus in Artesia School District in New Mexico. The report indicated three passengers were taken to the hospital for observation and released. The heater hoses were returned to Blue Bird for evaluation.

On January 23, 2014 Blue Bird received the failed heater hoses from Artesia New Mexico. The heater hoses were evaluated and determined they met the specified 300 psi requirement and were not the cause of the failure. Blue Bird continued to monitor this issue.

On February 19, 2014 Blue Bird received a report of coolant found on the floor in a school bus in Orange County, California. No injuries were reported.

On May 09, 2014 Blue Bird received a report of ruptured heater hoses in two buses from Natrona County School District in Casper Wyoming. Three passengers were reported as potentially receiving injuries from the hot coolant.

In early June 2014 Blue Bird completed its evaluation of the heater hose failures in the passenger compartment. It was determined that during high engine RPM the thermostat installed in the Cummins ISC07, ISC10 and ISL-G engines provided to Blue Bird may cause a pulsation in the coolant flow. This pulsation over time could weaken the passenger compartment heater hose inner lining resulting in the potential for the hose to fail.

On June 10, 2014 Blue Bird decided to conduct a recall correct this defect.

7. The defect will be corrected in the following manner:

The Cummins engine thermostat will be changed to a new barrel type thermostat and the passenger compartment heater supply hose will be changed. In addition, a cover will be added at the underseat heater hose connection under the passenger seats and a rubber seal will be added to the heater hose transition cover at the rear of the wheelhousing.



BLUE BIRD

8. Notification will be as follows:

Dealer notification is scheduled to be mailed on or about July 11, 2014.
Owner notification is scheduled to be mailed on or about July 11, 2014.
Parts are anticipated to be available at time of notification.

9. Blue Bird's identification number assigned to this recall is:

R14XF

10. Dealer and Owner Notification:

A draft copy of the notification documents will be submitted to NHTSA for review prior to mailing.

Questions regarding this recall should be directed to:

William P. Coleman
Corporate Recall Administrator
Blue Bird Corporation
P.O. Box 937
Fort Valley GA 31030
(478) 822-2242

Signed: _____

William P. Coleman

William P. Coleman, Corporate Recall Administrator