Part 573 Safety Recall Report 21V-253

Manufacturer Name : Blue Bird Body Company
Submission Date : AUG 31, 2021
NHTSA Recall No. : 21V-253
Manufacturer Recall No. : R21BD-SB

Manufacturer Information :

Manufacturer Name : Blue Bird Body Company
Address : P.O. Box 937
402 Blue Bird Boulevard Fort Valley
GA 31030
Company phone : 478-822-2242

Population :

Number of potentially involved : 292
Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2018-2021 Blue Bird All American
Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES
Body Style : OTHER
Power Train : HYBRID ELECTRIC
Descriptive Information : The subject Electric Drivetrain consists of high voltage batteries and other components to control and distribute high voltage to a drive motor and other components. The system may also supply high voltage to the vehicle air conditioner, which is not supplied by Cummins. These systems were sold as original equipment in certain school busses and as original or upfit equipment in certain medium duty trucks. This recall consists of the entire population of PD7000 systems built prior to March 9, 2021.
Production Dates : AUG 01, 2018 - APR 01, 2021
VIN Range 1 : Begin : NR End : NR ☐ Not sequential

Vehicle 2 : 2018-2021 Blue Bird Vision
Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES
Body Style : OTHER
Power Train : HYBRID ELECTRIC
Descriptive Information : The subject Electric Drivetrain consists of high voltage batteries and other components to control and distribute high voltage to a drive motor and other components. The system may also supply high voltage to the vehicle air conditioner, which is not supplied by Cummins. These systems were sold as original equipment in certain school busses and as original or upfit equipment in certain medium duty trucks. This recall consists of the entire population of PD7000 systems built prior to March 9, 2021.
Production Dates : JAN 19, 2019 - APR 01, 2021
VIN Range 1 : Begin : NR End : NR ☐ Not sequential

Description of Defect :

Description of the Defect :	The subject Electric Drivetrain systems, as originally designed, did not include continuous isolation measurement capability to detect isolation faults in the system (between high voltage components and vehicle chassis ground) when the high voltage contactors are closed.
FMVSS 1 :	NR
FMVSS 2 :	NR
Description of the Safety Risk :	Blue Bird and Cummins evaluated the risk to motor vehicle safety related to if a high voltage isolation fault is not detected and service personnel do not follow prescribed service procedures, they may be exposed to high voltage, increasing the risk of electrical shock.
Description of the Cause :	It has been determined that in certain Blue Bird buses the design does not provide continuous isolation measurement capability when the contactors are closed.
Identification of Any Warning that can Occur :	None

Involved Components :

Component Name 1 :	Box, High Voltage Junction
Component Description :	High Voltage Power Distribution Unit
Component Part Number :	300444

Component Name 2 :	Module, Energy Distribution
Component Description :	Battery Control Unit
Component Part Number :	300477, 300475, 5675937, 5636566, 5636567

Component Name 3 :	Software, Control
Component Description :	Vehicle Control Unit Software
Component Part Number :	5611880, 5678529

Supplier Identification :

Component Manufacturer

Name : Cummin, Incorporated
Address : 500 Jackson Street
Columbus Indiana 47202-3005
Country : United States

Chronology :

Tuesday, April 6, 2021, Blue Bird received notification via e-mail that Cummins issued a Safety Recall on all PD7000 units.
May 28, 2020: As Cummins started to develop improved isolation measurement capability, Cummins considered whether improvements should be applied to previously produced product.
June – October, 2020: Cummins analyzed the system design, tested the isolation measurement capability, and implemented product improvements in the system hardware and software to improve the isolation measurement capability.
October 2020 – March 9, 2021: Cummins conducted additional testing of the improved system and updated its functionality in software that was identified in the testing.
February 25 – March 23, 2021: Cummins completed a Product Safety Hazard Analysis of the issue, assessing the need to install the improved isolation measurement capability in the previously produced product, and escalated the issue to the Cummins Product Safety Defect Board.
March 23, 2021: Cummins decided to conduct a safety campaign to install the updated isolation measurement capability in previously produced product as a safety improvement. To date, there have been no reports of accidents or injuries related to this condition.

To add or replace hardware and or software that will enable the proper operation.

Description of Remedy :

Description of Remedy Program :	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. The improvement consists of installing or updating different combinations of High Voltage Power Distribution Unit hardware, software in the Vehicle Control Unit and software in the Battery. It may be necessary to update various miscellaneous hardware for compatibility with the improved hardware (e. g., wire harness and fuses) to effect the improvement. The improvement combination of hardware and software depends on the build period of a particular unit. These combinations will be delineated in the published campaign instructions. The remedy will be completed in two distinct groups due to different configurations of hardware and software; therefore, Cummins will release unique safety campaigns for the two groups. Group 1 consists of units manufactured between June 1, 2018 and August 12, 2020. Group 2 consists of units manufactured between May 14, 2020 and March 8, 2021.
How Remedy Component Differs from Recalled Component :	Cummins established the improved hardware and software will have unique part numbers.
Identify How/When Recall Condition was Corrected in Production :	Production began with the entire system capable of continuous isolation monitoring on March 9, 2021.

Recall Schedule :

Description of Recall Schedule :	Cummins will conduct the recall and notify owners. The timing of owner notification will be determined in consultation with Blue Bird. Cummins expects to send interim notification letters to owners by May 28, 2021. The remedy is expected to be available and communicated to dealers on or about September 1, 2021. Cummins expects to mail owner letters communicating the availability of the remedy during September 2021. Amendment: Cummins expects to release the remedy (C2450) for Group 2 on or about October 1, 2021 and expects to mail owner letters communicating the availability of the remedy during October 2021. Cummins expects to release the remedy (C2482) for Group 1 on or about January 15, 2022 and expects to mail owner letters communicating the availability of the remedy by February 15, 2022. Interim owner letters were previously issued to both groups.
Planned Dealer Notification Date :	OCT 01, 2021 - JAN 15, 2022
Planned Owner Notification Date :	JUN 04, 2021 - JUN 04, 2021

* NR - Not Reported