

Part 573 Safety Recall Report

20E-003

Manufacturer Name : Cummins Inc.

Submission Date : MAR 26, 2020

NHTSA Recall No. : 20E-003

Manufacturer Recall No. : N/A



Manufacturer Information :

Manufacturer Name : Cummins Inc.

Address : Box 3005, Mail Code 41303

Columbus IN 47202-3005

Company phone : 812-377-5000

Population :

Number of potentially involved : 76

Estimated percentage with defect : 100 %

Equipment Information :

Brand / Trade 1 : Cummins Inc.

Model : PowerDrive EV

Part No. : 4000EV/6000EV/7000EV

Size : NR

Function : drivetrain

Descriptive Information : The subject electric drivetrain systems are equipped with wire harnesses that facilitate communication among various control modules. The recall covers the entire population of systems manufactured during the identified production period. The units were sold for installation in school buses, step vans and medium-duty trucks.

Production Dates : JUN 07, 2018 - OCT 24, 2019

Description of Defect :

Description of the Defect : : A connector within the wire harnesses installed in the subject EV drivetrains may be susceptible to becoming unplugged. If the connector becomes unplugged, under certain circumstances the communication between control modules may be lost and the system may command off the high voltage contactors, resulting in unexpected loss of all systems powered by high voltage, including the traction drive system and power steering.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : A sudden and simultaneous loss of motive power and loss of power steering may increase the risk of a crash.

Description of the Cause : The cause of this condition is the susceptibility of the connector coming unplugged during normal vehicle operation, resulting in loss of electrical connection.

Identification of Any Warning that can Occur : A warning may be displayed to the driver for approximately three seconds prior to the loss of motive power and power steering.

Involved Components :

Component Name : NR

Component Description : NR

Component Part Number : NR

Supplier Identification :

Component Manufacturer

Name : NR

Address : NR

NR

Country : NR

Chronology :

6/18/2019 – Cummins received a report of loss of motive power and loss of power steering in a Blue Bird school bus equipped with a subject PowerDrive system while being serviced by a Cummins service engineer. The service engineer determined that a CAN connector between the Battery Disconnect Unit and the System Control Module became unplugged. The lost connection was restored, the unit then performed normally, and the unit was returned to the customer.

6/18/2019 – 10/24/2019 – Cummins received internal (non-customer) accounts that other, similar connectors had become unplugged without a loss of motive power or loss of power steering. Cummins investigated the issues and evaluated potential improvements.

10/24/2019 – Cummins began installing a cable tie on the subject connectors in production to maintain the connector locking tab in the locked position as Cummins continued to investigate the issue.

11/24/2019 - As a quality improvement action, Cummins provided instructions to a limited number of Cummins field personnel (field service technicians and service engineers) for installing cable ties on affected vehicles when the vehicles were available for service.

11/27/2019 – 1/14/2019 - Cummins conducted a Product Safety Hazard Analysis.

1/28/2020 – Based upon the results of the investigation and evaluation of the issue, and although there have been no reports of loss of motive power or loss of power steering other than during the above mentioned service event, Cummins decided to conduct a safety recall to address this condition. To date, there have been no reports of accidents or injuries related to this condition.

Description of Remedy :

Description of Remedy Program : Cummins will work with its OEM customers to identify and notify affected vehicle owners and to arrange to have the remedy performed that addresses this condition. The remedy is to install a cable tie around the connector body, routed under the connector locking tab, forcing it into the locked position so that it cannot unplug. Cummins will work directly with affected customers and a limited number of service engineers and field technicians to implement the remedy.

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.

How Remedy Component Differs from Recalled Component : The presence of the remedy cable tie will be easily visible.

Identify How/When Recall Condition was Corrected in Production : Installation of the cable tie on the subject connectors was implemented in production on October 24, 2019.

Recall Schedule :

Description of Recall Schedule : Cummins expects to notify its OEM customers on or before February 12, 2020. Pending consultation with the affected OEM's, Cummins expects to be able to immediately begin working with vehicle owners to have the remedy installed on vehicles. If required, Cummins will mail part 577 letters no later than April 3, 2020 to any owners who have not received the remedy as of March 27, 2020.

Planned Dealer Notification Date : FEB 07, 2020 - FEB 12, 2020

Planned Owner Notification Date : MAR 12, 2020 - MAR 12, 2020

Purchaser Information :

The following manufacturers purchased this defective/noncompliant equipment for possible use or installation in new motor vehicles or new items of motor vehicle equipment:

Name : Blue Bird Corporation
Address : 3920 Arkwright Road
Suite 200 Macon GA 31210
Country : US
Company Phone : 4788222148

Name : Daimler Trucks North America, LLC
Address : 4747 N. Channel Ave.
Portland OR 97217
Country : US
Company Phone : 5037455508

Name : Thomas Built Buses, Inc.
Address : 1408 Courtesy Road
High Point NC 27260
Country : US
Company Phone : 3368784825

* NR - Not Reported