

Part 573 Safety Recall Report

21E-060

Manufacturer Name : Cummins, Inc.

Submission Date : SEP 29, 2021

NHTSA Recall No. : 21E-060

Manufacturer Recall No. : C2460



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 : 494

Estimated percentage with defect : 100 %

Equipment Information :

Brand / Trade 1 : Cummins Inc.

Model : L9

Part No. : D563027BX03

Size : NA

Function : Diesel engine

Descriptive Information : These engines are installed exclusively in transit bus applications (including diesel only and diesel-electric hybrid configurations) and are intended to operate with the appropriate exhaust aftertreatment systems sold by Cummins. The engine controls determine the amount of Diesel Exhaust Fluid (DEF), among other things, to inject into the exhaust stream for the Selective Catalytic Reduction (SCR) catalyst to properly control exhaust emissions. Improper DEF management can result in temporary excessive ammonia in the tailpipe exhaust. The recall is the entire population of engines of this transit bus configuration manufactured between the identified dates.

Production Dates : SEP 24, 2018 - JUN 22, 2021

Description of Defect :

Description of the Defect : Under certain conditions, the engine tailpipe exhaust may intermittently contain excessive ammonia.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : Exposure to ammonia at elevated concentrations may cause personal injury.

Description of the Cause : The cause of the issue is inadequate management of the DEF applied to the SCR catalyst, controlled by the engine calibration.

Identification of Any Warning that can Occur : Persons around the vehicle may smell ammonia.

Involved Components :

Component Name : Performance Control Data

Component Description : Engine calibration subfile

Component Part Number : 5479938, 5479939, 5479940, 5479941

Component Name : Performance Control Data

Component Description : Engine calibration subfile

Component Part Number : 5431012, 5431013, 5431014, 5431015

Component Name : Performance Control Data

Component Description : Engine calibration subfile

Component Part Number : 5431390, 5431391, 5431392, 5431393

Component Name : Performance Control Data

Component Description : Engine calibration subfile

Component Part Number : 5431440, 5431441, 5431442, 5431443

Component Name : Performance Control Data

Component Description : Engine calibration subfile

Component Part Number : 5431688, 5431692, 5431693, 5431694, 5431695, 5431696

Component Name : Performance Control Data

Component Description : Engine calibration subfile

Component Part Number : 5432082, 5432086, 5432144, 5432145, 5432146, 5432147

Component Name : Performance Control Data

Component Description : Engine calibration subfile

Component Part Number : 5432315, 5432319, 5432329, 5432333, 5432334, 5432335

Component Name : Performance Control Data

Component Description : Engine calibration subfile

Component Part Number : 5432372, 5432376, 5432386, 5432390, 5432391, 5432392

Component Name : Performance Control Data

Component Description : Engine calibration subfile

Component Part Number : 5432517, 5432521, 5432386, 5432390, 5432391, 5432392

Component Name : Performance Control Data

Component Description : Engine calibration subfile

Component Part Number : 5432728, 5432732, 5432742, 5432746, 5432747, 5432748

Component Name : System Control Data

Component Description : Engine calibration subfile

Component Part Number : 5479925, 5430999 5431377, 5431418, 5431689, 5432083, 5432316, 5432373, 5432518, 5432729

Supplier Identification :

Component Manufacturer

Name : N/A

Address : NR

NR

Country : NR

Chronology :

October 2020 – A Cummins engineer noticed that pre-production field test vehicles began experiencing episodes during which tailpipe ammonia levels were elevated.

November 2020 – April 2021 – Cummins investigated the issue on the field test units, including adding additional instrumentation to the field test units and completing analyses to understand ammonia

concentrations and assignable causes of the elevated ammonia. As part of this investigation, calibration improvements were developed to confirm Cummins understanding of the issue and to develop corrective action.

April 26, 2021 – Cummins installed a revised calibration in the field test units and began monitoring, and continues to monitor, the ammonia concentrations with the new calibration.

May 19, 2021 – Cummins completed a Product Safety Hazard Analysis.

June 4, 2021 – Cummins conducted an internal review of the issue.

June 4-21, 2021 – Cummins reviewed the Product Safety Hazard Analysis recommendations and further reviewed the potential safety implications of this condition.

June 22, 2021 – Cummins Product Safety Defect Board decided to conduct a Safety Recall to address this condition. Engine shipments of the suspect engine configuration were stopped.

July 29, 2021 – 573 Report amended to: clarify that both diesel-only and hybrid engine configurations are included; correct total population; identify part numbers; and update purchaser list, remedy and recall schedule.

September 29, 2021 - 573 Report amended to: update remedy availability for the affected diesel-electric hybrid configurations; confirm that all affected diesel-electric hybrid units have been repaired at the OEMs that received them (and thus no owner letters will be issued for those units).

To date, there have been no reports of injury due to this condition.

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 remedy is a new engine calibration.

How Remedy Component Differs from Recalled Component : The new calibration will have a unique part number.

Identify How/When Recall Condition was Corrected in Production : Engine shipments were suspended on June 22, 2021. The new calibration containing the remedy for the diesel-only configuration was released for production on July 22, 2021 and for field availability on July 23, 2021. The remedy calibration for the diesel-electric hybrid configuration was released for production and field availability on August 28, 2021.

Recall Schedule :

Description of Recall Schedule : Cummins has notified affected OEMs. Cummins will conduct the recall and notify owners with OEM agreement. Cummins will publish the Safety Campaign to Distributors and Dealers on July 27, 2021. In any case, Cummins expects to send either interim notifications or letters to owners no later than August 27, 2021, pending consultation with the affected OEMs.

Planned Dealer Notification Date : JUL 27, 2021 - JUL 27, 2021

Planned Owner Notification Date : AUG 27, 2021 - AUG 27, 2021

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 : Gillig Corporation

Address : 451 Discovery Drive
Livermore CA 94551

Country : US

Company Phone : 5102643833

Name : New Flyer Industries
Address : 711 Kernaghan Ave
Winnipeg 00 MB R2C3T4
Country : CA
Company Phone : 2042246707

Name : NOVA Transit Bus
Address : 1000, Industriel Blvd
Saint-Eustache, Quebec 00 J7R 5A5
Country : CA
Company Phone : 4388431428

Name : El Dorado
Address : 9670 Galena Street
Riverside CA 92509
Country : US
Company Phone : 9517279342

Name : Alexander Dennis Inc
Address : 130 Pippin Rd, Unit B
Vaughan, Ontario 00 L4K 4X9
Country : CA
Company Phone : 9735250630

Name : Vanhool, NV
Address : Bernard Van Hoolstraat 58
Lier (Konishgshooikt) 00 BE-2500
Country : BE
Company Phone : 0323422732

* NR - Not Reported