DAIMLER TRUCK
North America

Noncompliance Information Report

(Section 573.6)

FL978

Date of Submission: 6/28/2023 (Amended July 12, 2023)

Manufacturer: Daimler Truck North America LLC
P.O. BOX 3849
Portland, Oregon 97208

Type of Report: ◯ **Safety Defect** X **Non-Compliance**

Vehicle Information

Make	Model	Model Yr. Start	Model Yr. End	Prod. Begin Date	Prod. End Date
Freightliner	eCascadia	2023	2024	2/23/2022	6/22/2023

Descriptive Information and Basis for Determination of Recall Population:

The recall population includes all MY 2023-2024 Freightliner eCascadia electric vehicles. These vehicles were built with an interface between the e-powertrain to the service brakes where the software parameters allow the service brakes to incorrectly estimate the vehicle's mass. Vehicles outside of the recall population do not have an e-powertrain and have the correct software parameters to accurately estimate the vehicle's mass.

Number potentially involved: *332*

Estimated percentage of involved with defect: *100%*

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Defect / Noncompliance Description

For this Defect/Noncompliance:

Describe the defect or noncompliance:

Due to incorrect software parameterization, the interface between the e-powertrain and the service brake system may allow the service brake system to underestimate the vehicle's mass during the mass learning process. If the vehicle's mass is not accurately estimated, this could cause the vehicle's Electronic Stability Control (ESC) system to intervene later than required and/or with insufficient braking force. As such, these vehicles fail to comply with the requirements of Federal Motor Vehicle Safety Standard (FMVSS) number 136, "Electronic stability control systems for heavy vehicles."

Describe the safety risk:

If the ESC system does not perform in accordance with the FMVSS 136 requirements, it may affect the vehicle's ability to maintain control during certain types of braking events where ESC is needed and could lead to an increased risk of a crash.

Description of the Cause: The interface between the e-powertrain and the service brakes was defined based on DTNA diesel applications and was not changed to adapt it to an electric powertrain.

Identify any warning which can precede or occur:

N/A

If applicable, identify the manufacturer of the defective or noncompliant component.:

Involved Components

Component Name: Mass Estimator Parameter
Component Description: Vehicle Mass Estimator
Component Part Number: N/A

Supplier Identification: Daimler Truck North America

Component's country of origin: United States
Business address: 4555 N Channel Ave, Portland, OR 97217
Business Contact Information:
First / Last Name: Sam Geser
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Chronology of Defect / Noncompliance Determination

Provide the chronology of events leading up to the defect decision or test data for the noncompliance decision:

On June 12, 2023, during routine on-road vehicle testing, DTNA observed that the test vehicle was braking too lightly when using adaptive cruise control. On June 14, 2023, DTNA opened an investigation into this issue. The investigation focused on reviewing the vehicle's mass learning function, which includes among other things an estimation of the vehicle's mass, and its impact on braking performance in relation to safety systems. DTNA found that due to incorrect software parameterization, the interface between the e-powertrain and the service brakes was not allowing the service brakes to accurately calculate the vehicle's mass, instead causing it to underestimate the vehicle's mass. DTNA further considered the possible impacts of the parameterization issue, including whether it could affect the ESC system's performance. On June 21st, although DTNA had not reached certainty that the electronic stability control system would function improperly, DTNA's analysis suggested that a vehicle with the incorrect parameterization could brake too late or under brake during the FMVSS 136 J-turn test maneuver. Therefore, out of an abundance of caution, DTNA decided to issue a voluntary non-compliance recall. DTNA has received 0 warranty claims and field reports potentially related to this issue and is not aware of any accidents or injuries potentially related to this issue. On July 12, 2023, DTNA amended its Defect Information Report to correct the production start year due to a typographical error.

Identify the Remedy

Describe the defect/noncompliance remedy program, including the manufacture's plan for reimbursement.

DTNA is preparing the remedy which is currently under development. Once available, the remedy will be performed free of charge by Daimler Truck North America authorized service facilities. Details of the reimbursement plan will be included in the owner's notification letter. Owners are directed to seek reimbursement for pre-recall notification repairs through authorized dealers.

How Remedy Component Differs from Recalled Component :

Remedy software will include correct parameterization for the mass learning function.

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Identify How/When Recall Condition was Corrected in Production: DTNA will introduce software with updated parameterization for the mass learning function on future production e-powertrain vehicles.

Identify the Recall Schedule

Describe the recall schedule for notifications.:
Customer notification will be made by first class mail using Daimler Trucks North America records to determine the customers affected.

Planned Dealer Notification Begin Date: 8/26/2023
Planned Dealer Notification End Date: 8/26/2023
Planned Owner Notification Begin Date: 8/26/2023
Planned Owner Notification End Date: 8/26/2023

Does DTNA plan to file inconsequentiality petition? ◯ **Yes** X **No**

Manufacturer's identification code for this recall (if applicable): FL978

DTNA Representative;
Sam Geser

Sam Geser
Manager, Compliance and Regulatory Affairs