

Defect Information Report

(Section 573.6)

FL851

Date of Submission: March 28, 2023

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

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

Vehicle Information

Model Yr. Start: 2020 **Model Yr. End:** 2021

Make: Freightliner

Model: Cascadia

Production Dates: **Begin:** 01/16/2019 **End:** 03/27/2020

Type: Truck/Tractor

Descriptive Information:

On the affected vehicles, during certain Advanced Brake Assist (ABA) events that have progressed to require a full emergency brake application to avoid a collision, the hazard warning lights may activate automatically in the moments immediately before the vehicle comes to a complete stop, and flashes at a rate of 140 flashes per min.

Number potentially involved: 24,282 **Estimated percentage of involve with defect:** 100%

Defect Description

Describe the defect:

On the affected vehicles, during certain Advanced Brake Assist (ABA) events that have progressed to require a full emergency brake application to avoid a collision, the hazard warning lights may activate automatically in the moments immediately before the vehicle comes to a complete stop and flashes at a rate of 140 flashes per min. FMVSS 108, requires the hazard warning signal lights to be driver controlled and flashing rate to be between 60-120 flashes per min and that the activation of the hazard warning operating unit be "driver controlled."

If a noncompliance, provide the applicable FMVSS: FMVSS 108

Describe the safety risk:

Certain Freightliner Cascadias with DTNA's ABA system will automatically activate the hazard lamps if the vehicle's safety system engages in extreme evasive braking, which can increase the risk of a crash for other road users. NHTSA considers the automatic hazard activation in these circumstances, as well as the flash rate at which the hazard lamps' flash rate, noncompliance under FMVSS 108 Lamps, reflective devices, and associated equipment.

Identify any warning, which can precede or occur: ABA events which progress to a full emergency braking stage occurs only after multiple warnings to the driver including auditory and visual warnings, haptic braking which involves partial braking along with auditory and visual warnings.

If applicable, identify the manufacture of the defective or noncompliant component: Hazard and Turn Signal Lighting parameters during Active Brake Assist (ABA)

Involved Components

Component Name: Detroit Assurance 5.0

Component Description: Advanced Drivers Assistance System (ADAS)

Component Part Number: NA

Supplier Identification: DTNA

Component Manufacturer: DTNA

Chronology of Noncompliance Determination

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

February 2020, DTNA began an investigation to review all its features related to ABA events as part of a study to develop systems for new trucks. During this study, it was identified that certain features may need further review to ensure the current product met the provisions of FMVSS 108. March 2020 through April 2020, Product Validation conducted tests on certain vehicles to identify any potential non-compliance, and an extensive engineering investigation was undertaken to understand all the features of ABA and how they interact together. During this study, it was identified that in certain situations the hazard warning signals flash at a rate of 140 flashes per min. An in-depth review of NHTSA regulations and interpretations related to this issue indicated a potential non-compliance with the flash rate provisions. May 6, 2020, DTNA determined that a non-compliance existed as to the flash rate for the hazard warning lamps and decided to file a Part 573 non-compliance information report and petition for exemption from the notice and remedy provisions of the Safety Act for this issue. DTNA

believed that this non-compliance was inconsequential as it relates to motor vehicle safety, as the occurrence is extremely rare, for a very short duration and does not contribute to confusion or distraction for other motorists. DTNA also recognized that the hazards automatically flash in severe brake events but deemed this not a non-compliance, nor an issue that needed NHTSA approval, based upon the permission granted to GM in essentially similar situations.

June 4, 2020, DTNA filed a petition for exemption from notification and remedy provisions of motor vehicle safety act for non-compliance with FMVSS no. 108, lamps, reflective devices and associated equipment. Between early June 2020 to Late July 2020, DTNA communicated with NHTSA, at the agency's request, regarding DTNA's non-compliance information report and inconsequentiality petition. DTNA made several verbal updates, presentations and provided evidence and data to support the inconsequentiality petition pertaining to hazard warning signals flashing at 140 flashes per min during certain ABA events that involves full braking. July 13, 2020, upon NHTSA's request, DTNA amended the inconsequentiality petition to include FMVSS S14.9.3.9.3 – flasher performance requirements as an additional non-compliance basis. Between late August 2021 to late December 2021, DTNA again reviewed the inconsequentiality petition with NHTSA at the agency's request, culminating in an amendment to the Part 573 non-compliance information report and petition for exemption.

On March 20, 2023, DTNA received notice of denial of the inconsequentiality petition for noncompliance. Therefore, out of abundance of caution, and per the requirements of Motor Vehicle Safety Act, DTNA submitted a new Part 573 report in light of the agency's response.

Identify the Remedy

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

On the affected vehicles, parameters controlling the enablement of hazards flashing automatically at a faster frequency during an ABA Emergency Braking Event will be disabled. Customer notification will be done by first class mail using Daimler Truck North America records to determine the customers affected. Repairs 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 through authorized dealers.

Identify the Recall Schedule

Describe the recall schedule for notifications:

Customer notification will be made by first class mail using Daimler Truck North America records to determine the customers affected.

Planned Dealer Notification Begin Date:

05/19/2023

Planned Dealer Notification End Date: 05/19/2023
Planned Owner Notification Begin Date: 05/19/2023
Planned Owner Notification End Date: 05/19/2023

Manufacture's identification code for this recall (if applicable): FL851

DTNA Representative;

Sam Geser

Sam Geser
Manager, Compliance and Regulatory Affairs