

Defect Information Report

(Section 573.6)

FL966

Date of Submission: February 15, 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: 2017 **Model Yr. End:** 2023

Make: Freightliner, Western Star

Model: Cascadia, 49X, 47X, 114SD

Production Dates: **Begin:** 06/28/2016 **End:** 03/29/2022

Type: Truck/Tractor

Descriptive Information:

Vehicles equipped with system-initiated brake features of Roll Stability Control and Electronic Stability Control, but not equipped with Adaptive Cruise Control (ACC) are recalled for a risk that valve corrosion could cause a sudden brake pull.

Number potentially involved: 70,375 **Estimated percentage of involve with defect:**
0.1%

Defect Description

Describe the defect:

On certain vehicles, chemical corrosion could affect the functionality of the brake modulator valve, which during an external braking event (including Roll Stability Control or Electronic Stability Control, but not including driver-initiated braking) may result in full system pressure applied to one front wheel end causing a brake pull differential in braking force. Regular service brakes are unaffected.

If a noncompliance, provide the applicable FMVSS: N/A

Describe the safety risk:

A full system pressure applied to one front wheel end could lead to a brake pull resulting in a sudden change in vehicle direction due to uneven system braking on the front axle increasing the risk of a motor vehicle crash.

Identify any warning, which can precede or occur: Drivers may observe an ABS malfunction light prior to complete chemical corrosion contamination of the modulator valve.

If applicable, identify the manufacture of the defective or noncompliant component: Brake Modulator System

Involved Components

Component Name: Single ABS Modulator Valve

Component Description: Quick Release Pneumatic Valve

Component Part Number: WAB472 196 037 0, WAB472 196 025 0

Supplier Identification:

ZF Group

12001 Tech Center Drive

Livonia, MI, 48150 USA

Scott Paxton

Director, Regulatory Legal Counsel

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Component Manufacturer: ZF Group

Chronology of Noncompliance Determination

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

Starting in or around September 2022, based upon information gleaned from a different population of vehicles (those equipped with ACC), DTNA investigated whether non-ACC-equipped vehicles could have similar brake pull events. Initial indications, testing, and engineering judgment were that they would not. However in late October 2022, DTNA received a first indication from a driver that a vehicle in this population of vehicles suffered a brake pull. This conflicted DTNA's indication that this population would not be affected by brake

pulls, so in late October 2022, DTNA expanded its investigation, including interviewing drivers and running further tests.

On February 6 2023, DTNA received the first corroboration, a test result under controlled conditions, indicating a possibility of a sudden unexpected brake pull during rare conditions within ESC and RSC events, depending on a number of other factors including environment, speed, driving conditions, and level of valve blockage.

Despite the fact that DTNA has no evidence of field events other than the one driver in October 2022 asserting it happened, and despite the fact that the brake pull differential was not determined to the same degree as was reported during an ACC event, on February 6, 2023, out of abundance of caution, DTNA decided to initiate a new voluntary safety recall to campaign all vehicles equipped with painted and unpainted front brake modulator valves, covering the separate population that are not equipped with ACC.

Identify the Remedy

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

Affected vehicles will receive two front anodized modulator valves (one each for the left and right). Repairs will be released in phases based on locations of the vehicle and repairs will be performed by Daimler Trucks North America authorized service facilities. Customer notification will be done by first class mail using Daimler Trucks North America records to determine the customers affected. Daimler Truck North America shall be offering a refund for owner-paid repairs covered by this recall if the repair was performed prior to the date indicated in the reimbursement plan, which will be posted with owner's notification letter. Owners are directed to seek reimbursement through authorized deal.

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: 04/10/2023

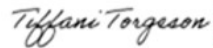
Planned Dealer Notification End Date: 04/10/2023

Planned Owner Notification Begin Date: 04/10/2023

Planned Owner Notification End Date: 04/10/2023

Manufacture's identification code for this recall (if applicable): FL966

DTNA Representative;



Tiffani Torgeson
Manager, Compliance and Regulatory Affairs