

Part 573 Safety Recall Report

20V-090

Manufacturer Name : Mercedes-Benz USA, LLC.

Submission Date : MAR 30, 2020

NHTSA Recall No. : 20V-090

Manufacturer Recall No. : NR



Manufacturer Information :

Manufacturer Name : Mercedes-Benz USA, LLC.

Address : 13470 International Parkway
Jacksonville FL 32218

Company phone : 1-877-496-3691

Population :

Number of potentially involved : 6,517

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2019-2020 Mercedes-Benz G550 4MATIC

Vehicle Type : LIGHT VEHICLES

Body Style : SUV

Power Train : GAS

Descriptive Information : 463.261 YC6B 3557 Vehicles

The recall population was determined through production records. Vehicles outside of the affected vehicle population have the differential locking modules equipped with electrical resistors resistant to sulfur fumes.

Production Dates : JUN 11, 2018 - SEP 26, 2019

VIN Range 1 : Begin :

NR

End : NR

Not sequential

Vehicle 2 : 2019-2020 Mercedes-Benz G63 AMG 4MATIC

Vehicle Type : LIGHT VEHICLES

Body Style : SUV

Power Train : GAS

Descriptive Information : 463.277 YC7H 2960 Vehicles.

The recall population was determined through production records. Vehicles outside of the affected vehicle population have the differential locking modules equipped with electrical resistors resistant to sulfur fumes.

Production Dates : JUN 11, 2018 - SEP 26, 2019

VIN Range 1 : Begin :

NR

End : NR

Not sequential

Description of Defect :

Description of the Defect : Mercedes-Benz AG ("MBAG"), the manufacturer of Mercedes-Benz vehicles, has determined that on certain Model Year ("MY") 2019-2020 G-Class vehicles (463 platform), the control unit of the differential locking module might not meet current production specifications. The electrical contact of a specific resistor might be impaired due to sulfur fumes originating from the axle oil.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : If the resistor is impaired, the electrical currents calculated with this resistor would have a higher value than in fact exists. In consequence, the communication between the control unit and the locking actuator will be shut down. In this case, the differential locking status could not be reliably determined. According to the specified system strategy for locked differentials, both ESP and ABS systems would be deactivated. This could increase the risk of a crash under certain operating conditions.

Description of the Cause : Due to a development deviation at a supplier, for a certain batch of electrical resistors the requirements for chemical resistance might not have been taken into account.

Identification of Any Warning that can Occur : The customer will be made aware of the issue by an ABS and ESP message in the instrument cluster.

Involved Components :

Component Name 1 : NR

Component Description : NR

Component Part Number : NR

Supplier Identification :**Component Manufacturer**

Name : Tollo Linear AB

Address : Estrids väg 10
Kristianstad FOREIGN STATES 29109

Country : Sweden

Chronology :

In July 2018, MBAG launched an initial investigation based on isolated cases of field reports from various markets where customers reported receiving an in-vehicle message about a malfunction with the locking mechanism of the rear differential. MBAG requested that parts from affected vehicles be returned for further analysis. MBAG's analysis continued through the end of 2018 and into 2019 and involved an analysis of the performance of a variety of different components of the differential locking systems. In April 2019, MBAG's analysis began to focus in on the operation of a specific resistor within the differential system. The analysis eventually found that sulfur from the axle oil was impacting the performance of an electrical contact in the resistor and MBAG began to analyze the effects of an affected resistor. It was found that if a resistor were impacted, communication between the differential control unit and the differential locking actuator would be interrupted. The differential control unit would interpret the differential as being in a "locked" condition and ABS and ESP functions would be deactivated. The deactivation of these systems is consistent with the strategy for a locked differential and is a protective measure. It was also found that if the condition occurred at low speeds, as was consistent with most reports from the field at the time, the vehicle could be stopped safely and braking performance was not affected. Subsequently, in December 2019, MBAG analyzed the effects of the condition at higher rates of speed. While field data indicates less than 2% of the reports occurred at higher operating conditions, on February 7, 2020, decided to conduct a recall to address the condition.

Description of Remedy :

Description of Remedy Program : An authorized Mercedes-Benz dealer will check the differential locking modules on the affected vehicles and replace them, if necessary.

Pursuant to 49 C.F.R. § 577.11(e), MBUSA does not plan to provide notice about pre-notice reimbursement to owners since none of the involved vehicles would have been previously subject to the condition described and all remain covered under the new vehicle warranty.

How Remedy Component Differs from Recalled Component : Differential locking modules equipped with electrical resistors resistant to sulfur fumes.

A4639064602 TS Aktuator VA
A4639065502 TS Aktuator HA

Identify How/When Recall Condition was Corrected in Production : A change in the development process of our supplier ensures that this issue can no longer occur from October 9, 2019 onwards.

Recall Schedule :

Description of Recall Schedule : Dealers will be notified of the pending voluntary recall campaign on February 21, 2020. Owners notified of the voluntary recall campaign by an interim letter on March 27, 2020. A copy of all communications will be provided when available.

Planned Dealer Notification Date : FEB 21, 2020 - NR

Planned Owner Notification Date : MAR 27, 2020 - NR

* NR - Not Reported