

# Part 573 Safety Recall Report

# 24V-331

**Manufacturer Name :** Mercedes-Benz USA, LLC**Submission Date :** MAY 10, 2024**NHTSA Recall No. :** 24V-331**Manufacturer Recall No. :** 2024MMNNNN**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 : 283

Estimated percentage with defect : 100 %

**Vehicle Information :**

Vehicle 1 : 2022-2022 Mercedes-Benz EQB 300

Vehicle Type : LIGHT VEHICLES

Body Style : SUV

Power Train : NR

**Descriptive Information :** Mercedes-Benz 2022 EQB 300 183 Vehicles. The recall population was determined through production records.

For vehicles outside of the recall population, the welded spur gear within the front axle electric drivetrain meet current production specifications.

Production Dates : FEB 18, 2022 - JAN 23, 2023

VIN Range 1 : Begin :

NR

End : NR

 Not sequential

Vehicle 2 : 2022-2022 Mercedes-Benz EQB 350

Vehicle Type : LIGHT VEHICLES

Body Style : SUV

Power Train : NR

**Descriptive Information :** Mercedes-Benz 2022 EQB 350 100 Vehicles. The recall population was determined through production records.

For vehicles outside of the recall population, the welded spur gear within the front axle electric drivetrain meet current production specifications.

Production Dates : FEB 18, 2022 - JAN 23, 2023

VIN Range 1 : Begin :

NR

End : NR

 Not sequential

## Description of Noncompliance :

Description of the Noncompliance : Mercedes-Benz AG ("MBAG"), the manufacturer of Mercedes-Benz vehicles, has determined that on certain Model Year ("MY") 2022 EQB (243 platform) 4MATIC vehicles, the welded spur gear within the front axle electric drivetrain might not meet current production specifications.

FMVSS 1 : 114 - Theft protection

FMVSS 2 : NR

Description of the Safety Risk : In this case, the weld might fail, which would allow the differential spur gear to rotate freely from the differential assembly within the front axle electric drivetrain. As a result, the park pawl located in the front drivetrain might not function as specified.

If the parking brake is engaged, the vehicle will remain stationary even if the park pawl malfunctions. The parking brake is automatically activated by switching off the vehicle or opening the driver-side door.

In the event of a weld failure, when the parking brake or service brake are not engaged, the vehicle might not be secured against rollaway even if the gear selector is in the "Park" position, thus increasing the risk of a crash.

Description of the Cause : Due to a production deviation at a supplier, the cast material of the spur gear within the electric drivetrain might not meet the specified material requirements.

Identification of Any Warning that can Occur : Before the issue occurs, the driver will not receive a warning due to the nature of the failure mechanism.

When the issue occurs, the driver might notice loud and clearly perceptible rattling noises during driving or while changing gears.

## Involved Components :

Component Name 1 : Front Axle Electric Drive Train

Component Description : Front Axle Electric Drive Train

Component Part Number : A2433400302

## Supplier Identification :

### Component Manufacturer

Name : ZF Group Electrified Powertrain Technolo

Address : Röntgenstraße 6  
Schweinfurt Foreign States 97424  
Country : Germany

## Chronology :

In June 2022, MBAG launched investigations based on individual field reports from outside the US describing instances of noises or vibrations related to the electric drivetrain. In the course of the analysis, it was determined that in the subject cases the weld on the spur gear within the electric drivetrain was broken due to excessive material hardness.

In parallel, potential consequences were evaluated. Those analyses determined loss of vehicle propulsion can be ruled out, as propulsion would still be maintained by the separate rear axle electric drivetrain, which is not affected by loss of front drivetrain function. This evaluation did not identify a safety concern or FMVSS non-compliance.

In November 2023, MBAG's ongoing evaluation and field monitoring identified the possibility that in certain vehicles, a park pawl malfunction could be associated with a potential weld failure. Therefore, MBAG conducted further investigation and analysis to determine whether such a park pawl malfunction might occur, potential safety consequences, and which vehicles might be affected.

On May 3, 2024, MBAG determined that the potential parking pawl malfunction constitutes a non-compliance with FMVSS 114, requiring a recall.

MBAG is currently aware of 5 warranty claims/field reports/service reports received on September 9, 2022, September 13, 2022, October 10, 2022, October 20, 2022, and November 10, 2022. MBAG is not aware of any reports of property damage, fatalities, crashes, or injury related to this FMVSS non-compliance.

## Description of Remedy :

Description of Remedy Program : An authorized Mercedes-Benz dealership will replace the front axle electric drivetrain on the affected vehicles.

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 : The welded spur gear within the front axle electric drivetrain are according to current production specifications.  
Front Axle Electric Drive Train: A2433408902

Identify How/When Recall Condition was Corrected in Production : A change in the production procedure of our supplier ensures that this issue can no longer occur from January 24, 2023 onwards.

**Recall Schedule :**

Description of Recall Schedule : Dealers will be notified of the pending voluntary recall campaign on May 17, 2024. Owners will be notified of the voluntary recall campaign before July 9, 2024. A copy of all communications will be provided when available.

Planned Dealer Notification Date : MAY 17, 2024 - NR

Planned Owner Notification Date : JUL 09, 2024 - NR

\* NR - Not Reported