

Mercedes-Benz Part 573 Submission

Report Submitted to Portal February 24, 2025

Chronology-Only section

**Chronology of Defect/Noncompliance Determination Supplement for ODI 25-00855-32444-10**

By the end of 2023, MBAG became aware of individual reports regarding a potential issue with a front brake hose. Initial parts retrieved from the field were sent to the supplier for quality analysis. In parallel, MBAG initiated preliminary testing on front axle brake hoses using a set of test vehicles to reassess their durability. At this time external influences were suspected to cause the damage.

In February 2024, additional parts retrieved following further field complaints were sent to the supplier to examine for potential material defects. Additionally, the supplier's production process was analyzed for possible deviations. Endurance testing was also conducted on the supplier's test bench, including static pressure and robotic simulation testing. At this time, two individual warranty reports from the US related to this issue were identified. Discussions with the supplier continued until June 2024 to further evaluate the existence of any potential deviations. Although no deviations were identified, in August 2024 MBAG conducted further extensive testing on the brake hoses to reassess their durability. These tests demonstrated that the hoses could withstand up to ten times the stresses encountered during normal driving conditions. During September and October 2024, MBAG, in collaboration with its supplier, extended the testing to include climatic influences. This was done by incorporating pre-aging of the brake hoses at different temperature levels into the testing. However, no damage at the standard pressure level in vehicle applications could be replicated.

In November 2024, the vehicle production process in Germany was thoroughly examined for any deviations that might have affected the integrity of the front brake hoses.

To further evaluate the potential dynamic effects and possible safety-related implications of an impaired brake circuit, a driving test was conducted in mid-January 2025 with several vehicles replicating a worst-case scenario where one brake circuit completely fails. The results from the driving tests were discussed and evaluated in early February 2025. In parallel, MBAG re-examined with the supplier whether any deviations in the material, including pre-material, or the production process had been identified since the earlier analysis. No such deviations were identified. Due to the field observations indicating a potential climatic influence, combined with the results from the temperature level testing, a scope of affected vehicles based on region-specific climates was established. Additionally, analysis of field data indicated that a specific production period was relevant. On February 14, 2025, MBAG determined that a potential safety risk cannot be ruled out and decided to conduct a voluntary recall.

MBAG is currently aware of 7 warranty claims and 1 field report received on 12/01/2023, 05/09/2024, 06/10/2024, 07/18/2024, 08/14/2024, 10/28/2024, 12/09/2024, 12/23/2024, and 01/07/2025. MBAG is not aware of any cases of crash, injury or property damage related to this defect worldwide.