

Mercedes-Benz Part 573 Submission  
Original Submitted to Portal July 6, 2020  
Chronology-Only section  
Supplement to Original Submission

### **Chronology of Defect/Noncompliance Determination**

In February 2018, MBAG started initial investigations based on findings during testing of the AMG GT model. These investigations indicated that the ESP System might not have been adapted for the different brake types as required. The ESP Software was reviewed and corrected. In the course of this software review it was identified that the failure mode system for a failure of the brake negative pressure supply might not have been implemented into the software as intended. An updated software was introduced, and produced vehicles were updated in the production plant or the respective Vehicle Preparation Centers prior to sale.

In July 2019, MBAG was informed by the supplier about findings in a test where the ESP System did not perform as intended. Further analysis was started together with the supplier. This analysis showed that the software integrated yaw rate sensor diagnosis might not be active in all situations. Additional analyses were initiated to determine the limits of the yaw rate sensor diagnosis. It was found that a potential yaw rate sensor drift might not be recognized in a key cycle, if a regulating ESP Based on this, investigations were started to identify potential effects of an unidentified yaw rate sensor drift. The investigations indicated that in the event of an unidentified yaw rate sensor drift, an ESP intervention might not correspond to the current driving situation. In addition, analyses regarding the probability of a simultaneous regulating ESP intervention during the yaw rate sensor diagnosis were started. These analyses showed, that due to the short time span of the sensor diagnosis run, this simultaneous event would be very unlikely, but could not be completely ruled out.

In parallel, the range of potentially affected vehicles was analyzed based on the ESP-software version. During this analysis, certain vehicles were identified that might not have received the aforementioned ESP software update in 2018 regarding the brake type adaptation and failure mode for the brake negative pressure supply system.

On June 26, 2020, MBAG decided to conduct a recall to address these issues. No field complaints have been identified regarding either issue.