

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

In October 2018, MBAG received complaints about securely latched seat belt buckles not being identified as such. Parts which had been retrieved from the field were reassembled into test vehicles, and MBAG was able to duplicate the complaint. The topic was communicated back to the supplier, who quickly installed a 100% End-of-Line check within their production process. A root cause for the complaint could not be identified at this point, and a taskforce was created to thoroughly analyze the issue. The analysis indicated that the geometrical dimensions of the sub-components of the seat belt buckle apparently had an impact on the described issue. MBAG and the supplier developed a check process and tool to validate this hypothesis. Through numerous tests on actual seat belt buckles, the analysis revealed that the failure could occur with seat belt buckle housings from one specific sub-supplier, if the latch plate was intentionally inserted in a skewed orientation into the buckle. In late August 2019, MBAG was made aware of two VOQs that reported issues similar to the topic being investigated and similar to the issue underlying a prior recall (18V-839). MBAG explained to NHTSA at that time that the issues were distinct and attributable to components. MBAG advised NHTSA that its review of the issue, including vehicle scope, was ongoing. MBAG was able to confirm at that time that if the latch plate was originally inserted properly into the housing, it would remain properly inserted and would not later inadvertently un-latch. Ultimately, unfavorable tolerances between seat belt buckle housing of this specific sub-supplier and the belt buckle were identified as the root cause of the issue. As no significant process changes at the sub-supplier's manufacturing process could be determined, internal vehicles from various production ranges were analyzed in combination with relevant warranty data to gain knowledge about the potentially affected vehicle population.

In parallel, production audits were conducted at the sub-supplier which revealed that a tool showing excessive abrasion had been used for a specific period of time. Based on these conclusions, the affected vehicle population was determined.

In October 2019, MBAG determined that a potential safety risk cannot be ruled out.