

RECALL 195 ATTACHMENT A

CHRONOLOGY OF EVENTS LEADING UP TO DEFECT DECISION

- July 2019

HMA received a report involving a 2019 Hyundai Tucson that allegedly caught fire while driving. The customer alleged a technician believed that the fire may have come from the ABS module. Hyundai was able to inspect the vehicle and recover the ABS module for further investigation by HMC and the supplier. Initial feedback from HMC and the supplier indicated the root cause could not be determined and it was possible that the fire was started by another source within the engine compartment. HMA initiated active monitoring of incoming claims on 2019-2021 Hyundai Tucson vehicles and 100% incident part recovery.
- July 2019 – December 2019

HMA continued active monitoring of new incidents and recovery of all incident parts for analysis. During this time, four (4) incident parts were collected and sent to HMC. HMC and Mando inspected all incident parts received but an approximate failure mechanism or root cause could not be determined.
- January 2020 – July 2020

HMA enlisted a third-party test laboratory to assist with analysis and testing of incident parts for the purposes of identifying an ABS module failure mechanism and relative root cause. During this time, nine (9) incident ABS modules were sent to the laboratory. Through disassembly and examination of internal components, the test laboratory observed evidence of an electrical resistance short caused by corrosion on the ABS module ECU's printed circuit board ("PCB"). Spectrum analysis of the corrosion residue revealed traces of copper, silicon, and tin elements. The test laboratory deduced that the residue could have been created by a corrosive reaction between byproducts of the reflow solder, containing tin, and various copper and silicon-based elements on the PCB, resulting in an electrical short. Further replication testing confirmed propagation of an electrical fire caused by this short.
- May 2020 – August 2020

From May through August the test laboratory reviewed its findings with HMA's NASO.–Based on the information received, HMA's NASO convened its North American Technical Committee on August 28, 2020 and decided to conduct a safety recall of affected vehicles in the U.S. market.
- To date, Hyundai is aware of twelve (12) engine compartment fires related to this defect. Hyundai is aware of 9 fires in model year 2019 vehicles, 2 fires in 2020 model years and a single fire in a 2021 model.