

573 Defect Information Report for Recall 188

Attachment A

Chronology of events leading up to the defect decision:

- In October 2017, Hyundai Motor America (“HMA”) received a claim alleging an engine compartment fire on a 2007 Hyundai Elantra vehicle. HMA inspected the vehicle and confirmed damage consistent with an engine compartment fire. The source of the ignition could not be determined due to the extent of the damage; however, various fuses related to the ABS module were found open indicating the possibility of an internal short. HMA requested the ABS module to be recovered for further analysis. HMA conducted a search of all field information and discovered two additional reports of engine compartment fires on Elantra vehicles. The ABS modules from these incidents were also requested for analysis.
- By November 2017, HMA received two of the three known incident parts. A Quality Information Request (“QIR”) was issued by HMA to HMC requesting an analysis of the recovered incident parts for any signs of electrical shorting due to brake fluid or moisture contamination.
- In March 2018, HMA received HMC’s recovered parts analysis result. In their analysis, HMC concluded that moisture ingress analysis could not be performed due to the extent of heat damage to the ABS module components. HMC requested additional recovery parts for further analysis.
- From April 2018 to August 2018, HMA continued monitoring incidents in the field. Due to the low rate of vehicle fires and warranty part returns, HMA initiated random recovery of in-use ABS modules for inspection of any precursory signs of moisture ingress or electrical shorting. Four additional ABS modules were recovered and sent to HMC for analysis. HMA received HMC’s analysis result in late August 2018. In their analysis, HMC reported that all parts were free of any signs of moisture ingress or electrical shorting.
- From September 2018 to February 2019, HMA continued monitoring incidents in the field and requesting 100% of incident parts for analysis by HMC. During this time, one additional incident part was recovered by HMA and sent to HMC.
- In March 2019, HMC decided to conduct an in-person field survey of both incident and in-use vehicles in the U.S. market due to the low number of available recovery parts to investigate potential root cause(s). A total of eleven vehicles (one incident vehicle and ten in-use vehicles) were surveyed, however, no signs of moisture were found in any of the ABS modules.
- From April 2019 to December 2019, HMC continued to investigate warranty part returns from both the U.S. and domestic markets. In their analysis, HMC observed various part conditions that could potentially lead to moisture ingress into the electrical circuit of the ABS module such as insufficient diagnostic connector fastening, cracked PCB covers, damaged connectors, and mismatched

573 Defect Information Report for Recall 188

Attachment A

OEM/aftermarket sub-components; however, no discernible trend relating to a design or manufacturing defect could be found. Despite being unable to identify a consistent mechanism for moisture intrusion, HMC recommended addressing the condition by depowering the ABS module during the ignition OFF state, similar to prior recall 172. Based on this information, on January 28, 2020, HMA convened its Technical Committee and decided to conduct a safety recall in the U.S. market to address the condition in all affected vehicles.

- To date, Hyundai is unaware of any injuries related to this condition.