

Attachment to Transaction ID: 19-00502-23745-10 (Original Report)

Ford Identification Code: 19S52

Chronology of Defect / Noncompliance Determination

Provide the chronology of events leading up to the defect decision or test data for the noncompliance decision.

September 2018

A field service action was approved for F-150 vehicles (NHTSA ID #18V568) to address the potential for pretensioner related post-crash interior fires in the B-pillar area on certain 2015 - 2018 model year F-150 vehicles. Extensive investigation had found the potential for an interaction between sparks and exhaust gases generated during pretensioner deployment. This could result in momentary combustion, and in some cases, ignition of material in the B-pillar area of those vehicles. Factors on F-150 included carpet and carpet insulation (shoddy) material type, carpet proximity to the pretensioners, carpet/insulation edge characteristics, and other combustible material in the area. At the time of the recall, Ford was aware of 17 reports of smoke or fire on F-150 vehicles in the U.S and zero reports on Super Duty vehicles.

Ford also investigated whether similar conditions potentially existed on Super Duty vehicles. Super Duty carpet and carpet insulation (shoddy) material construction included two key differences: a natural frame-retardant wool fiber blend, and a compressed finished edge much less susceptible to fire ignition. Review also found no other combustible material in the area, in contrast with F-150. These characteristics, combined with no related field reports, led to a conclusion that Super Duty did not present a similar risk.

October-November 2019

NHTSA notified Ford that it received a report of a localized post-crash interior fire in a 2019 F-250 Crew Cab vehicle. The fire was reported in the B-pillar area after a crash event with deployed seat belt retractor and lap anchor pretensioners. Ford and NHTSA jointly inspected the vehicle, and Ford retrieved parts from the vehicle for further analysis. Following the vehicle inspection, foil tape was added to the carpet and carpet insulation edge profile on production vehicles while Ford's investigation continued.

A comprehensive series of tests was developed, including nearly 300 vehicle level tests, to evaluate system interactions during pretensioner deployment and production component variability. During a small number of these tests, Ford observed interaction between pretensioner deployment sparks and exhaust gasses, resulting in momentary combustion and ignition of carpet material in the area. Inspection of parts associated with these tests found variability in the carpet edge profile causing some carpet assemblies to be more susceptible to ignition in the presence of momentary exhaust gas combustion.

On December 4, 2019, Ford's Field Review Committee reviewed the concern and approved a field action.

As of December 4, 2019, Ford is not aware of any additional reports of fire, and no reports of accident or injury related to this condition.