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Ford Recall 22C13

Chronology of Defect / Noncompliance Determination

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

On April 20, 2022, Ford Chicago Assembly Plant (CAP) began to experience an intermittent bolt strip-out condition when securing the front subframe to the front apron assembly (left-hand and right-hand). CAP notified the Tier 1 apron assembly supplier Autokinton Global Group (AGG) and Ford Supplier Technical Assistance (STA) for help defining root cause. Sub-tier supplier analysis of the engine rail sub-assemblies concluded that the mechanical properties did not meet the design intent yield strength requirement of ≥ 260 MPa (Actual is 58 MPa). Sub-tier supplier records indicate 656 engine rail sub-assemblies were sent out for an unapproved repair procedure (thermal e-coat stripping) which annealed the material, degrading the mechanical properties. 367 of these 656 suspect rails were used to produce apron assemblies at the Tier 1 supplier AGG and 137 suspect aprons were shipped to CAP as early as April 4, 2022. CAP issued a Stop Ship on April 28, 2022. CAP began inspecting over 5000 vehicles in their yard for engine rail hardness.

On May 10, 2022, STA introduced this concern into the Ford Critical Concern Review Group (CCRG) meeting and the CCRG opened a formal investigation into this matter. CAP continued to inspect vehicles in their yard for engine rail hardness. The yard inspection identified 60 "out-of-spec" engine rails, leaving 77 suspect engine rails unaccounted for. CAP discovered that an unknown quantity of suspect engine rails may have scrapped by the CAP Body Shop without documentation and these parts were not available for inspection.

As of June 13, 2022, 77 suspect engine rails had not been found during the vehicle inspection and may have been built into vehicles that were shipped to dealers. Investigation into the affected vehicle population led Engineering to conduct a statistical analysis on the CAP torque data for all bolts attached to the engine rail. Analysis of three engine rail ground strap bolts was used to identify vehicles which may have been built with these 77 suspect engine rails.

CAP build clean date is May 4, 2022.

There have been no field reports related to engine rail assemblies on 2022 Explorer or Aviator vehicles.

On June 17, 2022, Ford's Field Review Committee reviewed the concern and approved a field action.

Ford is not aware of any reports of accident or injury related to this condition.

August 2, 2022 Update: Ford revised the affected population and the owner notification dates for parts availability.

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