

Chronology of Defect / Noncompliance Determination

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

Ford previously approved actions (19S17, 17G01, 16S18) to upgrade the rear toe link on Explorer vehicles based on reports of “inboard” side fractures of the original toe link design. Analysis had found that toe link fractures inboard of the turnbuckle could occur due to reverse bending fatigue under high stress conditions during full rear suspension articulation (jounce and rebound.) The remedy for those vehicles involved replacement of the welded toe link with a new toe link that is forged on the inboard side and welded on the outboard side.

November 2019 – June 2020: Ford received 1 report of rear toe link fracture in the U.S. after completion of the above recall. Ford received 5 reports of rear toe link fracture in Canada on vehicles that completed a similar recall issued in 2017. Investigation of parts removed from these vehicles indicated that aftermarket parts (bushings) had been installed in the rear suspension knuckle in place of the original CABJ. Ford advises its dealers to replace the entire knuckle if repair is needed. Our engineering analysis indicated that these aftermarket bushings had prematurely seized or had a very high torque, increasing stress on the toe link. Ford shared and discussed this information with NHTSA and Transport Canada.

August – September 2020: On August 27th, a new issue regarding reports of rear toe link fracture after completion of the above referenced safety recall remedy was brought to Ford’s CCRG for review. Reports of “outboard side” fracture of the toe link after completion of the recall repair had previously been investigated and found to relate to improper use of aftermarket components. However, Ford’s ongoing monitoring and investigation of field data subsequently identified reports that appeared to involve “outboard side” fracture of a toe link that had been properly replaced.

Numerous efforts were undertaken to understand these reports, including retrieval and inspection of toe links and attaching hardware from complaint vehicles, laboratory analyses of select parts, and driver interviews. Ford also communicated regularly with the agency regarding reports received by the agency and the status of Ford’s investigation.

October 2020: As of October 27, 2020, Ford has received 12 reports (in addition to 8 VOQs received by the agency) of “outboard side” fracture of the replacement forged toe link on 2013-2017 model year vehicles in the U.S., with 10 accident allegations and 4 allegations of injury. In Canada, Ford is aware of 15 reports, with 3 allegations of accident and 2 allegations of injury on the subject vehicles. Preliminary evaluation of parts obtained from these vehicles has found evidence of a corroded and seized cross-axis ball joint (CABJ). The CABJ was introduced on 2013 model year Explorer vehicles and attaches the outboard portion of the toe link to the rear knuckle. All the reports received by Ford and the agency involve vehicles equipped with a CABJ and involve vehicles from or in traditional corrosion states. Ford is not aware of any reports of post-recall fractures in non-corrosion areas in the U.S. and Canada. Similarly, Ford is unaware of any reports occurring in areas outside the U.S. and Canada.

Although Ford has not concluded its investigation into this subject, Ford is undertaking this safety recall at this time to address the risk of a seized CABJ on 2013-2017 model year vehicles in North American corrosion areas that have already been remedied under prior actions. This action will provide for a torque inspection of the CABJ and replacement of the CABJ/knuckle if necessary.

For any 2013-2017 MY vehicles not yet remedied under the prior actions, the repair procedure for those actions will be updated to include the CABJ torque inspection.

Ford's investigation will continue for this subject.

On October 23, 2020, Ford's Field Review Committee reviewed the concern and approved a field action.

Ford is aware of 10 allegations of accident and 4 allegations of injury on vehicles in the U.S..