

Chronology of Defect / Noncompliance Determination

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

January 2018: Ford approved service actions for specific populations of Edge vehicles in China and South America based on certain unique road/parking conditions and driving habits that contributed to elevated rates of front brake jounce hose ruptures at a lower time in service. For the remainder of the global population of Edge vehicles, the rate was low. Ford continued to monitor and investigate reports globally for vehicles that share the similar jounce material but were not included in the prior service actions, including 2015-2018 Edge, 2016-2018 MKX, 2013-2018 Fusion, and MKZ vehicles operated in the U.S.

January 2018 – July 2020: As part of its ongoing investigation regarding the global performance of vehicles that share the similar jounce material as the previously recalled vehicles, and based on evaluation of complaint vehicles in the field, Engineering conducted extensive physical life cycle testing (full factorial Design of Experiments) to identify potential contributors to front brake hose rupture. This testing found that vehicles subjected to frequent full suspension and steering articulations (jounce and rebound), could potentially experience a front brake jounce hose failure. During this same period and to improve durability of the component, the brake hose material was changed in production globally between December 2016 and October 2018 depending on the vehicle and assembly plant. As of February 2023, no reports have been received on vehicles built with the new brake hose material.

Ongoing analysis of field data indicated that Edge and MKX vehicles operated in the U.S. continue to have a low but increasing rate of front brake jounce hose ruptures during their anticipated useful life.

August 2020: Ford approved FSA 20S42 on Edge and MKX vehicles in North America due to a projected repair rate of 70 R/1000 at 10 years in service. Ford continued to monitor and investigate reports globally for vehicles not included in the prior service actions.

August 2020 – January 2022: Ford conducted vehicle testing to evaluate the potential defect (leaking) on the subject Fusion vehicles. Although a progressive leak in a front brake jounce hose may increase brake pedal travel, these vehicles are equipped with two isolated brake circuits, which allow the vehicle to be stopped safely if one circuit is leaking. The Ford vehicle testing confirmed that a customer who experiences a leaking front brake jounce hose will receive overt warnings (a longer brake pedal and a red brake warning light) before experiencing reduced brake performance. To better understand the customer's experience, Ford contacted two customers who wrote VOQs alleging reduced braking due to leaking front brake hoses. The two customers interviewed both indicated a loss of confidence in the brake system; however, customers chose to continue to drive the vehicle cautiously and indicated that they did not lose the ability to stop. This feedback from VOQ customers is consistent with the findings of Ford's vehicle testing and supports Ford's assessment that this is a progressive issue and that customers can safely stop and park the vehicle after they realize the brake pedal travel has become longer and the red brake light has come on.

Ongoing analysis of field data on 2013-2018 Fusion and MKZ vehicles has identified significantly lower 10-year projections than those covered under the prior Safety Recalls (70 R/1000 for vehicles previously recalled compared to 14 R/1000 for vehicles not recalled). Among this population of Fusion and MKZ vehicles, our investigation has identified that vehicles with certain engines have a low (36 R/1000), but relatively higher projected rates than other engines. Ford has met with NHTSA periodically on the progress of this investigation.

January 2022: Based on this data and discussions with NHTSA on the progress of this investigation, an extended warranty program was approved for the 2013-2018 Fusion and MKZ vehicles with certain engines.

February 2022 - February 2023: Ongoing analysis of field data indicates that 2013-2018 Fusion and MKZ vehicles operated in the U.S. continue to have a low rate of front brake jounce hose ruptures with a 10-year projection of 14R/1000, and vehicles with certain engines having a relatively higher projected rate than others. NHTSA opened a Recall Query in August 2022 based on 50 VOQs alleging front brake hose failures on 2013-2018 Fusion and MKZ vehicles. Ford responded to the information request on October 21, 2022. Based on this data and discussions with NHTSA on the progress of this investigation, Ford's Technical Review Group recommended a field service action for the Fusion and MKZ vehicles, with the exception of the 2.0L DOHC Hybrid engine. Hybrid vehicles have regenerative braking, and there are no Ford reports or VOQs on hybrid vehicles.

On March 3, 2023, Ford's Field Review Committee reviewed the concern and approved a field action.

Ford is aware of one report of an accident with no mention of injury related to this condition.