U.S. Department of Transportation
National Highway Traffic Safety Administration

OFFICE OF DEFECTS INVESTIGATION

ODI RESUME

Investigation: PE24027
Prompted By: VOQ Review
Date Opened: 10/03/2024
Date Closed: 10/30/2025
Investigator: Joseph Geissler
Reviewer: Peter Kivett
Approver: Tanya Topka
Subject: Loss of braking caused by rear brake hose failure

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Ford Motor Company
Products: 2015-2018 Ford Edge and 2016-2018 Lincoln MKX
Population: 499,129

Problem Description: Vehicles experience a loss of braking ability due to rear brake hose failures without any prior warning, resulting in an increase in stopping distance and risk of crash.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	EWR D&I	Other	Total	EWR Field Reports
All Incidents:	64	226	0	444	734	0
Crashes/Fires:	2	1	0	0	3	0
Injury Incidents:	1	0	0	0	1	0
Number of Injuries:	2	0	0	0	2	0
Fatality Incidents:	0	0	0	0	0	0
Number of Fatalities:	0	0	0	0	0	0

Description of Other:
Mfr. Warranty Claims

ACTION/SUMMARY INFORMATION

Action: This (PE) Preliminary Evaluation is closed with 25V544.

Summary:

On October 3, 2024, NHTSA's Office of Defects Investigation (ODI) opened this Preliminary Evaluation to investigate instances of rear brake hose ruptures causing a sudden and unexpected loss of braking in model year (MY) 2015-2017 Ford Edge vehicles manufactured by Ford Motor Company. The complaints allege that, without warning, the vehicle lost its ability to brake causing an unanticipated increase in the vehicle's stopping distance. The complaints also allege that, prior to the rear brake hose rupture event, the vehicle had been serviced under recall 20V-469.

Recall 20V469 involved MY 2015-2018 Ford Edge and MY 2016-2018 Lincoln MKX vehicles which may experience front brake hose ruptures causing increased brake pedal travel and a reduction in the rate of deceleration. Ford identified the cause of this safety defect as a consistent localized failure of the internal reinforcement braid of the brake hose due to cyclic fatigue via tensile/bending and torsional inputs during suspension and steering articulations. Ford also identified that only 88% of suspension articulation was utilized on the front brake hose test rig during life cycle testing. These findings, along with ODI's identification of an emerging trend involving rear brake hose ruptures, prompted the opening of this investigation.

ODI identified 64 Vehicle Owners Questionnaires related to this investigation, 2 involving a crash. These consumers were interviewed and reported experiencing sudden loss of braking ability while traveling at low and highway speeds without any prior warning such as a "low brake fluid" warning indicator. Consumers reported that, as they tried to stop their vehicle, the brake pedal traveling to the floorboard and the vehicle required more stopping distance than anticipated or considered normal. Consumers also observed brake fluid present on the rear tires and roadway near the rear tires immediately after the incident. Some consumers provided photographs of the rear brake hose ruptures which depicted a similar rupture pattern and location (near the crimp on the dynamic section of the brake hose). 1 photograph showed an installation alignment mark pulled out near the crimp suggesting exposure to unanticipated tensile forces pulling the hose away from the crimp.

During this investigation, Ford responded to Information Request Letters detailing information such as warranty claim data, brake hose specifications and engineering drawings, production part changes logs, and Ford's assessments of potential root cause. Ford reported that the front and rear brake jounce hoses equipped on the subject vehicle population utilized the same construction and material. Therefore, Ford's analysis consisted of a comparison between the front and rear hoses demonstrating that the rear hose bend radii in full jounce and full rebound were larger than the front hose. Ford also described that the two hoses are exposed to different loading environments as the rear brake hose is exposed to suspension inputs only, while the front hose is exposed to both suspension and steering inputs; thus, the rear hose is subjected to lower tension and fatigue loads. However, it is important to point out that larger bend radii alone do not necessarily mean a brake hose can withstand the dynamic loading requirements of a brake hose (as discussed earlier, the defect identified in the front brake hoses were attributed to the hose material). Rear brake hose failures were identified through exemplar vehicle and parts inspections conducted by NHTSA's Vehicle Research and Testing Center.

Ford stated that its investigation did not identify any specific or common root cause for this safety

defect, and that brake hoses can fail for many reasons including contact with road debris, improper vehicle servicing, and fatigue, as well as vehicle age and miles in service. Based on its assessment of failure rates and warranty claims, Ford concluded that the rear brake hose ruptures did not present an unreasonable risk to motor vehicle safety because consumers would experience a progressive leak accompanied by a red brake warning indicator within the instrument panel and would not experience a total loss of braking due to the diagonally split brake system. Note that these assessments are contrary to the consumer experiences described above. As previously described, consumers described a sudden, unexpected loss of braking ability with no prior warning in their instrument cluster (not a progressive leak) and an increase in anticipated vehicle stopping distance (presenting an unreasonable risk to motor vehicle safety). ODI conveyed these perspectives and investigative findings to Ford during a technical discussion on July 23, 2025.

On August 22, 2025, Ford submitted recall 25V-544 which included MY 2015-2018 Ford Edge and MY 2016-2018 Lincoln MKX vehicles, for a total recall population of 499,129 vehicles. As described in the Part 573, in September 2024, Ford concluded that this concern did not present an unreasonable risk to motor vehicle safety and closed its investigation into allegations involving rear brake jounce hose ruptures within this vehicle population. Ford reopened this investigation in July 2025 following the technical discussion with ODI referenced above. Ford identified the safety defect as a rupture of the rear brake jounce hose resulting in an increase in pedal travel and increase in vehicle stopping distance elevating the risk of a crash. To date, Ford has not fully determined the root cause of this safety defect and is currently working to develop a remedy program.

In view of the recall action taken by Ford, ODI is closing this Preliminary Evaluation. The agency reserves the right to take additional action if warranted by future circumstances. To review the reports cited in the Closing Resume ODI Report Identification Number document, go to NHTSA.gov.