



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

ODI RESUME

OFFICE OF DEFECTS INVESTIGATION



Investigation: RQ23002

Prompted By: VOQs

Date Opened: 06/20/2023

Date Closed: 02/15/2024

Investigator: Erin Johnson

Reviewer: Peter Kivett

Approver: Tanya Topka

Subject: Rear Axle Bolt Failure

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Ford Motor Company

Products: 2020-2022 Ford Explorer

Population: 710,253

Problem Description: Consumers report loss of motive power and/or loss of transmission torque of the rear wheels.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	EWR D&I	Other	Total	EWR Field Reports
All Incidents:	3	96	0	300	399	CONF
Crashes/Fires:	2	0	0	0	0	0
Injury Incidents:	2	0	0	0	0	0
Number of Injuries:	2	0	0	0	0	0
Fatality Incidents:	0	0	0	0	0	0
Number of Fatalities:	0	0	0	0	0	0

Description of Other: Warranty

ACTION/SUMMARY INFORMATION

Action: This (RQ) Recall Query is closed with 23V675.

Summary:

On July 17, 2023, the Office of Defect Investigation (ODI) opened this Recall Query (RQ) after receiving 2 consumer complaints alleging loss of vehicle forward power and/or loss of transmission torque of the rear wheels in model year (MY) 2020-2022 Ford Explorer vehicles (subject vehicles). The RQ was opened to focus on the effectiveness of the remedies of Recalls 22V-255 and 23V-199 related to the alleged problem.

Recall 22V-255 involved replacing the bushing and axle cover in the following subject vehicles: 3.3L FHEV Police built before October 14, 2020, and 3.3L Gas Police vehicle built before January 31, 2021. For 2.3L

RWD, 3.0L PHEV, 3.3LFHEV, and 3.0LST retail (non-police) vehicles, the recall provided an PCM software update to engage the Electronic Park Brake (EPB) when Park is commanded. The recall addressed a breakage of the rear axle bolt that can cause the driveshaft/half shafts to disconnect, resulting in a loss of transmission torque to the rear wheels necessary to hold park. If the parking brake is not applied, the loss of the primary park torque will allow the vehicle to roll in park increasing the risk of crash and injury.

Recall 23V-199 addressed 674 of the subject vehicles produced from February 2, 2019 to April 4, 2022, which received an incorrect remedy under Recall 22V-255. The affected vehicles had received a previous Powertrain Control Module (PCM) update which did not include an automatic EPB engagement when vehicle is shifted to park.

On October 17, 2023, Ford filed a new safety recall (Recall 23V-675) covering 238,364 MY 2020-2022 Explorer vehicles with the following powertrains: 3.3L FHEV Police, 3.3L Gas Police, 3.0L Gas Police, 2.3L RWD, 3.0L PHEV, 3.3L FHEV, 3.0L RWD and 3.0L AWD, produced from October 22, 2018 to July 6, 2022, equipped with a 3-point mounted axle design. Ford stated that the cause of the bolt fracture is due to joint design not robust to peak axle input torques and manufacturing variability. The primary contributor is insufficient bearings for maximum joint loads. This can result in bearing deformation, increasing bending stress on the bolt, which may lead to fatigue failure.

On January 19, 2023, Ford amended Recall 23V-675 to add 1,942 MY 2020-2022 Explorer vehicles with the following powertrain: 3.0L RWD Platinum and King Ranch variant, produced from October 22, 2018 to July 6, 2022, equipped with a 3-point mounted axle design.

In addition to the safety recall, Ford will conduct a customer satisfaction program for the following MY 2020-2022 Explorer vehicles with the following powertrains: 2.3L AWD, 3.3L Gas Retail, 3.0L Gas AWD Platinum and King Ranch, produced from October 22, 2018 to July 6, 2022. Ford stated that the Explorer powerpack variants not covered under Recalled 23V-675 do not present an unreasonable risk to motor vehicle safety due to the combination of lower peak torque levels and torque management strategies to share inputs between front and rear axles, reducing occurrence of higher torque. According to Ford, this is also evidenced by the lower current and projected failure rates.

In view of the recall action being taken by Ford, ODI is closing this RQ. NHTSA will continue to monitor complaints from the customer satisfaction program vehicles and reopen this issue, if necessary. 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](https://www.nhtsa.gov).