

Part 573 Safety Recall Report

23V-595

Manufacturer Name : Ford Motor Company

Submission Date : AUG 25, 2023

NHTSA Recall No. : 23V-595

Manufacturer Recall No. : 23S49



Manufacturer Information :

Manufacturer Name : Ford Motor Company

Address : 330 Town Center Drive

Suite 500 Dearborn MI 48126-2738

Company phone : 1-866-436-7332

Population :

Number of potentially involved : 41,555

Estimated percentage with defect : 50 %

Vehicle Information :

Vehicle 1 : 2023-2023 FORD F-Super Duty: F250, F350

Vehicle Type : LIGHT VEHICLES

Body Style : PICKUP TRUCK

Power Train : NR

Descriptive Information : Ford's team reviewed plant records to determine the population of affected parts. Affected vehicles are equipped with single rear wheels and a 10.5-inch rear axle shaft.

These vehicles are not produced in VIN order. Information as to the applicability of this action to specific vehicles can best be obtained by either calling Ford's toll-free line (1-866-436-7332) or by contacting a local Ford or Lincoln dealer who can obtain specific information regarding the vehicles from the Ford On-line Automotive Service Information System (OASIS) database.

F-250: 36,333 vehicles are affected

F350: 5,222 vehicles are affected

Production Dates : MAR 20, 2023 - AUG 21, 2023

VIN Range 1 : Begin :

NR

End : NR

Not sequential

Description of Defect :

Description of the Defect : The left rear axle shaft may have been manufactured without properly completing electromagnetic induction heat treatment process.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : A broken rear axle could result in a loss of motive power and inability to hold the vehicle in park. If the parking brake is not applied, this could result in the unintended vehicle movement, increasing the risk of injury or crash.

Description of the Cause : Personnel at the axle shaft supplier entered an incorrect process parameter

into one of the two machines that perform electromagnetic induction heat treatment of the subject left rear axle shafts.

Identification of Any Warning that can Occur : A fractured rear axle shaft may result in rear axle noise and/or a loss of motive power in two-wheel drive operation.

Involved Components :

Component Name 1 : Shaft-Rear Axle Left Hand (LH)

Component Description : Single Rear Wheel Axle Shaft LH 10.5 Inch

Component Part Number : BC3W-4238- AC

Supplier Identification :

Component Manufacturer

Name : Mid-West Forge Corporation

Address : 17301 St Clair Ave
Cleveland Ohio 44110

Country : United States

Chronology :

August 2023

On August 10, 2023, an issue pertaining to left rear axle shaft fractures on 2023 model year F-250 and F-350 Super Duty vehicles equipped with single rear wheels and 10.5-inch rear axles was brought to Ford's Critical Concern Review Group for review. These failures were identified by Kentucky Truck Plant through monitoring of warranty claims.

Two axle shafts returned through warranty were sent to Ford's metallurgical lab for failure analysis. Laboratory analysis determined that the axle shafts did not meet Ford's torsional yield and case depth design specifications in the fractured area. Each of the warranty returned parts had fractured at approximately 44 mm from the flange, indicating an area of incomplete induction heat treatment.

Further supplier investigation and statistical analysis indicated that the failed parts were limited to one induction heat machine where maintenance personnel entered an incorrect offset value for the 10.5-inch left rear axle shaft. This incorrect value led to the incomplete induction heat treating process.

As of August 14, 2023, there are seven warranty reports attributed to this concern. If the vehicle is equipped with four-wheel drive (4WD), a customer can place the vehicle in 4WD to regain mobility. Of the seven

warranty reports, three mention that the vehicle could move while in 4WD after the rear axle shaft fractured.

On August 18, 2023, 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.

Description of Remedy :

Description of Remedy Program : Owners will be notified by mail and instructed to take their vehicle to a Ford or Lincoln dealer to have the left rear axle shaft inspected. Rear axle shafts with a suspect date code will be replaced. There will be no charge for this service.

Ford provided the general reimbursement plan for the cost of remedies paid for by vehicle owners prior to notification of a safety recall in May 2023. The ending date for reimbursement eligibility is estimated to be 01/31/2024.

Ford will forward a copy of the notification letters to dealers to the agency when available.

How Remedy Component Differs from Recalled Component : Suspect parts were built within a specified time period. The dealers will be able to identify the Julian dates stamped on the left rear axle flanges to identify axle shafts built within the suspect date window. The remedy component was produced with the correct induction heat treatment after the quality concern was identified and preventative corrective actions implemented.

Identify How/When Recall Condition was Corrected in Production : NR

Recall Schedule :

Description of Recall Schedule : Notification to dealers is expected to occur on August 30, 2023. Mailing of owner notification letters is expected to begin October 16, 2023 and is expected to be completed by October 20, 2023.

Planned Dealer Notification Date : AUG 30, 2023 - AUG 30, 2023

Planned Owner Notification Date : OCT 16, 2023 - OCT 20, 2023

* NR - Not Reported