

# Part 573 Safety Recall Report

# 23V-625

**Manufacturer Name :** Ford Motor Company

**Submission Date :** DEC 23, 2023

**NHTSA Recall No. :** 23V-625

**Manufacturer Recall No. :** 23S54



## 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 :** 5,919

**Estimated percentage with defect :** 100 %

## Vehicle Information :

**Vehicle 1 :** 2024-2025 Ford E-350

**Vehicle Type :** BUSES, MEDIUM & HEAVY VEHICLES

**Body Style :** ALL

**Power Train :** NR

**Descriptive Information :** Ford's team reviewed supplier process and maintenance records to determine the population of affected parts. The Ford process is capable of tracing transmission production to the vehicle in which the transmission is installed.

Affected vehicles are equipped with 6R140 transmissions that may have had excess material deposited on the wall of the poppet valve cavity during the manufacturing process.

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.

2590 E-350 vehicles are affected

**Production Dates :** DEC 06, 2022 - AUG 03, 2023

**VIN Range 1 : Begin :**

NR

**End :** NR

Not sequential

Vehicle 2 : 2024-2025 Ford Medium Duty: F650 and F750

Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES

Body Style : ALL

Power Train : NR

**Descriptive Information :** Ford's team reviewed supplier process and maintenance records to determine the population of affected parts. The Ford process is capable of tracing transmission production to the vehicle in which the transmission is installed.

Affected vehicles are equipped with 6R140 transmissions that may have had excess material deposited on the wall of the poppet valve cavity during the manufacturing process.

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2621 F650 vehicles are affected

708 F750 vehicles are affected

Production Dates : DEC 12, 2022 - AUG 07, 2023

VIN Range 1 : Begin :

NR

End : NR

Not sequential

## Description of Defect :

**Description of the Defect :** A casting defect in the transmission upper valve body casting may cause the main control poppet valve to get stuck in the open position. A stuck poppet valve restricts the flow of lubricant to the rear extension housing bushing, resulting in excessive heat generation in the bushing and erosion of the rear seal. This condition leads to transmission fluid leakage, noise and vibration. The increased vibration may result in a loss of torque retention on the abutment plate bolts. Once the abutment plate bolt torque is compromised, the park actuator may be unable to engage the park pawl into the park gear.

FMVSS 1 : NR

FMVSS 2 : NR

**Description of the Safety Risk :** Should the abutment plate bolts become compromised, the transmission parking pawl may not fully engage when the vehicle is shifted into park, which may result in unintended vehicle movement if the parking brake is not applied, increasing the risk of a crash.

**Description of the Cause :** Wear erosion on the upper valve casting die caused the bore to have a small amount of excess material deposited on the wall of the poppet valve cavity.

**Identification of Any Warning :** The vehicle operator may notice transmission fluid leaking under the vehicle. Additionally, the operator may hear a loud noise and/or feel a vibration while

that can Occur : driving.

## Involved Components :

Component Name 1 : Transmission

Component Description : E-Series Transmission with Extension Housing

Component Part Number : LC2P-7000-FA

Component Name 2 : Transmission

Component Description : Medium Duty Fixed Flange with Extension Housing

Component Part Number : MC4P-7000-VA

Component Name 3 : Transmission

Component Description : Medium Duty Fixed Flange with Extension Housing

Component Part Number : MC4P-7000-XA

## Supplier Identification :

### Component Manufacturer

Name : American Axle Manufacturing

Address : 1 Dauch Drive

Detroit Michigan 48211

Country : United States

## Chronology :

On August 3, 2023, an issue pertaining to the transmission poppet valve was brought to Ford's Critical Concern Review Group (CCRG) for review. On June 15, 2023, a commercial fleet customer informed Ford of a 2024 model year F650 truck with a transmission that had a fluid leak from the rear seal. On July 12, 2023, Ford personnel picked up the leaking transmission for analysis. Ford Engineering continued to review returned transmissions that exhibited similar symptoms.

Through transmission teardown analysis, the CCRG investigation determined that a casting defect in the transmission upper valve body casting causes the main control poppet valve to get stuck in the open position.

Additionally, the CCRG team reviewed supplier maintenance records to identify when the casting insert was replaced due to wear. The CCRG requested measurements of the valve body casting in the area of the poppet valve on returned parts and confirmed that parts produced in the suspect time period were out of specification.

Continued analysis of returned transmissions found that, in certain cases, some of the abutment plate bolts were either missing or loose. Through the transmission teardowns, there is evidence to suggest that a loss of park is possible, although this condition has not been reported in the field.

As of Aug 22, 2023, there have been 95 warranty and field reports, received between March 24, 2023 and August 14, 2023, which are potentially responsive to this concern. CCRG also reviewed the customer usage from the warranty reports and noted that many were from rental vehicles .

On September 1, 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 of Lincoln dealer to have their transmission inspected. If there are metal fragments found in the transmission valve pan, the transmission will be replaced. If metal is not found in the pan, the valve body and extension housing will be replaced.

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 January 12, 2024.

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

How Remedy Component Differs from Recalled Component : The automatic transmission (LC2P-7000-FA, MC4P-7000-VA, MC4P-7000-XA) will have a valve body casting produced within proper specifications.

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

## Recall Schedule :

Description of Recall Schedule : Notification to dealers is expected to occur on September 11, 2023. Mailing of owner notification letters is expected to begin October 30, 2023 and is expected to be completed by November 3, 2023.

Planned Dealer Notification Date : SEP 11, 2023 - SEP 11, 2023

Planned Owner Notification Date : OCT 30, 2023 - NOV 03, 2023

\* NR - Not Reported