

Part 573 Safety Recall Report

21V-533

Manufacturer Name : Ford Motor Company**Submission Date :** JUL 15, 2021**NHTSA Recall No. :** 21V-533**Manufacturer Recall No. :** 21S33**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 : 51

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2021-2021 Ford F-150

Vehicle Type : LIGHT 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 electronic brake booster production to the vehicle in which the brake booster is installed. Affected vehicles were built with electronic brake boosters which had been incorrectly manufactured at the supplier. Ford vehicles are not produced in VIN order and we typically cannot provide VIN specific information. However, in this instance Ford is able to provide the specific VIN list – see attachment VINs.

Production Dates : DEC 11, 2020 - JAN 31, 2021

VIN Range 1 : Begin : NR

End : NR

 Not sequential**Description of Defect :**

Description of the Defect : Affected vehicles were built with electronic brake boosters that were incorrectly manufactured by the supplier, creating a leak path for brake fluid to migrate into the electronic control unit (ECU).

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : A brake booster with an incomplete clinch between the pressure sensor and the brake booster housing will cause brake fluid to leak through the pressure sensor into the brake booster control unit. Customers may experience longer pedal travel, higher pedal efforts and reduced braking, increasing the risk of a crash.

Description of the Cause : Electronic brake boosters were assembled by the supplier with a tool that did not adequately secure the pressure sensor to the brake booster housing.

Identification of Any Warning that can Occur : If brake fluid leaks into the ECU, the following cluster indicators will illuminate:
ABS Lamp = ON
ESC Lamp = ON
Brake Lamp (Boost) = ON.

Involved Components :

Component Name 1 : Electronic Brake Booster

Component Description : Electronic Brake Booster

Component Part Number : ML34-2D335-AR

Supplier Identification :

Component Manufacturer

Name : ZF Active Safety and Electronics US LLC

Address : 12001 Tech Center Drive
Livonia Michigan 48150

Country : United States

Chronology :

On May 20, 2021, an issue pertaining to three warranty claims of electronic brake booster malfunction on 2021 model year F-150 vehicles was brought to Ford's Critical Concern Review Group for review. The reports related to brake fluid leaking into the ECU. The supplier analyzed the boosters and found an incomplete pressure sensor clinch that can create a leak path for brake fluid to migrate into the ECU.

Ford's review of supplier records found that the supplier had identified and quarantined 169 2021 model year F-150 brake booster assemblies on December 7, 2020 because they were potentially assembled with a broken clinching tool, which is used to secure the pressure sensor to the booster housing. Further review of supplier and Ford records determined that 51 of the 169 quarantined parts were inadvertently shipped to Ford's Dearborn Truck Plant and assembled into vehicles. All 51 of those vehicles were subsequently shipped to dealers in the U.S.

Engineering analysis found that a brake booster with an incomplete clinch between the pressure sensor and the brake booster housing can cause brake fluid to leak through the pressure sensor into the ECU on each mis-assembled part. This can reduce braking effectiveness of either or both brake circuits.

As of June 25, 2021, Ford is aware of 12 warranty claims associated with this issue.
On July 8, 2021, 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 electronic brake booster assembly replaced. There will be no charge for this service.
Ford is excluding reimbursement for costs because the original warranty program would provide for a free repair for this concern.
Ford will forward a copy of the notification letters to dealers to the agency when available.

How Remedy Component Differs from Recalled Component : The remedy electronic brake boosters (Part number: ML34-2D335-AR) will have a complete clinch between the pressure sensor and the brake booster housing.

Identify How/When Recall Condition was Corrected in Production : N/A

Recall Schedule :

Description of Recall Schedule : Notification to dealers is expected to occur on July 16, 2021. Mailing of owner notification letters is expected to begin July 26, 2021 and is expected to be completed by July 30, 2021.

Planned Dealer Notification Date : JUL 16, 2021 - JUL 16, 2021

Planned Owner Notification Date : JUL 26, 2021 - JUL 30, 2021

* NR - Not Reported