

Part 573 Safety Recall Report

21V-407

Manufacturer Name : Ford Motor Company**Submission Date :** JUN 08, 2021**NHTSA Recall No. :** 21V-407**Manufacturer Recall No. :** 21S28**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 : 223

Estimated percentage with defect : 90 %

Vehicle Information :

Vehicle 1 : 2021-2021 Ford F-150

Vehicle Type : LIGHT VEHICLES

Body Style :

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 steering gear production to the vehicle in which the steering gear is installed.

Affected vehicles may be equipped with a steering gear with a cracked ball nut retainer.

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.

223 2021 F-150 vehicles are affected.

Production Dates : OCT 29, 2020 - MAY 20, 2021

VIN Range 1 : Begin :

NR

End : NR

 Not sequential**Description of Defect :**

Description of the Defect : Affected vehicles are built with a steering gear ball nut retainer that may be cracked.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : A broken steering gear ball nut retainer can allow balls in the ball nut assembly to displace and wedge. Continued steering wheel movement can further wedge the balls and displace the retainer, resulting in increased

steering effort. Should this continue and the balls do not transition back into the return guides, the ball nut may not be able to rotate. As a consequence, the driver may not be able to rotate the steering wheel while driving, increasing the risk of a crash.

Description of the Cause : Adjustments to the steering gear supplier's assembly tooling allowed interference with the ball nut retainer during insertion of a snap ring. This interference allowed the assembly equipment to damage the retainer.

Identification of Any Warning that can Occur : A driver may experience noise and/or increased steering efforts.

Involved Components :

Component Name 1 : Steering Gear
Component Description : Steering Gear
Component Part Number : ML3Z-3504-G

Supplier Identification :

Component Manufacturer

Name : Nexteer Automotive
Address : 1272 Doris Road
Auburn Hills Michigan 48326
Country : United States

Chronology :

On May 20, 2021, an issue involving increased steering effort on certain F-150 vehicles was brought to Ford's Critical Concern Review Group for review. Three warranty claims were identified alleging that the steering wheel was hard to turn or would not turn. Supplier inspection of returned steering gears found that a ball nut retainer within the steering gear ball nut assembly was broken and displaced. A broken ball nut retainer can allow the balls within the ball nut assembly to displace and wedge. Further analysis found that continued steering wheel movement can further wedge the balls and displace the retainer, resulting in increased steering effort. Should this continue and the balls do not transition back into the return guides, the ball nut (and consequently the steering wheel) may not be able to rotate. Review of the steering gear supplier's assembly processes and production records identified an assembly concern at one of their two facilities that produces these steering gears. A detailed review of supplier assembly process records was conducted from May 20, 2021 through May 28, 2021 for each steering gear produced starting at Job 1 to identify steering gears that may contain a cracked retainer. Suspect steering gears were then traced by serial number to specific vehicle

VINs.

On May 28, 2021, Ford's Field Review Committee reviewed the concern and approved a field action.

There have been no reports of accident or injury associated with this concern.

Description of Remedy :

Description of Remedy Program : Owners will be notified and instructed to not drive their vehicles. They will be asked to work with a Ford or Lincoln dealer to have the vehicles towed in for service. Dealers will remove and replace the steering gear following normal workshop manual procedures. 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 : Steering gears (ML3Z-3504-G) will be replaced. The replacement parts will have undamaged internal components.

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

Recall Schedule :

Description of Recall Schedule : Notification to dealers is expected to occur on May 29, 2021. Mailing of owner notification letters is expected to occur the week of May 31, 2021.

Planned Dealer Notification Date : MAY 29, 2021 - JUN 03, 2021

Planned Owner Notification Date : MAY 31, 2021 - JUN 08, 2021

* NR - Not Reported