

## Ford Motor Company (Ford) Recall No. 22S08 Chronology

### CERTAIN 2021-2022 MODEL YEAR E-SERIES VEHICLES EQUIPPED WITH DUAL REAR WHEELS – HYDROBOOST LINE LEAKS

**Date of Submission:** February 16, 2022

#### **Chronology of Defect / Noncompliance Determination**

**Provide the chronology of events leading up to the defect decision or test data for the noncompliance decision.**

##### May 2021

On May 27, 2021, Ford's Critical Concern Review Group (CCRG) initiated an investigation into reports of leaking power steering pressure lines on 2021 Model Year E-Series vehicles based on a notable increase in service part orders. The power steering pressure line connects the power steering pump to the brake Hydroboost unit with a quick-connect fitting. Affected E-Series vehicles are produced by Ford as incomplete chassis units that are then modified or upfit into completed vehicles by body builders.

##### June - September 2021

As part of Ford's investigation, parts from the field were obtained for evaluation. Ford also contacted technicians who had repaired complaint vehicles to learn what they observed. Part return analysis and dealer technician feedback indicated that leaks and disconnections were being observed at the quick-connect fitting. Ford investigated potential factors that could contribute to improper connections, including part quality, installation procedure and aftermarket body builder/customer upfit modifications.

Ford's review of records indicates that the first warranty report for a power steering fluid leak potentially related to this concern was received May 29, 2020. Ford identified one Vehicle Owner Questionnaire (VOQ), ODI #11424629 submitted on July 13, 2021, alleging leaking power steering fluid and difficulty steering.

Ford Engineering identified that an incomplete connection of the snap-ring in the retention groove can occur due to side loading during initial installation of the quick-connect fitting as a result of ergonomic constraints. It was noted that power steering lines with revised routing and connection angle at the Hydroboost unit were introduced into production in June, 2021 to address ergonomic feedback from assembly plant personnel.

Concurrent to analysis of parts, processes and records, Ford monitored ongoing field data to understand the occurrence rate and customer experience of a power steering fluid leak at the quick connect fitting versus a sudden disconnect of the fitting. There were no accidents or injuries attributed to this concern. Ford Engineering's initial assessment was that an incomplete pressure line connection would most likely exhibit leaks under the vehicle at low time-in-service/mileage, and that any sudden disconnection would be expected to result at low time in service.

##### October - December 2021

Ford continued to monitor the field data, including reports from its fleet customers, and identified a second VOQ (ODI #11445045) submitted on December 27, 2021 potentially related to this concern.

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### January - February 2022

Ford reviewed its field data and, as of December 31, 2021, is aware of 2,062 warranty claims alleging either power steering pressure line leaks or separation at the quick-connect fitting, or involving replacement of the power steering pressure line for an unknown cause. Some of the claims alleging a sudden disconnect occurred later in the vehicle's life, leading to a revision of the initial assessment that this would be a low time in service failure. Ford is not aware of any reports for vehicles produced after introduction of the new production power steering lines. There were no accidents or injuries attributed to this concern.

### February 2022

On **February 9, 2022**, 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.