OMB Control No.: 2127-0004

Not sequential

Part 573 Safety Recall Report

22V-570

Manufacturer Name: Ferrara Fire Apparatus, Inc.

Submission Date: AUG 04, 2022 NHTSA Recall No.: 22V-570 Manufacturer Recall No.: NR



Manufacturer Information:

Manufacturer Name: Ferrara Fire Apparatus, Inc.

Address: 27855 James Chapel Road

PO Box 249 Holden LA 70744

Company phone: 800-443-9006

Population:

Number of potentially involved : 108 Estimated percentage with defect : 20%

Vehicle Information:

Vehicle 1: 2021-2022 Ferrara Inferno, Igniter and Cinder

Vehicle Type: BUSES, MEDIUM & HEAVY VEHICLES

Body Style: OTHER Power Train: DIESEL

Descriptive Information: A small number of steering gears were assembled without the required number

of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the

assembly processes were instituted.

Production Dates: JUN 01, 2021 - FEB 01, 2022

VIN Range 1: Begin: NR End: NR

Description of Defect:

Description of the Defect: Steering gear was assembled with fewer than the required number of

recirculating balls which can lead to a fracture in the steering gear worm-shaft

and loss of vehicle steering.

FMVSS 1: NR FMVSS 2: NR

Description of the Safety Risk: A steering gear with fewer than the required number of recirculating balls

may bind when loads are applied. In some cases, the balls may align on the same side of the gear's worm-shaft and concentrated loads may cause the gear's internal parts to fracture resulting in loss of vehicle steering. Loss of

steering increases the likelihood of a crash.

Description of the Cause: An anomaly in the steering gear recirculating ball insertion operation occurred

during assembly. Subsequent rework processes and inspections did not detect

the missing recirculating balls.

Identification of Any Warning Preceding the internal fracture, the steering may be perceived as strained by that can Occur: the driver. No audible or visual warning is available.

Involved Components:

Component Name 1: NR Component Description: NR Component Part Number: NR

Supplier Identification:

Component Manufacturer

Name: NR Address: NR

NR

Country: NR

Chronology:

2/8/22-Sheppard warranty lab receives a gear built 8/20/2021 with failed worm-shaft. 2/9/22 warranty lab inspection/disassembly indicates fracture of the worm-shaft and less than the required number of recirculating balls 2/10/22-plant stops production. Additional inspections and process verifications put in place. Clean point is established. Material on hand is inspected and confirmed defect free. Production resumes. (2/10/22 - 5/13/22): review of all warranty from 2015-present indicated no similar failure ever received, engineering tests are performed to understand and to reproduce failure mode. 3/10/2022 - Sheppard contacted vehicle driver for description of event and confirmed no accident or injury, low speed and while backing up. 4/12/22 - Sheppard receives a second gear at incoming shipping facility 5/5/22-Sheppard warranty lab receives/inspects/disassembles the second gear built on 6/26/21 with failed worm-shaft and less than the required number of recirculating balls 5/6/22- The Product Integrity Committee meets for update on the product investigation. 5/13/22 - The Product Integrity Committee meets and recommends submission of a defect report 573. 7/18/22 - REV Group was notified on Sheppard's recall 22E-047 and began gathering the necessary information and approval to conduct a pass-through recall.

Description of Remedy:

Description of Remedy Program: Purchasers will identify the unique serial number imprinted on the

recalled equipment. A web-based tool is available after August 1, 2022, to vehicle manufactures and their service networks to classify the serial number. Serial numbers will be classified as either suspect and must be replaced or as not suspect and may remain in service. Sheppard assumes

cost burden for the remedy being performed

How Remedy Component Differs The remedy component was assembled after the recall condition was from Recalled Component: corrected in production when additional controls were put in place. The remedy component has been verified to have the correct number of recirculating balls. Each remedy component is identifiable by an imprinted unique serial number.

Identify How/When Recall Condition On Feb 10, 2022, the recirculating ball insertion process control was was Corrected in Production: enhanced. Additional process controls and inspectors were added to the process to verify that the correct number of recirculating balls in each steering gear.

Recall Schedule:

Description of Recall Schedule: NR

Planned Dealer Notification Date: AUG 31, 2022 - SEP 02, 2022 Planned Owner Notification Date: SEP 05, 2022 - SEP 12, 2022

^{*} NR - Not Reported