

Part 573 Safety Recall Report

22V-570

Manufacturer Name : Ferrara Fire Apparatus, Inc.

Submission Date : JUN 26, 2023

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

☐ Not sequential

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 : Sheppard Master Steering Gear

Component Description : Master Steering Gear M110P

Component Part Number : M110PRC32

Supplier Identification :

Component Manufacturer

Name : R.H. Sheppard Co,Inc.

Address : 101 Philadelphia Street

P.O. Box 877 Hanover Pennsylvania 17331-0877

Country : United States

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 from Recalled Component : The remedy component was assembled after the recall condition was 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 was Corrected in Production : On Feb 10, 2022, the recirculating ball insertion process control was 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 : THE SCHEDULE WE SET WAS MET AND THAT WAS TO SEND OUT THE DEALER LETTER ON 8-31-22 AND THE CUSTOMER ON 9-5-22.

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

Planned Owner Notification Date : SEP 05, 2022 - SEP 12, 2022

* NR - Not Reported