

# Part 573 Safety Recall Report

# 21V-910

**Manufacturer Name :** Ferrara Fire Apparatus, Inc.

**Submission Date :** APR 20, 2022

**NHTSA Recall No. :** 21V-910

**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 :** 34

**Estimated percentage with defect :** 80 %

## Vehicle Information :

**Vehicle 1 :** 2021-2022 Ferrara Fire inferno, Cinder

**Vehicle Type :** BUSES, MEDIUM & HEAVY VEHICLES

**Body Style :** OTHER

**Power Train :** DIESEL

**Descriptive Information :** The basis for this recall population is vehicles equipped with a Meritor drive pinion built in a 180 axle series. Meritor provided an affected rear axle serial number list that was cross-referenced with Ferrara Fire's databases to determine the affected population.

**Production Dates :** JUN 30, 2020 - MAR 03, 2022

**VIN Range 1 : Begin :**

NR

**End :** NR

Not sequential

## Description of Defect :

**Description of the Defect :** Meritor drive pinion 180 series fractured in the spline.

**FMVSS 1 :** NR

**FMVSS 2 :** NR

**Description of the Safety Risk :** If this condition exists, the fracture of the pinion may hit the brake drop hose which may unintentionally apply parking brake without detection or brake lights coming on, possibly resulting in a crash.

**Description of the Cause :** Meritor's working theory is that the fracture in the pinion spline is initiated during manufacturing in the straightening or bearing preload yoking process. Meritor is currently not using the straightening process and Meritor is currently conducting eddy current in process inspection after the bearing preload yoking process in addition to ultrasonic inspection at final for containment as Meritor's investigation continues.

**Identification of Any Warning that can Occur :** If the pinion fractures, the driver may hear an audible noise and feel the vehicle slowing down due to loss of propulsion from the drive axle.

## Involved Components :

Component Name 1 : Rear Axle Carrier

Component Description : Pinion Shaft

Component Part Number : 180 series

## Supplier Identification :

### Component Manufacturer

Name : Meritor

Address : 22021 Skyway Church Rd.  
Maxton North Carolina 28364

Country : United States

## Chronology :

June 2020 – Pinion crack found on campus in Charlotte during a different PSR. August – September 2020 - They completed tests to attempt to replicate and could not reproduce the fracture. Implemented 100% mag particle inspection on all 186R series. Meritor Product Engineering provided a high confidence level that this would be an infancy failure (during the carriers first high load event) due to the fracture signature. April 2021 – Claim created through standard warranty process for pinion crack. July 2021 – Pinion failure during delivery to the dealer from the plant. Facilitated warranty claim through Meritor, they provided new gear set. September 2021 – Houston reached out regarding a pinion crack failure while in service (24 hours in service and under 3,000 miles), was second truck of fleet with similar failure. Pinion broke off and damaged the spring brake air supply line. Metro and Houston insisted an inspection method to validate that the rest of the fleet do not have the same failures. This resulted in Meritor completing an on-site ultrasonic test for the rest of the fleet. Meritor provided corrective action and containment dates, as well as their assessment that this issue is low risk. October 2021 – Spartan risk assessment completed. October – November 2021 – Reviewed past precedence. Reached out to all REV Fire businesses to check for any Meritor pinion warranty issues. E-One had one failure in the field in October 2021 but a different axle series affected. Met with Meritor to review the cause again and the potential affected population. November 10, 2021 – Escalated the issue to REV Group Management. November 15, 2021 – REV's senior leadership approved a voluntary recall for this issue.

## Description of Remedy :

Description of Remedy Program : Meritor will conduct an on-site ultrasonic test inspection for the affected population. This will be covered under normal warranty process. Defect units will be replaced at no cost by Meritor.

How Remedy Component Differs from Recalled Component : N/A

Identify How/When Recall Condition was Corrected in Production : Meritor has implemented containment in their production facility as of April 20, 2021 and corrective action of tooling implementation as of August 2021.

## Recall Schedule :

Description of Recall Schedule : Ferrara to notify Dealers by week of January 3, 2022 and the owners a week later.

Planned Dealer Notification Date : APR 26, 2022 - APR 29, 2022

Planned Owner Notification Date : MAY 06, 2022 - MAY 13, 2022

\* NR - Not Reported