

Part 573 Safety Recall Report

21V-899

Manufacturer Name : Spartan Fire, LLC**Submission Date :** APR 11, 2022**NHTSA Recall No. :** 21V-899**Manufacturer Recall No. :** 21016**Manufacturer Information :**

Manufacturer Name : Spartan Fire, LLC

Address : 1541 Reynolds Road

Charlotte MI 48813

Company phone : 517-588-4700

Population :

Number of potentially involved : 260

Estimated percentage with defect : 25 %

Vehicle Information :

Vehicle 1 : 2020-2022 Spartan Fire Gladiator, MetroStar and FC-94

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 Spartan Fire's databases to determine the affected population.

Quantity 20 - 2020 Gladiator trucks affected.

Quantity 24 - 2020 MetroStar trucks affected.

Quantity 80 - 2021 Gladiator trucks affected.

Quantity 68 - 2021 MetroStar trucks affected.

Quantity 29 - 2022 Gladiator trucks affected.

Quantity 32 - 2022 MetroStar trucks affected.

Quantity 7 - 2022 FC-94 trucks affected.

Production Dates : AUG 10, 2020 - MAR 30, 2022

VIN Range 1 : Begin : 4S9BEEUA5LS419941 End : 4S9BEETA4NS559810

 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 : There was a variation in the pinion spline tooling geometry of the Meritor process.

Identification of Any Warning that can Occur : The issue could occur without warning.

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.
February 14, 2022 - Meritor expanded the date range of affected population.
April 4, 2022 - Meritor expanded the date range again for the affected population. Reference 22E027.

Description of Remedy :

Description of Remedy Program : Meritor will work with the customer and repair facility to determine if the vehicle is affected. If repair is needed, the Differential Carrier Assembly will be replaced. The replacement will be done at no charge. This will be covered under the normal warranty process.

How Remedy Component Differs from Recalled Component : N/A

Identify How/When Recall Condition was Corrected in Production : Meritor has implemented a containment and corrective action of tooling implementation in their production facility.

Recall Schedule :

Description of Recall Schedule : Spartan to notify Dealers of the expanded population by week of April 25, 2022 and the owners a week later.

Planned Dealer Notification Date : APR 25, 2022 - APR 29, 2022

Planned Owner Notification Date : MAY 02, 2022 - MAY 06, 2022

* NR - Not Reported