

Part 573 Safety Recall Report

21V-904

Manufacturer Name : E-One Incorporated**Submission Date :** APR 12, 2022**NHTSA Recall No. :** 21V-904**Manufacturer Recall No. :** NR**Manufacturer Information :****Population :****Manufacturer Name :** E-One Incorporated**Number of potentially involved :** 80**Address :** 1601 S.W. 37TH AVENUE**Estimated percentage with defect :** 100 %

Ocala FL 34474

Company phone : (904) 237-1122**Vehicle Information :****Vehicle 1 :** 2020-2022 E-ONE CYCLONE 2, CYCLONE N, TYPHOON, TYPHOON N**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 E-ONE's databases to determine the affected population. The recalled products differ from other products by the serial numbers provided by Meritor.

QTY: 1 – 2021 CYCLONE 2 vehicles are affected

QTY: 5 – 2021 CYCLONE 2 vehicles are affected

QTY: 5 – 2022 CYCLONE 2 vehicles are affected

QTY: 10 – 2021 CYCLONE N vehicles are affected

QTY: 2 – 2020 TYPHOON vehicles are affected

QTY: 15 – 2021 TYPHOON vehicles are affected

QTY: 1 – 2022 TYPHOON vehicles are affected

QTY: 1 – 2020 TYPHOON N vehicles are affected

QTY: 35 – 2021 TYPHOON N vehicles are affected

QTY: 5 – 2022 TYPHOON N vehicles are affected

Production Dates : DEC 11, 2020 - MAR 09, 2022**VIN Range 1 : Begin :** 4EN3AAA84M1004086 **End :** 4ENLAHA8XM2003950☒ 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 intentionally 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 6, 2022 – Meritor expanded the date range of affected population to 06/30/2020 to 03/03/2022.

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 :	The serial number
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. E-ONE has reviewed the inventory for affected serial numbers and found none. E-ONE has no units in Production.

Recall Schedule :

Description of Recall Schedule :	E-ONE to notify Dealers by week of January 3, 2022 and the owners a week later.
Planned Dealer Notification Date :	JAN 03, 2022 - JAN 07, 2022
Planned Owner Notification Date :	JAN 10, 2022 - JAN 14, 2022

* NR - Not Reported