

Part 573 Safety Recall Report

22V-879

Manufacturer Name : Alexis Fire Equipment Company**Submission Date :** NOV 29, 2022**NHTSA Recall No. :** 22V-879**Manufacturer Recall No. :** NR**Manufacturer Information :**

Manufacturer Name : Alexis Fire Equipment Company

Address : 109 E Broadway Ave

PO Box 549 Alexis IL 61412

Company phone : 309-482-6121

Population :

Number of potentially involved : 20

Estimated percentage with defect : 100 %

Vehicle Information :

Vehicle 1 : 2021-2023 Spartan Metro Star, FC-94

Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES

Body Style : ALL

Power Train : DIESEL

Descriptive Information : Spartan notified all final stage manufacturers that based upon information provided by Meritor's supplier, due to a heat treat issue, Meritor has determined that a population of tie rod clamps used in the manufacture of the subject axle population may be susceptible to cracking. Over time, a crack may lead to a complete fracture of the clamp, thereby reducing clamp load to the tie rod end. If both clamps on the tie rod were to fail, the cross tube could start to unscrew, vehicle alignment issues would evolve, and there is a potential for the tie rod end to separate from the cross tube. Separation is more likely to occur when tie rod loads are highest, which is at slow vehicle speeds over rough terrain or turning maneuvers.

This defect could result in separation of the tie rod end from the cross tube and could result in partial loss of vehicle steering capability, increasing the risk of a crash. The initial effect would be a vehicle out of alignment. If both clamps on the tie rod cracked, the tube could rotate and result in a partial loss of steering capability.

Production Dates : JAN 01, 2022 - SEP 30, 2022

VIN Range 1 : Begin :	4S9CU2D9XNC560853	End :	4S9CU2D98NC560121	<input checked="" type="checkbox"/> Not sequential
VIN Range 2 : Begin :	4S9CW2D99NC560918	End :	4S9CU2D93NC560919	<input type="checkbox"/> Not sequential
VIN Range 3 : Begin :	4S9DU2D93NC560987	End :	4S9DU2D9XNC560985	<input type="checkbox"/> Not sequential
VIN Range 4 : Begin :	4S9DU2D91NC560986	End :	4S9DU2D98NC560094	<input type="checkbox"/> Not sequential
VIN Range 5 : Begin :	4S9DU2D90NC560090	End :	4S9DU2D97NC560085	<input type="checkbox"/> Not sequential
VIN Range 6 : Begin :	4S9DU2D9xnC560095	End :	4S9DU2D92NC560088	<input type="checkbox"/> Not sequential
VIN Range 7 : Begin :	4S9DU2D90NC560087	End :	4S9CU2D96NC560946	<input type="checkbox"/> Not sequential
VIN Range 8 : Begin :	4S9DU2D93NC560083	End :	4S9DU2D99NC560086	<input type="checkbox"/> Not sequential
VIN Range 9 : Begin :	4S9DU2D95NC560084	End :	4S9DU2D94NC560089	<input type="checkbox"/> Not sequential
VIN Range 10 : Begin :	4S9CU2D95NC560047	End :	4S9DW2D94PC560249	<input type="checkbox"/> Not sequential

Description of Defect :

Description of the Defect : Based upon information provided by Meritor's supplier, due to a heat treat issue, Meritor has determined that a population of tie rod clamps used in the manufacture of the subject axle population may be susceptible to cracking. Over time, a crack may lead to a complete fracture of the clamp, thereby reducing clamp load to the tie rod end. If both clamps on the tie rod were to fail, the cross tube could start to unscrew, vehicle alignment issues would evolve, and there is a potential for the tie rod end to separate from the cross tube. Separation is more likely to occur when tie rod loads are highest, which is at slow vehicle speeds over rough terrain or turning maneuvers.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : Separation of the tie rod end from the cross tube could result in partial loss of vehicle steering capability, increasing the risk of a crash.

Description of the Cause : Improper heat treatment of the part by Meritor's supplier.

Identification of Any Warning that can Occur : The initial effect would be a vehicle out of alignment. If both clamps on the tie rod cracked, the tube could rotate and result in a partial loss of steering capability.

Involved Components :

Component Name 1 : Tie Rod Assembly

Component Description : NR

Component Part Number : B1-3102N4850

Component Name 2 : Tie Rod Assembly

Component Description : NR

Component Part Number : B1-3102R4854

Component Name 3 : Tie Rod Assembly

Component Description : NR

Component Part Number : A1-3102S4855

Supplier Identification :**Component Manufacturer**

Name : Meritor, Inc.

Address : 2135 West Maple Road
Troy Michigan 48084

Country : United States

Chronology :

11/22/2022- Spartan notification letter informing of Meritor safety recall

6/27/2022 - Meritor's supplier shared an 8D related to the supplier's investigation into cracks on tie rod clamps

7/5 - 7/29/2022 - Meritor's engineering team developed and finalized a technical position regarding the cracked clamps issue.

7/28/2022 - Meritor's PSAC council reviewed the technical position paper and decided to communicate the issue to its customers as a customer satisfaction issue.

9/16/2022 - Autocar, LLC filed a Part 573 Defect Information Report (DIR) related to this condition. See Recall No. 22V697.

9/22/2022 - Navistar filed a Part 573 Defect Information Report related to this condition. See Recall No. 22V711.

9/30/2022 - Based upon the Part 573 DIRs submitted by Autocar and Navistar, Meritor decided to file this DIR in accordance with 49.C.F.R. 573.3(f).

Meritor is not aware of any accidents or injuries related to this condition.

Description of Remedy :

Description of Remedy Program : Meritor will work with affected vehicle manufacturers to replace suspect tie rod clamps on the subject axles. Customers are being notified to make arrangements for new replacement tie rod clamps to be installed at no cost.

How Remedy Component Differs from Recalled Component : Replacement tie rod clamps will meet Meritor's specifications for heat treatment.

Identify How/When Recall Condition was Corrected in Production : Information released from Meritor: The sub-supplier to Meritor's tier 1 supplier introduced metallurgical evaluation for excessive carburization for all heat treatment batches and an alarm was installed to alert operator if any deviating conditions occur. The correction was completed 5/11/2022.

Recall Schedule :

Description of Recall Schedule : Notification letters are being sent to customers between
11/30/2022-12/30/2022.

Planned Dealer Notification Date : NR - NR

Planned Owner Notification Date : NOV 30, 2022 - DEC 30, 2022

* NR - Not Reported