

Part 573 Safety Recall Report

21V-134

Manufacturer Name : Ferrara Fire Apparatus, Inc.**Submission Date :** MAR 04, 2021**NHTSA Recall No. :** 21V-134**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 : 10

Estimated percentage with defect : 10 %

Vehicle Information :

Vehicle 1 : 2019-2020 Ferrara Inferno

Vehicle Type : BUSES, MEDIUM & HEAVY VEHICLES

Body Style : OTHER

Power Train : DIESEL

Descriptive Information : Ferrara Fire has been contacted by Reyco Granning stating they have submitted a recall 21E-012. Some IFS-FT units may have steering gear that fasteners may loosen and lose clamp load between the cradle and steering gear. These units were manufactured between 11/27/2019 thru 10/28/2020 using a different type of paint on the steering gearcase mount plates. This paint could flow and relax over time causing the bolts to lose clamp load and loosen.

Production Dates : NOV 27, 2019 - OCT 28, 2020

VIN Range 1 : Begin :

NR

End : NR

 Not sequential**Description of Defect :**

Description of the Defect : Loose steering gear mount bolts on Fire Truck Independent Front Suspensions manufactured by Reyco Granning LLC.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : The steering gear mounting fasteners could loosen and back out to the point that they may interfere with other steering components, such as a pitman arm. This may cause difficulty in steering or prevent steering to one direction which could increase the risk of a crash.

Description of the Cause : A change was made to the type of paint used on the steering gearcase mount plates. The paint can continue to flow and relax over time, despite appearing to be cured. As the paint flows out from under the bolt head and washer, the firm thickness of the paint decreases. This flowing action allows the bolt stretch that was gained during the torquing procedure to relax and clamp load is lost. Once loose, the bolts will continue to back out due to road vibration.

Identification of Any Warning that can Occur : The driver may notice a change in steering feel, primarily to vagueness, difficulty in holding a straight line, or vehicle wandering, the fasteners may also loosen without warning.

Involved Components :

Component Name 1 : NR

Component Description : NR

Component Part Number : NR

Supplier Identification :

Component Manufacturer

Name : Ferrara Fire

Address : 27855 James Chapel Road
Holden 70744

Country : NR

Chronology :

In an effort to improve corrosion resistance, it was decided to switch types on a number of suspension components around November 2019. The change went into production on 11/27/19 and the new paint was Tectyl 3335. Initial testing showed that there could be a problem with the new paint flowing for an extended period of time after application and that bolted joints where a relatively short fastener was used without a locking feature were particularly susceptible to losing clamp load. Reyco Granning engineering detailed which components could and could not be painted with the new paint due to this concern. Unfortunately, a miscommunication occurred and the steering gear mount plates continued to be painted with the new paint. Around September 2020 the first reports of steering gears being loose started to come in from the end use customers. Testing was restarted immediately from a number of different avenues within Reyco Granning in order to determine the root cause of the failure. At the end of October 2020 it was determined that the root cause was the paint and how it continued to flow. Painting of the steering gear mount plates was immediately changed to a paint with much thinner film thickness that would not have the same post cure flow conditions. Production of plates painted with the Tectyl 3335 paint ended on 10-28-2020. Further work continued over the next couple of months in order to determine the severity of the failure and possible remedies. Customers were notified at the beginning of the year in order to facilitate discussion and direction on remediation. At the end of January it was decided that this rose to the level of a Safety Recall and appropriate steps need to be taken.

Description of Remedy :

Description of Remedy Program : Reco Granning Reyco Granning will notify all customers of this action and provide serial numbers of affected product to assist the manufacturers in identifying potential affected vehicles. Reco Granning will implement an inspection and rework procedure.

How Remedy Component Differs from Recalled Component : The remedy involves replacing the bolts and flat washers that hold the steering gear to the mounting plate with a new bolt and a serrated wedge locking washer. This bolt and washer combination has been tested extensively to ensure that proper clamp load is maintained even if the paint film thickness changes significantly.

Identify How/When Recall Condition was Corrected in Production : Painting of the steering gear mount plates was immediately changed to a paint with a much thinner film thickness that would not have the same post cure flow conditions. This paint was the same that was used for many years prior to the switch with no similar issues reported. Thread locking compound was also added to the manufacturing process to provide an extra level of security.

Recall Schedule :

Description of Recall Schedule : Notification of the recall was received 2-25-2021

Planned Dealer Notification Date : MAR 09, 2021 - MAR 24, 2021

Planned Owner Notification Date : MAR 09, 2021 - MAR 24, 2021

* NR - Not Reported