OMB Control No.: 2127-0004

Part 573 Safety Recall Report

19E-045

Manufacturer Name: Reyco Granning **Submission Date:** JUL 18, 2019 NHTSA Recall No.: 19E-045

Manufacturer Information:

Manufacturer Recall No.: NR

Manufacturer Name: Reyco Granning

Address: 1205 Industrial Park Drive

Mt. Vernon MO 65712

Company phone: 4662178

Population:

Number of potentially involved: 399 Estimated percentage with defect: 10 %

Equipment Information:

Brand / Trade 1: Reyco Granning

Model: IFS FT Independent Suspension Family

Part No.: IFS Size: 20,24

Function: FT Suspension

Descriptive Information: Independent Front Suspension (IFS FT) modules manufactured by Revco

Granning Llc. Between 12/01/2014 to 7/01/2019 could have loose upper shock

mounts. These modules were supplied to Fire Truck manufacturers.

Production Dates: DEC 01, 2014 - JUL 01, 2019

Description of Defect:

Description of the Defect: A loose upper shock mount system on Fire Truck Independent Front

Suspensions manufactured by Reyco Granning llc.

FMVSS 1: NR FMVSS 2: NR

Description of the Safety Risk: Possible loss of hydraulic steering assist

Description of the Cause: 1. Shock mounting pockets manufactured outside of the specified tolerance

range (too wide).

2. Nut /bolt combination provided by vendor with a very high friction coefficient (k factor) resulting in low clamp load at specified torque.

Identification of Any Warning Prior to complete separation of shock from upper mount, lose joint will rattle

that can Occur: or clunk. Upon inspection, shock eyelet can be moved by hand. The failure will progress to loss of dampening and degradation of handling characteristics. Gross movement of the shock will result in a louder clunk as it contacts other suspension components. Finally, the shock can work into a position that results in damage to the steering gear box housing, causing a leak (puddle on

ground, degradation of steering assist).

Supplier Identification:

Component Manufacturer

Name: NR Address: NR

NR

Country: NR

Chronology:

Initially suspensions were built with standard shock absorbers with a standard upper eye and hardware configuration. On 12/1/2014, the shock was changed to Koni - the upper eye configuration was changed to allow the use of a heim joint and required an additional 2 spacers. It was determined at the time, after loose shock eyes were noted that the material used to make the spacers was not strong enough to withstand the compressive load. A kit was created at that time to address units that became loose in the field. The spacer material was changed at that time to a material with a much higher compressive strength. very few failures occurred after the change took place. 09/21/18 Application engineer visited a customer and noted that there was a loose shock due to an overly wide pocket. Problem was added to the quality issue list at that time. The problem was noted again on 10/25/2018 and communicated to the customer (Spartan). Team worked to rectify the pocket width issue. On 6/17/19 Spartan received a call from their customer concerning several units with loose upper shock mounts. Spartan brought this up at an on site visit to Reyco on 7/1/2019. At that time, pockets were reviewed and new gage blocks implemented. Testing of the fastener combination was tested - based on the data, the fasteners were determined to be incapable of producing the required clamp load due to an extremely high K-factor. 7/17/2019 test reports completed / reviewed Recall Initiated based on outcome.

Description of Remedy:

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

How Remedy Component Differs The remedy involves the use of a new bolt an nut, a hardened washer (for from Recalled Component: use under the head of the bolt) and shims if necessary to close the gaps. The bolt nut combination has been tested and determined to provide adequate clamp for pockets within width tolerance. Shims ill be used to close the gap on pockets that may be over tolerance. New bolts will be torqued to the appropriate torque value.

Identify How/When Recall Condition Quality alert was posted concerning issue on production line. New was Corrected in Production: fasteners were brought in with a new coating (fully tested to insure that the combination produced appropriate clamp load). Pockets are being monitored as part of the process to insure that they are in tolerance. Bolt washer nut combination will be monitored on an ongoing basis.

Recall Schedule:

Description of Recall Schedule: NR

Planned Dealer Notification Date: JUL 31, 2019 - SEP 16, 2019 Planned Owner Notification Date: JUL 31, 2019 - SEP 16, 2019

Purchaser Information:

The following manufacturers purchased this defective/noncompliant equipment for possible use or installation in new motor vehicles or new items of motor vehicle equipment:

Name: Spartan Motors Address: 1000 Reynolds Rd

Charlotte MI 48813

Country: US Company Phone: NR

Name: E-One

Address: 1601SW 37th Avenue

Ocala FL 34474

Country: US Company Phone: NR

> Name: Kovatch Mobile Equipment Address: One Industrial Complex

> > Nesquehoning PA 18240

Country: US Company Phone: NR

Name: Rosenbauer Motors L.L.C.

Address: 5190 260th St

Wyoming MN 55092

Country: US Company Phone: NR Name: Ferrara Fire Apparatus INC

 $Address:\ \ 27855\ James\ Chapel\ Rd\ N$

Holden LA 70744

Country: US Company Phone: NR

Name: HME Ahrens-Fox

Address: 1950 Byron Center Ave SW

Wyoming MI 49519

Country: US Company Phone: NR

* NR - Not Reported