OMB Control No.: 2127-0004

Part 573 Safety Recall Report

19V-756

Manufacturer Name: Volvo Trucks North America

NHTSA Recall No.: 19V-756

Manufacturer Recall No.: RVXX1906



Manufacturer Information:

Manufacturer Name: Volvo Trucks North America

Address: 7900 National Service Road

Greensboro NC 27409

Company phone: 800 528 6586

Population:

Number of potentially involved: 2,287 Estimated percentage with defect: 1 %

Vehicle Information:

Vehicle 1: 2020-2020 Volvo VNL VNM

Vehicle Type: BUSES, MEDIUM & HEAVY VEHICLES

Body Style: OTHER Power Train: DIESEL

Descriptive Information: The recall population is based on available facts at the time of this report. These facts

include (1) reports of the issue are limited to new Volvo brand vehicles manufactured in 2019 with Sheppard Steering Gear (part number 22803500) HD 94 Gear Variant, and (2) Torque loss of steering gear mounting fasteners in vehicles with Sheppard HD94 Gear variant. Further investigation/collaboration between Sheppard and Volvo

is proceeding to confirm root cause and scope.

Production Dates: JAN 01, 2019 - OCT 17, 2019

VIN Range 1 : Begin : NR End : NR Not sequential

Description of Defect:

Description of the Defect: On certain vehicles, torque loss of steering gear mounting fasteners may occur

on vehicles manufactured with a Sheppard HD94 Steering Gear.

FMVSS 1: NR FMVSS 2: NR

Description of the Safety Risk: Torque loss can result in loosening of the steering gear, which may result in

loss of vehicle control under certain conditions.

Volvo has not received any reports of vehicle crashes as a result of this defect. Volvo is taking the proactive measure to conduct a voluntary safety recall to protect our customers and other road users from the potential risk related to

the defect.

Description of the Cause: Cause is being investigated.

Identification of Any Warning Loose fasteners are detectable during visual inspection, Also, reports of

that can Occur: alignment and handling concerns received, suggests that the driver may be able to discern that there is an issue through the steering/handling "feel".

Supplier Identification:

Component Manufacturer

Name: R.H. Sheppard

Address: 101 Philadelphia Street

Hanover PENNSYLVANIA 17331

Country: United States

Chronology:

September 6, 2019 Report received of a loose steering gear. Investigation opened

September 9, 2019 Customer visit to review vehicle. Parts collected for laboratory analysis

September 10, 2019 Review of production processes

September 12, 2019 Weekly meetings established to review progress/findings

September 19, 2019 Preliminary findings (#of reports, torque record review, etc.) discussed

October 10, 2019 Third party analysis report received that identifies casting surface anomalies

October 16, 2019 Product Safety Committee meeting called

October 17, 2019 Volvo Product Safety Committee determines a safety-related defect exists.

October 23, 2019 Volvo submits defect report to NHTSA and informs that a voluntary safety recall will be

released to address the potential issue.

Description of Remedy:

Description of Remedy Program: Pre-notification repairs will be addressed according to Volvo's processes associated with reimbursement for repairs made prior to the recall repairs being made available.

> The affected vehicles will be inspected and repaired if required. The program may require a two step recall. First step would be an inspection, and re-torque to a higher value. Under the first step, loose gears that are found will be documented in the recall claim including the casting number and the gear serial number. This may be the final solution. Second step, if required, may require replacement of certain steering gears. Testing is being performed to evaluate whether torquing to the higher value will sustain the clamp load on gears with torque retention issues.

How Remedy Component Differs Testing is being performed to determine whether torquing at higher

from Recalled Component: values will stay tight even with the casting anomalies. The part number of

the steering gear in question is 22803500.

Identify How/When Recall Condition On October 17, 2019, Steering Gears were inspected and any suspect gears

was Corrected in Production: was removed for further analysis. Inspection was made by Sheppard.

Recall Schedule:

Description of Recall Schedule: Dealers will be notified by a recall alert on October 25, 2019. Owner

letters will be mailed by November 15, 2019.

Planned Dealer Notification Date : OCT 25, 2019 - OCT 25, 2019 Planned Owner Notification Date : NOV 15, 2019 - NOV 15, 2019

* NR - Not Reported