OMB Control No.: 2127-0004

Part 573 Safety Recall Report

21V-974

Manufacturer Name: Arrow Manufacturing, Inc.

Submission Date: JUL 11, 2022 NHTSA Recall No.: 21V-974 Manufacturer Recall No.: NR



Manufacturer Information:

Manufacturer Name: Arrow Manufacturing, Inc.

Address: 801 S East St.

Rock Rapids IA 51246

Company phone: 712-261-3157

Population:

Number of potentially involved : 20 Estimated percentage with defect : 100 %

Vehicle Information:

Vehicle 1: 2019-2021 Ram 4500/5500

Vehicle Type: BUSES, MEDIUM & HEAVY VEHICLES

Body Style : OTHER Power Train : DIESEL

Descriptive Information: The recall population was determined based on the suspension kit serial numbers

and conversion kits built and sold within the identified production dates. The recall

affects all 2019+MY suspension kits and converted 2014-2018 MY converted

suspension kits installed on 2019+ MY RAM 4500/5500 cab chassis.

Suspension kits built for and installed on 2014-2018 MY RAM 4500/5500 cab chassis are not affected by the recall because the OEM rear brake caliper flexible line has sufficient length to provide clearance with suspension component(s). 2019+MY RAM 4500/5500 cab chassis OEM rear brake caliper flexible line is shorter than 2014-2018

MY RAM 4500/5500 cab chassis, thus caused potential contact with suspension

component(s).

Production Dates: MAY 01, 2018 - APR 22, 2020

VIN Range 1: Begin: NR End: NR

☐ Not sequential

Description of Defect:

Description of the Defect: The rear brake caliper flexible line may have been routed such that it may be

causing rear brake caliper flexible line wear due to contact with a suspension

component(s).

FMVSS 1: NR FMVSS 2: NR

Description of the Safety Risk: The consequence of the defect can be rear brake caliper flexible line wear

Description of the Cause: NR Identification of Any Warning NR

that can Occur:

Involved Components:

Component Name 1: Brake Line

Component Description: Rear Brake Caliper Flexible Line

Component Part Number: NR

Supplier Identification:

Component Manufacturer

Name: Liquid Spring LLC Address: 4899 E 400 South

Lafayette Indiana 47905

Country: United States

Chronology:

1st Reported Instance – December 12, 2019 - In the case of the 1st reported instance, a customer installing a RAM 4500/5000 rear suspension kit contacted LiquidSpring Customer Service to report contact between the driver side (LH) rear brake caliper flexible line and the lower axle clamp suspension component. Review of customer submitted pictures confirmed contact. Customer reworked the LH rear brake caliper flexible line routing to eliminate contact issue. There had been no other previously reported contact between the rear brake caliper flexible line and suspension component(s) from installers, dealers, or end users of the affected product.

Chronology:

February 10, 2020 - LiquidSpring contacted RAM dealer to obtain rear brake caliper flexible line P/N's for MY 2018, 2019, and 2020 RAM 4500/5500 cab chassis. RAM dealer provided part number information for the rear brake caliper flexible line indicated that the P/N for MY 2019 and 2020 was the same but different from MY2018. Because physical information such as length of the line was not available for comparative purposes, LiquidSpring ordered both rear brake caliper flexible lines for MY 2018 and 2019/20. Only MY 2018 part was received, MY 2019/20 was backordered with delivery date indeterminate.

February 14, 2020 - LiquidSpring began effort to develop banjo manifold block to install between the rear brake caliper and the rear brake caliper flexible line to re-orient the brake line banjo mount and provide an effective longer line length for clearance with the lower axle clamp suspension component.

March 16, 2020 - LiquidSpring began effort to modify the lower axle clamp suspension component to provide clearance for the rear brake caliper flexible line without utilizing banjo manifold block.

March 24, 2020

Trial installation of the developed banjo manifold block between the rear brake caliper and the rear brake caliper flexible line along with re-orientation of the brake line banjo mount.

Description of Remedy:

Description of Remedy Program: A kit, P/N 11849, has been generated consisting of 2 OEM banjo bolts, 8

crush washers, 2 banjo blocks, and installation instructions to install the banjo blocks on each rear caliper and modify the rear brake caliper flexible

line mounting. A kit, P/N 11871, has been generated with OEM

replacement rear brake caliper flexible lines and hardware required to

replace worn rear brake caliper flexible lines as needed.

The company plans to cover all expenses related to the installation of the banjo blocks and/or replacement of worn rear brake caliper flexible lines

How Remedy Component Differs The presence of the banjo blocks installed between the rear brake caliper

from Recalled Component: from Recalled Component: and the rear brake caliper flexible line distinguishes vehicles that do or don't have the remedy completed.

Identify How/When Recall Condition The ongoing production remedy for the rear brake caliper flexible line was Corrected in Production: contact issue will be the modified lower axle clamp suspension component that provides clearance without utilizing the banjo manifold block. This change was implemented on all suspension kits shipped after April 22, 2020. Arrow installed the kits on (14) trucks still at the factory. (7) affected vehicles needed to be corrected in the field at end user locations.

Recall Schedule:

Description of Recall Schedule: Liquid Spring contacted (5) end users directly where product was

already in the field on (7) total vehicles. A total of (21) vehicles were affected and the remaining (14) kits were installed at Arrow before the finished vehicles left the factory. Liquid spring has verified that all kits have been installed and all corrective actions have been completed.

Planned Dealer Notification Date: NR - NR Planned Owner Notification Date: NR - NR

^{*} NR - Not Reported