OMB Control No.: 2127-0004

Part 573 Safety Recall Report

20E-031

Manufacturer Name : LiquidSpring LLC **Submission Date :** MAY 13, 2020

NHTSA Recall No.: 20E-031
Manufacturer Recall No.: NR



Manufacturer Information:

Manufacturer Name: LiquidSpring LLC

Address: 4899 E 400 South

Lafayette IN 47905

Company phone: 4747816

Population:

Number of potentially involved : 397 Estimated percentage with defect : 100%

Equipment Information:

Brand / Trade 1: CLASS Suspension System

Model: RAM 4500/5500

Part No.: DS135RS3A, 3AF, 3-DM

Size: NR Function: NR

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

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: 105 - Hydraulic and electric brake systems

FMVSS 2: NR

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

Description of the Safety Risk: and/or subsequent brake fluid leakage which may result in partial or

complete loss of rear service brakes which could cause damage to the chassis

and/or other vehicles, and possibly result in a crash.

Description of the Cause: The cause of the defect is insufficient length of the rear brake caliper flexible

line and/or suspension component configuration such that the rear brake caliper flexible line can be routed to not contact any suspension component(s).

Identification of Any Warning The defect may be detected by the vehicle operator by abnormal brake pedal

that can Occur: feedback, abnormal stopping ability, or leakage of brake fluid at the rear brake

caliper flexible line wear point. The defect may be detected by the installer by observing contact between the rear brake caliper flexible line and suspension

component(s).

Involved Components:

Component Name: Brake Line

Component Description: Rear Brake Caliper Flexible Line

Component Part Number: NR

Supplier Identification:

Component Manufacturer

Name: LiquidSpring 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.

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 MY

2018. 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: and the rear brake caliper flexible line distinguishes vehicles that do or don't have the remedy completed.

Identify How/When Recall Condition The on-going 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.

Recall Schedule:

Description of Recall Schedule: •

- Send Manufacturer/Dealer letter to all customers of affected (sold) units to solicit dealer/end user contact information
- Follow-up contact with all customers to ensure dealer/end user contact information is made available
- Mail formal Safety Recall Notice to all dealer/end users
- Follow-up contact with dealers/end users regarding inspection of vehicles and scheduling replacement of brackets
- Assist dealers/end users with making arrangements with repair facility to have brackets replaced

Planned Dealer Notification Date: MAY 18, 2020 - MAY 26, 2020

Planned Owner Notification Date: JUN 08, 2020 - JUL 06, 2020

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: Braun Northwest Address: P.O. Box 1204

Chehalis WA 98532

Country: US

Company Phone: 3605573209

Name: Demers Ambulance Manufacturer

Address: 28 Rue Richelieu

Beloeil 00 J3G 4N5

Country: CA

Company Phone: 4504674683

Name: ETR, LLC

Address: 212 Hickman Drive

Sanford FL 32771

Country: US

Company Phone: 4073396737

Name: Excellance

Address: 453 Lanier Road

Madison AL 35758

Country: US

Company Phone: 2567729321

Name: Fesco Emergency Sales

Address: 7010 Troy Hill Drive

Elkridge MD 21075

Country: US

Company Phone: 4103795353

Name: Northwestern Emergency Vehicles

Address: P.O. Box 790

Jefferson NC 28640

Country: US

Name: PL Custom Emergency Vehicles

Address: 2201 Atlantic Ave.

Manasquan NJ 08736

Country: US

Company Phone: 7322231411

Name: Select Tech

Address: 250 N. Thompson Street

Shelbyville TN 45014

Country: US

Company Phone: 9316848964

Name: Utility Bodywerks

Address: 21912 Protecta Drive

Elkhart IN 46516

Country: US

Company Phone: 5745228422

Name: American Emergency Vehicles

Address: 165 American Way

Jeffereson NC 28640

Country: US

Company Phone: 3368468166

Name: Arrow Manufacturing Inc.

Address: P.O. Box 349

Rock Rapids IA 51246

Country: US

Company Phone: 7124723157

Name: Braun Industries

Address: 1170 Production Drive

Van Wert OH 45891

Country: US

Company Phone: 4192327046

Name: Custom Truck & Body Works

Address: P.O. Box 718

Woodbury GA 30293

Country: US

Name: Firetrucks Unlimited Address: 1175 Center Point Dr

Henderson NV 89074

Country: US

Company Phone: 7025583352

Name: Frazer Ltd.

Address: 7219 Rampart Street

Houston TX 77081

Country: US

Company Phone: 7137725511

Name: Horton Emergency Vehicles

Address: 3800 McDowell Road

Grove City OH 43123

Country: US

Company Phone: 6143052332

Name: Life Line Emergency Vehicles

Address: 1 Life Line Drive

Sumner IA 50674

Country: US

Company Phone: 5635783317

Name: Olathe Ford

Address: 1845 E. Santa Fe

Olathe KS 66062

Country: US

Company Phone: 9137824460

Name: Osage Industries

Address: P.O. Box. 718

Linn MO 65051

Country: US

Company Phone: 5738973634

Name: Precision Rescue Vehicles

Address: 33 Loop Road

Arden NC 28704

Country: US

Name: Professional Mabulance

Address: 309 FM 3381

Comanche TX 76442

Country: US

Company Phone: 3253562233

Name: REV Ambulance Group

Address: P.O. Box 677339

Orlando FL 32867

Country: US

Company Phone: 4076777777

Name: Southeastern Specialty Vehicles

Address: P.O. Box 159

Kittrell NC 27544

Country: US

Company Phone: 9194355911

Name: Stonebrooke Equipment, Inc

Address: 14311 Ewing Ave. South

Burnsville MN 55306

Country: US

Company Phone: 9522244430

Name: TMA Operations

Address: 3704 Medallion Place

Newport AR 72112

Country: US

^{*} NR - Not Reported