

Rev A

# Ram 4500/5500 Brake Line Modification

#### **Description of issue:**

Ram 2019-2020 4500/5500 vehicles equipped with a LiquidSpring rear suspension may have a shortened brake hose(s) which could cause the hose to be taut, adversely contacting suspension components and causing chafing on the brake hose(s).

#### **Chassis Affected:**

MY 2019-2020 Ram 4500/5500 Cab Chassis.

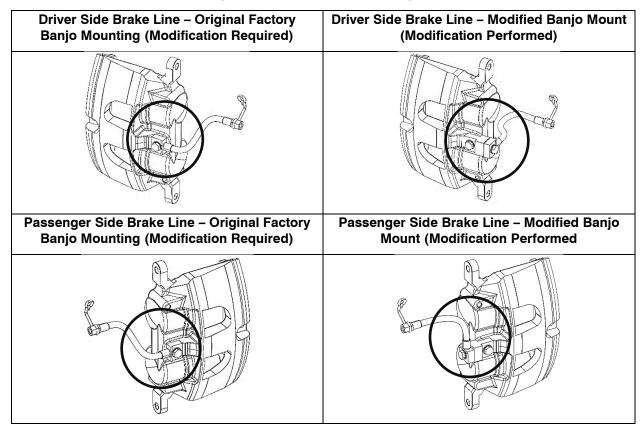
#### Suspension Kit and Serial Numbers Affected:

Kits: DS135RS3A, DS135RS3AF, DS135RS3-DM S/N's: 2010398-2013191

Kits: DS135RS2A, DS135RS2AF with conversion kits for 2019-2020 chassis. S/N's: 2007563-2012863

#### **Component Identification:**

Use the below pictures to identify if the modification is already performed.



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If the brake line is identified as the Original Factory Banjo Mounting, the brake line mounting must be modified with the Modified Banjo Block, Banjo Bolt, and New Crush Washers. Follow modification instructions outlined below for installation of Modified Banjo Block for both Driver and Passenger side.

#### **Inspection Instructions:**

Inspect the brake lines for any wear on the flexible brake line, See Figure 1. If any wear is found on the brake line (not the protective spiral wrap), it must be replaced. Do not proceed with above modification and contact LiquidSpring for additional kit P/N: 11871, to replace brake line.

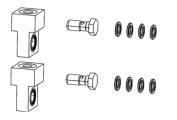


Figure 1: Area to inspect for wear on flexible brake line encircled

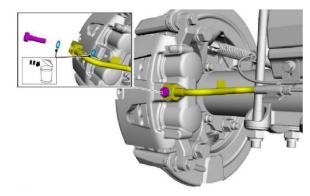
#### **Modification Instructions:**

**NOTE**: The following procedures should be used in conjunction with OEM Hydraulic Brake service instructions and procedures.

 Locate the two (2) banjo bolts, eight (8) crush washers, and two (2) banjo blocks included in kit, P/N 11849.



# 2. On the rear axle, locate the LH Rear brake outer flexible hose.



#### Figure 2: Supplied Banjo Blocks, Bolts, and Crush Washers

Figure 3: Banjo Bolt & Washers to Remove

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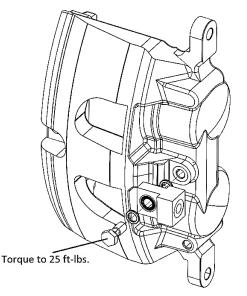


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3. Remove the banjo bolt and crush washers from the LH caliper and only discard washers.

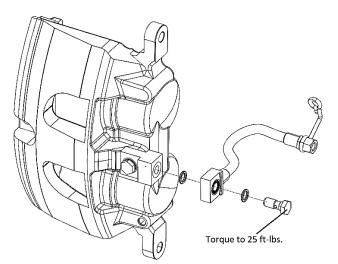
Note: Prop up brake line to minimize fluid loss.

 Install the provided banjo block and crush washers to the caliper using retained banjo bolt from Step 3, See Figure 4– Torque banjo bolt to 25 ft-lbs.



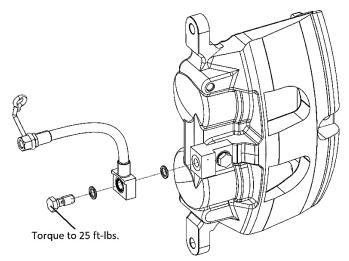
#### Figure 4: Installation of Relocation Block

- Install the Driver side OEM brake banjo mounting with the supplied crush washer and banjo bolt to the banjo block. Orient as shown in Figure 5. Note: Banjo fitting may be rotated to provide optimal clearance between flexible hose and surrounding parts
- 6. Torque banjo bolt to 25 ft-lbs.



#### Figure 5: Installation of Driver Side OEM Brake Line to Relocation Block

- 7. Follow steps 2-4 for the RH side.
- Install the Passenger side OEM brake banjo mounting with the supplied crush washers and banjo bolt to the banjo block. Orient as shown in Figure 6. Note: Banjo fitting must be oriented to provide optimal clearance between flexible hose and surrounding parts
- 9. Torque banjo bolt to 25 ft-lbs.



#### Figure 6: Installation of Passenger Side OEM Brake Line to Relocation Block

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 Bleed the brake system. Follow OEM specified brake bleeding procedure. Use Manufacturer specified brake fluid as marked on the vehicle reservoir cap.

NOTE: A pressure bleed system may be used to simplify one-man operation. See Figure 7.



Figure 7: An example of pressure bleed system: Mityvac MV6840

# **Contact Information**

The LiquidSpring contact information is:

Phone: 765-474-7816 – Dial #1 for Customer Service

8:00 a.m. – 5:00 p.m.

Email: service@liquidspring.com

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