

AXLES AND SUSPENSION

Purpose

This document outlines the process of adding bracing material to spring axle hangers.

NOTE: Images used in this document are for reference only when assembling, installing and/or operating this product. Actual appearance of provided and/or purchased parts and assemblies may differ.

NOTE: Orange lines indicate where material is being removed, either by cutting, grinding or some other method. Red lines with black borders indicate where welding is to occur.

Safety

Read and understand all instructions before installing or operating this product. Adhere to all safety labels.

WARNING

The trailer MUST be supported per manufacturer's recommendations before working underneath. Failure to do so may result in death, serious personal injury, severe product and/or property damage.

WARNING

Always lift the trailer by its frame and never by its axle or suspension. Axle and suspension components are not designed, or rated, for the dead weight, point-of-contact loads that the trailer's frame is. Do not go under the trailer unless it is supported by appropriately rated jack stands. Improperly supported trailers can collapse, causing possible serious personal injury or death.

CAUTION

Moving parts can pinch, cut or crush. Keep clear and use caution.

CAUTION

Wear appropriate personal protective equipment (PPE) when performing service or maintenance operations. Always wear eye protection when servicing trailer axles, brakes, hubs, springs and wheels. Not using PPE may result in personal injury.

Resources Required

- 1 - 2 persons, depending on task
- Floor jacks
- Jack stands
- Pneumatic air or impact gun
- Assorted deep well sockets
- Hammer or mallet
- Torque wrench (ft-lb)
- Welder
- Gloss black Rust-Oleum® spray paint

Procedure

1. Using floor jacks (Fig. 1A), lift the frame slightly and place properly-rated jack stands under the frame (Fig. 1B).
2. If removing Equa Flex® equalizer (Fig.2A) for modification or replacing with Road Armor® equalizer, place properly-rated jack stands under the axles (Fig. 2A) so the shackle bolts can be driven out with a hammer.

NOTE: Tires, wheels, hubs and axles not shown for clarity.



LIPPERT
COMPONENTS

ADDING SPRING AXLE HANGER BRACES

SF-095

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Fig. 1

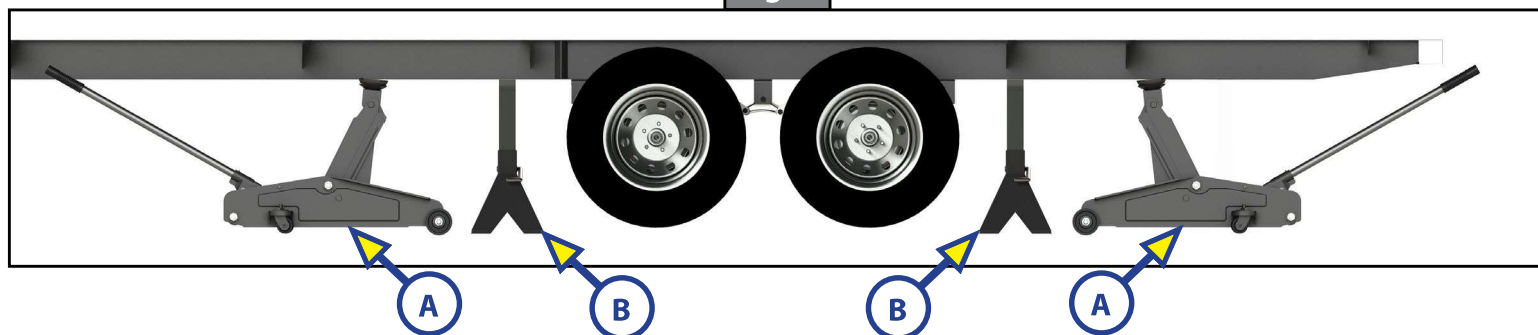
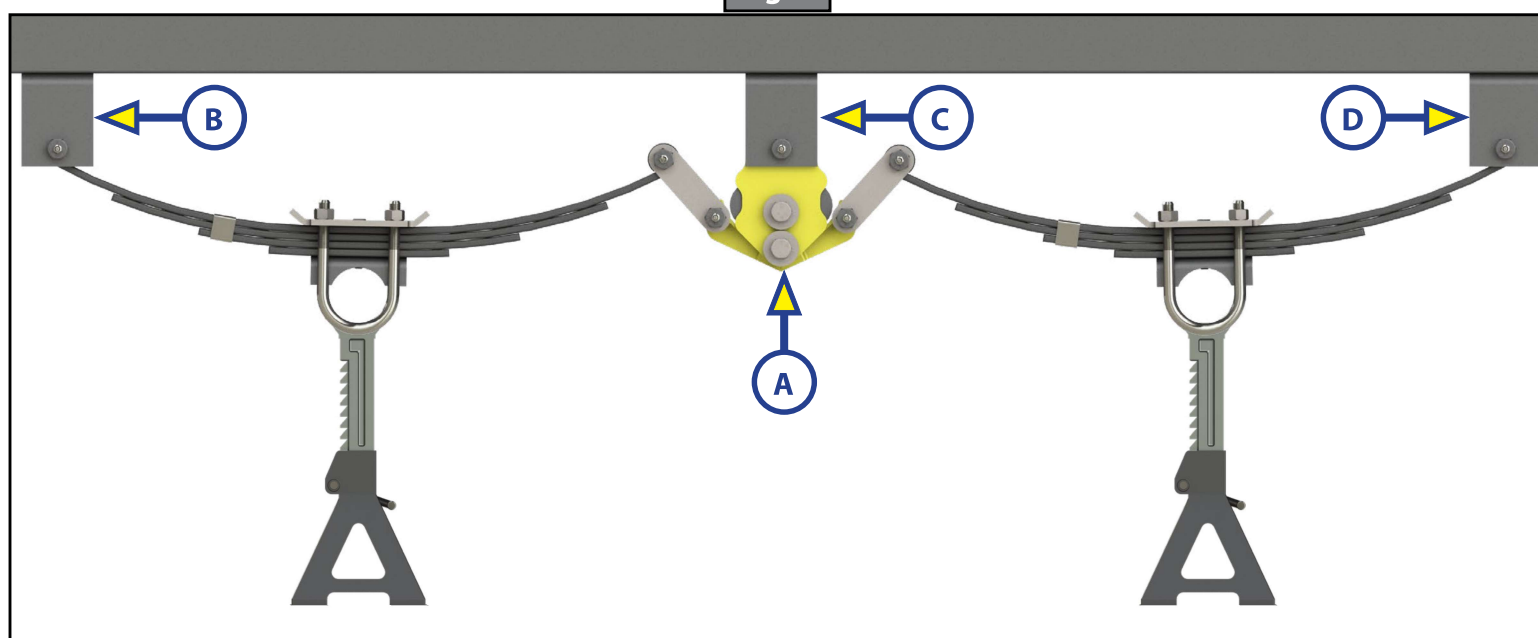


Fig. 2



3. Place a suitable block under the axle tube near the area to be serviced.

NOTE: The block acts as a support for the weight of the axle only, allowing suspended system components to be serviced freely. Multiple axle trailers **MUST** have the weight of each axle properly supported before disassembly of any suspension system components.

4. Remove floor jacks (Fig. 1A). Trailer frame and axles shall be supported by jack stands only.
5. Remove tires and wheels—curbside and roadside—from the axles.
6. Locate the front (Fig. 2B), center (Fig. 2C) and rear (Fig. 2D) axle hangers on the trailer frame rail.

NOTE: Hanger braces can be installed without the removal of the leaf springs.

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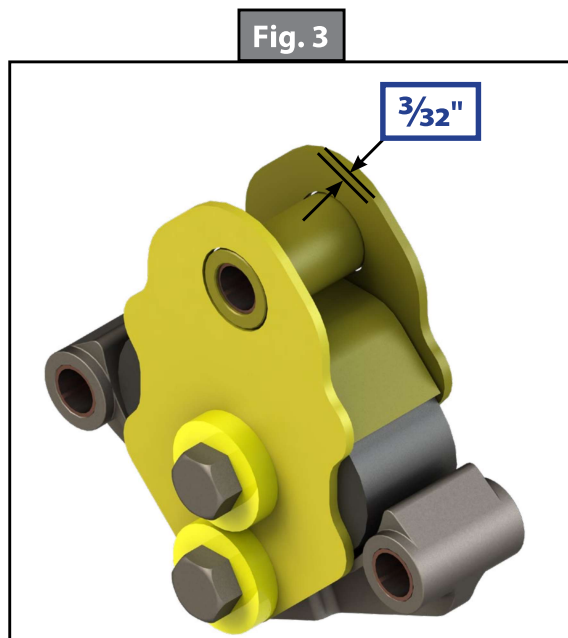
7. If the trailer is equipped with:

NOTE: Go to following step 7.B. for Road Armor or step 7.C. for standard equalizer hanger brace installation.

- A. An Equa-Flex equalizer in the center hanger bracket:
- B. Remove the equalizer from the bracket.

NOTE: Use of a pneumatic air or impact gun and hammer or mallet may be required.

- I. Grind off 3/32" of material from the top edges on both sides of the equalizer (Fig. 3) .



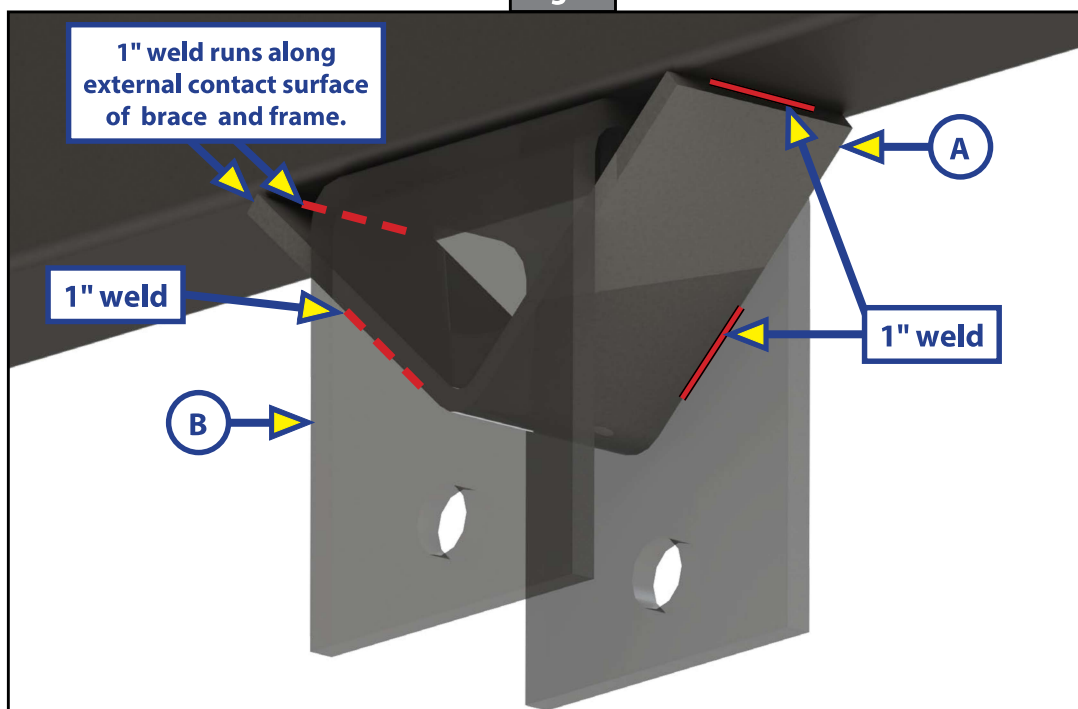
- II. Prep the weld surface area, making sure to remove all contaminants and debris, prior to initiating the weld.
- III. Insert the hanger brace (Fig. 4A) into the hanger (Fig. 4B), so that the brace spans the width of the hanger.
- IV. Four welds of approximately 1", shown in figure 4, are required to secure the brace into the hanger.
- V. After all new weld locations have cooled, clean weld areas then cover with black gloss Rust-Oleum® or similar product, paint.
- VI. Reinstall the modified Equa-Flex equalizer in the center hanger bracket.

NOTE: Optionally, the Equa-Flex equalizer can be replaced by a Road Armor equalizer without any modification. Simply remove the Equa-Flex equalizer and install the Road Armor equalizer, then proceed with welding the hanger braces in-place.

- VII. Continue to weld hanger braces in place for the front and rear hangers.
- VIII. Repeat procedure on the opposite side of the trailer frame.

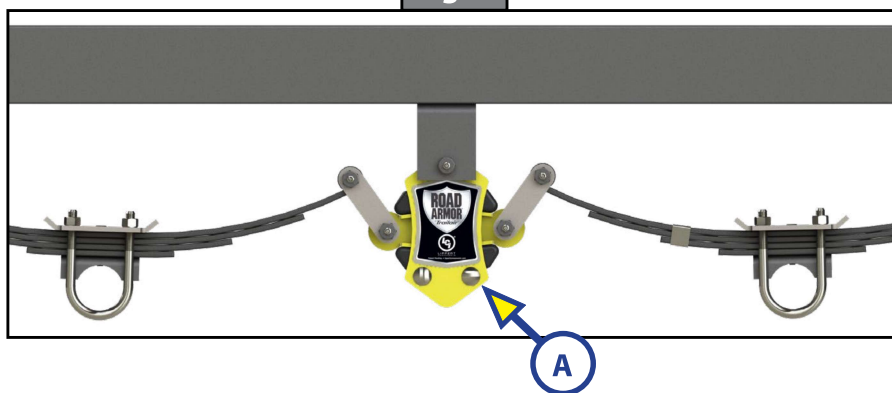
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Fig. 4



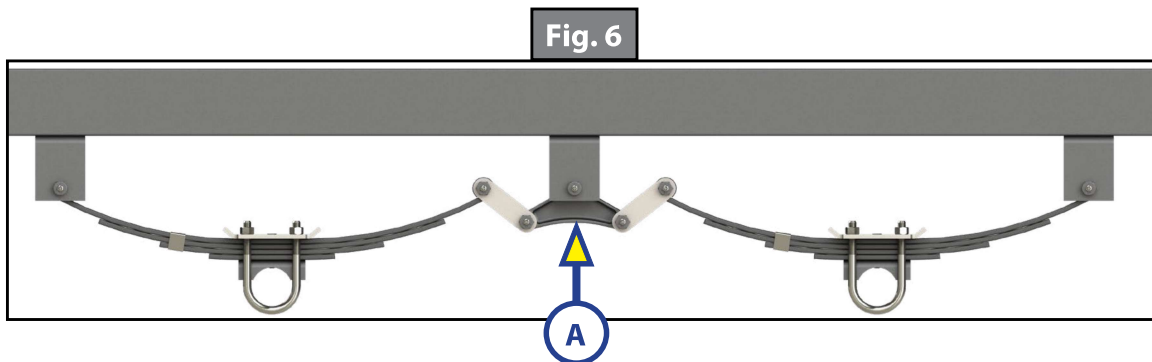
- C. A Road Armor equalizer in the enter hanger bracket (Fig. 5A):
- I. Jack stands to support the axles are not required since the Road Armor equalizer does not need to be removed.
 - II. Weld all hanger braces in place in accordance with the procedures outlined in steps 7.A.III-VI and VIII-IX.

Fig. 5



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- D. A standard equalizer in the center hanger bracket (Fig. 6A):
 - I. Jack stands to support the axles are not required since the standard equalizer does not need to be removed.
 - II. Weld all hanger braces in-place in accordance with the procedures outlined in steps 7.A.III-VI and VIII-IX.



- 8. Reinstall any previously-removed underbelly gas lines and any other components that were removed or relocated prior to the service.
- 9. Reinstall tires, making sure wheel lug nuts are all tight.
- 10. Using floor jacks, support the frame while removing all jack stands.
- 11. Lower the trailer to the ground and torque all wheel lug nuts to the manufacturer's specification.

As a supplier of components to the RV industry, safety, education and customer satisfaction are our primary concerns. Should you have any questions, please do not hesitate to contact us at (574) 537-8900 or by email at customerservice@lci1.com. Self-help tips, technical documents, product videos and a training class schedule are available at lci1.com or by downloading the MyLCI app.