

**ROAD ARMOR[™] TRIPLE AXLE
EQUALIZER by Trailair[®]
OEM INSTALLATION MANUAL**

**LIPPERT
COMPONENTS[®]**

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System Information

The Lippert Component, Inc. Road Armor™ features a new stamped steel design, integrating both time-proven natural rubber inserts and oil impregnated bushings for smoother travel. The Road Armor was designed as a “drop-in” replacement for a standard equalizer setup, which means there is no drilling or welding needed for installation.

Triple Axle Equalizer Options

Two Road Armor Triple Axle Equalizers are available, including long arm and short arm versions, with utilization dependent on axle spacing. Trailers that measure 35” from the center of the first wheel to the center of the second wheel will use the 9.54” long arm version. Trailers that measure 33” between the center of the first wheel to the center of the second wheel will use the 8.67” short arm version.

Safety Information

The load rating is 3,500 pounds to 8,000 pounds for the Road Armor Triple Axle Equalizers.

WARNING

Incorrect raising or lowering of the trailer could result in death, serious injury, and or damage to the trailer.

CAUTION

Make sure the trailer is properly supported before performing any trailer work. Follow the trailer manufacturer's recommendations for lifting and supporting the trailer. Use proper personal protective equipment.

Resources Required

- 1 to 2 Persons, Depending on Task
- Pneumatic Air or Impact Gun
- Torque Wrench
- Cordless or Electric Drill or Screw Gun
- Appropriate Drive Bits
- Hammer
- Vice to Hold Correct Track Cam Plate to Install Bolts (Optional)
- 1 1/16" Deep Well Socket
- 3/4" Deep Well Socket
- 1 3/16" Deep Well Socket
- Steel Tube to Install Bolts with Grease Fittings
- Appropriately-sized and rated bolts and fasteners

Installation

Rear Equalizer (Between 2nd and 3rd Axles)

NOTE: Support framework in accordance with manufacturer's recommendations.

NOTE: When utilizing the Correct Track system, the shorter shoulder bolt will be used to install the rear equalizer to the hangers. The cam plates are not installed on the rear hanger.

Reference Fig. 1 for the following procedural steps:

1. Install the Road Armor into the hanger. Make sure the Road Armor label is facing outward.
2. Install the equalizer bolt through the first bracket of the hanger, then through the topmost bronze bushing of the Road Armor equalizer and, finally, through the second bracket of the hanger.
3. Use a hammer or a piece of steel tube (for bolts with grease fittings) and drive the equalizer bolt into the hanger. This will seat the serrations of the bolt against the hanger surface and provide resistance to rotation when tightening.

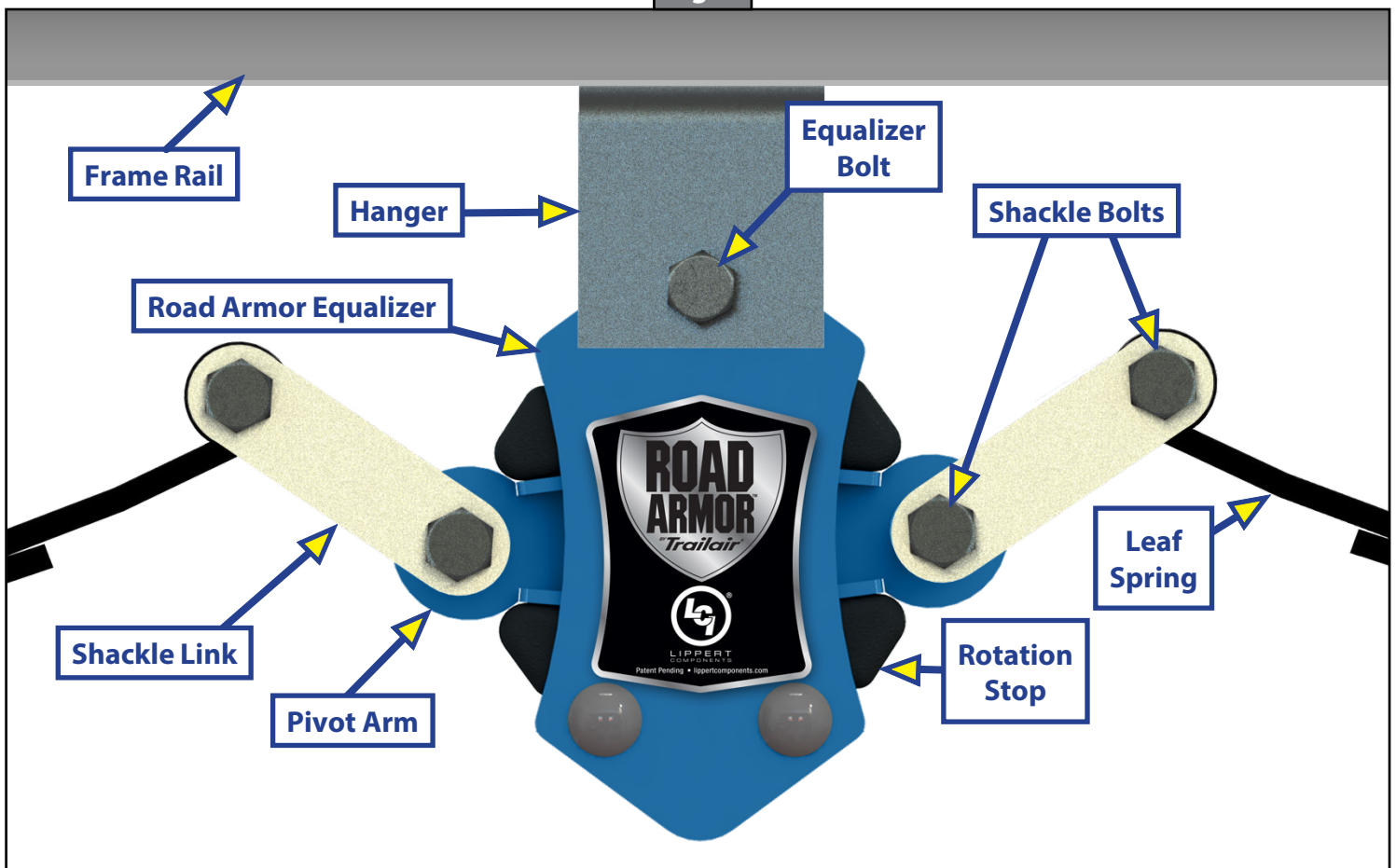
NOTE: The equalizer bolt must be installed from the outside in toward the center of the trailer chassis. This ensures the bolt threads do not interfere with any other assemblies. This applies to bolts with or without grease fittings.

4. Install the nut onto the equalizer bolt until the nut seats against the shoulder bolt. Torque nut to 30-50 ft-lbs.

NOTE: When installing the equalizer bolt nuts, use a wrench to hold the bolt heads.

5. Repeat Steps 1 through 4 for opposite side of the trailer.

Fig. 1



Front Equalizer (Between 1st and 2nd Axles)

NOTE: Support framework in accordance with manufacturer's recommendations.

NOTE: There is a left hand (LH) and a right hand (RH) Triple Axle Road Armor Equalizer. The fixed arm must always face toward the rear of the trailer.

NOTE: If the Correct Track system is installed, this procedure will take the longer shoulder bolt. Cam plates are installed on the front triple equalizer hanger.

Reference Fig. 2, which illustrates a roadside installation, for the following procedural steps:

1. Install the triple axle equalizer on the roadside hanger with the fixed arm facing the rear of the trailer and with the Road Armor logo facing outward.
2. Install the equalizer bolt through the first bracket of the hanger, then through the topmost bushing of the Road Armor equalizer and, finally, through the second bracket of the hanger.
3. Use a hammer or a piece of steel tube (for bolts with grease fittings) and drive the equalizer bolt into the hanger. This will seat the serrations of the bolt against the hanger surface and provide resistance to rotation when tightening.

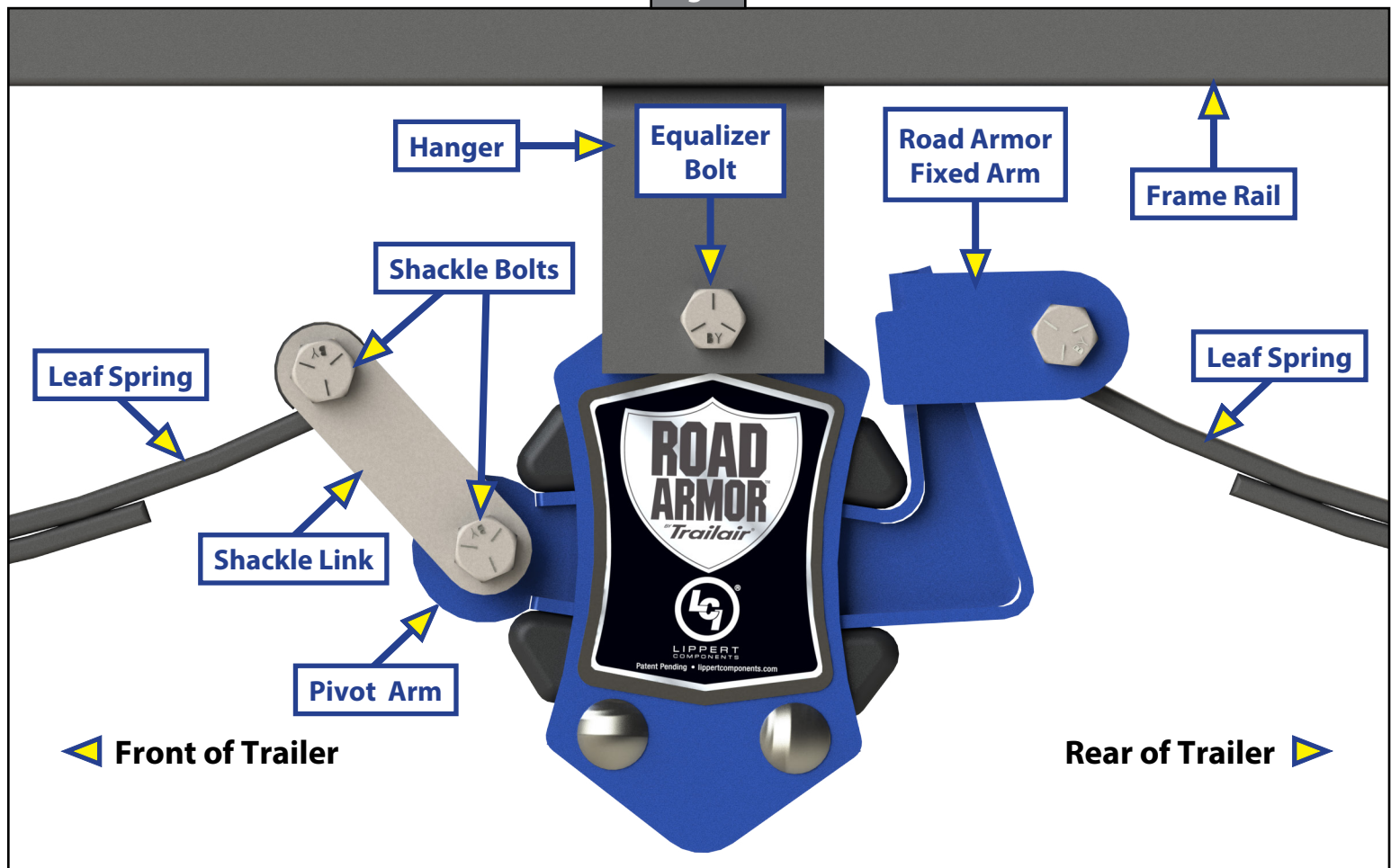
NOTE: The equalizer bolt must be installed from the outside in toward the center of the trailer chassis. This ensures the bolt threads do not interfere with any other assemblies. This applies to bolts with or without grease fittings.

4. Install the nut onto the equalizer bolt until the nut seats against the shoulder bolt. Torque nut to 30-50 ft-lbs.

NOTE: When installing the equalizer bolt nuts, use a wrench to hold the bolt heads.

5. Repeat Steps 1 through 4 for the opposite side of the trailer, making sure the fixed arm faces toward the rear.

Fig. 2



Final Component Installation

Place the axles into their normal operating position.

Reference Fig. 3, which illustrates a roadside installation, and Fig. 4, which illustrates a curbside installation, for the following procedural steps:

NOTE: When installing the nuts, use a wrench to hold the bolt heads.

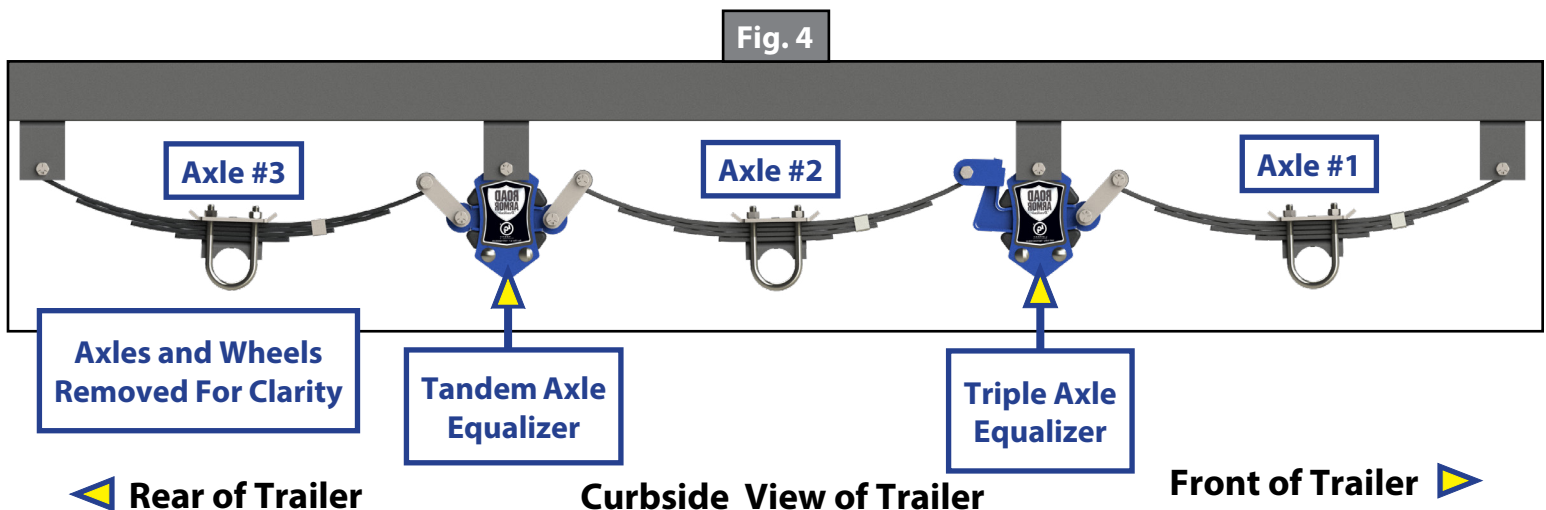
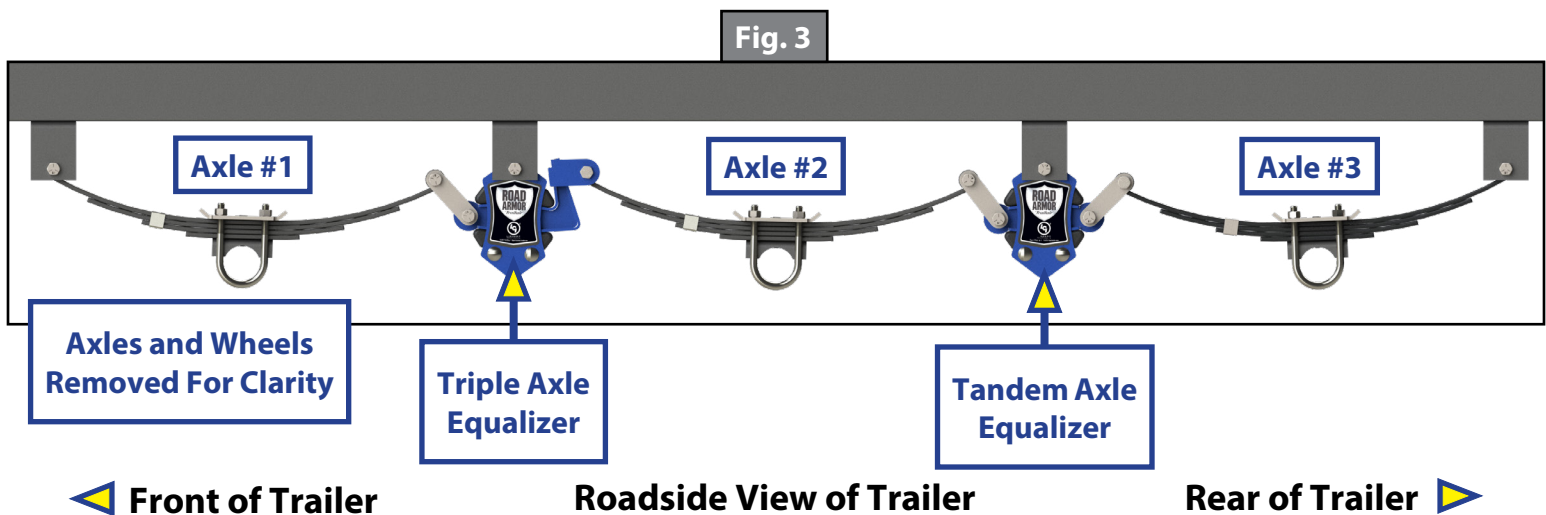
1. For Axle 1 and Axle 3, attach the leaf springs to the hangers with shoulder bolts and nuts.
2. For Axle 2, attach the leaf spring to the fixed arm of Triple Axle Equalizer with shackle bolt and nut, included within kit.

NOTE: A longer shoulder bolt must be used to attach the leaf spring to the Road Armor fixed arm.

3. For Axle 1, Axle 2 and Axle 3, attach all shackle links to the Road Armor pivot arm bushings and the leaf springs with shackle bolts and nuts.
4. Tighten all nuts until they bottom out on the shoulder bolt at 30-50 ft-lbs.
5. Repeat Steps 1 through 4 for the opposite side of the trailer.
6. The LCI Triple Axle Road Armor installation is complete.

Optional Wheel Installation

1. Install wheels and apply lug nuts in a star fashion and torque as per manufacturer's specifications.
2. Lower the trailer evenly to the ground. Use care to avoid jarring movement. The trailer **MUST** not be dropped to the ground. Make sure the shackle links are upright and located approximately in the 10 o'clock and 2 o'clock position (Fig. 3 and Fig. 4).





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