





LIPPERT Components

Equa-Flex[®] **Triple Axle** Installation and Owner's Manual

(For Aftermarket Applications)

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Equa-Flex Triple Axle Aftermarket Kits		
Part #	Description	
<u>281314</u>	Equa-Flex® Triple Axle, 3-6K	
<u>279689</u>	Equa-Flex® Triple Axle, 5-8K	



Introduction

The Equa-Flex Triple Axle 3-6K kits are used for triple-axle trailers with double-eye leaf springs and weight capacity from 3,000 to 6,000 lbs. The Equa-Flex Triple Axle 5-8K heavy-duty kit is for triple-axle trailers with double-eye leaf springs and a weight capacity from 5,000 to 8,000 lbs.

Quick Facts

- Comes with two Equa-Flex sub units and two Equa-Flex sub units with upper shock weldmounts.
- · Each sub unit comes with pre-installed bronze bushings.
- Center hanger and other mounting hardware sold separately.

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.

Additional information about this product can be obtained from <u>lci1.com/support</u> or by using the myLCI app. Replacement kits can be ordered from <u>https://store.lci1.com/</u> or by using the myLCI app.

The myLCI app is available for free on iTunes[®] for iPhone[®] and iPad[®] and also on Google Play[™] for Android[™] users.

iTunes[®], iPhone[®], and iPad[®] are registered trademarks of Apple Inc.

Google Play[™] and Android[™] are trademarks of Google Inc

Information regarding the assembly and components of this product can be obtained from <u>https://support.lci1.com/equa-flex</u>.

Safety

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

This manual provides general instructions. Many variables can change the circumstances of the instructions, i.e., the degree of difficulty, operation and ability of the individual performing the instructions. This manual cannot begin to plot out instructions for every possibility, but provides the general instructions, as necessary, for effectively interfacing with the device, product or system. Failure to correctly follow the provided instructions may result in death, serious personal injury, severe product and/ or property damage, including voiding of the LCI limited warranty.

A WARNING

THE "WARNING" SYMBOL ABOVE IS A SIGN THAT A SAFETY RISK IS INVOLVED AND MAY CAUSE DEATH, SERIOUS PERSONAL INJURY AND/OR SEVERE PRODUCT OR PROPERTY DAMAGE IF NOT SAFELY ADHERED TO AND WITHIN THE PARAMETERS SET FORTH IN THIS MANUAL.

AWARNING

FAILURE TO FOLLOW INSTRUCTIONS PROVIDED IN THIS MANUAL MAY RESULT IN DEATH, SERIOUS PERSONAL INJURY AND/OR SEVERE PRODUCT AND PROPERTY DAMAGE, INCLUDING VOIDING OF THE COMPONENT WARRANTY.

A WARNING

THE TRAILER MUST BE SUPPORTED PER MANUFACTURER'S RECOMMENDATIONS BEFORE WORKING UNDERNEATH. FAILURE TO DO SO MAY RESULT IN DEATH OR SERIOUS INJURY.

A CAUTION

THE "CAUTION" SYMBOL ABOVE IS A SIGN THAT A SAFETY RISK IS INVOLVED AND MAY CAUSE PERSONAL INJURY AND/OR PRODUCT OR PROPERTY DAMAGE IF NOT SAFELY ADHERED TO AND WITHIN THE PARAMETERS SET FORTH IN THIS MANUAL

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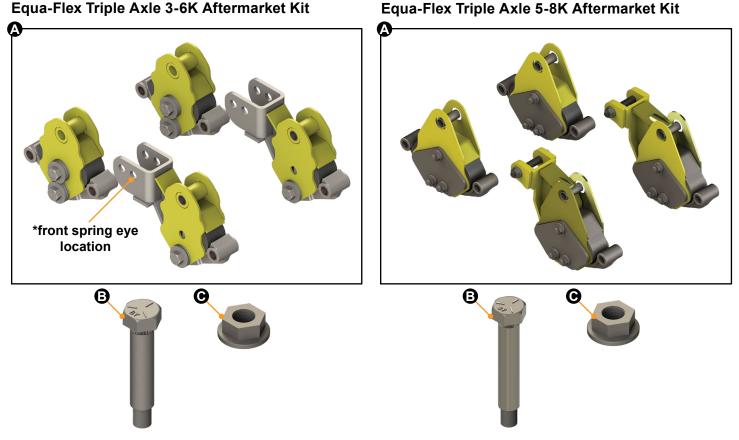
MOVING PARTS CAN PINCH, CRUSH, OR CUT. KEEP CLEAR AT ALL TIMES.



(For Aftermarket Applications)

Parts List

NOTE: Part numbers are shown for identification purposes only. Not all parts are available for individual sale. All parts with a link to the Lippert Store can be purchased.



Equa-Flex Triple Axle 3-6K Aftermarket Kit # 281314			1314
Letter	PN	Description	Qty
А	167407	Equa-Flex 3K - 6K Triple Axle Set	1
В	<u>122102</u>	Bolt, 7/16" - 20 X 2 7/8"; GR5 (.563 Body Dia.), Black Phos & Oil	2
С	<u>122103</u>	Nut, 7/16" - 20 REVLKN ZN GR2 ST	2

NOTE: The 281314 kit should only be used with a hanger spacing of 29.5"/33"/29.5". 29.5" spacing from front to center hanger, 33" from center to center hanger and 29.5" from center to rear hanger. The *front spring eye of the middle axle should go into the hole closest to the Equa-Flex body.

Equa-Flex Triple Axle 5-8K Aftermarket Kit # 279689 Letter ΡN Description Qty А 145549 Equa-Flex 5K - 8K Triple Axle Set 1 Bolt, 7/16" - 20 X 3.375"; GR5 в 2 271254 (.563 Body Dia.), Black Phos & Oil Nut, 7/16" - 20 REVLKN ZN GR2 ST С 2 <u>122103</u>

NOTE: The 279689 kit can only be used when the hanger spacing is 30.5"/35"/30.5". 30.5" spacing from front to center hanger, 35" from center to center hanger and 30.5" from center to rear hanger.

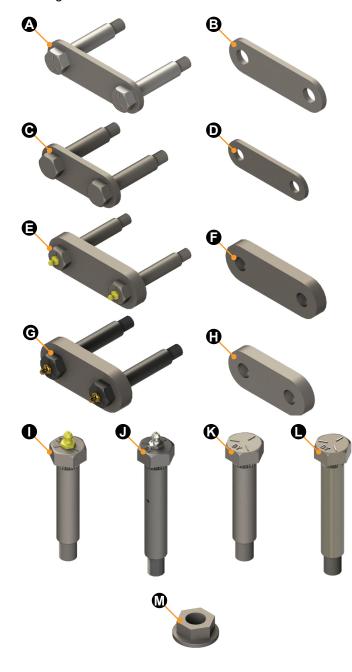
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(For Aftermarket Applications)

Parts Available for Purchase

The parts listed are **NOT** part of the Equa-Flex Triple Axle Kit but can be purchased separately. It is always recommended to inspect and replace any worn or damaged shackles and bolts.



Parts Available for Purchase Shackle Links and Assemblies			
Letter	PN	Description	Qty
А	<u>133485</u>	Shackle Assembly, Standard Long, 3.13"	1
В	<u>133207</u>	Shackle Link, Standard Long, 3.13"	1
С	<u>125675</u>	Shackle Assembly, Standard Short, 2.25"	1
D	<u>122487</u>	Shackle Link, Standard Short, 2.25"	1
E	<u>156766</u>	Shackle Assembly, Heavy Duty Long, 3.13"	1
F	<u>1567651</u>	Shackle Link, Heavy Duty Long, 3.13"	1
G	<u>126205</u>	Shackle Assembly, Heavy Duty Short, 2.25"	1
Н	<u>126172</u>	Shackle Link, Heavy Duty Short, 2.25"	1
I	<u>126238</u>	Wet Bolt, 9/16" x 2.325" Body with 7/16" - 20 Threaded End	1
J	<u>126197</u>	Wet Bolt, 9/16" x 2.825" Body with 7/16" - 20 Threaded End	1
К	<u>122102</u>	Bolt, 9/16" x 2.325" Body with 7/16" - 20 Threaded End	1
L	<u>271254</u>	Bolt, 9/16" x 2.825" Body with 7/16" - 20 Threaded End	1
М	<u>122103</u>	Nut, 7/16" - 20 REVLKN ZN GR2 ST	1

Resources Required

- 1 to 2 People, depending on task
- Pneumatic impact wrench
- Torque wrench (ft-lb)
- Cordless or electric drill or screw gun
- Appropriate drive bits
- 11/16" Deep well socket
- ¾" Deep well socket
- ¹³/₁₆" Deep well socket
- · Steel tube to install bolts with grease fittings
- Multi-purpose grease marked with a NLGI code of GC-LB
- Appropriately-sized and rated bolts and fasteners
- Floor jacks
- Floor jack stands
- Hammer
- Grease gun



(For Aftermarket Applications)

Prior to Installation

A WARNING

MAKE SURE ANY POINTS OF CONTACT FOR JACK STANDS DO NOT RESULT IN DAMAGE TO ANY PANELS OR LINES UNDER THE TRAILER. IMPROPER RAISING OR LOWERING OF THE TRAILER COULD RESULT IN DEATH, SERIOUS INJURY OR SEVERE PRODUCT OR PROPERTY DAMAGE.

1. Using the properly-rated floor jacks, lift the trailer according to the manufacturer's recommendation until the wheels are no longer in contact with the ground (**Fig.1**).

2. Support framework in accordance with the manufacturer's recommendations.



Fig.1

3. Remove the tires and wheels from the trailer. The suspension should be free from any loads, except its own weight at this point.

4. Place another set of jack stands under the axles, close to the U-bolt plates. This will provide support to the axles and ensure that they do not swing down during disassembly of the shackle components.

NOTE: Allowing the axles to drop could result in damage to the wiring for the electric brakes.

5. Remove the two shackle nuts (Fig.2A) on the shackle at the rear of the front spring.

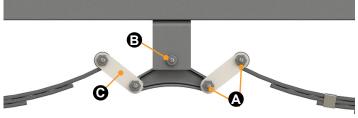


Fig.2

NOTE: The bolts are pressed into the shackle plate and should not turn. However, use a properly-sized box end wrench to make sure the bolts do not turn during the removal of the nuts.

6. After the nuts and the shackle plate are removed, remove the shackle plate with the bolts from the other side.

7. After removing the front spring's shackles at the equalizer, repeat the process for the shackles (**Fig.2C**) that mate the rear spring to the equalizer.

8. Remove the nut on the cross bolt for the equalizer (Fig.2B). Again, the bolt may be pressed into the frame hanger and should not be allowed to rotate.

9. Remove the old equalizer.

NOTE: LCI recommends using new shackle links with shackle bolts and nuts for installation of the Equa-Flex. Shackle Link kits not included.



(For Aftermarket Applications)

Installation

A WARNING

THE TRAILER MUST BE SUPPORTED PER MANUFACTURER'S RECOMMENDATIONS BEFORE WORKING UNDERNEATH. FAILURE TO DO SO MAY RESULT IN DEATH OR SERIOUS INJURY.

Reference figure 3 rear Equa-Flex axle for component clarification during installation.

Rear Axles

NOTE: When installing the Equa-Flex Equalizer into the center frame hanger, the Equa-Flex Equalizer label should be facing out.

1. Install the equalizer bolt through the frame hanger outside plate, the top most bronze equalizer bushing, and through the frame hanger inside plate.

2. Use a hammer or a piece of steel tube (for bolts with a grease fitting) and drive the bolt into the frame hanger outside plate, until the bolt head is seated against the hanger surface.

3. Both the shackle bolts and equalizer bolt must be installed from the outside-in towards the center of the trailer chassis. This ensures that the bolt threads do not interfere with any other assemblies. This applies to bolts with or without grease fittings.

4. Thread a nut onto the exposed equalizer bolt thread until the nut seats against the hanger. Torque the nut until it bottoms out on the bolt shoulder at 30-50 ft-lbs.

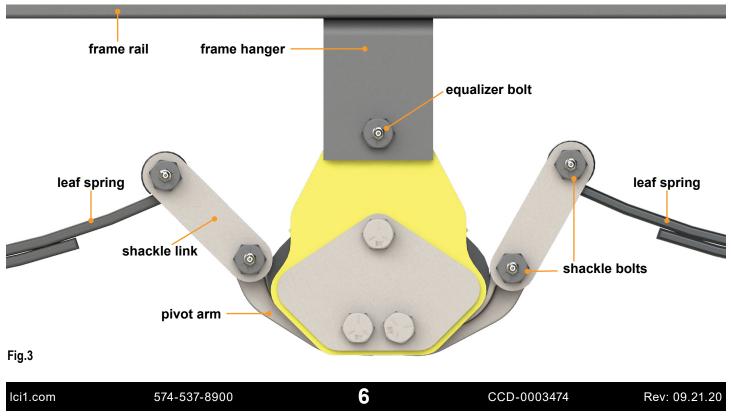
5. Place the axles into the normal operating position.

6. Attach the new shackle links with shackle bolts and mounting nuts.

7. Torque the nuts until they bottom out on the bolt shoulder at 30-50 ft-lbs.

8. Repeat steps 1-7 for the opposite side of the trailer.

NOTE: If using the triple axle greaseable bolts with grease fittings, use any multi-purpose grease marked with the NLGI code of GC-LB.





Front Axles

1. Install the triple axle equalizer on the roadside frame hanger with the fixed arm (**Fig.4**) facing the rear of the trailer and the Equa-Flex logo facing outward.

2. Install the equalizer bolt through the first bracket of the frame hanger, then through the topmost bushing of the Equa-Flex equalizer and, finally, through the second bracket of the frame hanger.

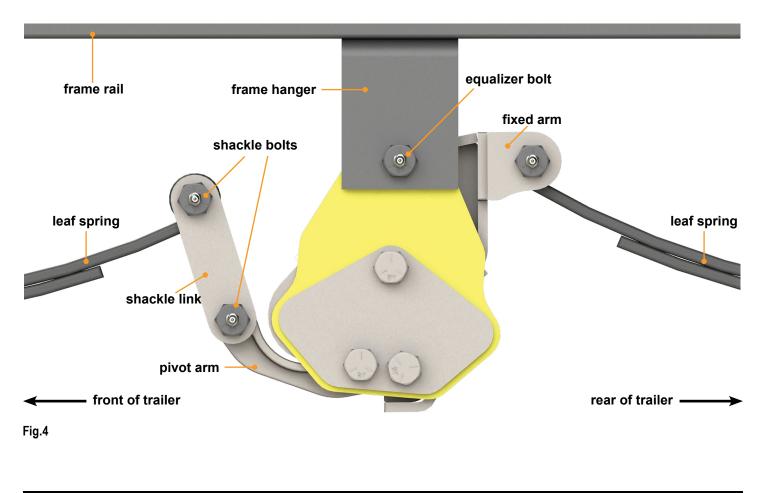
3. Use a hammer or a piece of steel tube (for bolts with grease fittings) and drive the equalizer bolt into the frame hanger. This will seat the serrations of the bolt against the hanger surface and provide resistance to rotation when tightening.

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 1-4 for the opposite side of the trailer, making sure the fixed arm faces towards the rear. Reference figure 5, which illustrates a roadside installation, and figure 6, which illustrates a curbside installation, for the following procedural steps:





6. For Axle #1 and Axle #3, attach the leaf springs to the hangers with shoulder bolts and nuts (**Figs.5 and 6**).

7. For Axle #2, attach the leaf spring to the fixed arm of triple axle Equa-Flex equalizer configuration with shackle bolt and nut (**Figs.5 and 6**), included within kit.

NOTE: For Axle #2, using kit #281314, when attaching the leaf spring to the fixed arm, use the front spring eye location, see the Parts List section for location.

NOTE: A longer shoulder bolt MUST be used to attach the leaf spring to the Equa-Flex fixed arm.

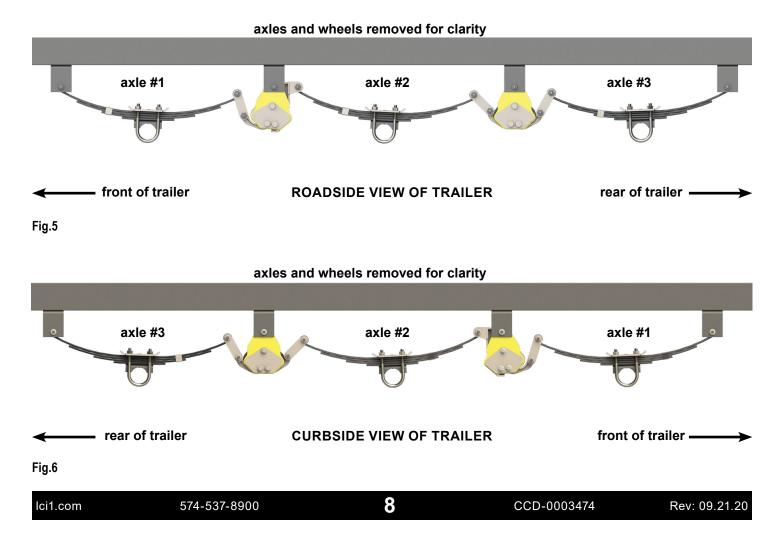
8. For Axle #1, Axle #2 and Axle #3, attach all shackle links to the Equa-Flex pivot arm bushings and the leaf springs with shackle bolts and nuts (**Figs.5 and 6**).

9. Torque all nuts until they bottom out on the shoulder bolt at 30-50 ft-lbs.

10. If using the triple axle greaseable bolts with grease fittings, use any multi-purpose grease marked with the NLGI code of GC-LB.

11. The installation of the LCI Equa-Flex Equalizer on a triple axle trailer is now complete (**Figs.5 and 6**).

12. 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 (Figs.5 and 6).





Notes





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Manual information may be distributed as a complete document only, unless Lippert Components provides explicit consent to distribute individual parts.

All manual information is subject to change without notice. Revised editions will be available for free download at <u>lci1.com</u>. Manual information is considered factual until made obsolete by a revised version.

Please recycle all obsolete materials and contact Lippert Components with concerns or questions.

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