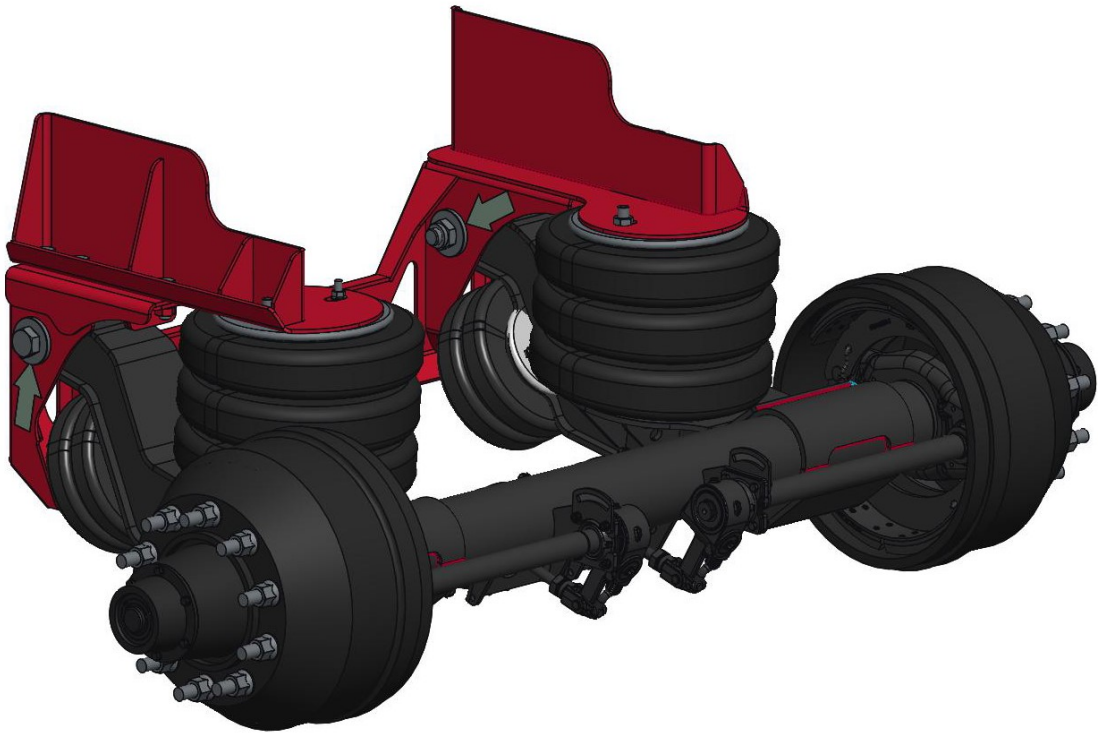
Auxiliary Suspensions

INSTALLATION INSTRUCTIONS

8A000050 - 5500 SERIES



AVAILABLE IN 13K CAPACITY

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80000212
JAN 23, 2024

IMPORTANT: IT IS IMPORTANT THAT THE ENTIRE INSTALLATION INSTRUCTIONS BE READ THOROUGHLY BEFORE PROCEEDING WITH THE INSTALLATION.

1. INTRODUCTION

Thank you for choosing a Link Auxiliary Suspension. We want to help you get the best results from this suspension and to operate it safely. This instruction contains information to assist in the installation of the reverse lock assemblies for your Link Auxiliary Suspension. This instruction is intended solely for use with this product.

All information in this instruction is based on the latest information available at the time of printing. Link Manufacturing reserves the right to change its products or manuals at any time without notice.

Damaged components should be returned to Link with a pre-arranged Returned Materials Authorization (RMA) number through the Customer Service Department. The damaged component may then be replaced if in compliance with warranty conditions.

2. SAFETY SYMBOLS, TORQUE SYMBOL, and NOTES

⚠DANGER	**DANGER indicates a hazardous situation which if not avoided, will result in death or serious injury.**
⚠WARNING	**WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.**
⚠CAUTION	**CAUTION indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.**
NOTICE	***NOTICE* indicates a potentially hazardous situation which, if not avoided, may result in property damage.**
TORQUE	***TORQUE* indicates named fasteners are to be tightened to a specified torque value.**
NOTE:	**A Note provides information or suggestions that help you correctly perform a task.**

3. SAFE WORKING PRACTICES

⚠CAUTION When handling parts, wear appropriate gloves, eyeglasses, ear protection, and other safety equipment.

⚠CAUTION Proper tightening of fasteners is important to the performance and safety of the suspension. Follow all torque specifications throughout the instructions.

4. INSTALLATION GUIDELINES

4.1 In order for this suspension to operate properly, it must operate in the parameters specified by Link.

4.2 The installer must verify the vehicle is configured properly for the lift axle(s) being added.

4.3 It is the responsibility of the installer to determine the location of the suspension in order to obtain proper load distribution.

4.4 Suspension Identification: Each assembly has an identification label located on the hanger of the suspension on the drivers side of the vehicle. The label includes the Link part number for the axle and the suspension serial number.

4.5 No alterations of any Link suspension component is permitted without proper authorization from qualified Link personnel.

4.6 No welding of any suspension components is permitted except when specified by Link.

⚠CAUTION **4.7** The vehicle manufacturer should be consulted before any modifications are made to the frame of the vehicle. Cutting or altering the frame in certain areas may affect the manufacturer's warranty.

⚠WARNING **4.8** It is the responsibility of the installer to ensure that compliance with FMVSS 121 is maintained by the braking system.

⚠CAUTION **4.9** Proper tightening of fasteners is important to the performance and safety of the suspension. Follow all torque specifications throughout the instructions.

5. PRE-INSTALLATION CHECKLIST

□ Verify that the intended axle spacing to be used conforms to Federal and local bridge laws.

□ Verify that the frame width matches the suspension specifications (33 3/8" to 35").

□ Verify that adequate air supply exists to support braking requirements for the lift axle being installed.

□ Verify clearance between the drive shaft and the auxiliary suspension, with the axle lifted and lowered.

□ Verify tire clearance in all directions, with the axle lifted and lowered.

□ Verify air spring clearance in all directions, with the axle lifted and lowered.

□ Verify suspension clearance with truck components, with the axle lifted and lowered.

6. RIDE HEIGHT AND FRAME ACCOMMODATIONS

NOTICE

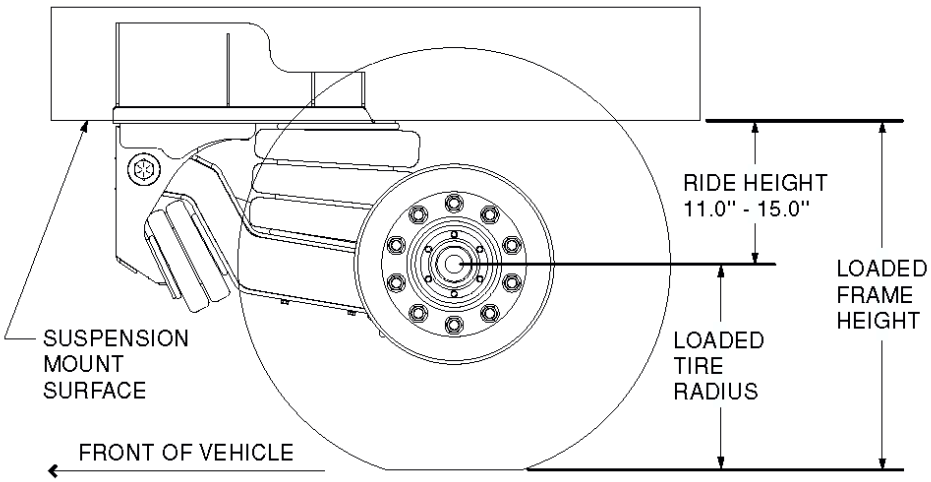
6.1 In order for the suspension to function properly, the "Ride Height" of the suspension must be within the range specified by Link Mfg. Refer to the charts on the following pages to select the correct frame kit based on the combination of variables present in your truck's configuration.

6.2 To determine the appropriate Frame Mount Kit use the formula below and then refer to the Lift Chart.

Loaded Frame Height - Loaded Tire Radius
= Ride Height

6.3 With the correct chart, the amount of lift can be found by intersecting the Loaded Tire Radius with the Loaded Frame Height.

NOTE: When measuring frame to ground clearance, be sure to measure with vehicle loaded, at the intended suspension location and on level ground.



MODEL 5500 LIFT CHART	RIDE HEIGHT 11" - 15"										
	STRAIGHT OR 6" DROP CENTER AXLE										
LOADED FRAME HEIGHT	26	27	28	29	30	31	32	33	34	35	36
TIRE RADIUS											
15 (LOADED)	8	9	10	11	12						
16 (LOADED)		8	9	10	11	12					
17 (LOADED)			8	9	10	11	12				
18 (LOADED)				8	9	10	11	12			
19 (LOADED)					8	9	10	11	12		
20 (LOADED)						8	9	10	11	12	
21 (LOADED)							8	9	10	11	12

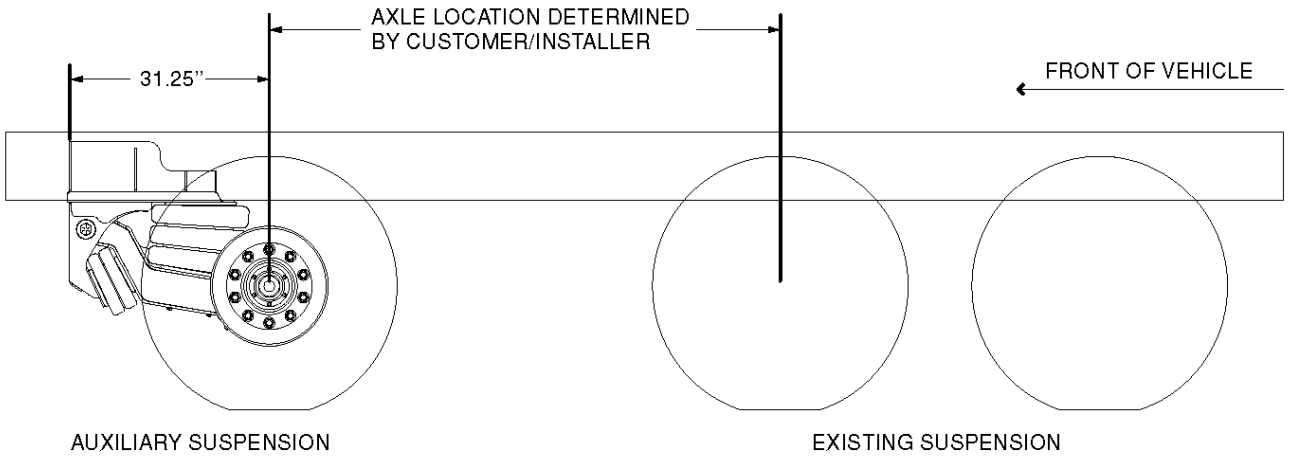
7. SUSPENSION LOCATION

7.1 Before determining suspension location, thoroughly review the pre-installation checklist found in the Introduction section of this manual. Be sure that vehicle is located on a flat and level surface before measuring for suspension location. When this is complete, mark suspension location and boundaries on truck frame rail. (See Fig. 1 & 2 for details)

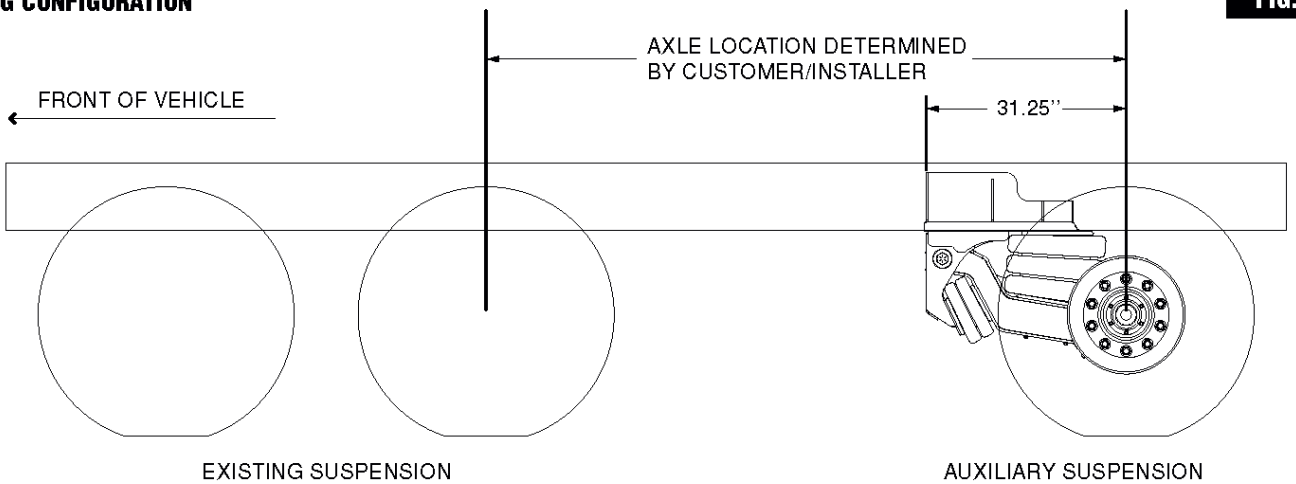
7.2 Prior to suspension installation, any interference with existing frame bolts or brackets should be addressed. If any modifications to the auxiliary suspension is needed, you should consult Link Mfg.

7.3 Frame cross-members should be located at or near the front and rear hanger brackets.

PUSHER CONFIGURATION **FIG. 1**



TAG CONFIGURATION **FIG. 2**



8. SUSPENSION INSTALLATION

8.1 IMPORTANT: The mounting surfaces of the auxiliary suspension must set tight to the sides and bottom of the truck frame rail.

8.2 With suspension location determined, clamp the suspension to the truck frame rails. Remember, alignment slots will allow the axle to move for and aft.

8.3 Double check the suspension location and any interference concerns. Also, check that drilling will not interfere with any brake or fuel lines, wiring or other components that might be located on the inside of the frame.

8.4 Once the suspension is clamped tightly to the outside and bottom surfaces of the truck frame, check all clearance issues and then center punch all mount holes. (See Fig. 3 for recommended mount hole location.)

8.5 With mount holes marked, drill 21/32" diameter holes at hole locations.

8.6 Fasten suspension side to frame rail with SAE 5/8" UNC GRADE 8 HEX FLANGE BOLT and 5/8" GRADE G PREVAILING TORQUE HEX FLANGE NUT, not supplied with suspension. (See Fig. 4 for fastener details).

8.7 Double check the passenger's side suspension location for any interference concerns. Also check that drilling will not interfere with any brake or fuel lines, wiring or other components that might be located on the inside of the frame. Repeat steps 5, 6 & 7 for the passenger side of the suspension.

8.8 After all 5/8" UNC mount fasteners are installed and snug, torque to 185-235 ft. lbs.

FIG. 3

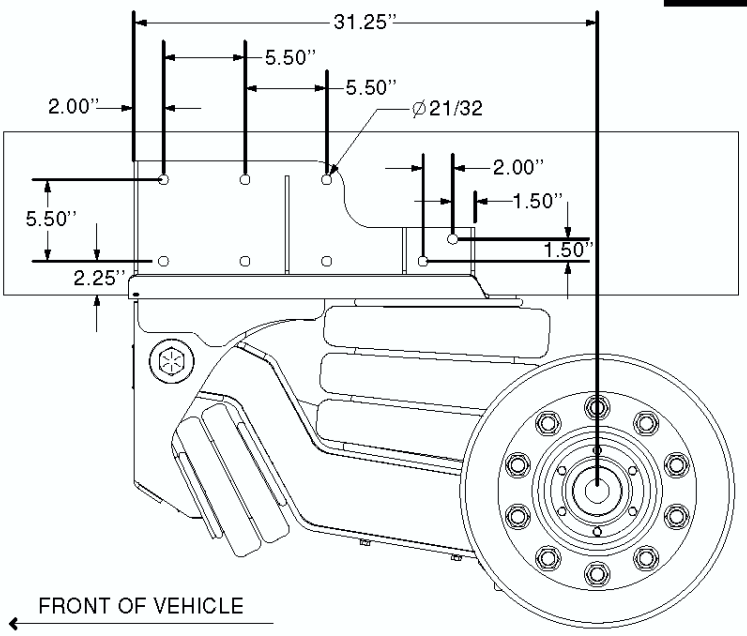
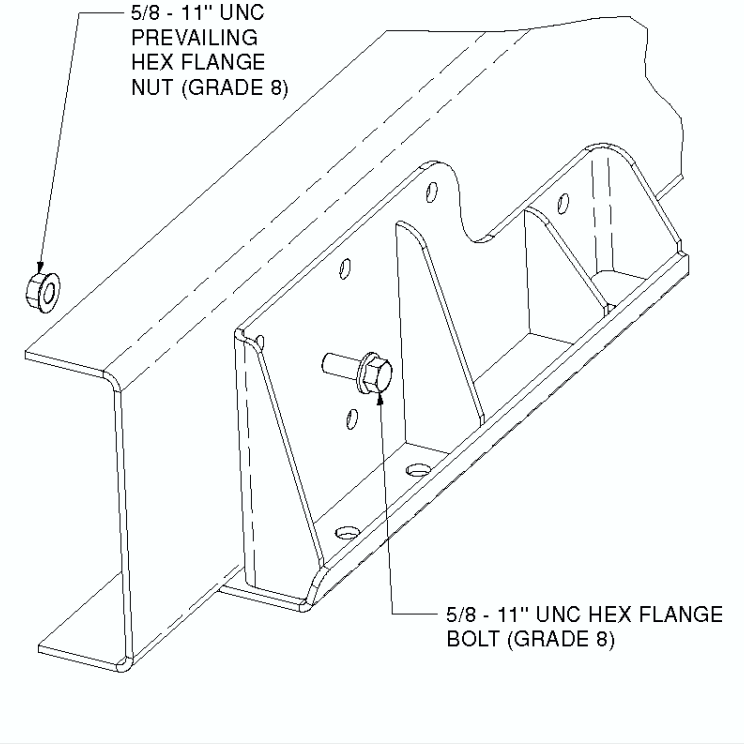


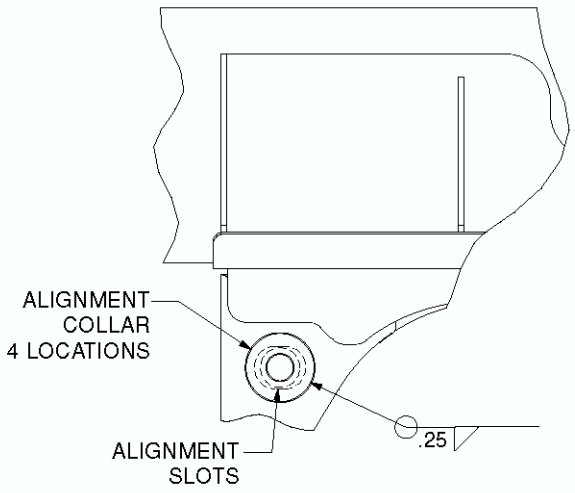
FIG. 4



9. AXLE ALIGNMENT

9.1 Once the suspension is securely fastened and the mount fasteners tightened to the proper torque, the axle must be aligned. To accomplish this, there are (4) alignment slots and (4) alignment collars in the hanger brackets, which allow fore and aft movement of the axle (Fig. 5). NOTE: Alignment collars are held in place by 1 1/8" UNC bolts that have been pre-torqued at factory, but still will allow fore and aft movement of axle.

FIG. 5



9.2 Set suspension at ride height and set front steer axle wheels so that they are steering straight ahead.

9.3 Inspect each tire set so that they are inflated to the proper air pressure. Also check that each tire's radius is matched to within 1/8" of the other tires within that wheel set.

9.4 Secure the truck and release the brakes on the auxiliary suspension. This will allow fore and aft adjustment of the axle within the alignment slot.

9.5 Position auxiliary axle so that the alignment collar is centered in the alignment slot on one side. Tack weld the alignment collar to the hanger bracket (one side only).

9.6 With one side of the auxiliary suspension tacked, measure the distance from the center of the front axle spindle to the center of the auxiliary axle spindle.

9.7 Adjust the non-tacked side of the auxiliary suspension within the alignment slot so that it is equal distance from the center of the front axle spindle on both sides. A maximum difference of 1/8" is acceptable.

9.8 If alignment is not attainable by steps 5 - 7, remove tack weld from step 5 and adjust axle as needed.

9.9 Double check alignment, if acceptable, finish weld with a 1/4" weld completely around (4) alignment collars. Perform welds in 3-4 steps to avoid excess heat.

9.10 Paint over welds to prevent rust.

10. FINAL ASSEMBLY AND INSPECTION CHECKLIST

_____ Are all (4) alignment collars welded around completely? NOTE: These are located on the insides and outsides of the frame mounted hanger brackets.

____ Are all fasteners installed and tightened to proper torque specifications? **NOTE:** All fastener torque specifications are given for dry fasteners with no additional lubrication required.

____ Are all wheel lug nuts tightened to recommended torque specifications?

____ Has the air control installation been completed, checked for leaks, and operating properly?

____ Has the suspension been raised, lowered, and inspected for any interference between the auxiliary suspension and any truck components?

____ Are brakes and slack adjusters properly set, and the wheels are free to rotate?

____ Are wheel hubs sufficiently filled with the manufacturer's specified lubricant? (SAE 80W-90 Mineral based)?

____ **Is the TOE-IN set properly (1/8 +/- 1/16 measured at the tire centers)?**

____ Verify the steering knuckles come into contact with the stop bolts before the tires interfere with any other truck components

NOTICE With the vehicle unloaded, the auxiliary axle's ride springs must be limited to a maximum of 20 psi to avoid improper weight distribution or component damage. Refer to separate Owner's Manual for details regarding operation and maintenance.

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