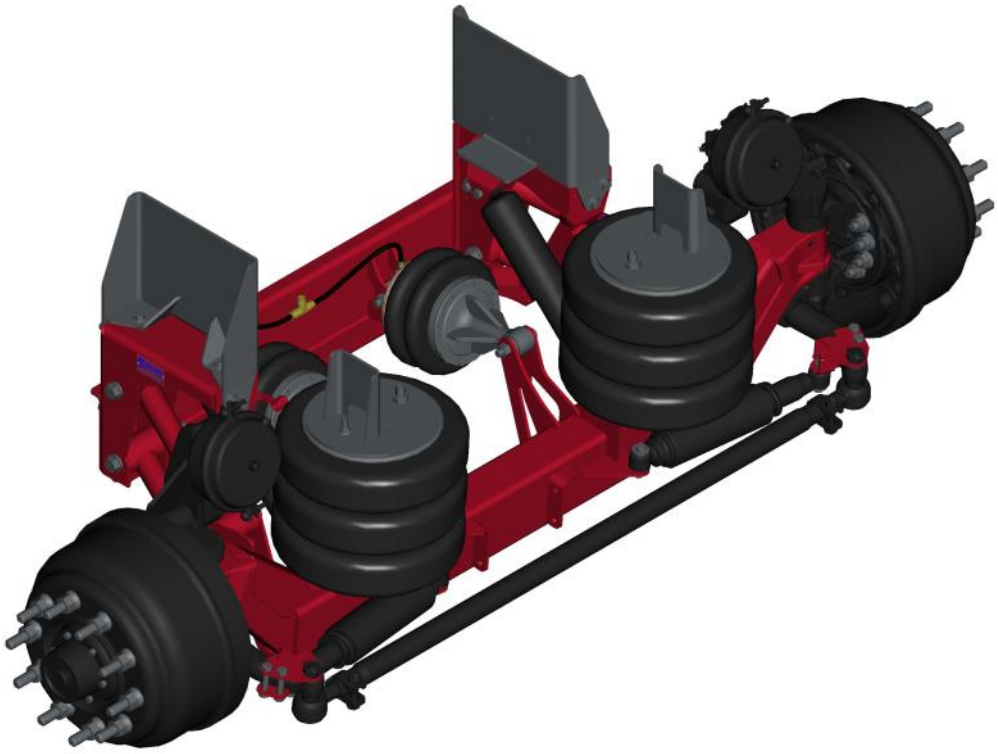
Link® Auxiliary Suspensions

INSTALLATION INSTRUCTIONS

8A000728 DuraLift II
20,000 LB. CAPACITY



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QUESTIONS?
CALL CUSTOMER SERVICE
1-800-222-6283

Refer to separate Owner's Manual for details regarding Operation and maintenance.

80003150
JUN 22, 2017

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

1. INTRODUCTION

Thank you for choosing a Link DuraLift II 20K Auxiliary Suspension. We want to help you get the best results from this suspension and to operate it safely. This manual contains information to introduce you to the Link DuraLift II 20K Auxiliary Suspension and to assist you with its installation. This manual is intended solely for use with this product.

All information in this manual 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:

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

3.2 ⚠CAUTION
Practice safe lifting procedures. Consider size, shape, and weight of assemblies. Obtain help or the assistance of a crane when lifting heavy assemblies. Make certain the path of travel is clear.

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.

4.7 ⚠CAUTION
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.

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

4.9 ⚠CAUTION
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 (33.50" to 35.00").

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

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

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

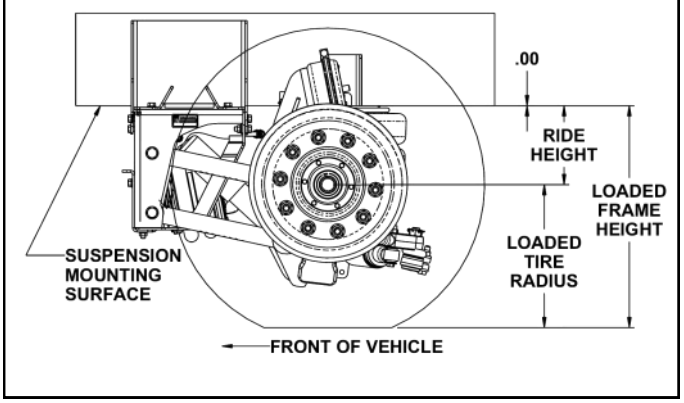
□ Verify air spring clearance in all directions, with the axle lifted and lowered.

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

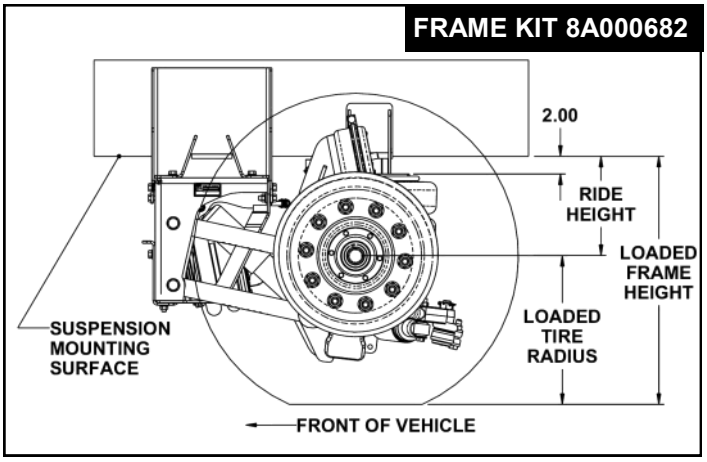
6. FRAME BRACKET KITS:

There are 3 frame bracket kits available to allow for a wide range of ride heights. See charts on Page 4 for details.

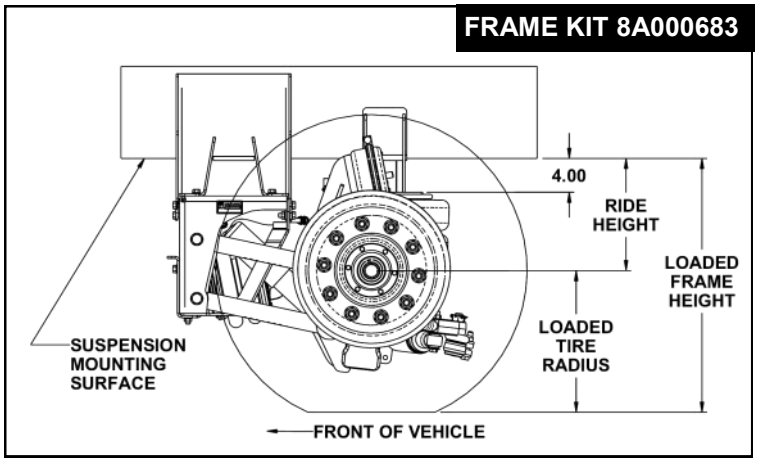
FRAME KIT 8A000681



FRAME KIT 8A000682



FRAME KIT 8A000683



7. RIDE HEIGHT AND FRAME ACCOMMODATIONS FOR DuraLift II 20K SUSPENSION (8A000728)

7.1 **NOTICE**
In order for the suspension to function properly, the "ride height" of the suspension must be within the range specified by Link Mfg. See the charts below for more information on available lift.

7.2 Three ride heights exist for this suspension. Refer to each chart below.

7.3 To determine the appropriate Frame Mount Kit and chart, use the formula below.

Loaded Frame Height - Loaded Tire Radius = Ride Height

7.4 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 intended suspension location and on level ground.

DURALIFT II 20K LIFT CHART	RIDE HEIGHT 8.00" - 10.50" (FRAME MOUNT KIT 8A000681)													
LOADED FRAME HEIGHT	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0	32.5
TIRE RADIUS														
18 (LOADED)	7.0	7.5	8.0	8.5	9.0	9.5								
19 (LOADED)			7.0	7.5	8.0	8.5	9.0	9.5						
20 (LOADED)					7.0	7.5	8.0	8.5	9.0	9.5				
21 (LOADED)							7.0	7.5	8.0	8.5	9.0	9.5		
22 (LOADED)									7.0	7.5	8.0	8.5	9.0	9.5

DURALIFT II 20K LIFT CHART	RIDE HEIGHT 10.00" - 12.50" (FRAME MOUNT KIT 8A000682)													
LOADED FRAME HEIGHT	28.0	28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0	32.5	33.0	33.5	34.0	34.5
TIRE RADIUS														
18 (LOADED)	7.0	7.5	8.0	8.5	9.0	9.5								
19 (LOADED)			7.0	7.5	8.0	8.5	9.0	9.5						
20 (LOADED)					7.0	7.5	8.0	8.5	9.0	9.5				
21 (LOADED)							7.0	7.5	8.0	8.5	9.0	9.5		
22 (LOADED)									7.0	7.5	8.0	8.5	9.0	9.5

DURALIFT II 20K LIFT CHART	RIDE HEIGHT 12.00" - 14.50" (FRAME MOUNT KIT 8A000683)													
LOADED FRAME HEIGHT	30.0	30.5	31.0	31.5	32.0	32.5	33.0	33.5	34.0	34.5	35.0	35.5	36.0	36.5
TIRE RADIUS														
18 (LOADED)	7.0	7.5	8.0	8.5	9.0	9.5								
19 (LOADED)			7.0	7.5	8.0	8.5	9.0	9.5						
20 (LOADED)					7.0	7.5	8.0	8.5	9.0	9.5				
21 (LOADED)							7.0	7.5	8.0	8.5	9.0	9.5		
22 (LOADED)									7.0	7.5	8.0	8.5	9.0	9.5

8. SUSPENSION LOCATION

8.1 Before determining the suspension location, thoroughly review the pre-installation checklist found in Section 5 of this manual. Be sure that the vehicle is located on a flat and level surface before measuring for suspension location. When this is complete, mark the suspension location and boundaries on the truck frame rails. (See **Fig. 1** & **Fig. 2** below for details). Contact Link Application Specialists for answers to any additional questions.

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

NOTE: Truck frame cross-members should be located at or near the front frame brackets.

NOTE: For purposes of increased weight carrying capacity or better weight distribution, these dimensional distances may be increased but never decreased less than the specified minimum distance

9. SUSPENSION INSTALLATION

9.1 With the suspension location determined, clamp the front and rear frame brackets to the truck frame rails.

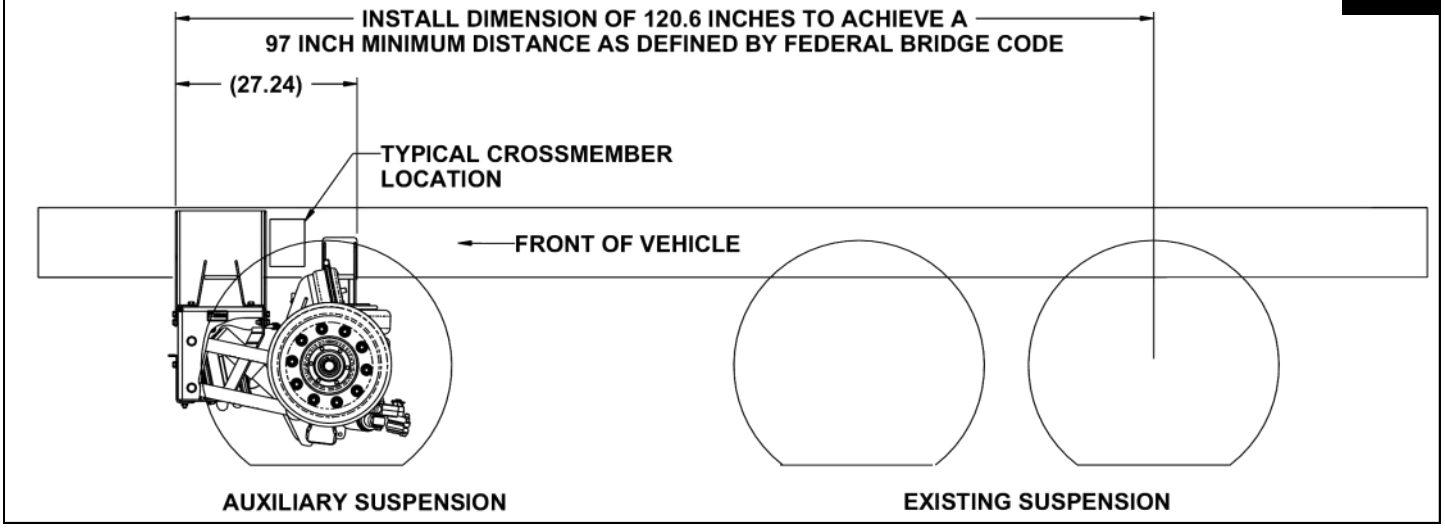
NOTICE The mounting surfaces of the auxiliary suspension brackets must be tight against the sides and the bottom of the truck frame rails.

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

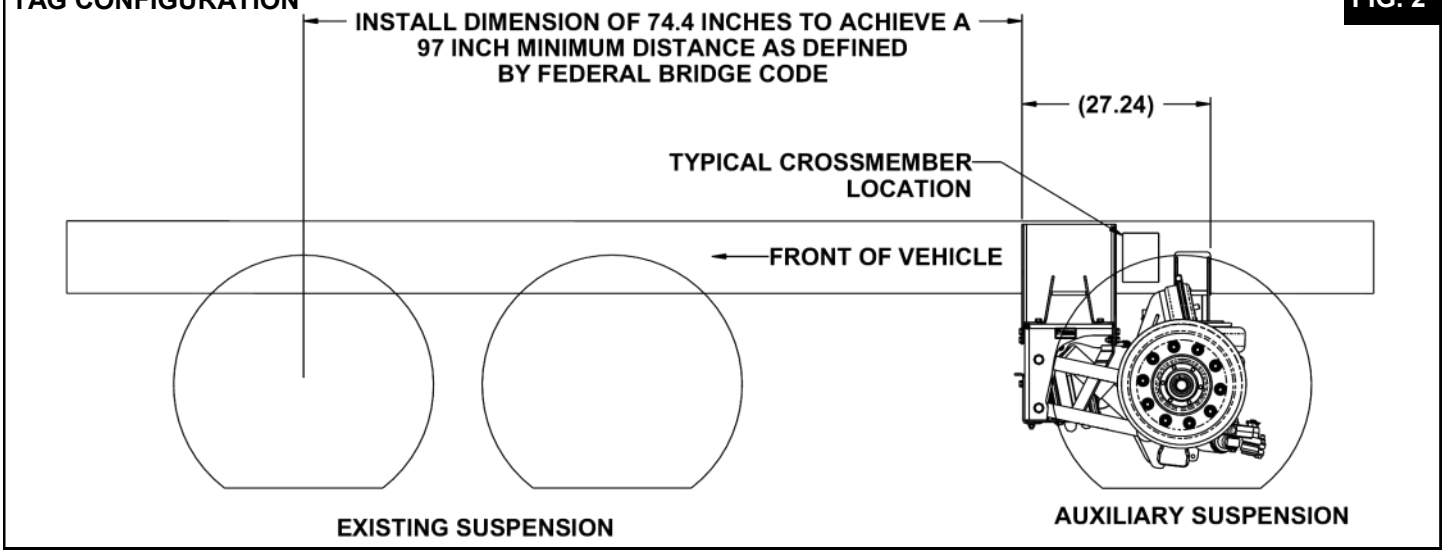
9.3 Once the frame brackets are clamped tightly to the outside and bottom surfaces of the truck frame, check all clearance issues and then center punch all mount holes. (See **Fig. 3** for recommended mount hole location.)

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

PUSHER CONFIGURATION **FIG. 1**



TAG CONFIGURATION **FIG. 2**



9.5 Fasten frame brackets to the frame rail with SAE 5/8" UNC GRADE 8 HEX FLANGE BOLTS and 5/8" GRADE G PREVAILING TORQUE HEX FLANGE NUTS (not supplied, available with optional installation kit 800A0032).

TORQUE 5/8" nuts to 160-180 FT-LBS.

9.6 Assemble the suspension to the front frame brackets using the provided mounting hardware (See **Fig. 4** for fastener detail)

NOTE: Center the suspension on the truck with the frame width adjustment slots.

TORQUE 1/2" nuts to 90-120 FT-LBS.

9.7 Assemble the air springs to rear frame brackets using the 1/2" and 3/4" mounting hardware (See **Fig. 4** for fastener detail).

TORQUE 1/2" nut to 20-30 FT-LBS.

TORQUE 3/4" nut to 45-50 FT-LBS.

FIG. 3

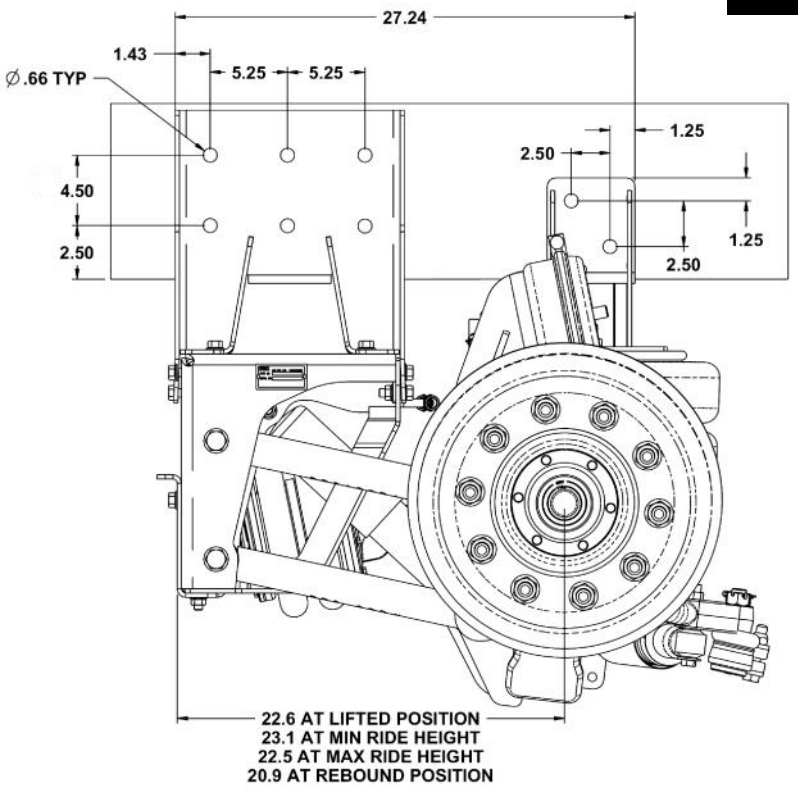
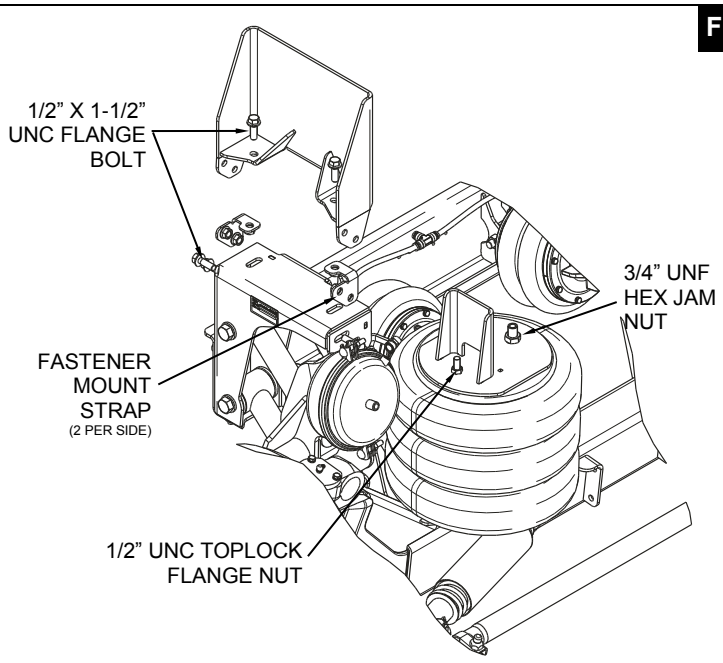


FIG. 4



10. SPECIAL PLUMBING INSTRUCTIONS

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10.1 Connect the load springs and lift springs to the air control system (see **Fig. 5** for a typical configuration example).

NOTE: Contact Link for available air control options.

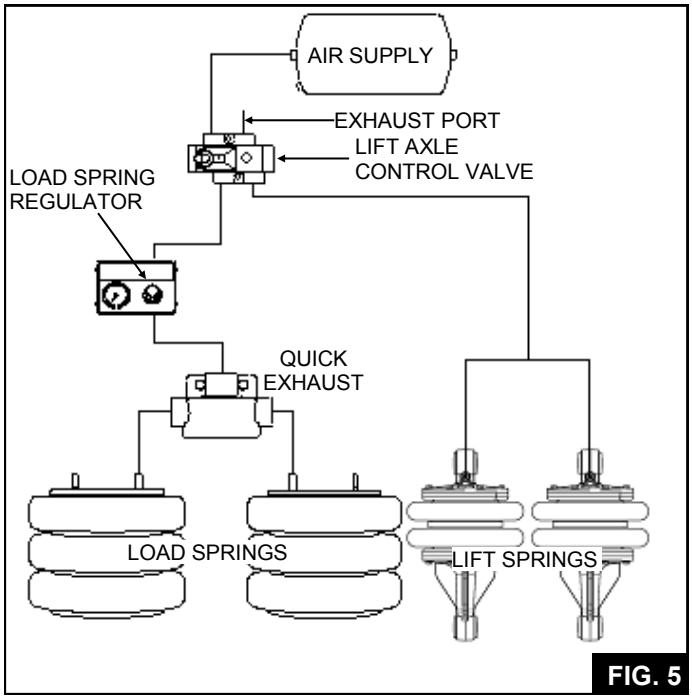

FIG. 5

11. FINAL ASSEMBLY AND INSPECTION CHECKLIST

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

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

☐ Is air control installation complete and checked for leaks and proper operation?

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

☐ Are brakes and slack adjusters properly set, and the wheels 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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