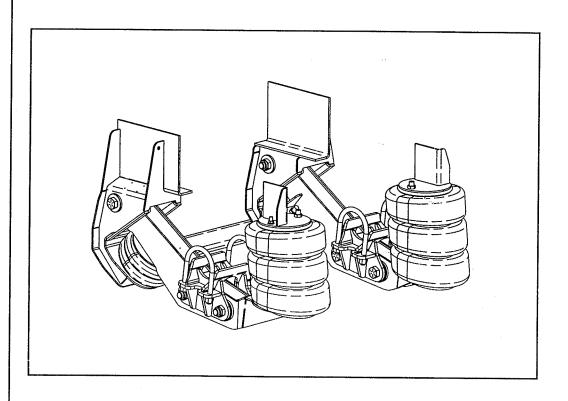




INSTALLATION INSTRUCTIONS

MODEL 5000, 5001 & 5002



Link Mfg. Ltd. 223 15th St. NE Sioux Center, IA USA 51250-2120

(712) 722-4874 Fax (712) 722-4876

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

1. INTRODUCTION

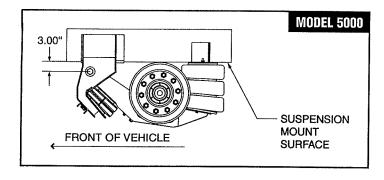
IMPORTANT: IT IS IMPORTANT THAT THE ENTIRE INSTALLATION INSTRUCTIONS BE READ THOROUGHLY BEFORE PROCEEDING WITH SUSPENSION INSTALLATION.

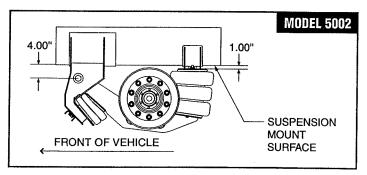
WARNING:

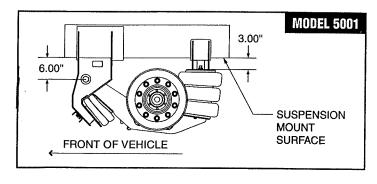
- In order for this suspension to operate properly, it must operate in the parameters specified by Link Mfg.
- The installer must verify the vehicle is configured properly for the liftaxle(s) being added.
- It is the responsibility of the installer to determine the location of the suspension in order to obtain proper load distribution.
- 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.
- Suspension components shall only be welded in areas specified by Link Mfg.
- · No alterations of any suspension components is permitted.

PRE-INSTALLATION CHECKLIST

- Verify axle spacing to be used conforms to federal and local bridge laws
- ☐ Verify frame width matches the suspension specifications
- Urify adequate air supply exists to support braking requirements for the lift axle being installed
- ☐ Maintain clearance between the drive shaft and liftaxle, with axle lifted and lowered
- ☐ Maintain tire clearance in all directions, with axle lifted and lowered
- ☐ Maintain air spring clearance in all directions, with axle lifted and lowered
- ☐ Maintain suspension cross-member clearance with truck components

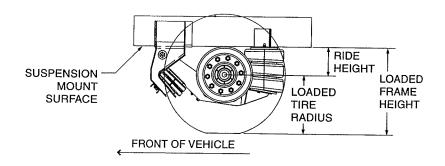






2. RIDE HEIGHT AND FRAME ACCOMMODATIONS

1. 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. **NOTE:** When measuring frame to ground clearance, be sure to measureon a level surface at intended suspension location.



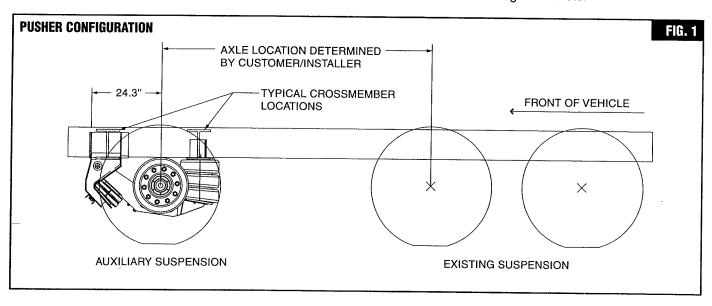
MODEL 5000	RIDE HEIGHT 8" - 10"												
LIFT CHART	STRAIGHT OR 6" DROP CENTER AXLE												
LOADED FRAME HEIGHT >	25	26	27	28	29	30	31	32	33	34	35	36	37
TIRE RADIUS Y											<u> </u>		
17 (LOADED)	4.5	5.5	6.5										-
18 (LOADED)		4.5	5.5	6.5									
19 (LOADED)			4.5	5.5	6.5								
20 (LOADED)				4.5	5.5	6.5							
21 (LOADED)					4.5	5.5	6.5						

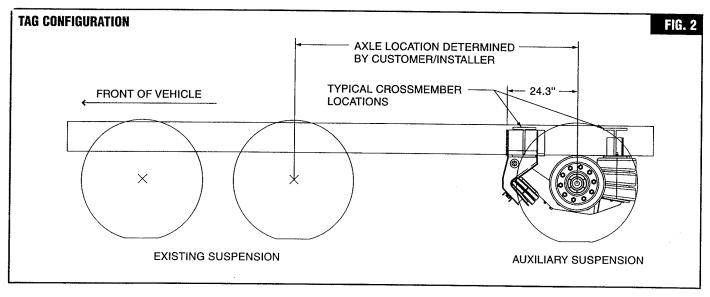
MODEL 5002	RIDE HEIGHT 9" - 11"												
LIFT CHART	STRAIGHT OR 6" DROP CENTER AXLE												
LOADED FRAME HEIGHT >	25	26	27	28	29	30	31	32	33	34	35	36	37
TIRE RADIUS Y													
17 (LOADED)		4.5	5.5	6.5								 	
18 (LOADED)	···		4.5	5.5	6.5								
19 (LOADED)				4.5	5.5	6.5							
20 (LOADED)					4.5	5.5	6.5						
21 (LOADED)						4.5	5.5	6.5					

MODEL 5001	RIDE HEIGHT 11" - 13"													
LIFT CHART	STRAIGHT OR 6" DROP CENTER AXLE													
LOADED FRAME HEIGHT >	25	26	27	28	29	30	31	32	33	34	35	36	37	
TIRE RADIUS Y														
17 (LOADED)				4.5	5.5	6.5							1	
18 (LOADED)					4.5	5.5	6.5		i					
19 (LOADED)						4.5	5.5	6.5						
20 (LOADED)							4.5	5.5	6.5				<u> </u>	
21 (LOADED)								4.5	5.5	6.5				

3.SUSPENSION LOCATION

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

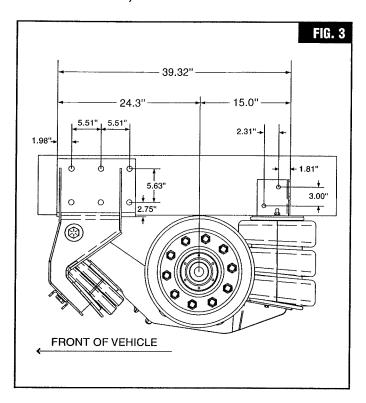


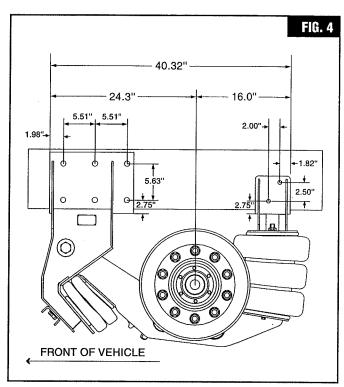


4. SUSPENSION INSTALLATION

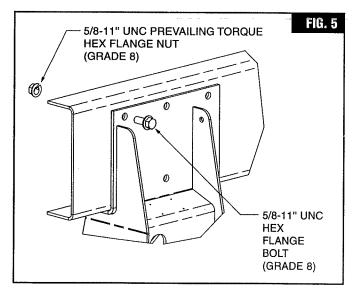
- 1. **IMPORTANT:** The mounting surfaces of the auxiliary suspension must set tight to the sides and bottom of the truck frame rail.
- 2. With suspension location determined, clamp the suspension to the truck frame rails. Remember, alignment slots will allow the axle to move for and aft.
- 3. Double 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.

 Once the suspension is clamped tightly to the outside and bottom surfaces of the truck frame, center punch all mount holes. (See Fig. 3 for Model 5000 or Fig. 4 for Models 5001 & 5002 for recommended mount hole location.)



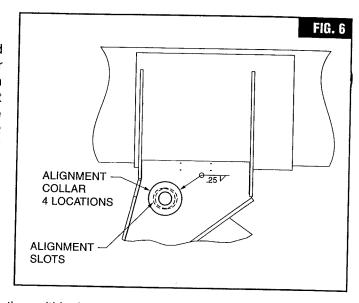


- 5. With mount holes marked, drill 21/32" diameter holes at hole locations.
- Fasten suspension side to frame rail with SAE 5/8" UNC GRADE 8 HEX FLANGE BOLT and 5/8" GRADE G PREVAILING TORQUE HEX FLANGE NUT, not supplied with suspension. (See Fig. 5 for fastener details).
- 7. Double check the passenger's 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. After all 5/8" UNC mount fasteners are installed and snug, torque to 185-235 ft. lbs.



5. AXLE ALIGNMENT

- 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. 6). 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.
- 2. Set suspension at ride height and set front steer axle wheels so that they are steering straight ahead.
- 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.



- 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.
- 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).
- 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.
- 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.
- 8. If alignment is not attainable by steps 5 7, remove tack weld from step 5 and adjust axle as needed.
- 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.
- 10. Paint over welds to prevent rust.

6. AXLE WELDING PROCEDURE

The following procedure must be followed when welding the axle to axle seat connection.

- 1. Suspension and axle components must be at 70° F and free from paint, dirt, scale and grease.
- 2. Surrounding area and parts should be shielded and protected from heat and weld spatter.
- 3. Axle welds must be performed in the flat or horizontal position.
- 4. Recommended Filler Metal and Weld Parameter specifications:

Wire:

AWS ER80S-D2 .045 dia.

Shielding Gas:

Argon, CO2 Mix (75% Ar, 25% CO2)

Argon, CO2 Mix (90% Ar, 10% CO2)

Argon, O₂ Mix (95% Ar, 5% O₂)

Welding Voltage:

24-29 DCRP

Welding Current:

200-250 amps

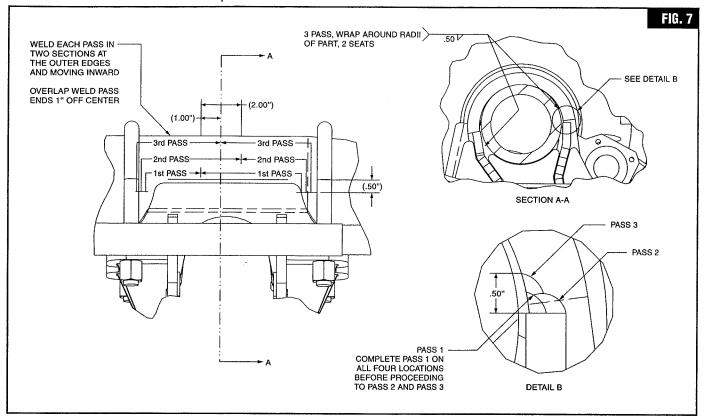
5. Axle welding sequence:

NOTE #1: A three pass 1/2" weld is required.

NOTE #2: All welds should start 1/2" - 3/4" below the edge of the axle seat ending approximately at the center of the axle seat (Fig. 7).

NOTE #3: Clean weld between each pass.

- a. Perform one 3/8" root pass weld at all four axle to axle seat joints.
- b. The second & third pass will be alternated between axle seats.



7. 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.
- ☐ Is the axle connection weld complete? (See section 6 for axle welding procedure.)
- Are all fasteners installed and bolts 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?
- 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?

IMPORTANT: 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.