

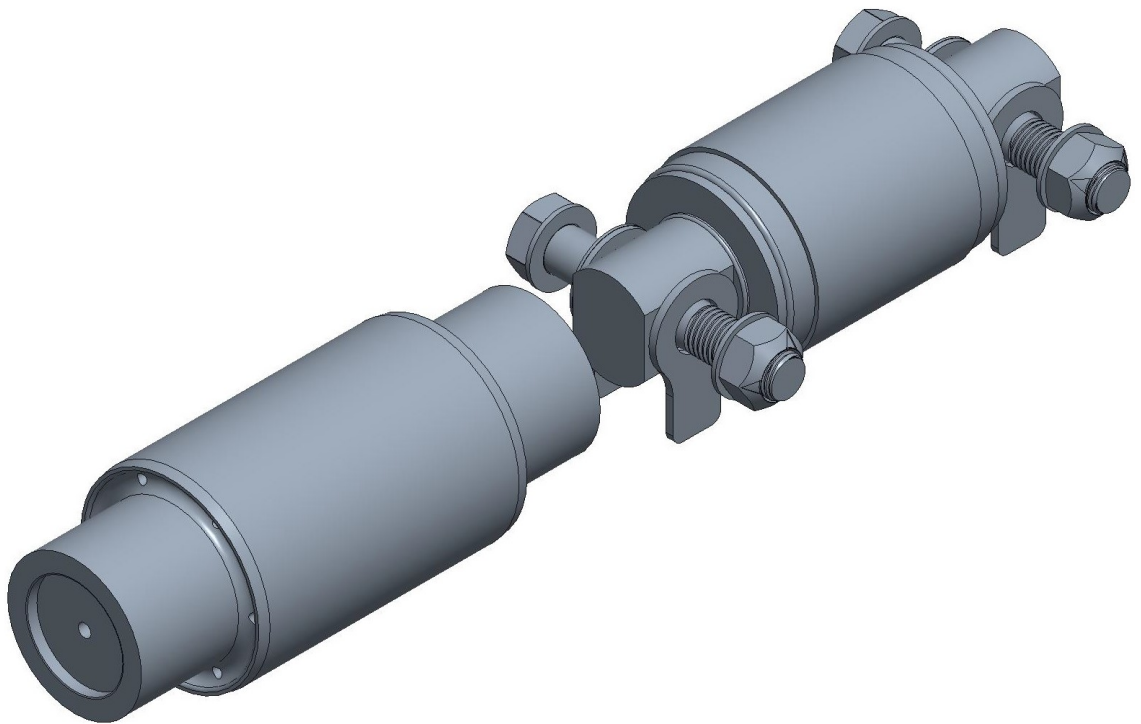


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**QUESTIONS?
CALL CUSTOMER
SERVICE
1-800-222-6283**

INSTALLATION INSTRUCTIONS

4AL00006 Walking Beam Bushings



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 Air Link™ 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 walking beam center and end bushings for your Link Air Link™ 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

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

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

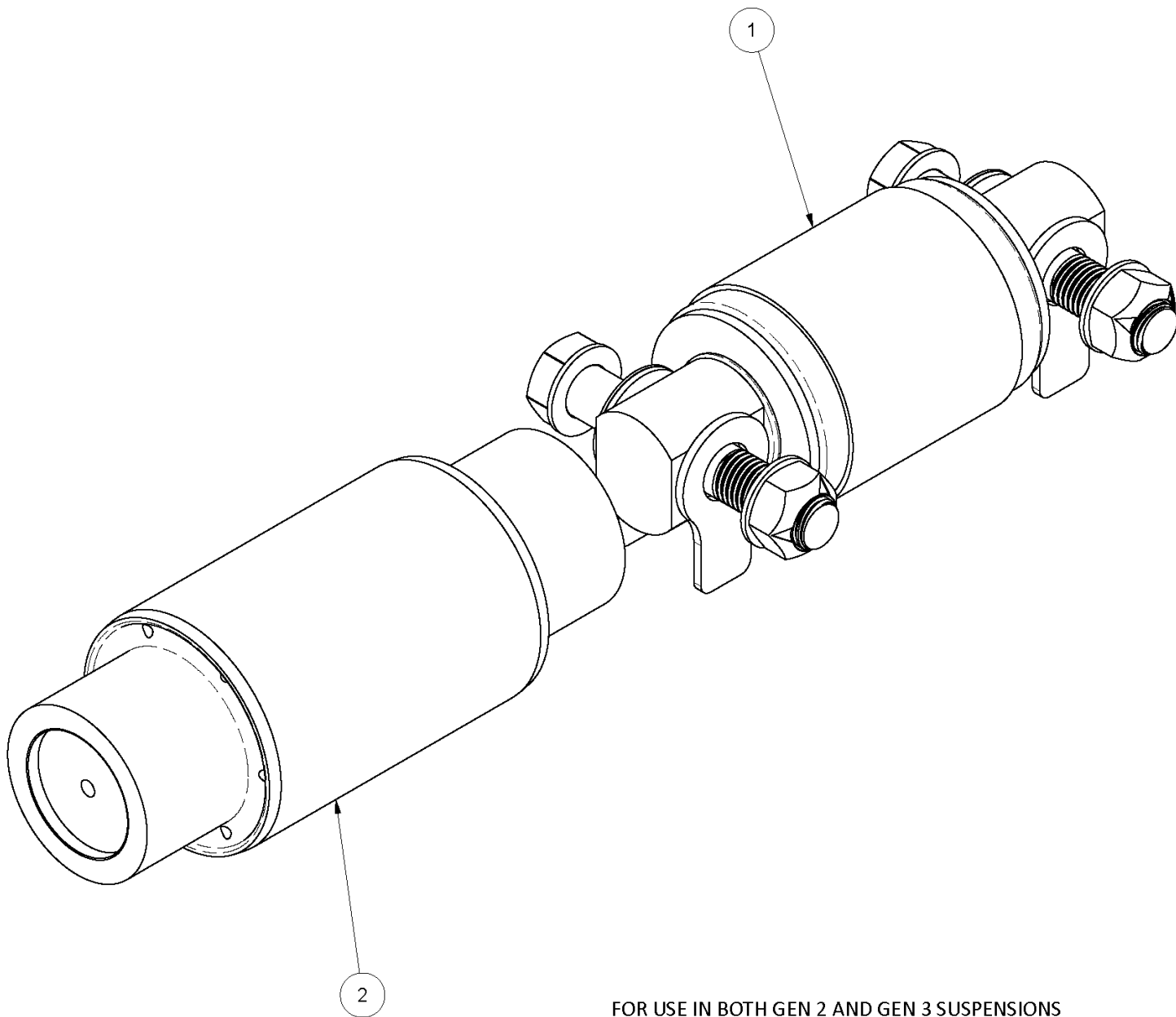
4.4 No welding of any suspension components is permitted except when specified by Link.

4.5 **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.

4.6 **CAUTION**

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



FOR USE IN BOTH GEN 2 AND GEN 3 SUSPENSIONS

4AL00006 - SERVICE KIT - WALKING BEAM

ITEM	DESCRIPTION	QTY
1	BUSHING ASSEMBLY-WALKING BEAM	2
2	BUSHING-CENTER, WALKING BEAM	1

5. SPECIAL TOOLS

5.1 Required Tools

- Shop press with a capacity of 50 tons
- Press Tooling

NOTE: ALL DIMENSIONS FOR THE FIGURES ARE SHOWN IN INCHES

◇ Press In Tooling

- ◆ End Bushing Bar Pin (**See FIG. 1**)
 - OTC tools (Part No. 1757)
- ◆ Center Bushing (**See FIG. 2**)
 - Cylinder Dimensions (as shown)

◇ Press Out Tooling

- ◆ End Bushing Bar Pin Press Out Tool (**See FIG. 3**)
 - Cylinder Dimensions ($\varnothing 4"$ or less and 4-1/2" Minimum Length)
- ◆ End Bushing Outer Sleeve Tool (**See FIG. 4**)
 - Cylinder Dimensions ($\varnothing 4.125"$ - $\varnothing 4.375"$ and 4.5" Minimum Length)
- ◆ Center Bushing Inner Sleeve Tool (**See FIG. 5**)
 - Cylinder Dimensions ($\varnothing 4\text{-}1/4"$ or less and 7" Minimum Length)
- ◆ Center Bushing Outer Sleeve Tool (**See FIG. 6**)
 - Cylinder Dimensions ($\varnothing 3.6"$ - $\varnothing 4.6"$ and 7" Minimum Length)

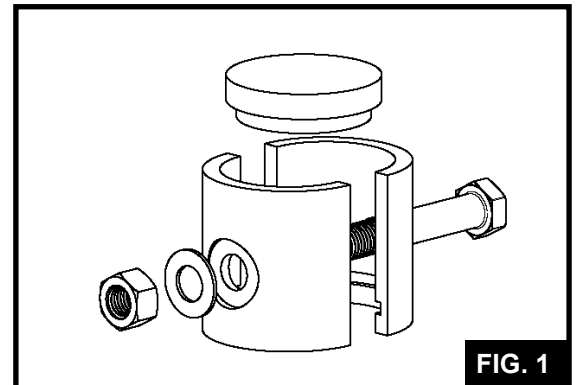


FIG. 1

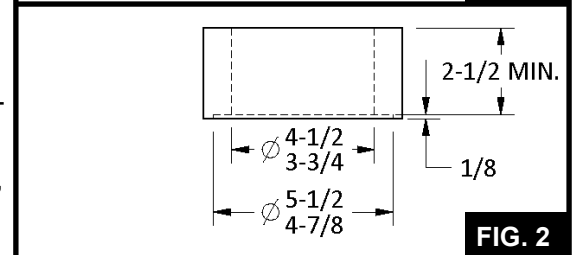


FIG. 2

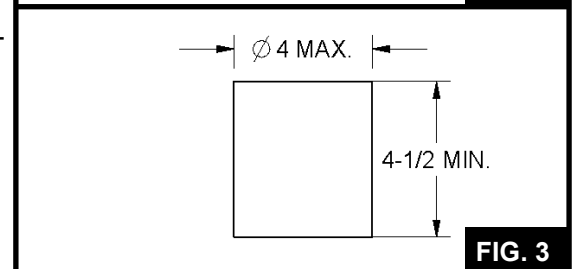


FIG. 3

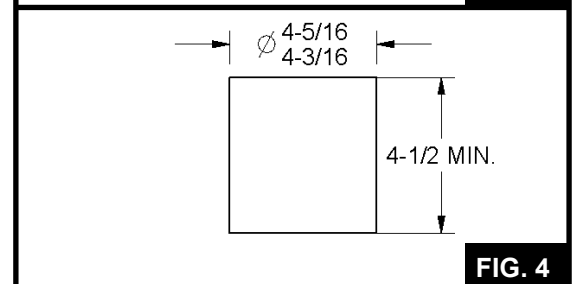


FIG. 4

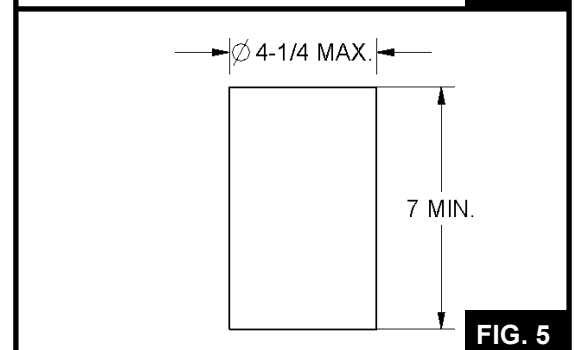


FIG. 5

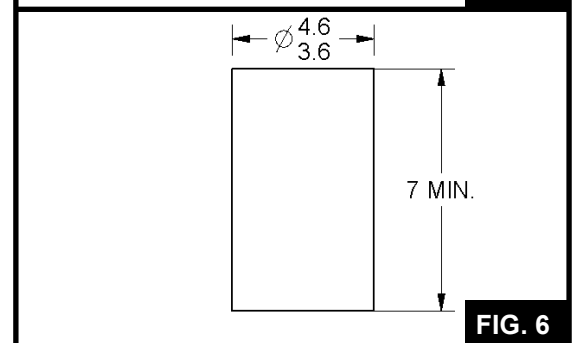


FIG. 6

6. DISASSEMBLING WALKING BEAM

- 6.1** Place wheel chocks at the front wheels of the vehicle.
- 6.2** Dump air out of the suspension air springs such that the forward and rear axle stops come into contact with the forward and rear axles (**See FIG. 7**).
- 6.3** Disconnect the height control valve linkage (**See FIG. 8**).
- 6.4** Raise the rear of the vehicle frame and rear axles such that wheels on the rear axles can be removed.
- 6.5** Support the rear of the frame at this height and support the axles (wheel ends) such that the trailing arm is in the level position (**See FIG. 9**).
- 6.6** Support the walking beam being serviced (**See FIG. 10**).
- 6.7** Remove the 1" bolt and nuts connecting the walking beam to the axles (**See FIG. 11**).
- 6.8** Remove the 3/4" bolts connecting the walking beam and trailing arm (**See FIG. 12**).

⚠ DANGER When removing the bolts connecting the walking beam to trailing arm take care to support the walking beam so that it does not fall and result in injury.

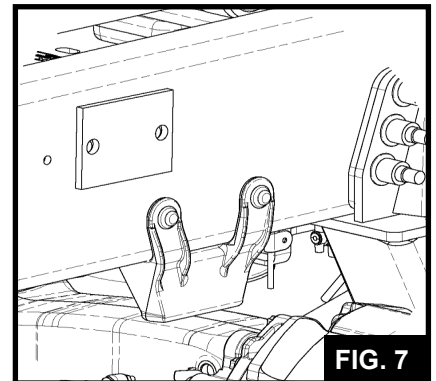


FIG. 7

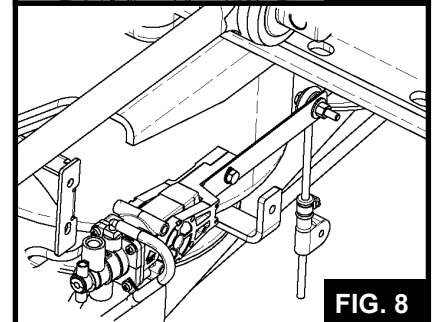


FIG. 8

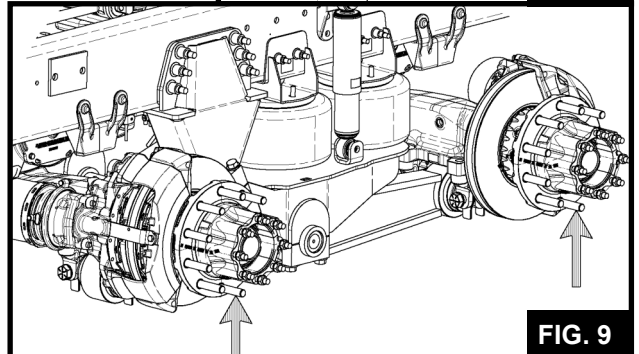


FIG. 9

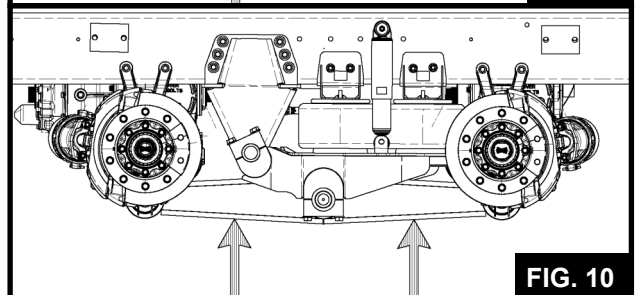


FIG. 10

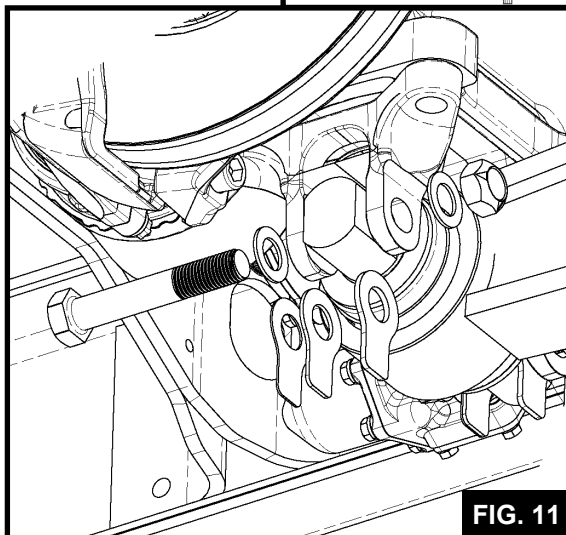


FIG. 11

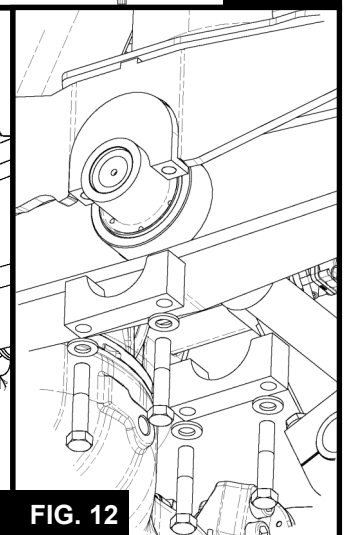


FIG. 12

7. WALKING BEAM END BUSHING REMOVAL, INSPECTION, AND INSTALLATION

7.1 Place the walking beam in a hydraulic shop press with the walking beam securely supported on the bed of the hydraulic press

NOTE: Prior to removing the bar pin bushing note the orientation of the flat side of the bar pin and mark the walking beam accordingly (See FIG. 13).

7.2 Press on the inner bar pin metal of the bushing until the bar pin metal is flush with the top of the walking beam bushing sleeve (See FIG. 14).

7.3 Using the recommended bushing press tooling, press the outer sleeve of the bar pin end bushing until it is fully removed from the walking beam.

7.4 Clean the inner bore of the metal sleeve on the walking beam to remove any metal build up resulting from the bushing removal.

7.5 Inspect the inner bore of the walking beam end bushing metal sleeve. If the walking beam metal sleeve is damaged in any way a new walking beam is required. Do not re-bush a damaged walking beam.

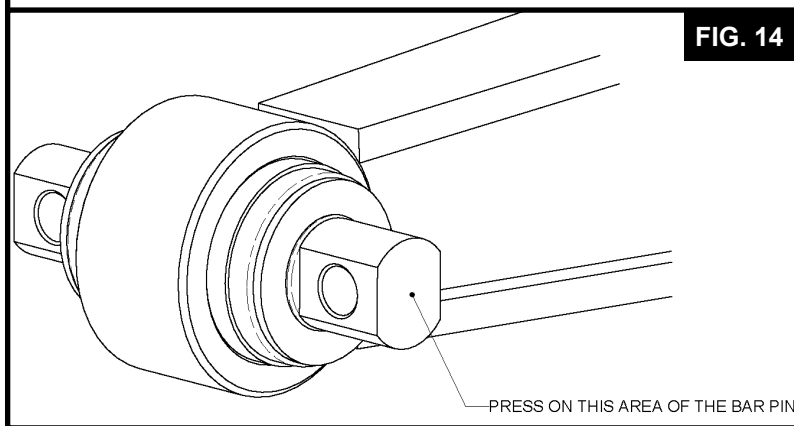
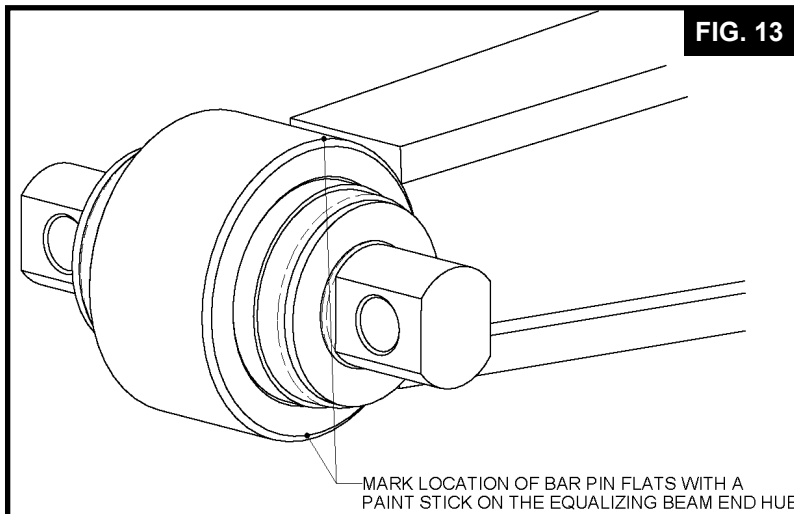
7.6 Measure the inner diameter of the metal sleeve to ensure that the diameter is in tolerance ($\varnothing 4.365'' - \varnothing 4.368''$).

7.7 Place walking beam in a hydraulic shop press with the walking beam adequately supported and the end bushing metal sleeve square and in line with the shop press.

7.8 Lubricate the outer sleeve of the bushing and inner surface of the cylinder with Greenlee Textron Cable-Cream™. Contact Link Manufacturing for ordering information

7.9 Position the walking beam end bushing and installation tool on the walking beam bushing sleeve and verify that the end bushing flats are in the correct orientation (as marked in the bushing removal section, step 1).

7.10 Install the end bushing into the walking beam end sleeve by pressing on the installation tool (OTC Tools 1757) until the tool contacts the end sleeve. If installed correctly the bushing should be centered on the walking beam end sleeve.



8. WALKING BEAM CENTER BUSHING REMOVAL, INSPECTION, AND INSTALLATION

8.1 Place the walking beam in a hydraulic shop press with the walking beam securely supported on the bed of the hydraulic press.

8.2 Using the recommended center bushing press out tool (**See FIG. 5 on page 4**), press out the bushing inner sleeve until fully removed from the walking beam. Next, press out the bushing outer sleeve (**See FIG. 6 on page 4**).

8.3 Inspect the inner bore of the walking beam center bushing metal sleeve. If the walking beam metal sleeve is damaged in any way a new walking beam is required. Do not re-bush a damaged walking beam.

8.4 Clean the inner bore of the metal sleeve on the walking beam center to remove any metal build up resulting from the bushing removal (**See FIG. 15**).

8.5 Measure the inner diameter of the metal sleeve to ensure that the diameter is in tolerance ($\varnothing 4.740'' - \varnothing 4.743''$).

8.6 Place walking beam in a hydraulic shop press with the walking beam adequately supported and the center bushing metal sleeve square and in line with the shop press.

8.7 Install new Link bushing with recommended bushing press tooling (**See FIG. 2 on page 4**).

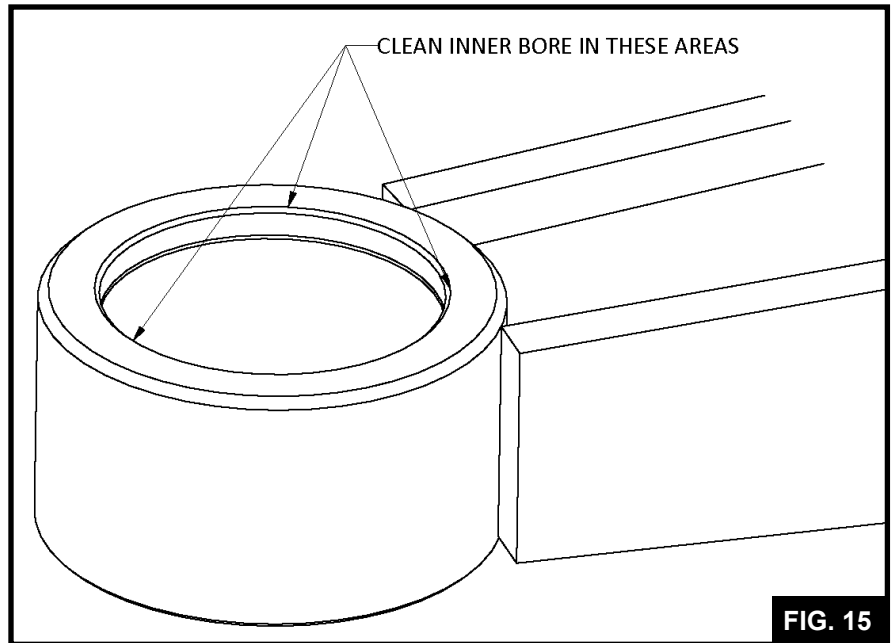


FIG. 15

NOTICE Press tooling used to install bushing must make contact only with the outer sleeve of the center bushing. **DO NOT** press on the inner sleeve of the bushing.

8.8 Grease the walking beam metal sleeve inner diameter and the outer sleeve of the walking beam center bushing.

8.9 Install the center bushing into the walking beam center sleeve by pressing on the installation tool until the bushing is centered in the metal sleeve.

NOTICE Bushing outer ring is not flush with walking beam center sleeve



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