

059310-037



# H ASSEMBLY INSTRUCTIONS

## PRIMAAX® EX • FIREMAAX® EX

**SUBJECT:** Severe-duty Pivot Bushing and QUIK-ALIGN® Fastener Service Kits

**LIT NO:** 59310-037

**DATE:** November 2020

**REVISION:** B

### INTRODUCTION

This procedure is intended to assist maintenance personnel with the installation of the Severe-duty Pivot Bushing and QUIK-ALIGN® Fasteners, Kit Nos. 60632-043, 60632-033, or 60632-015 for Hendrickson PRIMAAX® EX • FIREMAAX® EX • PRIMAAX® • FIREMAAX® rear air suspensions.

### NOTE

The larger 1 ¼" fasteners in Severe-duty Kits (60632-033 and 60632-015) only provide higher clamp load and do not increase bushing life. Only use the larger 1 ¼" service kits with Hendrickson approval. Contact Hendrickson Truck Parts or Tech Services for further information.

Refer to the appropriate Hendrickson Technical Procedure and other publications for complete service and safety instructions regarding the particular PRIMAAX EX • FIREMAAX EX PRIMAAX • FIREMAAX rear air suspension on your vehicle. All such Hendrickson publications are available online at [www.hendrickson-intl.com](http://www.hendrickson-intl.com)

### CAUTION

A TECHNICIAN USING A SERVICE PROCEDURE OR TOOL WHICH HAS NOT BEEN RECOMMENDED BY HENDRICKSON MUST FIRST SATISFY HIMSELF THAT NEITHER HIS SAFETY NOR THE VEHICLE'S SAFETY WILL BE JEOPARDIZED BY THE METHOD OR TOOL SELECTED. INDIVIDUALS DEVIATING IN ANY MANNER FROM THE INSTRUCTIONS PROVIDED WILL ASSUME ALL RISKS OF CONSEQUENTIAL PERSONAL INJURY OR DAMAGE TO EQUIPMENT INVOLVED.

## SEVERE-DUTY PIVOT BUSHING & QUIK-ALIGN FASTENER SERVICE KITS

### DISASSEMBLY

### SERVICE HINT

Use the QUIK-ALIGN Pivot Bushing Tool No. 66086-203L to help with the installation and removal of QUIK-ALIGN pivot bushings. The tool allows the existing pivot bushing to be pushed out from the U-beam assembly into the receiving cylinder. Then follow a similar procedure to push in the replacement pivot bushing, refer to Hendrickson Literature No. 59310-061.

### NOTE

When replacing a pivot bushing, Hendrickson recommends **BOTH** pivot bushings be replaced on the U-beam assembly.

1. Chock the wheels.

### Severe-duty Pivot Bushing & QUIK-ALIGN Kits, Axle Set

**Kit No. 60632-043 – 1" Fasteners**

**Kit No. 60632-033 – 1 ¼" Fasteners**



### CONTENTS

QUIK-ALIGN Concentric Base

QUIK-ALIGN Eccentric Base

**Bolt:** 1 ¼"-12 UNF x 8" or 1"-14 UNF x 7 ½"

**Hardened Washer:** 1 ¼" or 1"

**Locknut:** 1 ¼"-12 UNF or 1"-14 UNF

Severe-duty Pivot Bushing

Confinement Washer

P-80 Bushing Lubricant-10 ml

**Kit No. 60632-015 – QUIK-ALIGN Collar & 1 ¼" Fasteners, Axle Set**

### CONTENTS

QUIK-ALIGN Concentric Base

QUIK-ALIGN Eccentric Base

1 ¼"-12 UNF x 8" Bolt

1 ¼" Hardened Washer

1 ¼"-12 UNF Locknut





- Support the frame of the vehicle at ride height.

**WARNING**

AIR SPRING ASSEMBLIES MUST BE DEFLATED PRIOR TO INSTALLING QUIK-ALIGN PIVOT BOLT SEVERE SERVICE KIT. UNRESTRICTED AIR SPRING ASSEMBLIES CAN VIOLENTLY SHIFT. DO NOT INFLATE AIR SPRING ASSEMBLIES WHEN THEY ARE UNRESTRICTED. AIR SPRING ASSEMBLIES MUST BE RESTRICTED BY SUSPENSION OR OTHER ADEQUATE STRUCTURE. DO NOT INFLATE BEYOND PRESSURES RECOMMENDED BY AIR SPRING MANUFACTURER. CONTACT HENDRICKSON TECHNICAL SERVICES FOR DETAILS. IMPROPER USE OR OVER INFLATION MAY CAUSE AIR SPRING ASSEMBLIES TO BURST, CAUSING PROPERTY DAMAGE AND/OR SEVERE PERSONAL INJURY.

**WARNING**

PRIOR TO AND DURING DEFLATION AND INFLATION OF THE AIR SUSPENSION SYSTEM, ENSURE ALL PERSONNEL AND EQUIPMENT ARE CLEAR FROM UNDER THE VEHICLE AND AROUND THE SERVICE AREA, FAILURE TO DO SO CAN CAUSE SERIOUS PERSONAL INJURY, DEATH, OR PROPERTY DAMAGE.

- Disconnect the height control linkage assembly from the height control valve arm. Lower the leveling valve arm to exhaust the air in the air springs and deflate the rear suspension.

**WARNING**

PRIOR TO DISASSEMBLY OF THE SUSPENSION, VERIFY THAT THE AXLE BEING SERVICED IS SUPPORTED UNDER THE PINION HOUSING/DIFFERENTIAL SO THAT THE AXLE DOES NOT MOVE OR ROTATE. FAILURE TO DO SO CAN ALLOW THE AXLE TO ROTATE OR SHIFT, CAUSING COMPONENT DAMAGE, AND/OR SEVERE PERSONAL INJURY.

- Support the pinion of the axle being serviced.
- Before loosening the existing QUIK-ALIGN collars **mark the orientation** of the QUIK-ALIGN eccentric collars on the frame hangers. This will allow the new components to be installed in the same orientation, preserving the existing alignment of the axle.

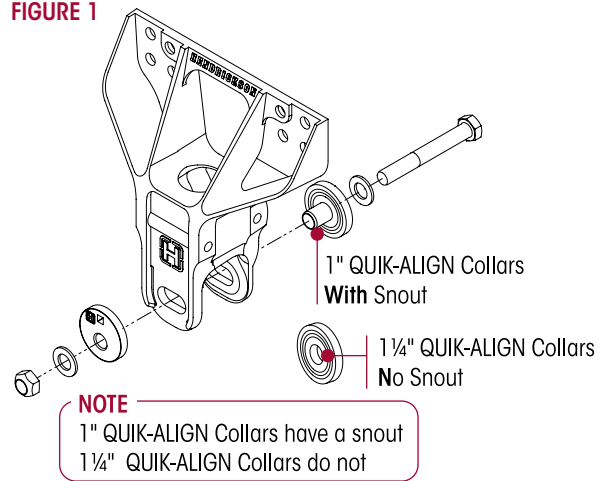
- Remove and discard the existing fasteners and QUIK-ALIGN collars.

**ASSEMBLY**

**NOTE** Severe-duty Service Kits QUIK-ALIGN collars vary. The 1" Service Kit have snouts and the 60632-033 and 60632-015 have no snouts, see Figure 1.

**NOTE** Prior to assembly, verify the new fasteners will pass through the existing inner metal of the severe-duty pivot bushings, see Figure 2.

**FIGURE 1**



**FIGURE 2**

- If using Kit No. 60632-033 or 60632-015 with 1 1/4" Fasteners, verify the new fasteners will pass through the existing inner metal of the severe-duty pivot bushings. If the fastener will not pass through, it may be necessary to ream the inner metal of the pivot bushing to 1 1/4" (1.25") to accommodate the 1 1/4" fasteners.
- Assemble the new severe-duty fasteners and QUIK-ALIGN collars, see Figure 3. Ensure the QUIK-ALIGN eccentric collar is installed on the outboard side of the frame hanger.
- Tighten the locknuts until the QUIK-ALIGN components are snug against the frame hanger. Note the QUIK-ALIGN eccentric collars can still be rotated.
- Adjust the QUIK-ALIGN eccentric collars to the same orientation as the eccentric collars as prior to removal. This will return the axle to the pre-disassembly alignment.

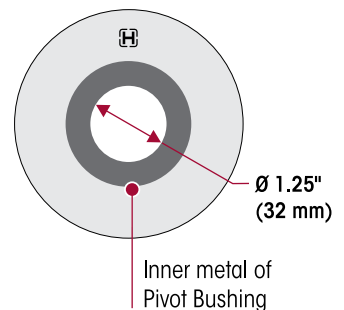
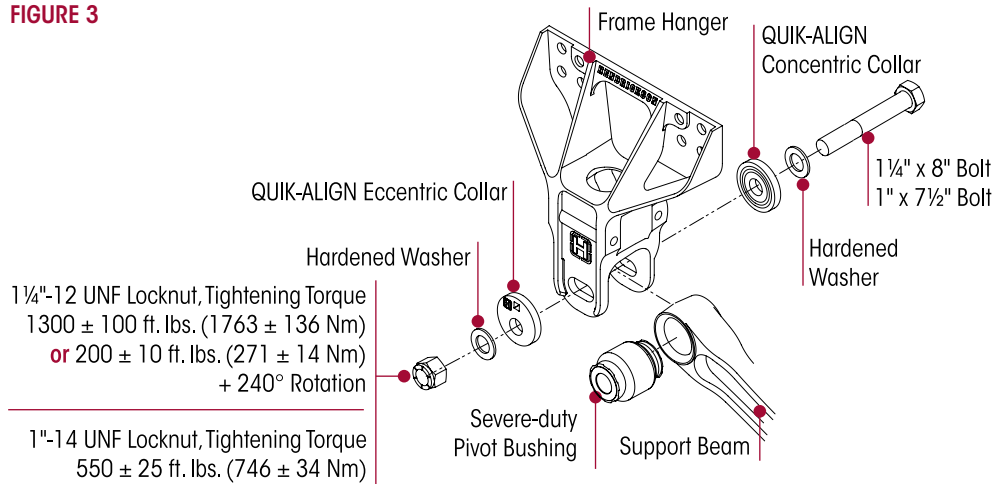




FIGURE 3



**NOTE**

If an axle alignment is going to be performed it should be completed before applying the final torque to the QUIK-ALIGN fastener. Refer to the appropriate Hendrickson Technical Procedure regarding the particular PRIMAAX EX • FIREMAAX EX • PRIMAAX EX • FIREMAAX EX rear air suspension on your vehicle for complete alignment instructions.

5. Torque the locknut to the final torque using one of the following methods:
  - a. **Torque wrench or torque multiplier method:**  
**1 1/4"-12 UNF Locknut** to 1300 ± 100 foot pounds torque.  
**1"-14 UNF Locknut** to 550 ± 25 foot pounds torque
  - b. **1 1/4"-12 UNF Locknut Torque and Tighten method:** Pre-torque the locknut to 200 ± 10 foot pounds. After the pre-torque has been applied, tighten the locknut an additional 2/3 of a turn (240 degrees rotation).

**WARNING**

PRIOR TO AND DURING DEFLATION AND INFLATION OF THE AIR SUSPENSION SYSTEM, ENSURE ALL PERSONNEL AND EQUIPMENT ARE CLEAR FROM UNDER THE VEHICLE AND AROUND THE SERVICE AREA, FAILURE TO DO SO CAN CAUSE SERIOUS PERSONAL INJURY, DEATH, OR PROPERTY DAMAGE.

**CAUTION**

INFLATE THE SUSPENSION SLOWLY AND ENSURE THAT THE RUBBER BLADDER OF THE AIR SPRINGS INFLATE UNIFORMLY AND WITHOUT BINDING. FAILURE TO DO SO CAN CAUSE DAMAGE TO THE AIR SPRING AND/OR THE MOUNTING BRACKET AND VOID WARRANTY.

6. Inflate the suspension by connecting the height control valve linkage to the height control valve arm. Verify the air springs inflate uniformly without binding.
7. Remove the support from the axle pinion.
8. Remove the frame supports.
9. Verify ride height, refer to Ride Height in the Alignment & Adjustment Section of the appropriate Hendrickson Technical Procedure regarding the particular PRIMAAX EX • FIREMAAX EX • PRIMAAX EX • FIREMAAX EX rear air suspension on your vehicle.
10. Remove the wheel chocks.

Refer any questions on this publication, contact Hendrickson Tech Services:



Toll-free U.S. and Canada  
1.866.755.5968  
Outside U.S. and Canada  
1.630.910.2800



Parts Identification  
truckparts@hendrickson-intl.com  
Technical Support  
techservices@hendrickson-intl.com



1.630.910.2899



Additional Hendrickson  
Product Information  
www.hendrickson-intl.com

Call Hendrickson at **1.866.755.5968** (toll-free) or **1.630.910.2800** for additional information.



[www.hendrickson-intl.com](http://www.hendrickson-intl.com)

**TRUCK COMMERCIAL VEHICLE SYSTEMS**

800 South Frontage Road  
Woodridge, IL 60517-4904 USA  
1.866.755.5968 (Toll-free U.S. and Canada)  
1.630.910.2800 (Outside U.S. and Canada)  
Fax 1.630.910.2899

59310-037 Rev A 11-20

© 2007 – 2020 Hendrickson USA, L.L.C. All Rights Reserved. All trademarks shown are owned by Hendrickson USA, L.L.C., or one of the affiliates, in one or more countries. Information contained in this literature was accurate at the time of publication. Product changes may have been made after the copyright date that are not reflected.

Printed in United States of America