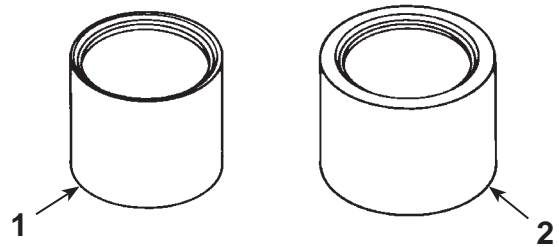


Center Bushing Service Set

Application: R-400 Series Hendrickson Suspensions using Center Bushing 49400 or Field Service Center Bushing 49600.

The center bushing service set (1746) is used with the basic service set (1740) to remove and install the rubber center bushing on Hendrickson R-400 series suspensions.

Item No.	Part No.	No. Req'd	Description
1	310248	1	Removing Adapter
2	310249	1	Installing Adapter



Safety Precautions

⚠ WARNING: To prevent personal injury;



- Wear eye protection that meets ANSI Z87.1 and OSHA standards.
- Never stand directly in front of the pulling screw or other components while hydraulic pressure is being applied.
- Do not modify the tooling or use hydraulic components not designed for this application.
- Regularly inspect the hydraulic hose and fittings; replace them if they are frayed or damaged.
- Use jack stands to support the weight of the vehicle during this application.

Center Bushing Removal

It is best to leave the truck suspension equalizing beam on the vehicle when removing the center bushings. However, if necessary, the equalizing beam can be removed from the vehicle first.

⚠ WARNING: To help prevent personal injury, block the front wheels of the vehicle before servicing the equalizing beams.

1. Remove the saddle caps that hold the center bushing and beam to the spring assembly.
2. Raise the rear of the truck frame until the saddle studs clear the equalizing beam.
3. Use a hole saw to cut out the retaining disc in the center of the bushing. See Figure 1. **CAUTION:** To prevent equipment damage, do not use a torch to burn out the retaining disc.

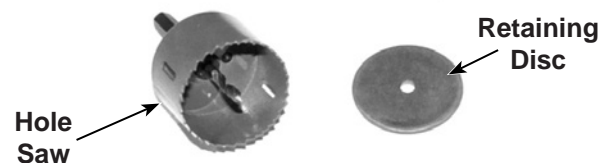


Figure 1

Parts List and Operating Instructions

Center Bushing Removal (Cont.)

4. Remove the cross tube. See Figure 2.
5. Assemble the cylinder screw (item 1) and hydraulic equipment included in the 1740 service set. See Figure 3.
6. Roll the dolly and cylinder assembly up to the beam and adjust the dolly for the correct height. Use the cylinder screw (302023) as a centering guide. See Figure 4.
7. Slide the cylinder screw through the bushing. Advance the cylinder and dolly assembly until the cylinder receiving tube is flush against the beam face. See Figure 5.

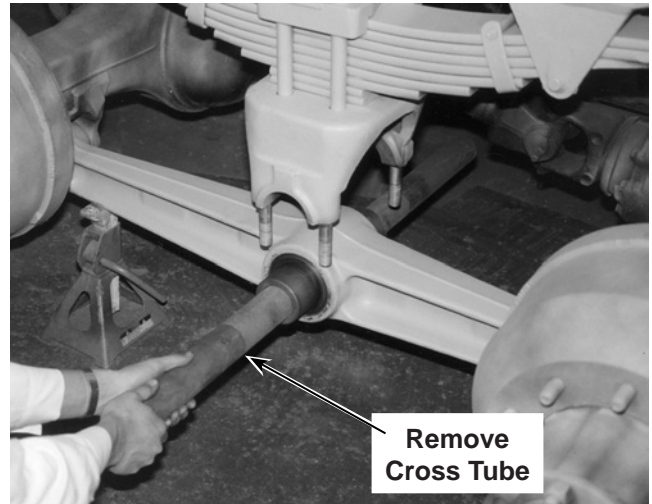


Figure 2

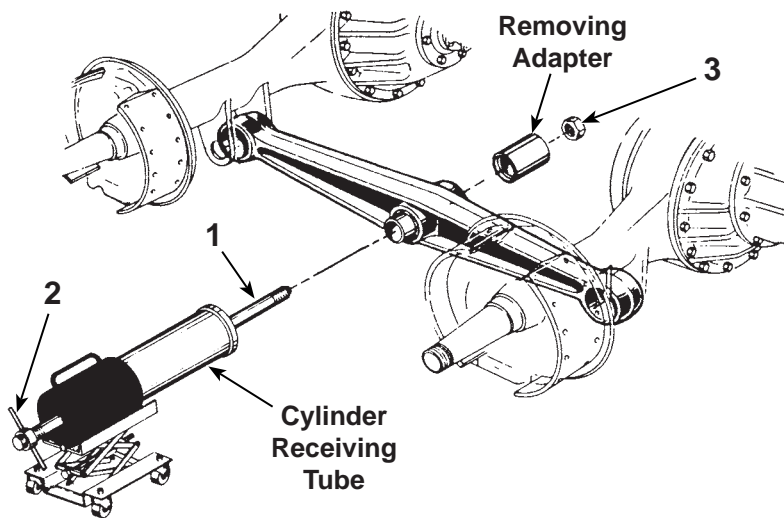


Figure 3

Item No.	Part No.	Description
1	302023	Cylinder Screw
2	302029	Speed Nut
3	302028	Hex Nut

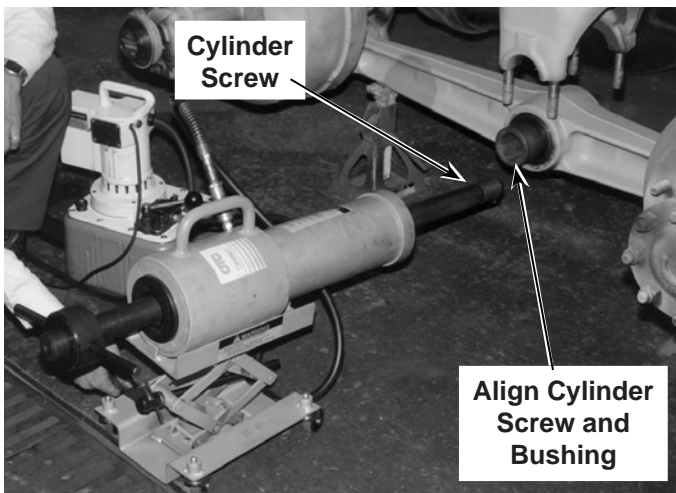


Figure 4

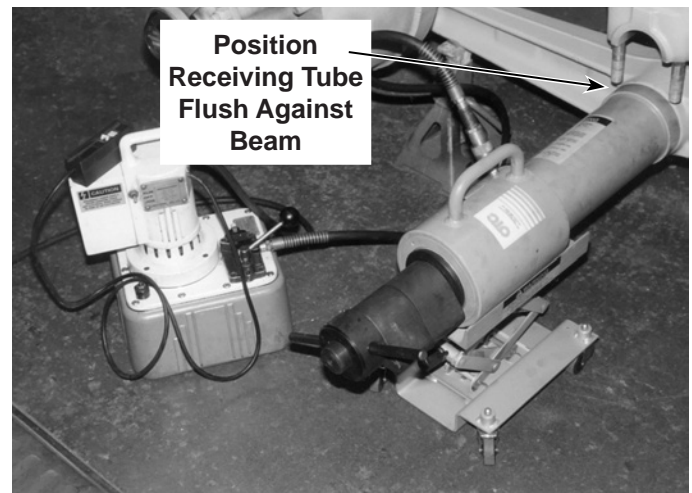


Figure 5

Center Bushing Removal (Cont.)

8. Install the removing adapter (310248) over the cylinder screw, from the back side of the beam. Assemble the hex nut (302028) on the cylinder screw. See Figure 6. **CAUTION: To prevent equipment damage, the hex nut must be completely threaded all the way down the cylinder screw (full thread engagement).**
9. Install spacers on the cylinder screw at the rear of the cylinder/dolly assembly. Use the speed nut (302029) to remove slack from the assembly. See Figure 7. **CAUTION: To prevent equipment damage, the receiving adapter must be centered on the beam face.** If the receiving adapter is aligned too high or too low, the old bushing will interfere with the receiving adapter during removal and the bearing won't pass into the receiving tube.
10. Start the pump to begin removing the bushing. After the first pull, turn off the pump and add additional

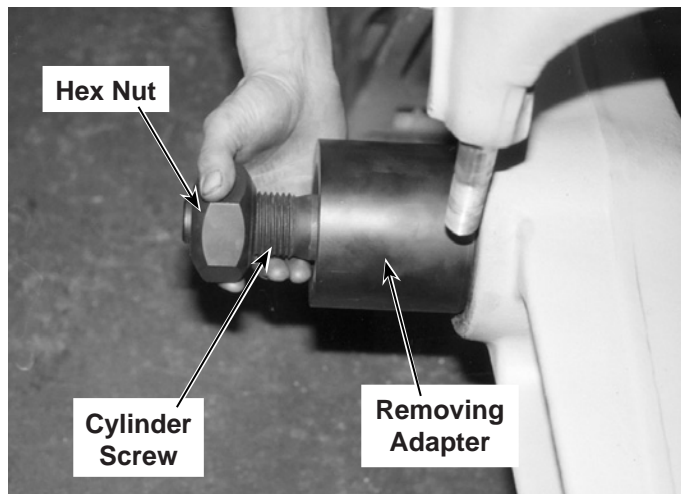


Figure 6

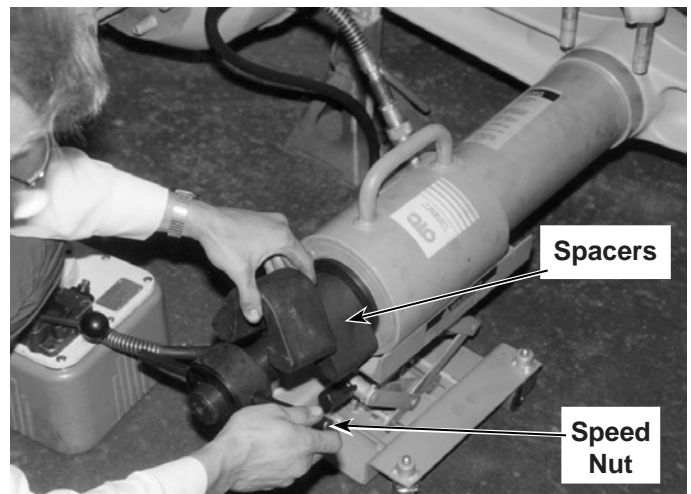


Figure 7

spacers, as necessary. Then retighten the speed nut and restart the pump. When the bushing has been completely pulled through the beam and is in the receiving tube, roll the assembly out of and away from the beam. See Figure 8.

⚠ WARNING: To prevent personal injury, monitor the gauge while applying hydraulic pressure. If the bushing fails to move with 10,000 PSI applied, release hydraulic pressure and check the alignment of the tooling. If the adapters are not aligned correctly, the force from the cylinder will be transferred to the beam face.

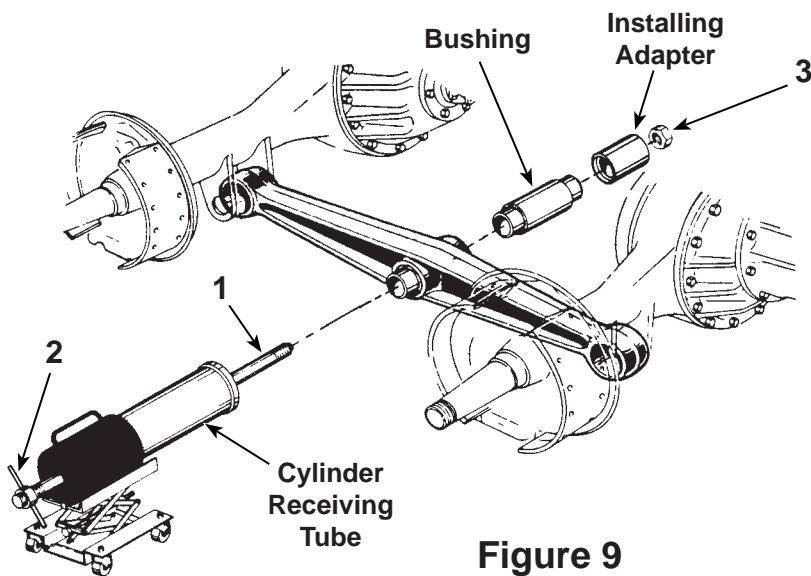


Figure 8

Parts List and Operating Instructions

Center Bushing Installation

1. Assemble the cylinder screw (item 1) and hydraulic equipment included in the 1740 service set. See Figure 9.



Item No.	Part No.	Description
1	302023	Cylinder Screw
2	302029	Speed Nut
3	302028	Hex Nut

Figure 9

2. Clean and lubricate the bore of the equalizing beam.
3. Roll the dolly and cylinder assembly up to the beam and adjust the dolly for the correct height. Use the cylinder screw (302023) as a centering guide. See Figure 9.
4. Slide the cylinder screw through the bore. Advance the cylinder and dolly assembly until the cylinder receiving tube is flush against the beam face. See Figure 10.
5. From the back side of the beam, start the new bushing into the beam bore as straight as possible. Assemble the installing adapter (310249) and hex nut (302029) to the cylinder screw. See Figure 11. **CAUTION: To prevent equipment damage, the hex nut must be completely threaded all the way down the cylinder screw (full thread engagement).**

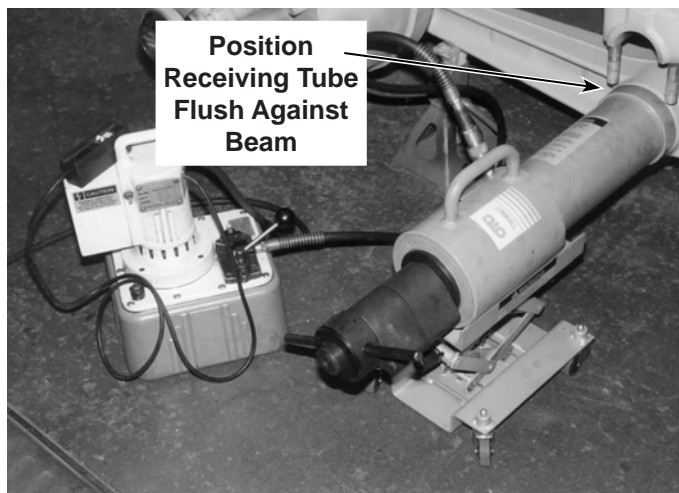


Figure 10

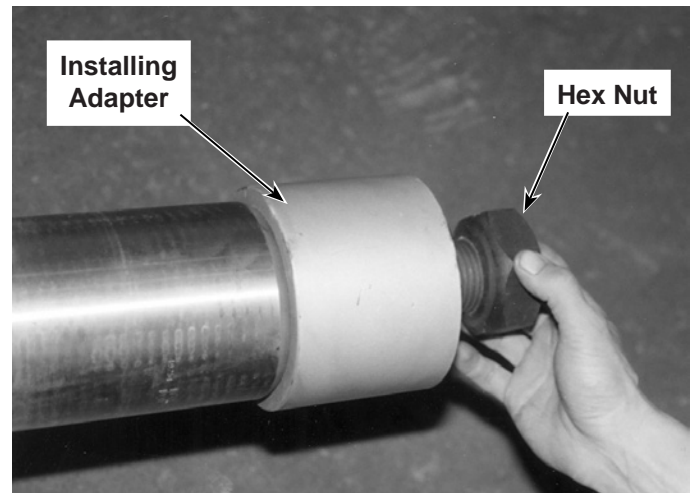
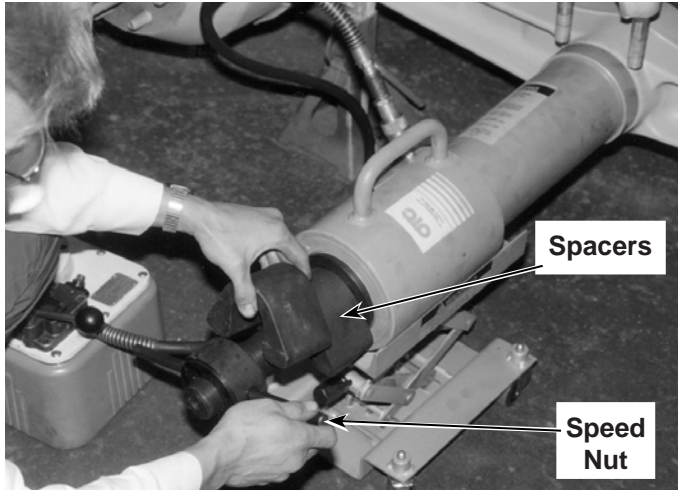


Figure 11

Center Bushing Installation (Cont.)

6. Tighten the speed nut to remove slack from the assembly.
7. Start the pump and pull the new bushing into the equalizing beam. **CAUTION: To prevent equipment damage, the new bushing must be straight as it enters the beam bore.**
8. After the first pull of the hydraulic cylinder, turn off the pump, install spacers (as necessary), and tighten the speed nut. See Figure 12.
9. Restart the pump to completely install the new bushing. See Figure 13. When the installing adapter bottoms out on the back side of the beam face, the new bushing is correctly installed.

**Figure 12****Figure 13**