LONG REACH®
www.alliedsystems.com
21433 SW Oregon Street, Sherwood, OR 97140, USA
Phone: 800.285.7000 Fax: 800.231.3273

Cylinder Service Procedures

1.1 Cylinder Removal

1. Remove the cylinder rod end cotter pin and clevis pin.

2. Disconnect the hydraulic connections.

3. Remove cotter pin and clevis pin at the base end of the cylinder.

1.2 Cylinder Installation

1. Install the clevis pin and cotter pin into the base end of the cylinder.

2. Attach the hydraulic connections to the cylinder.

3. Extend the cylinder until the rod end hole lines up with the mounting hole. Install the clevis pin and cotter pin into the rod end of the cylinder.

4. Turn on the truck's power and activate the positioning cylinders several times to bleed out trapped air.

⚠ WARNING

WHEN HYDRAULIC SERVICE HAS BEEN PERFORMED, BEFORE RETURNING ATTACHMENT TO SERVICE BE SURE TO ACTIVATE THE HYDRAULIC FUNCTIONS SEVERAL TIMES TO BLEED OUT TRAPPED AIR IN THE SYSTEM.

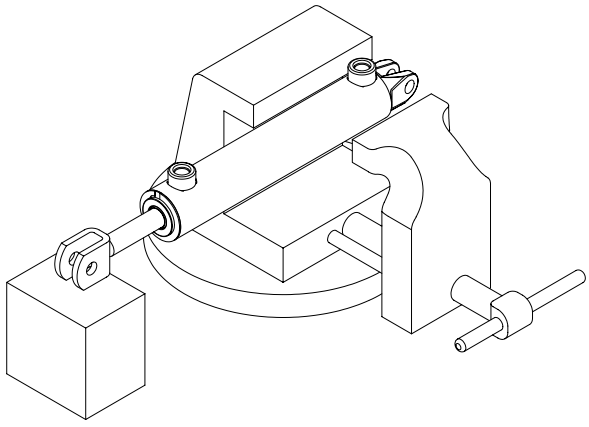

Figure 1-1, Cylinder Vise

1.3 Cylinder Disassembly

1. Remove the cylinder from the attachment. See removal instructions.

2. Clamp the cylinder lightly at the base end in a soft jawed vise. Use a block or other support under the rod end of the cylinder. (Figure 1-1)

3. Spread and remove the retaining ring from the gland cap.

4. Push gland inward 1 inch and pry out lock ring.

5. Remove the rod assembly from the cylinder tube.

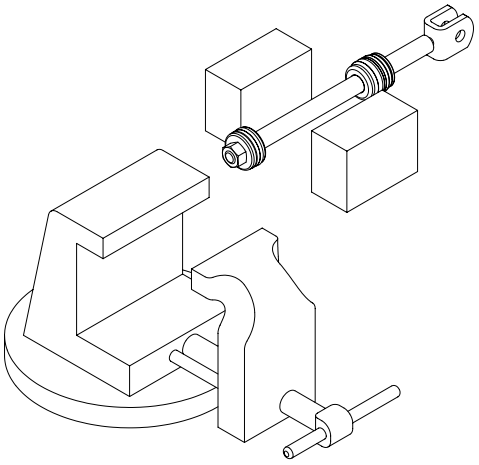

Figure 1-2, Cylinder Shaft

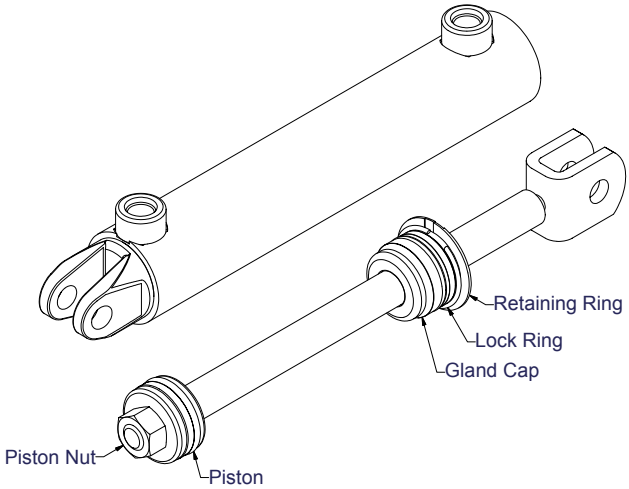

Figure 1-3, Rod Assembly

6. Clamp the rod assembly in a soft jawed vise on the wrench flats, **not on the rod surface**. If the rod does not have wrench flats use two pieces of wood on both sides of the rod to prevent scarring. (Figure 1-2)

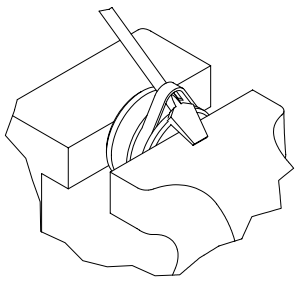

Figure 1-4, Piston Seal Removal

7. Remove the piston retaining nut and remove the piston. (Figure 1-3)

8. Carefully pry up on the piston seals using a blunt tip screw driver being careful not to scratch the seal grooves. Cut the seals to remove from the piston. (Figure 1-4)

9. Use the same procedure as above to remove the seals from the gland cap.

1.4 Cylinder Inspection

Inspect the cylinder tube bore for:

1. Deep scratches or nicks.
2. Signs of galling or excessive wear.
3. Out-of-roundness or deformities of the barrel.

Inspect the Piston for:
1. Scratches or nicks on seal grooves.
2. Wear on O.D.

Inspect the Cylinder Rod for:
1. Scratches or nicks on the rod surface.
2. Straightness of the rod.
3. Damaged threads.

Inspect the Gland Cap for:
1. Scratches or nicks in seal grooves.
2. Damaged threads or spanner wrench holes.
3. Excessive wear in bore.

Replace any component found to be bad.

1.5 Cylinder Assembly

1. Spray the Piston, Gland Cap, and Seals with WD40 or other similar product to ease slipping of the seals in place.

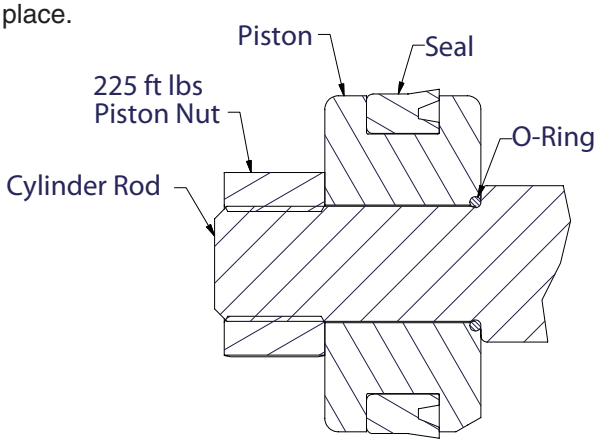

Figure 1-5, Piston Seal

2. Note the direction of the seal on the piston. Improper installation will result in poor performance. The cupped side or O-Ring side of the seal should be facing the gland cap. (Figure 1-5)

3. Install the seals and wipers in the gland cap. Note the direction of the seals. The cupped side or O-Ring side of the seal should be facing the piston. (Figure 1-6)

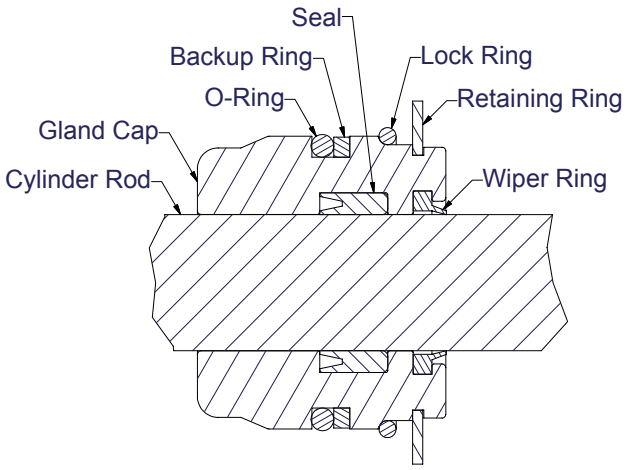

Figure 1-6, Gland Cap Seal

4. Install the gland cap on the cylinder rod being extremely careful not to cut the rod seal on the threads of the rod or rod shoulder. If available use a sleeve to cover the rod threads or plastic electrical tape.