

## 13 Lubrication and Maintenance

### Hazard Alert Messages

Read and observe all Warning and Caution hazard alert messages in this publication. They provide information that can help prevent serious personal injury, damage to components, or both.

#### **⚠ WARNING**

To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service.

### Lubrication

#### Automatic Slack Adjuster

Use a grease gun to lubricate the automatic slack adjuster through the grease fitting until new grease flows from the pressure relief seal under the pawl assembly. Refer to Maintenance Manual 1, Preventive Maintenance and Lubrication, for the approved lithium-based greases for automatic slack adjusters. To obtain this publication, refer to the Service Notes page on the front inside cover of this manual.

#### Anti-Seize Compound

Meritor lubricant specification O-637, part number 2297-U-4571, is a corrosion control grease. Do not mix this grease with other greases. This compound is also available from the Southwest Petro-Chemical Division of Witco Chemical Corporation, 1400 South Harrison, Olathe, KS 66061, as "Corrosion Control", part number SA 8249496.

- Use anti-seize compound on the clevis pins of all slack adjusters.
- Also use anti-seize compound on the automatic slack adjuster and cam splines if the slack adjuster gear has no grease groove and holes around its inner diameter.

### Caliper

#### **⚠ CAUTION**

Only use Meritor specification O-616-A or O-645 grease inside the disc brake caliper. Do not use lithium-base grease, which can melt from high temperatures inside the caliper. Damage to components can result.

Meritor air disc brakes have been manufactured in three different designs. Note that the location of the caliper grease fitting and pressure relief valve is different in brakes manufactured before 1985, from 1985 to 1991, and after 1992. Figure 13.1, Figure 13.2 and Figure 13.3.

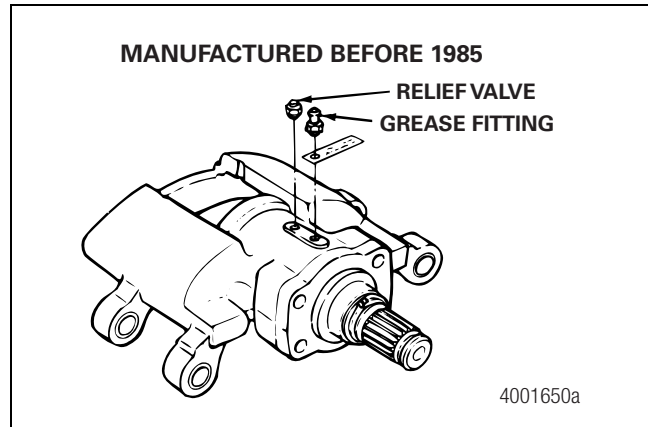


Figure 13.1

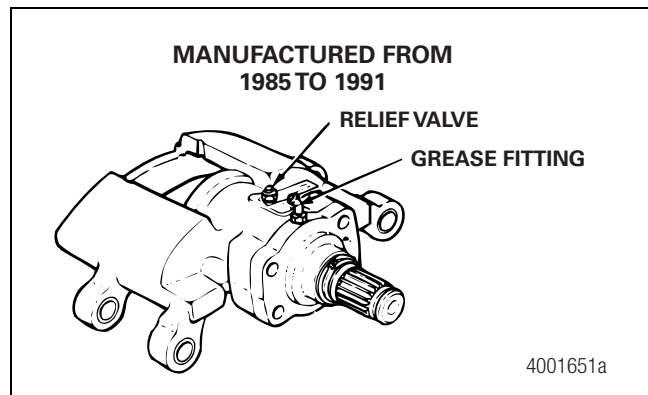


Figure 13.2

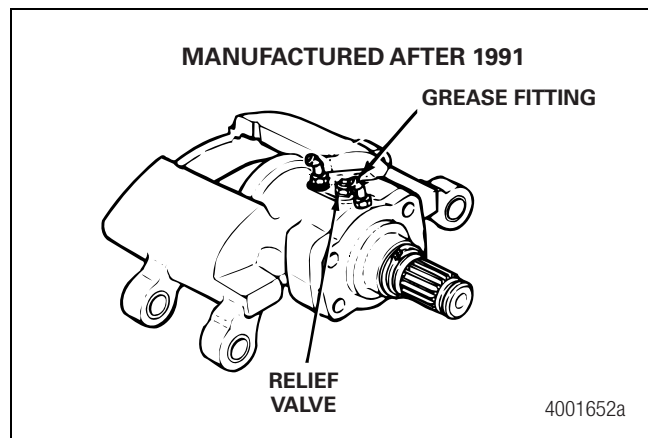
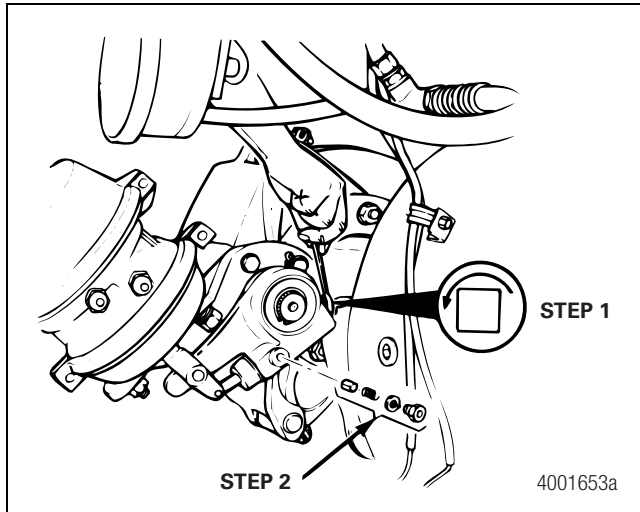


Figure 13.3

**NOTE:** Lubricate brake-actuating components inside the caliper two to four times during the life of the lining, or every six months.

1. Turn the adjusting nut on the automatic slack adjuster to move the inboard lining against the rotor. Figure 13.4.



**Figure 13.4**

2. Plug the pressure relief valve by holding a finger over the poppet.

**NOTE:** For calipers with grease fittings in the caliper and the camshaft cap, first apply grease to the caliper fitting, then apply grease to the camshaft cap fitting.

3. Apply grease through the grease fitting in the caliper until grease flows out of the seal at the camshaft cap.

### **⚠ CAUTION**

**You must force excess grease from the caliper. Brakes can drag due to excessive grease in the caliper, which will reduce brake lining life.**

4. Remove the pressure relief valve from the caliper. Turn the slack adjuster adjusting nut in the opposite direction to fully retract the caliper piston and force excess grease through the pressure relief hole.
5. Clean the excess grease from the outside of the caliper with a rag.
6. Install the pressure relief valve.
7. Adjust the brake. Refer to Section 11.

## Maintenance

The maintenance schedules shown in this manual are for normal operating conditions. Refer below for other operating conditions.

- Operation under severe conditions can require shorter periods between maintenance.
- Operation over long distances with few stops can permit longer periods between maintenance.

A maintenance schedule for each vehicle can be set after the brakes are inspected several times.

## Minor Inspections

Inspect and lubricate the brake and automatic slack adjuster according to one of the following schedules. Use the schedule that provides the most frequent inspection and lubrication.

- The chassis lubrication schedule used by your fleet.
- The chassis lubrication schedule recommended by the chassis manufacturer.
- A minimum of four times during the life of the linings.

## Air System

- A vehicle equipped with a combination of air disc and drum brakes requires special attention to obtain maximum brake performance.
- Replace air system valves with valves of identical performance characteristics.
- A correctly maintained air system and correct air pressure to each brake can help to ensure maximum brake performance and reduced lining wear.

# 13 Lubrication and Maintenance

## Automatic Slack Adjuster

**NOTE:** For complete maintenance instructions on the Meritor automatic slack adjuster, consult Maintenance Manual 4B, Automatic Slack Adjuster. To obtain this publication, refer to the Service Notes page on the front inside cover of this manual.

### **⚠ WARNING**

**Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving. Support the vehicle with safety stands. Do not work under a vehicle supported only by jacks. Jacks can slip and fall over. Serious personal injury and damage to components can result.**

1. Place blocks in front and behind the wheels to prevent the vehicle from moving.

### **⚠ WARNING**

**Before you service a spring chamber, carefully follow the manufacturer's instructions to compress and lock the spring to completely release the brake. Verify that no air pressure remains in the service chamber before you proceed. Sudden release of compressed air can cause serious personal injury and damage to components.**

2. If the vehicle has spring brakes, manually compress and lock the springs to release the brakes. You must check to ensure that no air pressure remains in the service halves of the air chambers.

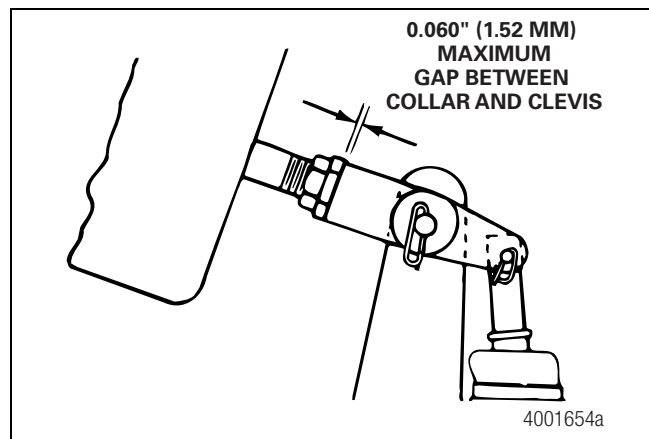
## Slack Adjusters Manufactured Before 1993

1. Remove the slack adjuster when these conditions are apparent.
  - The grease is dry or contaminated.
  - The pawl or actuator is worn.
2. Disassemble the slack adjuster.
3. Replace any worn or damaged parts.
4. Use new seals and a new boot when you assemble the unit.

## Slack Adjusters Manufactured in 1993 and Later

1. Use the correct slack adjuster template to ensure that the clevis is installed in the correct position. Refer to Section 11.
2. Before you perform brake maintenance, check the free stroke and the adjusted chamber stroke as described in Section 11.

3. If the free stroke is not correct, refer to the tables in Section 14 to correct the stroke before you adjust the chamber stroke.
4. Inspect the boot for cuts or other damage. If the boot is cut or damaged, remove the pawl and inspect the grease.
5. If the grease is in good condition, replace the damaged boot with a new boot.
6. Use a grease gun to lubricate the slack adjuster through the grease fitting. If necessary, install a camshaft into the slack adjuster gear to minimize grease flow through the gear holes.
7. Lubricate until new grease purges from around the inboard camshaft splines and from the pawl assembly.
8. Measure the gap between the clevis and the collar on a "Quick Connect" clevis. Replace the clevis if the gap exceeds 0.060-inch (1.52 mm). Figure 13.5.



**Figure 13.5**

## Slide Pins and Bushings

1. Check for contamination on the slide pins. If necessary, remove and clean the slide pins and caliper bushings. Refer to Section 4.
2. Use a pin gauge, J-34064-54, to check the slide pin bushings for wear. If you can fit the gauge between the slide pin and the bushing, the bushing or slide pin is worn. Replace worn bushings and slide pins. Refer to Section 4. To obtain the pin gauge, contact SPX Kent-Moore at 800-328-6657.

## Rotors

Inspect the rotor for cracks, deep scores or other damage. Replace the rotor when necessary. Refer to Section 8.