

7 Adjustment

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.

Check and Adjust

Wheel Bearings

The most accurate bearing end play measurement is obtained with the brake drum and tires removed.

- **If the brake drum and tires are installed and the bearing end play is greater than 0.003-inch (0.0762 mm):** Remove the brake drum and the tire-wheel assembly. Recheck bearing end play.

⚠ 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. Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving. Set the parking brake.
2. Raise the vehicle so that the wheels are off the floor. Support the vehicle with safety stands.
3. Remove the capscrews and remove the gasket and the cap from the hub.
4. Verify that the brake drum and the hub fasteners are tightened to the manufacturer's specifications.
5. Attach a dial indicator with the magnetic base at the bottom of the hub or the brake drum. Adjust the dial indicator so that the pointer is against the center of the knuckle. Set the dial indicator on ZERO. Figure 7.1.

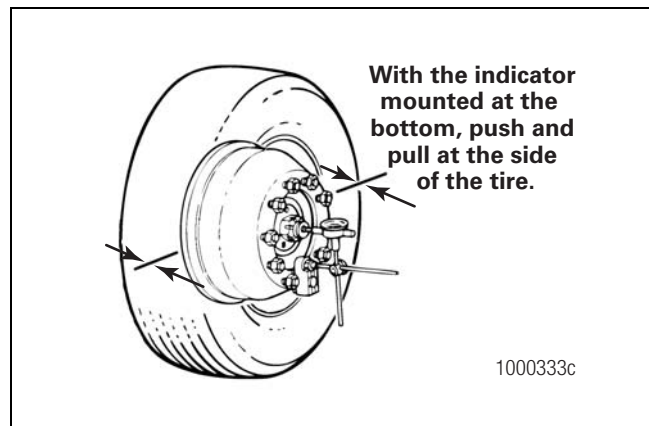


Figure 7.1

NOTE: Do not push or pull at the top and bottom of the hub or drum, which can affect the end play measurement.

6. Measure the end play by pushing and pulling on each side of the hub or drum while looking at the dial indicator. The end play is the total travel observed.
 - **If the end play is 0.001-0.005-inch (0.025-0.127 mm):** The bearings do not need adjustment.
 - **If the end play is not 0.001-0.005-inch (0.025-0.127 mm):** Adjust the wheel bearings. Figure 7.1.
7. **On double nut and lock fasteners:** Bend the lock washer off the wheel bearing nut. Remove the wheel bearing nut, the lock washer and the pierced lock ring. Figure 7.2.

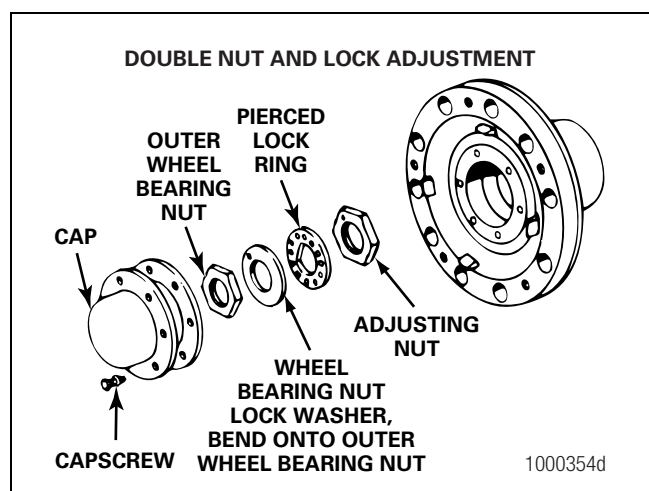


Figure 7.2

⚠ WARNING

Use a torque wrench to tighten or loosen adjusting nuts. Do not use a hammer to directly hit adjusting nuts, or to hit a chisel or drift placed against them. Damaged adjusting nuts can prevent you from obtaining correct wheel bearing end play, which can affect vehicle operation and cause the wheels to separate from the vehicle. Serious personal injury and damage to components will result.

8. Use a torque wrench to tighten the adjusting nut to 100 lb-ft (136 N•m) while rotating the tire in both directions. Figure 7.3. **ⓘ**
9. Loosen the nut completely. Tighten the nut to 20 lb-ft (27 N•m) while rotating the tire. Figure 7.3. **ⓘ**

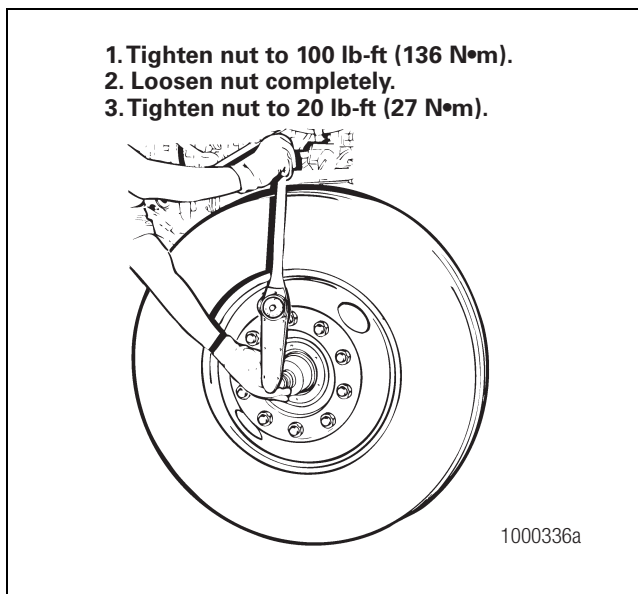


Figure 7.3

10. Perform the following adjustment procedure.
 - A. Back off the adjusting nut 1/3 turn.
 - B. Install the pierced lock ring, the lock washer and the wheel bearing nut.
 - C. For wheel bearing nuts in sizes from 1-1/8-inches up to 2-5/8-inches (2.86-6.67 cm), tighten to 200-300 lb-ft (271-407 N•m). For wheel bearing nuts 2-5/8-inches (6.67 cm) and more, tighten to 250-400 lb-ft (339-542 N•m). **ⓘ**
 - D. Measure the end play. The end play must be 0.001-0.005-inch (0.025-0.127 mm). Refer to Step 5 and Step 6. Readjust if necessary.
 - E. If the end play is to specification, bend the washer to at least one flat edge of the outer wheel bearing nut. Figure 7.2.
11. Install the gasket and the cap onto the hub. Install the capscrews and tighten to 20-30 lb-ft (27-41 N•m). **ⓘ**
12. Lower the vehicle to the ground. Check for correct vehicle operation.