- **Brake Drum or Rotors**
  (1) With any external crack or cracks that open upon brake application (do not confuse short hairline heat check cracks with flexural cracks).
  (2) Any portion of the drum or rotor missing or in danger of falling away.

- **Brake Hose**
  (1) Hose with any damage extending through the outer reinforcement ply. (Rubber impregnated fabric cover is not a reinforcement ply). (Thermoplastic nylon may have braid reinforcement or color difference between cover and inner tube. Exposure of second color is cause for rejection.
  (2) Bulge or swelling when air pressure is applied.
  (3) Any audible leaks.
  (4) Two hoses improperly joined (such as a splice made by sliding the hose ends over a piece of tubing and clamping the hose to the tube).
  (5) Air hose cracked, broken or crimped.

- **Brake Tubing**
  (1) Any audible leak.
  (2) Tubing cracked, damaged by heat, broken or crimped

- **Low Pressure Warning Device**
  (1) Missing, inoperative, or does not operate at 55 psi and below, or 1/2 the governor cut out pressure, whichever is less.

- **Tractor Protection Valve**
  (1) Inoperable or missing tractor protection valve(s) on power unit.

- **Air Compressor**
  (1) Compressor drive belts in condition of impending or probable failure.
  (2) Loose compressor mounting bolts.
  (3) Cracked, broken or loose pulley.
  (4) Cracked or broken mounting brackets, braces or adapters.

- **Air Reservoirs**
  (1) Unsecured air reservoir

AIR BRAKE ADJUSTMENT CHECK

- Drivers should check brake adjustments as part of each daily trip inspection.

MARK AND MEASURE

- Build air reservoir pressure to 80-90 PSI.
- Block vehicle.
- Put vehicle in low gear.
- Shut off engine.
- Release all brakes.
- Place a visible reference mark on each pushrod at the face of the brake chamber.
- With brakes applied, measure from the face of the chamber to the reference marks. Compare the measurements obtained to the adjustment limit chart below.
- You will need someone to apply the brakes in order for you to check the steering axle brakes and the wheels that are not equipped with spring brakes.
- Always maintain air reservoir pressure at 80-90 PSI when taken brake measurements.

(Refer to the previous Table: "*Adjustment Limits for Clamp Type Chambers*")

Safety Message from Project P.I.E.
(Public Information and Education)
FACT SHEET #055
Georgia Department of Public Safety
Motor Carrier Compliance Division
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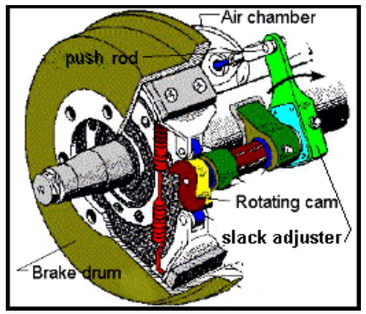
(404) 624-7211 www.dps.georgia.gov

Guidelines for Inspecting an Air Brake System

READJUSTING MANUAL SLACK ADJUSTERS

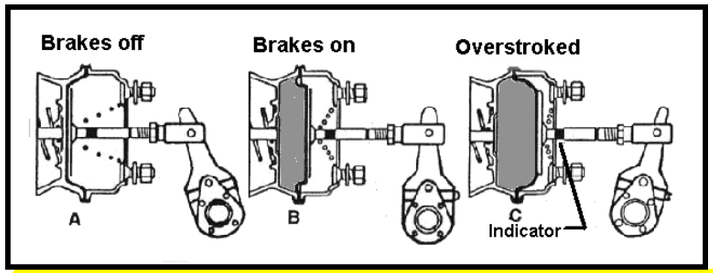


Failure to follow correct brake adjustment procedures can result in brake failure.

- Chock vehicle
- Build air pressure to 90-100 PSI
- Put vehicle in low gear
- Shut off engine
- Release all brakes
- *Spring brakes must be mechanically caged or released with air before brake adjustments can be achieved.*
- Verify that the brakes are released. (Push in on each slack adjuster to confirm that the pushrod is fully retracted.)
- Thoroughly clean the adjusting hex and locking sleeve area.
- Position a wrench over the adjusting hex and disengage the locking sleeve by depressing it. With the locking sleeve fully depressed, turn the adjusting hex until it will go no further indicating that either the shoes have contacted the drum or the adjusting hex has been turned

in the wrong direction. Pull on the slack adjuster to make sure there is no movement. If there is movement, adjustment was made in the wrong direction. After verifying a solid shoe-to-drum contact, back off the adjusting hex ¼ - ½ turn. Make sure you have at least a 3/8 to 5/8 inch of free stroke. Free strokes less than 3/8 inch can cause brake drag resulting in over heating of brake components.

- *Caution: When the brake adjustments are completed, the adjusting hex must be positioned so the locking sleeve engages locking it in place. If the locking sleeve does not engage the adjusting hex, the slack adjuster can back itself off.*
- Check for normal brake function. (Test brakes immediately and stop after several miles to check for over heating of the brakes.)



Alert! Failure to follow correct brake adjustment procedures can result in brake failure.

READJUSTING AUTOMATIC SLACK ADJUSTERS

- Automatic slack adjusters should not have to be manually adjusted except for initial installation and at brake reline.
- *Automatic slack adjusters do not reduce the need for periodic maintenance.*
- If the automatic slack adjuster needs adjustment, inform maintenance personnel.
- If the automatic slack adjuster needs adjusting follow the same procedures as described above for a manual slack adjuster.

****** CAUTION ******

If the automatic slack adjuster is equipped with a pawl remove the pawl before any brake adjustments are attempted and then reinstall the pawl. Failure to remove the pawl before making adjustments will damage the pawl resulting in the brakes to continue being out of adjustment.

AIR BRAKE SYSTEM SAFETY CHECK

A vehicle does not pass an inspection if it has one of the following defects or deficiencies in the brake system:

- **Service Brakes**
  - (1) Absence of braking action on any axle required to have brakes upon application of the service brakes (such as missing brakes or brake shoe(s) failing to move upon application of a wedge. S-cam, cam, or disc brake).
  - (2) Missing or broken mechanical components including: shoes, lining pads, springs, anchor pins, spiders, cam rollers, push rods, and air chamber mounting bolts.
  - (3) Loose brake components including air chambers, spiders, and cam shaft support brackets.
  - (4) Audible air leak at brake chamber (Example ruptured diaphragm, loose chamber clamp, etc.).
  - (5) Readjustment limits. The maximum stroke at which brakes should be readjusted is given below. Any brake 1/4", or more past the readjustment limit or any two brakes less than 1/4", beyond the readjustment limit shall be cause for rejection. Stroke shall be measured with engine off and reservoir pressure of 80 to 90 psi with brakes fully applied.

Adjustment Limits For Clamp Type Chambers

Maximum stroke at which brakes should be readjusted

Type	Outside Diameter	Adjustment Limit
6	4½	1¼
9	5¼	1 3/8
12	5 11/16	1 3/8
16	6 3/8	1¾
16L	6 3/8	2
20	6 25/32	1¾
20L	6 25/32	2
24	7 7/32	1¾
24L	7 7/32	2
24LS	7 7/32	2 1/2
30	8 3/32	2
30LS	8 3/32	2 1/2
36	9	2¼

  - (6) Brake linings or pads.
    - (a) Lining or pad is not firmly attached to the shoe;
    - (b) Saturated with oil, grease, or brake fluid; or
    - (c) Non steering axles: Lining with a thickness less than 1/4 inch at the shoe center for air drum brakes, 1/16 inch or less at the shoe center for hydraulic and electric drum brakes, and less than 1/8 inch for air disc brakes.
    - (d) Steering axles: Lining with a thickness less than 1/4 inch at the shoe center for drum brakes, less than 1/8 inch for air disc brakes and 1/16 inch or less for hydraulic disc and electric brakes.
  - (7) Missing brake on any axle required to have brakes.
  - (8) Mismatch across any power unit steering axle of:
    - (a) Air chamber sizes.
    - (b) Slack adjuster length.
- **Parking Brake System**
  No brakes on the vehicle or combination are applied upon actuation of the parking brake control, including driveline hand controlled parking brakes.