

Three Shoe Perrot Control

The **Bendix-Perrot Control** is a method of operating the front wheel brakes by means of an articulated shaft.

One end of the control shaft is supported in a ball joint attached to the frame of the car. See Fig. N17. The other end is attached by means of a universal joint to the brake cam. The rod is thus free to move with the rise and fall of the vehicle wheels without causing any tightening or slackening of the brake control rod.

As far as adjustment is concerned, the only difference between the Bendix Lever and Bendix-Perrot controls is that the Bendix-Perrot type has no worm ad-

justment, and the front brake cam position is altered by varying the relative positions of the lever and shaft.

Adjustment Procedure

Jack up all four wheels before making these adjustments:

1. Loosen eccentric adjustment lock (B, Fig. N18, Page 51) and turn eccentric in direction wheel revolves when car moves forward until secondary shoe is tight against drum. Then back gradually until wheel is just free

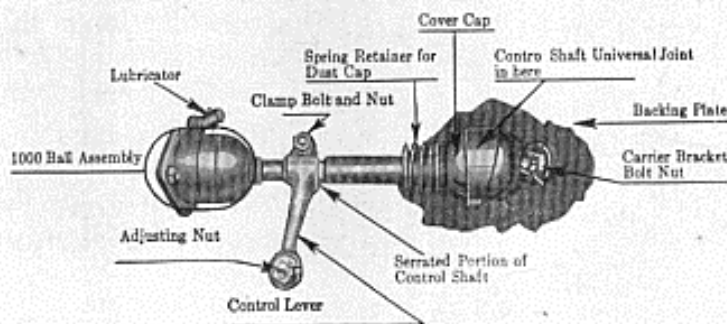


Fig. N17. Parts of Bendix-Perrot Control

Hold eccentric and tighten lock nut. Repeat this procedure at other 3 brakes.

Lever Angle

Now check angle of cam shaft operating levers to which the pull rods are attached at the brake end. All levers should stand at just less than right angles fully applied or at approximately 65 degrees to their pull rods when brakes are released, as shown in Fig. N19. If levers do not stand at position of maximum leverage they should be reset as follows:

- Back off on ball adjusting nut at end of each pull rod.
 - Loosen operating lever clamp bolts (Fig. N20) and slide levers off serrations.
 - Re-install levers on serrations so that each stands at angle 60-70 degrees to its pull rod as shown in Fig. N19. Tighten clamp bolts.
3. Take up on each ball nut (A Fig. N18) until wheel just drags. Back off until just free.

Equalizing

4. Equalize as follows: Push pedal down with

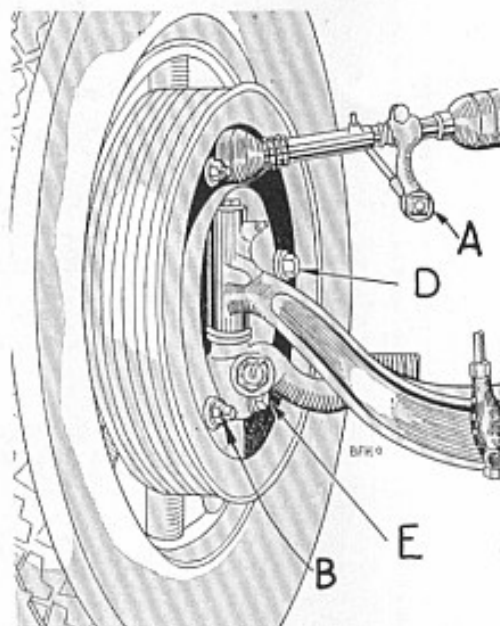


Fig. N18. Frame side of backing plate showing various adjustment controls

block or pedal depressor until the tightest wheel can just be turned by hand. Slack off tight wheels a turn at a time on pull rod ball nuts until all four wheels are the same.

5. Remove depressor from pedal and see that all four wheels are "free." Make final equalization on testing machine or road, loosening ball nut at "tight" wheel.

Anchor Adjustment

Anchor pins should be adjusted:

- When fitting newly lined shoes.
- When anchor pin nuts are found loose.
- When other adjustments fail to give satisfactory results.

6. To adjust anchors: Jack up all four wheels. Turn eccentric adjustment (B, Fig. N18) away from articulating pin and leave loose. Slacken anchor pin nuts free of lock washer. Tap both anchors out toward edge of drum. Hold brake on tight by 100-pound load on the end of a 10-in. pipe wrench. See Fig. N20. Tap anchor on end and still holding brake



Fig. N19. Correct angle of Bendix levers with brakes released

N20. Tap anchor on end and still holding brake

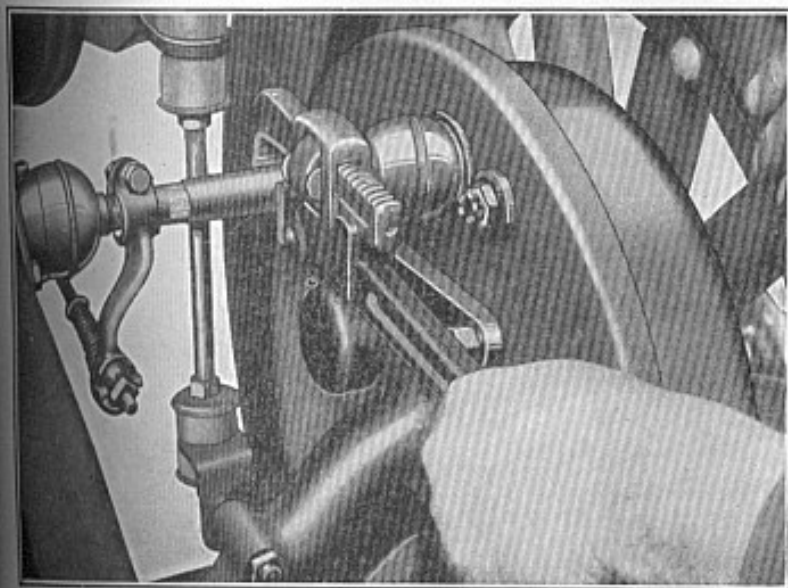


Fig. N20. Applying front brake with pipe wrench for resetting cam operating lever. Note lever is off serrations

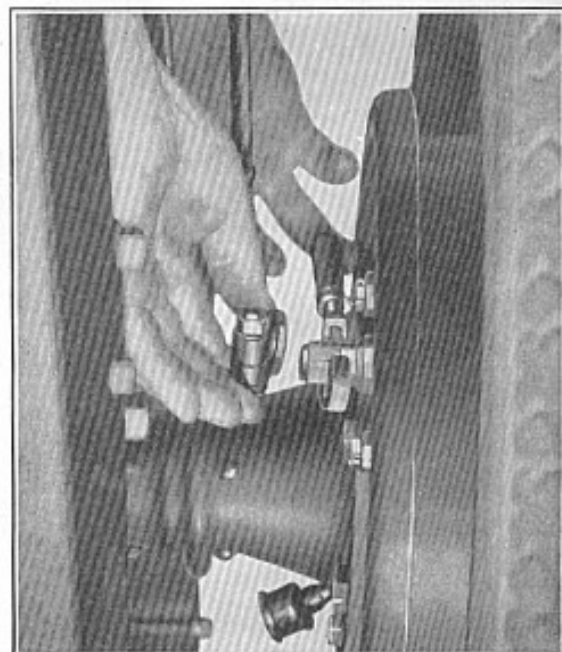


Fig. N21. Applying rear brake with pipe wrench to set cam lever to proper position

on, tighten both nuts as tight as possible with a 16-24-in. wrench. Release brake and readjust at eccentrics and pull rod ball nuts as outlined in paragraphs 1, 2, 3 and 4.

— OR —

6x Drums with inspection ports permit a far more satisfactory anchor adjustment, as follows:

(a) Slack off eccentric adjustment "B," Fig. N 18, Page 51, and slightly loosen both anchors "D" and "E." Apply brake by hand and tap anchor nuts. (b) Using a feeler, adjust upper anchor "D" to give .005 in. clearance at the heel (anchored) end of the secondary shoe and lower anchor "E" to get .005 in. clearance at heel of auxiliary shoe. (c) Using a feeler, adjust eccentric "B" to get .010 in. clearance at toe end (end that is hinged to primary shoe) of secondary shoe. See Fig. N21a.

(d) Now insert .010 in. feeler blade in drum hole and, while turning drum slowly, check clearance over remaining length of primary and auxiliary shoe lining. The clearance, except near heel of auxiliary shoe should be approximately uniform full length. If not, balance clearance by tapping carrier bracket slightly one way or the other. Recheck all clearances, making sure that toe of secondary shoe has twice as much clearance as heel, then lock all anchors with 16 in. wrench. Equalize at pull rod ball nuts. See additional data on carrier brackets, pages 49 and 50.

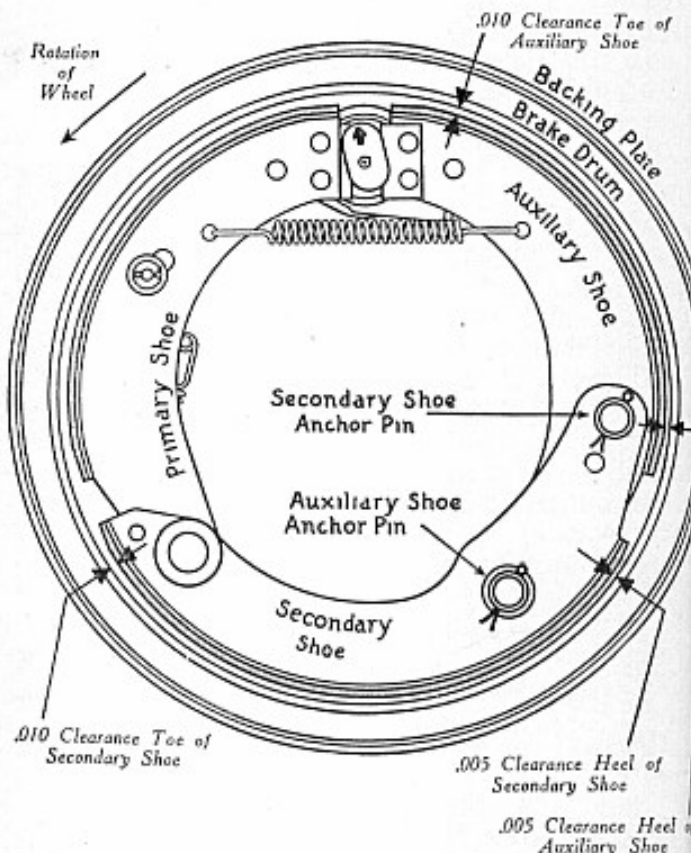


Fig. N21a—Proper heel and toe clearances for best results on most three shoe models

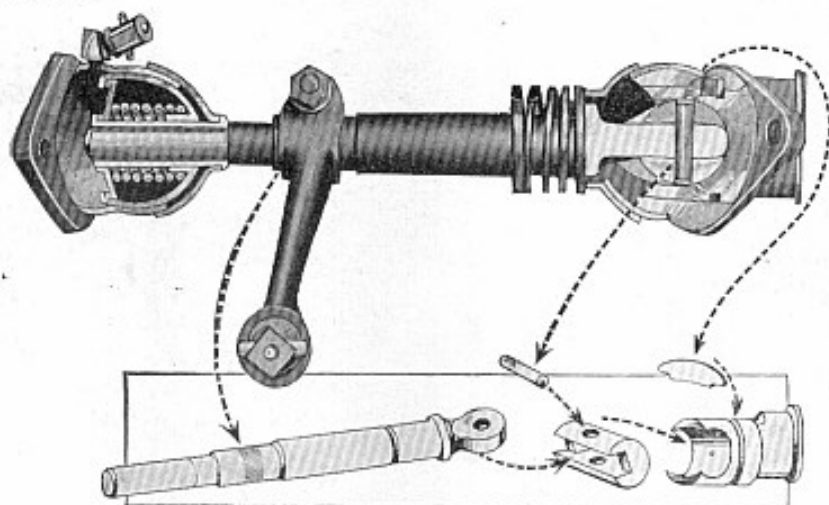


Fig. N22—Section of Perrot Control



Fig. N24—16-in. double-end box wrench for Bendix anchor nut. Proper tightening of anchors requires 16-in. leverage

Fig. N23—Bendix special wrench #10090, used apply brakes while setting anchors. This wrench engages the control lever and eliminates cutting the shoe which occurs when the pipe wrench is used

