parking brake adjustment without first adjusting for proper brake pedal operation

Make certain that the parking brake cables operate freely. Disconnect the cables and work them back and forth by hand to be sure the cable is not binding. Set the hand brake lever four or five notches from the released position. Then loosen the nut on the threaded end of the cable at the cable clip and tighten the rear nut until a heavy drag is felt when rotating the rear wheels by hand.

Tighten the front nut to maintain the adjustment. Release the hand brake fully and make sure there is no brake shoe drag as the rear wheels are rotated.

The hydraulic system is serviced the same as the standard Lockheed hydraulic system previously described.

BENDIX Hydraulically Operated Brakes

MINOR ADJUSTMENT

1. Jack up all wheels. See that brakes are fully released. Pedal should have $\frac{1}{4}$" play.

2. Loosen locknut E (Fig. 8) on eccentric adjustment and place a .010 inch feeler between lining and drum at adjusting screw end of that shoe which bears against eccentric.

3. Turn E in forward direction of wheel travel until feeler gauge just tightens. Tighten locknut on eccentric adjustment E. *Repeat at each wheel.*

4. Turn star wheel A (Fig. 9) until a slight drag is felt at each car wheel. Back off one notch at a time until wheels are free.

5. Hand or parking brake cables should be checked and adjusted, if necessary, by disconnecting them at the cross shaft, expanding the shoes by means of star wheel A until it is impossible to turn car wheel, and then removing slack in cable. Star wheel A should then be backed off until wheel is free.

MAJOR ADJUSTMENT

1. Disconnect parking brake cables and proceed as in 1, 2, and 3 under "MINOR ADJUSTMENT."

2. Loosen anchor locknut F (Fig. 8) one turn and insert a .010 feeler gauge between lining and drum at anchored end of eccentric-controlled shoe.

3. *On sliding anchor type tap anchor* slightly with soft hammer until feeler gauge just tightens. Recheck clearance at adjusting screw end of shoe and if correct tighten locknut F with a large wrench. Repeat at each wheel. See instructions on page 15 for Bendix Brakes with eccentric type anchors.

4. Turn star wheel A (Fig. 9) until a slight drag is felt at car wheel. Back off until wheel is free of drag.

5. Check and reconnect parking brake cables as described in 5 under "MINOR ADJUSTMENT."

6. *The hydraulic part of the system is* serviced the same as with Lockheed Hydraulic Brakes.

Most of the late model Bendix Hydraulic Brakes do not have the eccentric adjustment "E" shown in Figure 8. On these brake assemblies, all the mechanic has to do is adjust the star wheel A (Fig. 9) and the anchor pin F (Fig. 8). For a major adjustment the drum inspection hole is placed opposite the center of the Secondary Shoe. A screw driver is placed between the Secondary Shoe and the brake drum in order to force the Primary Shoe tightly against the drum. The adjusting screw is turned and the anchor pin moved if necessary in order to obtain .015" clearance between the drum and each end of the Secondary Shoe. The Primary Shoe is kept in close contact with the drum throughout the adjustment procedure. In some cases the anchor pin is eccentric and in other cases it is movable in an elongated slot. (See page 15.)

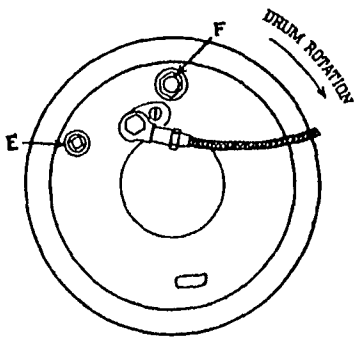

Figure 8

View from Backing Plate Side of Bendix Hydraulically Operated Brake

On the type of Bendix Hydraulic Brakes used on some Hudson cars, there are two floating anchors instead of a single eccentric anchor pin. These two floating anchors are used only to absorb the braking strains and they are not adjustable. In place of the adjustable anchor pin there are two eccentric cams, one for each shoe. The clearances at the anchor ends of the Primary and Secondary shoes are controlled by these eccentric cams and the clearances at the other ends of the shoes are controlled by the star wheel adjustment.

SERVICE HELPS

On Bendix Two-Shoe Brakes, both hydraulically and mechanically controlled types, one shoe is known as the Primary Shoe and the other as the Secondary Shoe. Primary and Secondary brake shoes are usually marked with a "P" and "S" respectively. Irrespective of the position in which the brake assembly is mounted on the axle, the Primary Shoe is always the one "ahead" of the anchor in the direction of forward rotation of the drum.

Figure 9 shows the recommended brake lining when the material is cut from roll stock.

American Brakeblok also furnishes brake lining segments in boxed car sets especially prepared for the more popular cars equipped with Bendix Hydraulic Brakes.

If the brakes are not effective enough with the recommended material to satisfy

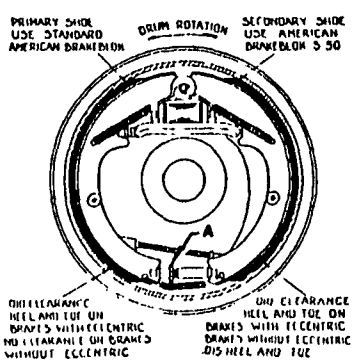

Figure 9

Bendix Hydraulically Operated Brake—Showing Mechanical Operation of Rear Wheel Brakes for Parking