

relieved by holding bleeder valve A (Fig 5) open until fluid appears, with the rubber tube not screwed in place. Bleeder valve is then closed. This operation should be performed with a pedal pressure of only a few pounds.

When removing the shoes from a hydraulic brake assembly it is best to clamp the wheel cylinders in order to prevent the accidental blowing out of the pistons, making a bleeding operation necessary.

On all hydraulic brake systems only an approved hydraulic fluid should be used.

If there is any doubt about the purity or quality of the fluid in the lines, it is best to flush out the entire hydraulic system using a good 188 proof alcohol. In some cases, it is necessary to remove the master and wheel cylinders and clean them thoroughly, using alcohol or brake fluid. Inferior brake fluids damage the rubber parts of a hydraulic system and it is often necessary to replace the rubber caps. If the cylinders have been scored or pitted, they should be honed to a mirror finish.

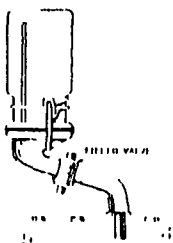


Figure 6
Automatic Refiller for Master Cylinder

After adjusting the cams always press the brake pedal two or three times after spinning the wheel by hand. Then check the wheel to make sure that it is still free of drag.

On Lockheed Hydraulic Brakes, there are sometimes cases of squeaks caused by binding of the tops of the Reverse Shoes where the Reverse Shoe lining is the same length as the Forward Shoe lining. This squeak can be eliminated by using a shorter piece of lining on the Reverse Shoe, as shown in Fig 4.

Sometimes this shorter piece of lining is placed so that the open space is at the toe, as shown, and in other cases the open space is at the heel end of the shoe.

On some cars fitted with Lockheed Hydraulic Brakes there is only one anchor pin in each wheel brake. Both the forward shoe and the reverse shoe in each brake are anchored to this same pin. The turning of this eccentric anchor pin controls the position of the heel ends of both shoes. However, there is no brake lining on the

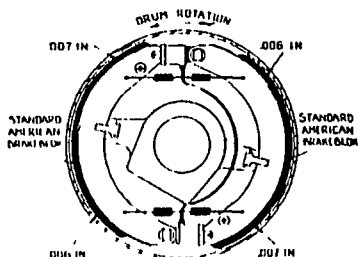


Figure 6A
Two Forward Shoe Brake Used on Front Wheels of Late Model Chrysler Corporation Cars

heel end of the reverse shoes and the eccentric anchor pins are adjusted to obtain .005" clearance between the lining and the drum at the heel ends of the forward shoes. The only adjusting on the reverse shoes is done by means of the cams in order to obtain .010" clearance at the toe ends of these shoes.

On late model Chrysler Corporation cars the front wheel brakes have two Forward Shoes. On these cars the recommended clearances are .007" at the toes and .006" at the heels on all Forward Shoes, and .007" all around on Reverse Shoes. In bleeding these front wheel brakes, bleed the top cylinders first and then bleed the lower cylinders. This brake assembly is shown in Figure 6A.

American Brakeblok, as well as most other lining manufacturers, recommend a fairly high friction lining on both for-

ward and reverse acting shoes of the Lockheed Hydraulic Brake. Figures 1 and 6A show the recommended brake lining when roll stock is used.

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

FORD Hydraulic Brakes

Ford cars are equipped with hydraulic brakes which are very similar to the Lockheed brakes just described. A left rear 1939-42 Ford brake assembly is illustrated in Figure 7 and shows the mechanism which operates the shoes through the hand brake lever for parking or emergency purposes.

The 1946 Ford brakes have brake shoes which are self centering at the anchor pins and therefore there is no anchor pin adjustment to be made on these brakes.

SERVICE HELPS

The hand brake lever on all recent Ford passenger car and light trucks operates the brake shoes in the two rear wheels for parking or emergency purposes. When making service brake adjustments, it is advisable to disconnect the hand brake cables.

In order to adjust the hand brake on these vehicles, proceed as follows.

1. Release the hand brake lever completely and then place it in the first notch.
2. Apply a pressure of about 30 pounds to the brake pedal and hold at approximately this pressure throughout the hand brake adjustment.

3. Take all slack out of the hand brake cables and adjust conduits so that cables are exactly the right length.

4. Remove the pressure from the brake pedal and release the hand brake lever completely and check the rear wheels to make sure they do not drag.

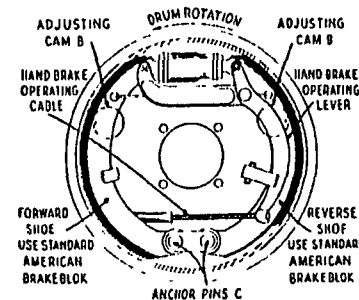


Figure 7
1939-42 Ford Hydraulic Brake Showing Mechanical Operation of Rear Wheel Brakes for Parking

ADJUSTMENTS

The major and minor adjustments on Ford hydraulic brakes through 1942 models are made in the same manner as on the Lockheed brake described on page 7.