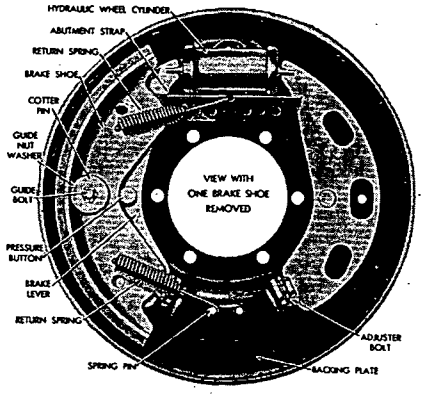
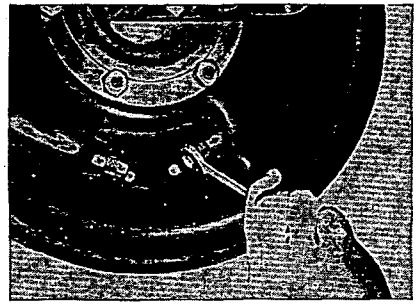
TIMKEN "DH" DUPLEX BALANCED BRAKE





This brake has been designed as simply as possible. Except for a standard straight bore wheel cylinder, there are only eight different parts. These are the backing plate assembly, the lever, the shoe assembly, the return spring, the adjuster bolt, and the guide nut, cotter and washer. The backing plate assembly serves as the support member of the brake and holds it to the axle. It contains the upper abutments, or anchors, for each shoe, the guide bolts, and the bushing for the adjuster bolt. The lever serves to transmit force from the wheel cylinder to the center of the shoe. The return springs, of which there are four, hold the brake released when not in use. The adjuster bolt, used to adjust the brake, acts as the lever pivot and as the lower shoe abutment. The guide nut and washer hold the shoe square with the drum.

Each shoe is floating or self-centering and is actuated by a lever which is in turn actuated by the wheel cylinder. By means of the levers, the force can be applied to the center of the shoes through the pressure button. Each shoe is then free to move against an abutment (upper or lower) which anchors and energizes the shoe. This movement is dependent on the direction of drum rotation.

Assembly of this brake is very simple. When the shoe and guide washer are in place, tighten the guide nut snugly and back off 4 castellations or ⅔ turn. The four return springs are identical and can be used at any one of the four positions.

ADJUSTMENT

1. Set foot pedal. With pedal against its stop, adjust pedal push rod to give ⅛″ free play before engaging piston in master cylinder.

2. With standard ½″ wrench, adjust one shoe tight against drum by rotating clockwise.

3. Back off on the adjuster bolt until there is a light drag between lining and drum.

4. Repeat steps 2 and 3 on the other shoe.

HEAVY DUTY BRAKES

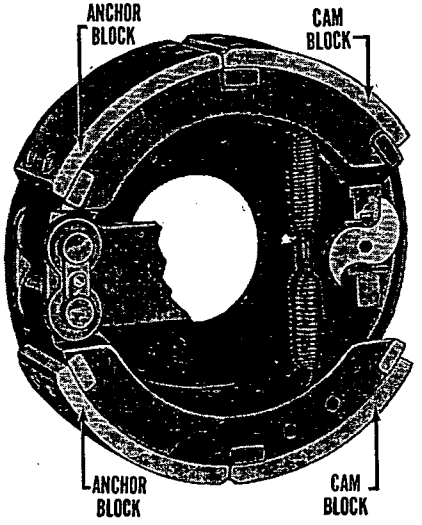


Figure 42

CONVENTIONAL TYPE BRAKE

In the brake shown on Fig. 42 a full ¾″ block is used at both cam and anchor ends.

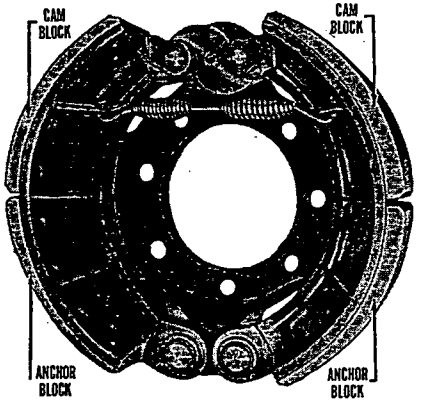


Figure 43

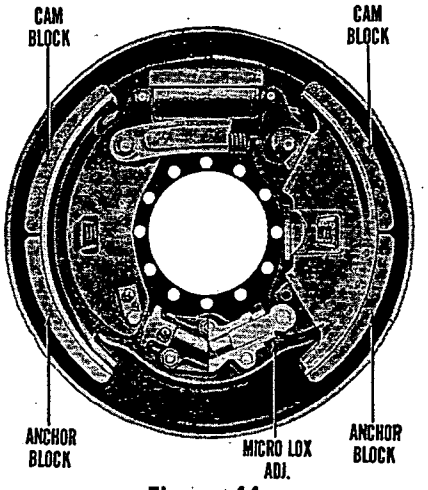


Figure 44

Timken-Detroit heavy-duty "DP" dual Primary Brake for Hydraulic Actuation with Micro Lox Adjustment

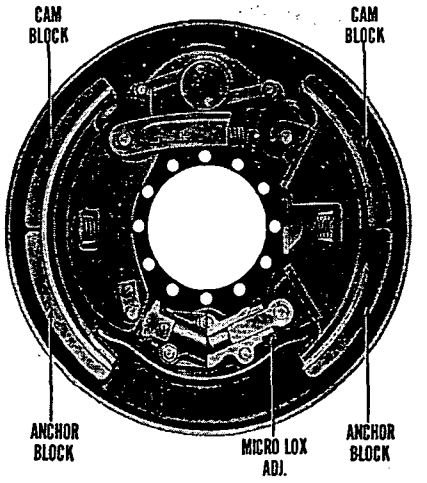


Figure 45

Timken-Detroit heavy-duty "DP" Dual Primary Brake for Compressed Air Actuation with Micro Lox Adjustment