

EXTERNAL BAND BRAKE

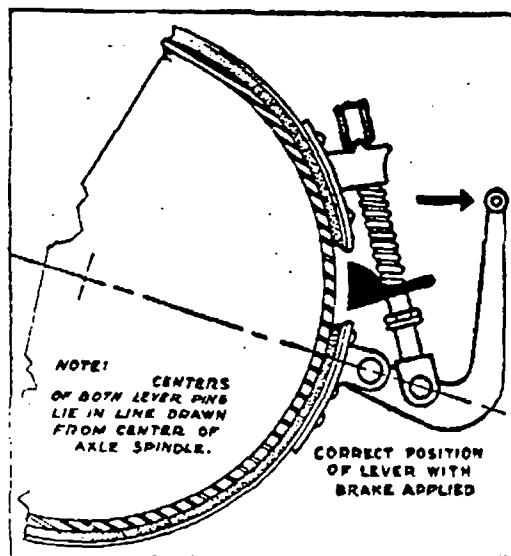
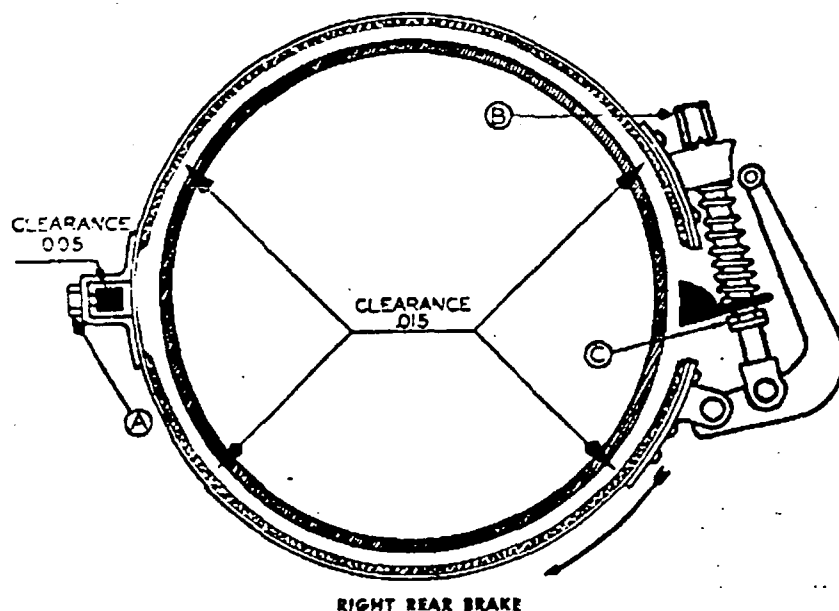


Fig. 1

THE external band type of brake has not been generally used on new car production since 1928. However, it is still quite common, and both mechanically and hydraulically operated systems are in daily use. The above diagram is typical of the mechanical type external brake and, although various shapes and designs of lever arms and anchors are used, the principle is the same. The adjustment for either mechanical or hydraulic type is practically the same, and the clearances shown above will give best results under most conditions. The external band brake requires a friction material of the type such as Multibestos Busduty or Multiduty moulded-woven brake lining.

External Band Brake Adjustments

1. Check linkage.
 - (a) Pedal rod.
 - (b) Cross shafts.
 - (c) Equalizers.
 - (d) Pull rods and cables.
 - (e) Lever arms back against stops.
2. Disconnect rods at the operating cams on each brake.
3. Adjust nut at point (C) until band drags slightly against drum at operating arm end of band.
4. Adjust clearance at (A), pushing band across the drum until the drag previously felt at operating arm end of band is relieved.
5. Turn nut (B) until slight drag is felt.

6. Check by applying slight pressure to brake pedal and adjust at points (B) and (C) until both ends of band approach brake drum at the same time.
7. Equalize brakes by making adjustments on the brake rod.

The above method of adjustment will, in all probability, give final clearances between the drum and the lining of approximately .015". However, due to certain variations, these clearances may not be equal, but by the above adjustment you are assured of an even acting brake at all times.

Average time required for a complete four wheel reline—4.5 hours.

Maintenance Suggestions

Where hard pedal is a chronic complaint on external band brake systems, it is possible in some cases to change over the leverage system to cure this. In the case of all four wheel external Buick brake jobs this can be easily done as follows:

1. Remove brake rod that connects brake pedal to equalizer from the lower hole at the pedal to the upper hole provided for just this purpose.
2. On levers, attached to the frame, which control the front brakes change the relative positions of the brake rods that run to the cross shaft and the cables that run to the front brakes so that the cables are connected to the upper hole and the rod to the cross shaft is in the lower hole of the lever.

This method gives more brake on the front wheels and consequently easy pedal. Another method of accomplishing the same effect is by drilling a new hole in the equalizer one inch nearer to the left frame of the cam than the present hole. The pull rod running from the brake pedal should be connected to the new hole. A greater pull will then be exerted on the cross shaft that controls the front brakes and accordingly an easier pedal will be required to obtain a suitable stop.

When brake is applied the operating lever should be in such a position that lever arm pin and yoke clevis pin will line up with the center of the axle. See Fig. 1. Bend operating lever with wrench to secure correct applied position and check to see that lever on each brake is in the same relative position. This assures an easy pedal.

To obtain a freer hinge action always cut out lining at anchor, chamfering the ends to reduce noise.

If clearance between band and drum is too small or uneven, frictional heat may expand the brake drums causing the brake to drag.

Out-of-round bands cause high spots which may result in dragging brakes or squealing brakes. Always reform relined bands, taking care not to twist them.

On external brakes the lining is more exposed to dirt and water and requires more frequent cleaning.

Excessive squeal, chatter, and groans may be eliminated by bending the toe ends of band slightly away from drums. Oiling the mechanism at points A, B, C, and the operating lever arm pins will tend to eliminate brake noise and increase brake efficiency.

Squeal is also caused by distorted backing plates or bands, too hard lining, scored or eccentric drums, dirt on lining, etc.

More than .005" clearance between anchor bracket and saddle allows the band to distort when brakes are applied. Closing up to correct clearance may be done by hammering or in a vise.

In certain cases where external band brakes have given good performance when dry and have resulted in no brake when wet, out-of-round drums with low spots on the drums have very often been found to be the cause of this trouble. Turning the drums, taking a slight cut only, will overcome this difficulty.

Poor wet weather performance is sometimes caused by the toe of the lining forming a small pocket in which the water gathers. We suggest cutting all ends of lining in a V shape so that the water and mud can escape.