



# Complete Brake Service

Part II

*This series will continue to cover most brake systems of the 1920s and 1930s, with applicability to later hydraulic systems as well.*

## TROUBLESHOOTING

### What To Look For

### What To Do

#### Squealing Brakes

1. Ends of band touching drum
2. High areas of unequal pressure
3. Pebbles or sand
4. Twisted bands
5. Unequal adjustment
6. Worn anchor pins
7. Rivet or reline
10. Glazed or hard lining
11. Eccentric or distorted drum
12. Loose wheels or wheel bearings

- Bend out points
- Readjust
- Remove; clean lining
- Straighten
- Adjust
- Renew or build u

- Reline
- True up drum
- Tighten

#### Brakes Chatter

13. Loose lining
14. Anchor pin twisted
15. Worn anchor pins
16. Weak rear chassis springs
17. Too little clearance
18. Too much clearance on lower half of band
19. Improper leverage
20. Action of some lining dopes

- Tighten or reline
- Straighten
- Renew or build up
- Add extra leaves
- Adjust
- Adjust
- Check up
- Reline

#### One Brake Grabs

21. Band twisted
22. Gummed surface
23. Rear axle housing loose on springs
24. Equalizer rusted or off center

- Straighten
- Clean or reline
- Repair
- Free up and adjust

#### One Brake Slips

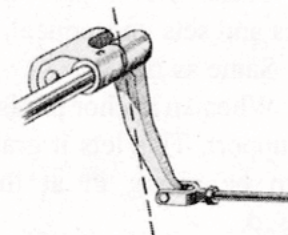
25. Lining saturated with grease
26. Equalizer off center
27. Band out of shape

- Clean or reline
- Adjust
- Reshape

#### Brakes Not Holding

28. Lining worn
29. Lining glazed
30. Rivets on contact with drum
31. Drums scored
32. Wrong leverage

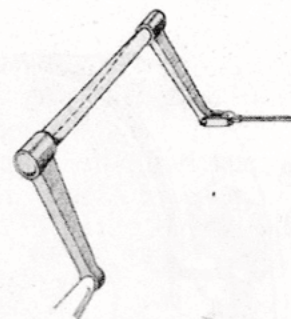
- Reline
- Turn down and use thicker lining or replace
- Check up and lubricate all working parts



*A not infrequent cause of trouble is bent levers as shown.*



*Pedal depressor device. Every brake shop should have at least one.*



*When other remedies for unequalization fail, check for flexing or twisting cross shafts as above.*



# Troubleshooting Explanations

## Squealing Brakes

1. The points of the band are very frequently bent when the lining is applied. The levers on the bands are so shaped in many instances that they force the points to the drum before lifting the lower section or drawing down the upper.
2. If split rivets are used. If the treatment flows under heat and cools in bunches.
3. Hard spots rubbing on metal.
4. Cause uneven pressure on the drum, which vibrates and sets up a squeal.
5. Same as No.4.
6. When an anchor pin is worn the band has no rigid support. This lets it grab at any angle it happens to be riding in at the time the pedal is depressed.
7. Bands frozen at the anchors give only a point application.
8. Twisted anchor pins give only an inner and outer application. This is one of the most common causes for squeal and failure to hold when we
9. Metal to metal.
10. Cause a lubricating bearing instead of braking friction
11. Drums are made eccentric by unequal pressure of brakes when drum has been heated by severe braking or by a locked brake.
12. Same as No.4.

## Brakes Chatter

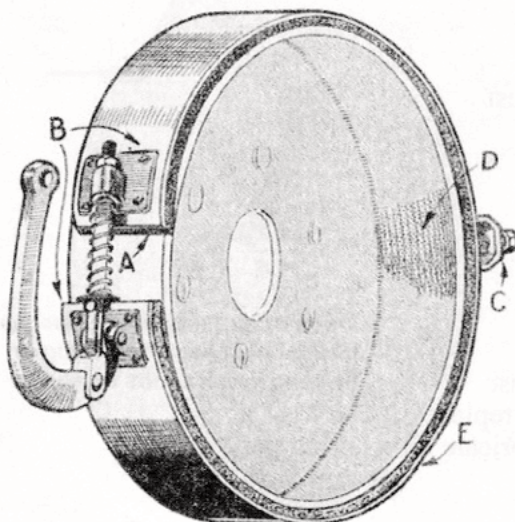
13. With-a loose lining you have no solid hold on the brake at the contact point.
14. Give only an edge application which is not constant.
15. Give the band a chance to work so that the pressure is not constant.
16. Weak rear springs allow so much lifting of the wheels from the road surface that there is a constant locking and sliding and rolling of brake.
17. Apparently does not allow the arms on the band to be brought ahead far enough to maintain a steady pressure.
18. Causes the top section to do most of the work and this top section is insufficient to hold steadily.
19. Same as No.4.
20. Action of heat on its contents.

## One Brake Grabs

21. Not enough friction to equalize with other bands.
22. Same as No.4.
23. Axle moves causing a variation of adjustment.
24. Applies brakes unevenly.

## One Brake Slips

25. Lack of frictional surface.
26. Applies brake on one side only.
27. Friction on one side only.



## Troubles Common to the Band Adjustment

- |                                    |                   |
|------------------------------------|-------------------|
| A- Ends of band bent inward        | B- Band twisted   |
| C- Loose, twisted or frozen anchor | D- Eccentric drum |
| E- Band dented or bent             |                   |

## Hydraulic Brakes

Trouble	Cause
Tank pump ineffective	Too much lining-to-drum clearance. Defective pump plunger
Car pulls to one side	Foreign matter on lining or loose axle mechanism
Chronic leakage	Pitted or oversize cylinder.