

# Willys-Knight 70 and 70A

Service brakes on these cars are of the internal expanding type on the front wheels and external contracting on the rear. The rear brakes should always be adjusted first.

## Minor Adjustment Rear Wheels

1. Before adjusting clearances disconnect the rear pull rod (38) so that rear camshaft levers (42) take their natural position due to adjustment. See Fig. 2.
2. Adjust anchor screw (51) to get .010-.015 clearance. Adjust lower half of band to .025-.030 in. clearance by means of nut (49). Adjust upper half to same clearance by means of top adjusting nut (48). Check position of band operating lever (C) at each rear wheel. The top eye of this lever should stand  $\frac{5}{32}$  in. back of the center line (X-Y) of band adjuster bolt (47). See Fig. 1. Adjust the stop screws (42, Fig. 2) to get this position.

A—Some of the early model 70 cars are not provided with the adjustable stop screws (42) on the rear camshaft levers. To secure correct angle of the band operating levers (C Fig. 1) use the top and bottom band clearance adjusting nuts (48 and 49).

If chronic trouble is experienced with the rear brakes on model 70 cars it will be advisable to secure heavier rear countershaft levers indicated at H in Fig. 2 from the Willys-Overland Co. Inc., at Toledo, Ohio.

## Front Brake Minor Adjustment

3. Adjust front brakes by turning main adjusting screw (1 Fig. 3) in counter clockwise direction until brake almost locks, then back off until wheel spins freely. Do the same to other front brake.
4. Rear Pull Rod—Before reconnecting rear pull rod (38, Fig. 2) observe position of rocker shaft lever (36, Fig. 1). With brakes released and

rear camshaft levers against their stops (42, Fig. 2) it should have an angle of 20 deg. Adjust clevis on end of pull rod 38 to get this setting.

5. Check front to rear retarding ratio and equalization on testing machine or by driving.

## Front Major Adjustment by Centering Important

6. Whenever front shoe assemblies are removed or when ordinary adjustment fails to give satisfactory results re-center the front shoe assemblies. This can be done through drum ports but preferably by using a cutaway drum or ring gage mounted on spindle. Specifications that should be followed when re-centering are shown in Fig. 4.

The shoes may be moved up and down by the adjusting screws "A". After making adjustment at these screws turn the nuts "B" up or down to get .060 in. clearance under their heads. If found necessary to move shoes fore and aft so as to get centralization do so at the centralizer stamping "C" which is mounted in elongated holes in the backing plate.

## Adjustment at Rods and Levers

7. Equalizer Yoke—Adjust pedal stop so that pedal clears floorboards, then check equalizer yoke (26 Fig. 1) which should clear the brake pedal hub by  $\frac{1}{4}$  in. If it does not clear hub by this amount, disconnect front brake pull rod (21) and pedal rod (27). Set yoke to correct position then adjust clevises on rods (21 and 27) so that clevis pins can be inserted without moving equalizer yoke or any of the rod levers front or rear.
8. Front Equalizer Lever—Front equalizer lever (C) should stand  $\frac{5}{16}$  in. forward of front axle center line as shown. To get this position adjust the right and left cross operating rods (A and B) by turning their clevises. See Fig. 3.

## BEFORE ADJUSTING BRAKES:

A—Jack all four wheels clear of floor

B—Free up all brake connections with penetrating oil

C—See that all wheel bearings are correctly adjusted

D—Check for eccentric drums

E—Check for loose backing plates and chassis spring U bolts

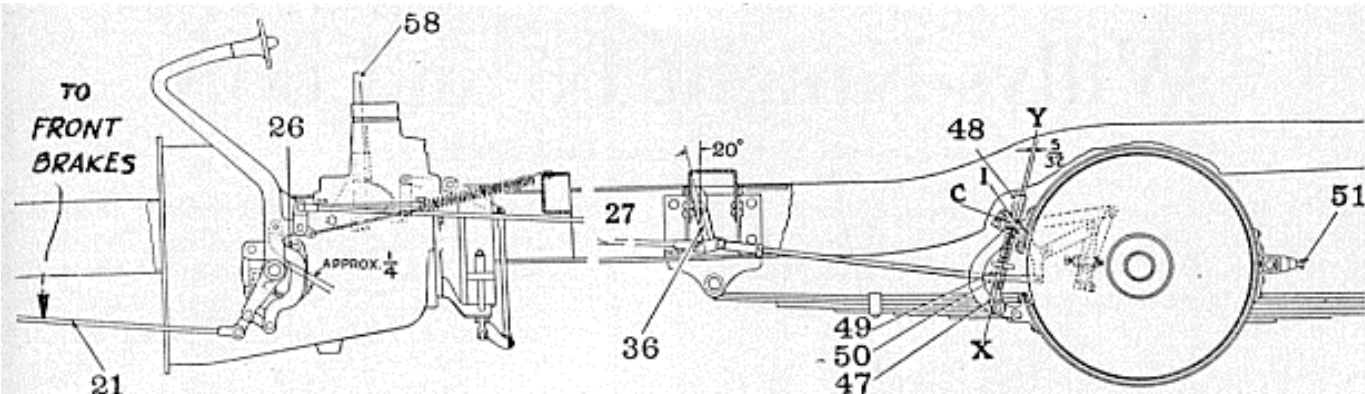


Fig. 1—Side view pedal and rod linkage of model 70A

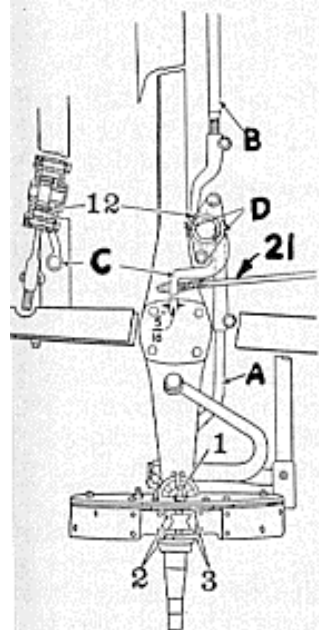


Fig. 3 (left)—Top view front equalizer and rods

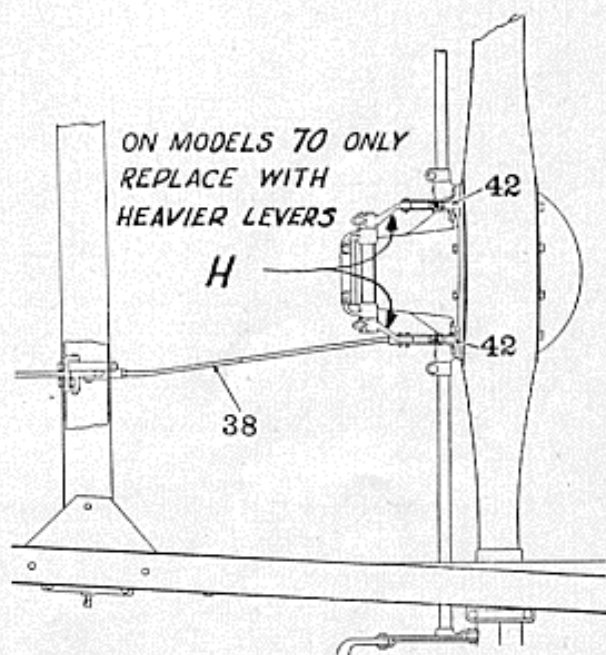


Fig. 2—Top view rear rods and levers

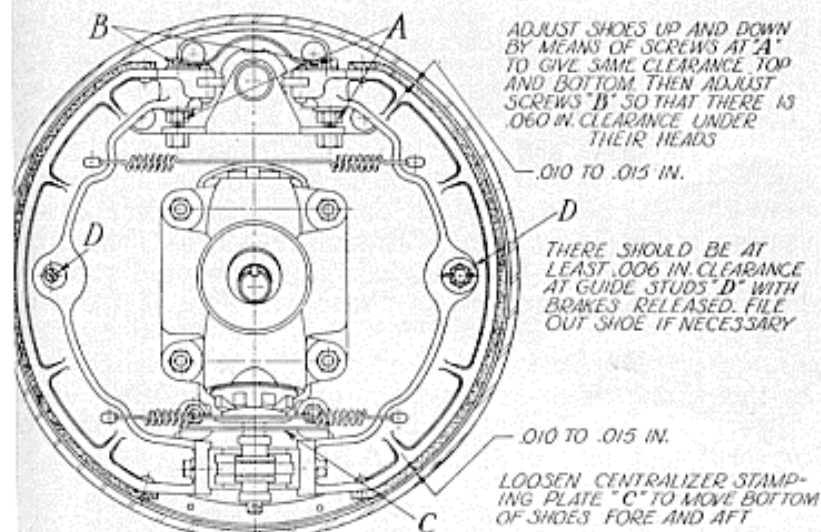


Fig. 4—Front brake assembly showing the two centering adjustments and clearances

### Before Adjusting Brakes

- A—Jack up all four wheels
- B—Apply penetrating oil to all connections
- C—Adjust all wheel bearings
- D—Check for eccentric drums
- E—Check for loose backing plates and chassis spring U bolts