

Bendix Rules: Important

When the shoe operating cam has a long and a short side, long side (side with greatest lift) always operates the **primary** shoe as shown in Fig. N29I.

Correct cam installation on **double anchor Duo-Servo** models is as follows: with both shoes against their **anchors** and the crankpin **central** between anchor pins, the **center** cam block should contact the **primary** shoe and the **outer** block contact the **secondary** shoe. On models with self-aligning cams (super servo), correct cam position is as shown in Fig. N15, Page 50.

2. The **primary** shoe may be identified as the one that is carried **away** from the cam (or wheel cylinder), due to drum rotation when brakes are applied, car going forward.
3. The **secondary** shoe on **two-shoe** models may be identified as the one that is carried **toward** the cam (or wheel cylinder), due to drum rotation when brakes are applied, car going forward.
4. The **secondary** shoe on **three-shoe** models is the **center** one of the three shoes. Fig. N29I.
5. On some two-shoe models the secondary shoe is stamped with an "S" and the primary with a "P" as shown in Fig. N29D, Page 58.
6. **Two shoe-to-anchor springs** are used on all

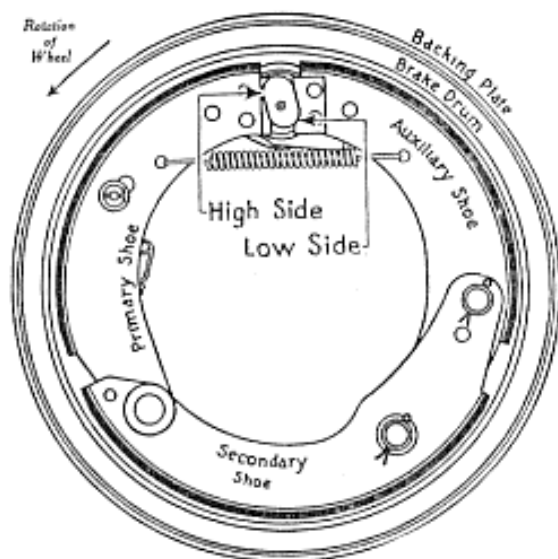


Fig. N29I—Three-shoe model showing correct shoe-cam position

single anchor Duo-Servo brakes **except** those hydraulically actuated and those with non-adjustable anchors as on Willys models 66D, 96D, 97D, 98D, 90 and 95 which use only one spring.

- 6A. When **two shoe-to-anchor springs** are used, the **heavier** one is always connected to the shoe which "hides" the operating lever. This rule applies to both front and rear brakes. The arrangement improves braking in reverse gear.



Fig. N29J—Open side of springs should face anchors as shown

7. **Double anchor Duo-Servo** models having the **cable and conduit** type of cam control also use only one spring which is always connected to the **secondary** shoe at both **front and rear** brakes. See Fig. N29D, Page 58.
8. Car manufacturers recommendations sometimes call for the use of a different lining on the **secondary** shoe. This applies to three-shoe and two shoe models. Usually the lining on the secondary in such cases is denser and sometimes of lower friction coefficient.
9. **Cable return** springs should always be installed with the **open** side of the spring hook **toward** the anchor pins as in Fig. N29J. This is important. Reverse installation invites frequent breakage in service.
10. When assembling the star wheel adjusting mechanism (on all two shoe Bendix brakes) to the brake shoes, the grooved end should be assembled to the **primary** shoe on the left wheels and the **secondary** shoe on the right wheels. Using this method the hand end of the adjusting tool will always be moved toward the axle of the car to expand the shoes.

Bendix Service Notes

Drum Thickness

After a brake drum has been rebored, the metal at the braking surface may be reduced so the drum at that point is too weak to give the required braking results. A new drum should be installed.

Should the thickness, when measured with a micrometer, be less than the minimum thickness given in the table below, it is advisable that a new drum be installed.

Brakes of Bendix Manufacture

Brake Size	Brake Type	Minimum Thickness	Brake Size	Brake Type	Minimum Thickness
11 in.	All Types	.111 in.	16 in.	3-Shoe Welded Type	.157 in.
12 in.	Duo Servo	.137 in.	17 in.	Duo Servo (3 in. Lining)	
12 in.	Standard	.111 in.		Cast Drum	.281 in.
12 in.	Super Servo	.111 in.	17 in.	Duo Servo (4 in. Lining)	
13 in.	Duo Servo	.137 in.		Cast Drum	.328 in.
14 in.	All Types	.137 in.	17 $\frac{1}{4}$ in.	Standard (3 & 4 in. Lining)	
15 in.	All Types	.137 in.		Cast Drum	.328 in.
16 in.	Duo Servo	.185 in.			