

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

SECTION G93.225.1
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AT&T Co Standard

B CABLE REEL BRAKE

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1. GENERAL

1.01 The B cable reel brake is for use on standard cable reel trailers for controlling the rotation of the cable reel when paying out cable.

1.02 This section provides information on the installation, operation and maintenance of the B cable reel brake.

1.03 Since this brake is used with cable reel trailers the applicable sections of the practices on cable reel trailers shall be supplementary to this section.

2. SAFETY PRECAUTIONS

2.01 Before loading a reel of cable on a trailer make sure that the brake band has been removed from the spindle so that there will be no interference as the spindle rolls into its position on the trailer saddle.

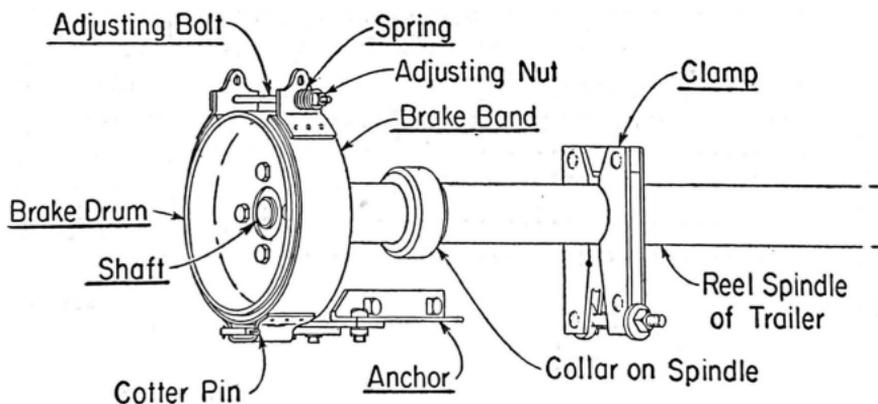
2.02 When loading a reel it is desirable to have the trailer level. If one side is higher, then, whenever possible, the spindle should always be used so that the collar on the spindle will be on the higher side of the trailer. This prevents the spindle from creeping across to the low side of the trailer as it rolls into position while loading a reel.

- 2.03 Before using the brake for the first time each day check the following items:
- (a) Examine the brake lining to make certain that it is in serviceable condition.
 - (b) Check condition of the brake drum. (See 8.03)
 - (c) Check all bolts on the anchor and brake drum to make sure that they are tight.
 - (d) Examine the spindle supports on the trailer for excessive wear. Any condition which will prevent the brake band from floating on the anchor as the spindle turns should be corrected.

2.04 Make sure that the cable reel is pushed to the side of the trailer as far as the spacer or the reel guide will permit it to go, and that the clamp for the B cable reel brake is against the side of the cable reel and is secured tightly to the spindle.

3. DESCRIPTION

3.01 The following figure shows the B cable reel brake. As may be noted, it is a drum and band type of brake similar to the propeller shaft brake used on some makes of trucks. The names of the replacement parts are underlined.

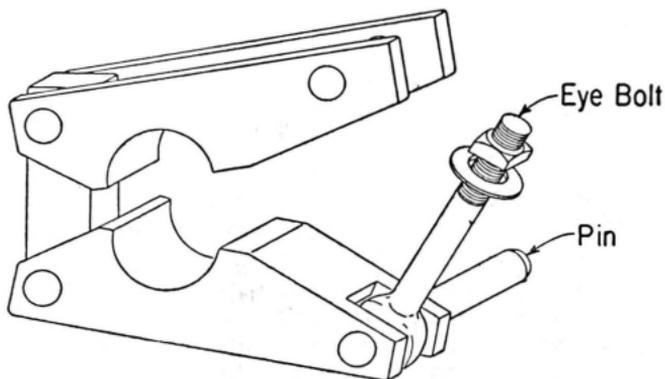


B CABLE REEL BRAKE

3.02 The drum of the brake is bolted to a flange on one end of the shaft. The other end of the shaft is inserted into the bore of the tubular cable reel spindle and is welded to it. The anchor assembly of the brake is bolted to the trailer directly

under the spindle support. The brake band is clamped around the drum and is prevented from rotating by the anchor. The adjusting nut which is used for clamping the band around the drum provides a means for varying the braking force on the cable reel spindle. The brake band may be slipped on and off the drum as desired.

3.03 The clamp for the B cable reel brake is shown in greater detail in the figure following. It provides a means for engaging the cable reel with the spindle so that when the cable reel rotates the spindle must rotate with it.



CLAMP FOR B CABLE REEL BRAKE

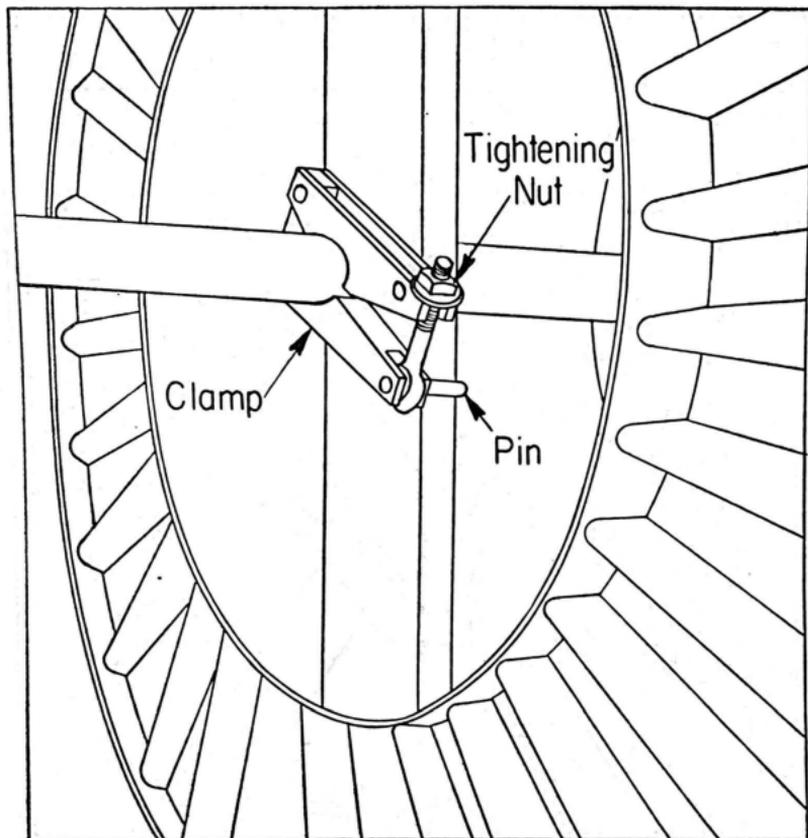
4. INSTALLATION

4.01 A drawing which provides full information on the installation of the B cable reel brake is packed with each brake.

4.02 The anchor may be installed on whichever side of the trailer is found safe and practicable. Since occasional brake adjustments will doubtless be necessary while the trailer is in motion, it may be desirable to have the anchor on the left-hand side of the trailer if there are rough shoulders or gullies along the edge of the road. A second anchor can be obtained for mounting on the opposite side of the trailer if the additional flexibility which this arrangement will provide is desired. The use of two anchors will always permit the spindle collar to be placed on the higher side of the trailer whenever loading a reel.

5. PREPARATION FOR OPERATION WITH STEEL REEL

- 5.01 Remove the brake band from the drum and remove the spindle from the trailer.
- 5.02 If the reel is a No. 420, first place the two reel spacers furnished with the PWCP trailer in the arbor holes in the reel. Then insert the reel spindle through the reel spacers in a direction so that the brake drum will be on the same side of the trailer as the brake anchor. For all other reels insert the reel spindle through the arbor holes in the reel so that the brake drum will be on the same side of the trailer as the brake anchor. When there are two anchors, always insert the spindle so that the collar will be on the higher side of the trailer.
- 5.03 On trailers equipped with reel guides adjust the guides to suit the width of the cable reel. If the trailer does not have reel guides place a spacer on the free end of the spindle so that when the reel is loaded and pushed to the side of the trailer as far as the spacer will permit it to go, the reel will be in about the center of the trailer. Then load the reel onto the trailer in accordance with standard practices.
- 5.04 After the reel has been loaded push it to the side of the trailer as far as the spacer or the reel guide will permit it to go. Place the clamp on the spindle as close to the reel as practicable on the side opposite that toward which the reel was pushed, and with the pin against the reel channel as shown in the following figure. Tighten the clamp securely. See Part 6 when using a wood reel.



5.05 When a No. 420 cable reel is being used there will be insufficient space for the clamp if the spacers are of the old type which have a flange $\frac{3}{4}$ inch thick. If the spacers have flanges $\frac{3}{4}$ inch thick, they should be replaced with the new type spacers, or the spacers should be modified so that the flanges will be $\frac{3}{8}$ inch thick. If modified, the cutdown flange should project beyond the end of the sleeve and the welding should be done at the end of the sleeve on the inside of the flange in order that the spacer can be fully inserted into the arbor hole in the reel.

6. PREPARATION FOR OPERATION WITH WOOD REEL

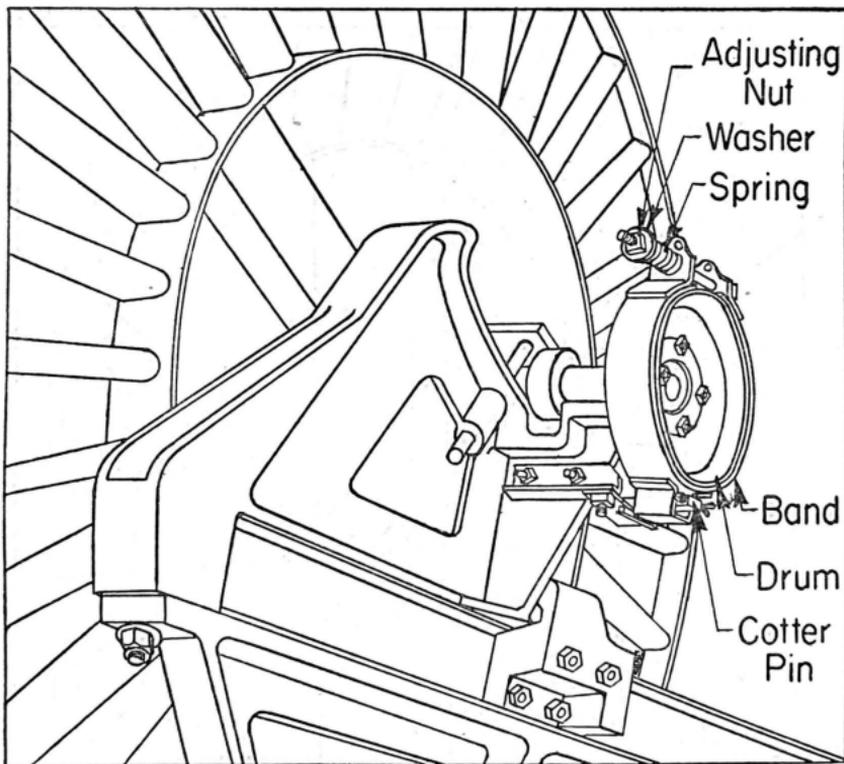
6.01 When using a wood cable reel it is necessary to have a properly located hole of adequate size in the flange of the reel. This hole must be large enough in diameter and

located so that when the clamp is placed on the spindle the pin can enter the hole and thus engage the reel with the clamp and have enough clearance to prevent binding as the cable reel and spindle rotate. The hole should be 1-1/4 inch diameter minimum and its center should be 4-3/16 inches, measured diametrically, from the edge of the arbor hole.

6.02 Proceed as in Part 5, except that the pin of the clamp is pushed into the hole provided for it in the cable reel.

7. OPERATION AND ADJUSTMENT

7.01 Tighten the adjusting nut of the brake to give the desired braking effect. The braking effect can be determined by manually rocking or rotating the reel against the pin on the clamp. This adjustment can be varied later if necessary while the cable is being payed out from the reel.



7.02 The cable can now be payed out from the reel in the required manner and the brake adjusted to give the desired braking effect.

7.03 When removing the brake band in preparation for reloading, remove the cotter pin and back off the adjusting nut in order to readily permit removing the band. It may prove helpful, in obtaining a quick adjustment later, to count the number of turns the adjusting nut is backed off and then tightening the nut the same number of turns when the band is restored after a new reel is loaded.

8. LUBRICATION AND MAINTENANCE

8.01 Lubricate the spindle where it is in contact with its supports on the trailer. This is desirable in order to minimize wear as the spindle rotates in its supports. Any type of lubricant such as engine oil or chassis grease is satisfactory.

8.02 When the brake lining no longer performs satisfactorily, either due to wear or other causes, it should be replaced.

8.03 The brake drum surface should be kept clean, smooth and free from grease and paint. Any burrs on the braking surface should be filed smooth. When the brake is not to be used for a considerable period of time the brake band should be clamped securely around the brake drum for the mutual protection of both. The spindle should be handled at all times in a manner which will prevent damage to the brake parts, particularly the brake drum.

8.04 All bolts and nuts on the brake drum and anchor should be kept tight.

8.05 The brake anchor parts should be kept free from bends and distortions so that the brake band can float freely on the anchor during operations.