BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G93.220.1
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AT&T Co Standard

R CABLE REEL BRAKE

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1. GENERAL

1.01 This practice covers the use of the R Cable Reel Brake which can be mounted on "PWD," "PCP" or "PWCP" cable reel trailers to control the rotation of a cable reel during cable placing operations.

1.02 The brake can be quickly adjusted to control different sizes of cable reels and to provide any desired amount of braking effort.

2. SAFETY PRECAUTIONS

2.01 Before loading a reel of cable on the trailer, make sure the frame clamps are far enough forward so that neither the brake shoes nor the cross-beam will prevent the cable reel from rolling forward into the front hooks of the trailer saddle.

2.02 Before starting a cable placing operation, check the following items:

(a) Examine the brake shoes to make sure they are not cracked or otherwise unserviceable.

(b) Make sure the frame clamp bolts and cross-beam support bolts are tight.

(c) Examine the brake cable to make sure there are no "kinks" or broken strands.

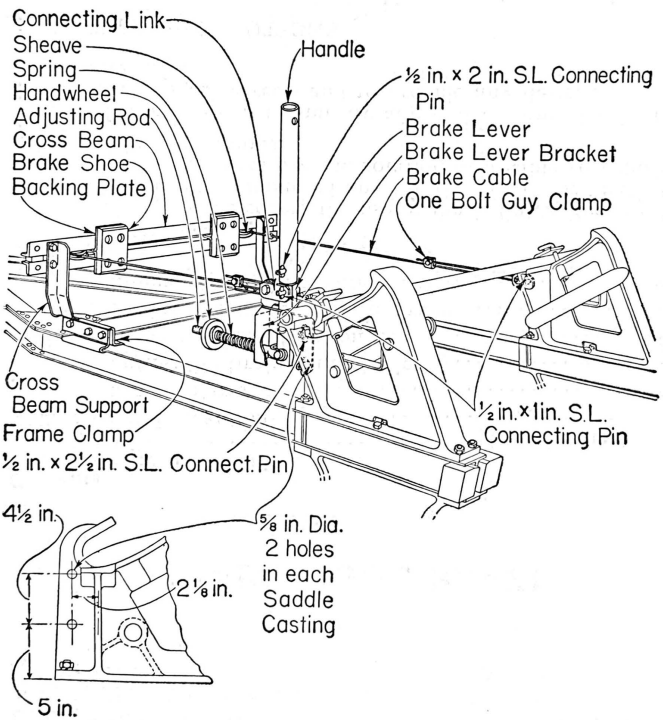
(d) Make sure that sufficient braking effort is being applied to the cable reel.

2.03 Keep the moving parts properly lubricated as specified in Part 7.

3. NAMES OF PARTS

3.01 The sketch below shows an R Cable Reel Brake assembled on a standard cable reel trailer and identifies the various parts of the brake.

R-CABLE REEL BRAKE

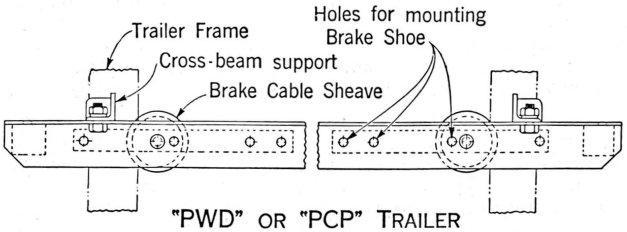


4. MOUNTING THE BRAKE ON A TRAILER

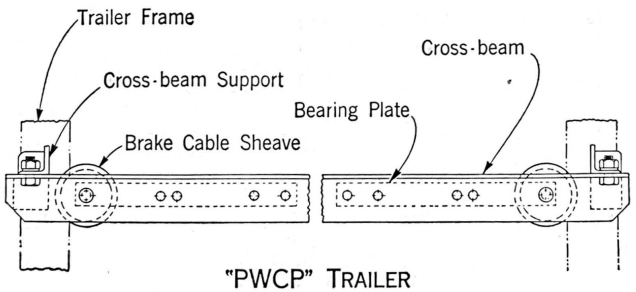
4.01 If the trailer has never been equipped with an R Cable Reel Brake it will be necessary to drill two 5/8" holes in each saddle casting. The location of these holes is shown in the figure following Par. 3.01.

4.02 Lay the cross-beam across the trailer frame in front of the saddle castings with the frame clamps toward the rear of the trailer.

4.03 Move the cross-beam supports to the proper location on the cross-beam for the particular type trailer as shown below.



"PWD" OR "PCP" TRAILER

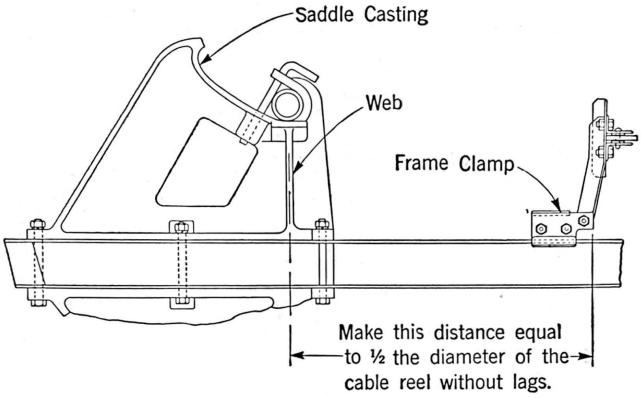


"PWCP" TRAILER

4.04 Place the brake cable sheaves in the proper location as shown in the above sketch.

4.05 Loosen the 5/8" x 2-1/4" bolts in the frame clamps to permit attachment to the I-beam side rails of the trailer frame.

4.06 Position the frame clamps on the trailer frame as shown below and tighten the frame clamp bolts.



4.07 There are three holes near each end of the cross-beam for attaching the brake shoes with 1/2" x 2" SL connecting pins. Move the shoes to the holes which center the shoe, as nearly as possible, with respect to the flanges of the cable reel.

4.08 Attach the brake lever bracket to the saddle casting on either the right or left side of the trailer, whichever is preferred. It is generally preferable to choose the left side so that a workman walking behind the trailer, with a rope attached to the brake handle, can be in the most advantageous position for observing the cable placing operation and for applying supplemental braking effort if required. Two 1/2" x 2-1/2" SL connecting pins are provided for making this attachment using the holes referred to in Par. 4.01.

4.09 Connect one end of the brake cable to the brake lever by means of the connecting link and a 1/2" x 1" SL connecting pin.

4.10 Remove the one bolt guy clamp and connecting link from the other end of the brake cable.

4.11 Attach the connecting link to the saddle casting on the opposite side of the trailer from the brake lever bracket using a 1/2" x 1" SL connecting pin in the upper hole referred to in Par. 4.01.

4.12 Thread the end of the brake cable around both sheaves on the cross-beam and the sheave on the connecting link. Secure the end of the brake cable with the one bolt guy clamp previously removed.

4.13 Attach the brake handle to the brake lever with a 1/2" x 2" SL connecting pin.

5. ADJUSTMENT AND OPERATION

5.01 Before loading a reel of cable on the trailer make sure the frame clamps are at the location shown on the sketch following Par. 4.06.

5.02 After the cable reel is loaded on the trailer, check the position of the brake shoes making sure they are located in the proper set of holes on the brake-beam to center them, as nearly as possible, with respect to the flanges of the cable reel.

5.03 Adjust the length of the brake cable to hold the brake shoes in contact with the flanges of the cable reel when the brake handle is vertical. To do this it may be necessary to change the adjustment of the brake spring, by means of the hand wheel, to hold the brake handle vertical.

5.04 Check the position of the brake shoes. If the braking surface of the shoes is not vertical when they are in contact with the flanges of the cable reel, or if only one shoe is in contact with the flange of the cable reel, adjust the position of the frame clamps to correct the position of the brake shoes.

5.05 After the position of the frame clamps is corrected, as in Par. 5.04, it is desirable to make some suitable mark on the trailer frame as an aid in making subsequent adjustments when using the same size cable reel.

5.06 The R Cable Reel Brake is now ready for use, and the amount of braking effort applied to the cable reel is determined by the amount the adjusting spring is compressed.

5.07 To increase the braking effort, turn the hand wheel clockwise until the desired amount of braking is obtained. Conversely, to decrease the amount of braking, turn the hand wheel counterclockwise.

5.08 Supplemental braking effort can be applied by means of the brake handle. A hole is provided in the upper end of the brake handle for attaching a hand line thereby permitting a workman walking behind the trailer to apply supplemental braking effort to slow down or stop the cable reel, as required.

6. REMOVING THE BRAKE FROM A TRAILER

6.01 Release the compression of the brake spring by turning the hand wheel counterclockwise.

6.02 Disconnect both ends of the brake cable by removing the 1/2" x 1" SL connecting pins in the connecting links. To facilitate handling, the ends of the brake cable may be attached to the vacant cross-beam support holes in the ends of the cross-beam.

6.03 Loosen the frame clamp bolts and remove the cross-beam assembly from the trailer.

6.04 Detach the brake lever bracket from the trailer by removing the 1/2" x 2-1/2" SL connecting pins.

7. MAINTENANCE AND LUBRICATION

7.01 The following parts should be kept well lubricated with cup grease:

(a) Brake cable sheave pins

(b) Bolts which attach the brake beam supports to the frame clamps

(c) Brake lever pivot bolt

(d) Brake adjusting rod

7.02 Any bolts removed and replaced during assembly or disassembly should be greased to prevent rusting.

7.03 The wooden brake shoes should be replaced with new brake shoes before they are worn down to the point that their mounting bolts are flush with the braking surface of the shoes.