

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

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OPEN WIRE

STRINGING WIRE FROM MOVING REELS JOINTLY USED LINES AND POWER CROSSINGS

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1. GENERAL

1.01 This section lists precautions to be observed when stringing wire from moving reels on jointly used lines or at power crossings.

1.02 The foreman shall review the Sections on "Wire Stringing Precautions" with the workmen before the operation begins. Particular attention should be given the sections entitled "Jointly Used Lines" and "Electric Light or Power Crossings."

1.03 The instructions in this section are supplementary to those given in the sections on "Wire Stringing Precautions."

1.04 **All workmen handling ropes, wires, reels, wire raising tools, etc., MUST WEAR RUBBER GLOVES during the stringing and tensioning operations when the wire is placed on jointly used poles or at power crossings.** Do not remove rubber gloves until after the wire is tensioned. The use of rubber gloves during the tying-in operation is not generally required if electrical clearances are adequate in the section under construction and precautions have been taken to prevent contact with power wires. However, if there is any questionable condition which may jeopardize the safe conduct of the tying-in operation, rubber gloves shall be worn.

1.05 Workmen shall be alert to avoid body contact between the truck or trailer and ground or grounded objects. The truck driver or any other person on the truck at the beginning of the operation shall remain on the truck throughout the period in which there is any possibility of contact between the telephone wires and power wires.

1.06 When placing wire on jointly used lines or at power crossings particular attention must be given to any obstructions or conditions which might result in the wires whipping or breaking. The payout reels must be observed closely so that the reel carrier may be stopped at the first sign of snagging. At corner poles or at poles where an up pull exists the wires must be secured with a hand-line so they can't whip into the power wires. If wires must be passed over small trees, bushes, etc., pass a hand-line over the wires at that point so their motion may be controlled.

1.07 See the section on "Stringing Wire from Moving Reels—Non-Joint Use Lines" for some of the details of the stringing operation.

2. JOINTLY USED LINES

2.01 On jointly used lines the wires shall be paid out as described in the following paragraphs.

2.02 The wires shall be grounded at the beginning of the stringing section. See the section on "Wire Stringing Precautions—Lines in Joint Use or Near Power Wires."

2.03 Normally the wires will be snubbed at the base of the pole at the beginning of the stringing section. If, however, the wires are dead-ended in their normal positions on the DE crossarm the wires must be tied down to the base of the next pole in line until the reels have moved approximately one-quarter mile away.

2.04 On jointly used lines the operation of laying up and tensioning must be done very carefully. **Wire must not be laid up while the reels are in motion.** It is suggested that about one-quarter mile of wire be strung along the ground, after which the reels should be stopped, the wire laid up, pulled to approximate sag and snubbed at a suitably guyed pole. Tie the wire to the base of the next pole beyond the snubbing point, then continue with the payout operation.

3. POWER CROSSINGS

3.01 At power crossings the wire should be payed out on the ground in the crossing span and in each adjacent span. After this has been done, the reels must be stopped until

the wire in the crossing span, both adjacent spans and all preceding spans has been laid up, pulled to approximate tension and tied to the crossarms with hand-lines at the two poles supporting the crossing span.

3.02 Before laying up the wire in the crossing span or in adjacent spans, pass a hand-line over the wire in the crossing span so that the wire will not whip up into the power wires when raised. Pass the hand-line over the telephone wire as close as practicable to a point directly below the crossover and secure the two ends to a stake, fence post, or other reliable anchor. This line should be long enough to let the wire clear traffic, **but not so long as to let the wire come any closer to the power wire than the required minimum separation.** It may be necessary to adjust the length of this line at the time the wires are being tensioned. In doing so, be extremely careful not to release tension in the rope suddenly, as this would permit the wire to whip upward.

3.03 Lay the wire up. Place a temporary guy on the second pole beyond the crossing span, then pull the wire slowly up to approximate sag, and snub at this pole. It is during this operation particularly that care must be taken to avoid snagging the wire on trees, bushes, fences, etc.

3.04 Secure the wire to the crossarm at each side of the crossing span with a hand-line. If desired, the line to the fence, stake, etc., may be removed after the hand-line on the arm is in position. After this has been done the payout operation may be resumed.