BELL SYSTEM PRACTICES
Outside Plant Construction and Maintenance

SECTION G50.676.1
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AT&T Co Standard

CABLE SPLICING—GENERAL
TORCH SOLDERED JOINTS

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1. GENERAL

1.01 This section describes the acetylene torch method of soldering lead sleeves to the lead sheath or auxiliary lead sleeves of aerial cables.

2. PRECAUTIONS

2.01 **This method is to be used only on aerial cables.**

2.02 **The torch must be so used that the flame will not come in contact with the strand;** heating the strand may cause it to break.

2.03 **The torch shall not be used until the lead sleeve is placed and beaten in;** this will prevent the flame from coming in contact with the conductors or muslin wrapping.

2.04 Aerial tents should be ventilated while the torch is lighted. The tent flaps, especially those of tents that are not treated for fire resistance, should be tied back securely to prevent their blowing into the flame.

3. PREPARATION OF LEAD SLEEVE

3.01 Bevel the ends of the lead sleeve in the usual manner. Then clean and coat one inch of the sleeve at the ends with stearine. Slide the sleeve over the end of the cable.

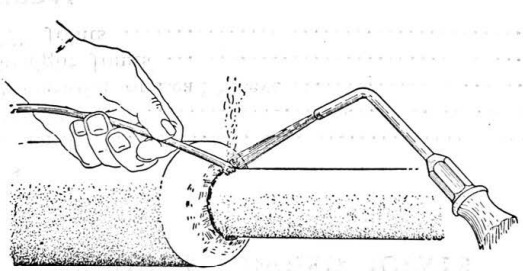
3.02 If the lead sleeve is to be used to cover an existing splice, prepare and split the sleeve in the usual manner. Place the sleeve over the cable to one side of the splice. If the cable has polyethelene sheath, wrap the cable with two half-lapped layers of muslin where the sleeve is placed, to prevent the flame from coming in contact with the polyethelene.

3.03 Tack the seam at several points, holding the end of the stearine core solder in the groove and applying the flame to the solder and the sleeve with a brushing motion.

3.04 Apply the flame to the sleeve at one end of the seam with a brushing motion, for a distance of about 1-1/2 inches. Hold the solder in contact with the seam and heat with a brushing motion of the flame until the solder flows and adheres. The seam is tinned by gentle heating around the adhered solder. After about a 1-1/2-inch section of the seam has been tinned, build up the seam with solder to make a slight mound. The center of the seam should be built up about 1/16 inch. Build up 1-1/2-inch sections progressively until the seam has been completed. Then slide the sleeve over the splice.

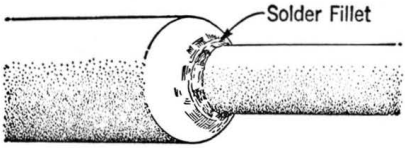
4. STRAIGHT JOINTS

4.01 Clean the sheath in the area of the joint with a carding brush and coat with stearine. Beat in the ends of the lead sleeve tightly around the sheath or auxiliary sleeve in the usual manner, as shown in the sketch.



4.02 Starting at the top of the cable, apply the flame to a 3/4 to 1-inch section of the joint with a brushing motion. Hold stearine core solder on the joint, and heat with a brushing motion of the flame until the solder flows and adheres. Work some of the molten solder between the sleeve and the cable with a small finishing cloth or a small piece of cardboard. The joint is tinned by gentle heating around the adhered solder. After tinning, build up the solder on the joint

leaving a small fillet. Work progressively around the cable until the joint has been completed, as shown in the following sketch.



4.03 Complete the joint by playing the flame gently on the solder until a glazed finish is obtained.

5. "Y" JOINTS

5.01 Clean the sheath in the area of the joint with a carding brush and coat with stearine. Place a lead wedge between the branch cables, as shown below. Place the lead sleeve, beat in the ends tightly and solder the joint in a manner similar to that described for a straight joint.