SUSPENSION STRAND
B STRAND CONNECTOR

CONTENTS PAGE

1. GENERAL

1.01 This section describes and outlines the use of the B Strand Connector.

1.02 This section is reissued to:

- Eliminate the orange color marking that is located between the center marking and the end of the B Strand Connector.
- Delete all reference to class B galvanized coatings on B Strand Connectors.
- Make corrections in the tables to reflect the omissions.
- Make minor changes in the illustrations and text material.

1.03 The B Strand Connector is a wrap-type device which is used to splice like sizes of galvanized strand and to reinforce damaged areas of galvanized strand.

1.04 A properly installed splice, using a B Strand Connector, will withstand tensions equal to the rated breaking strength of the strand.

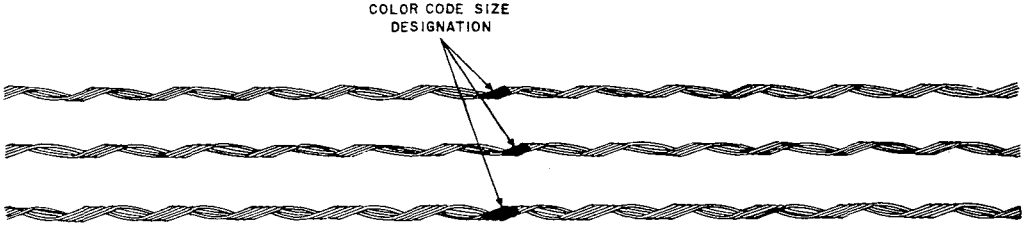
1.05 Electrical continuity of the strand is maintained through a strand connector.

2. DESCRIPTION

2.01 The B Strand Connector consists of two or three sets of spirally formed ▶Class C◀ galvanized high-strength steel wires.

2.02 The inner surface of each set of wires is coated with grit to increase its holding power.

2.03 ▶Fig. 1 illustrates the subsets that comprise a B Strand Connector. The paint color marking in the center of the subset indicates the size of strand on which each connector may be used.◀



▶Fig. 1—B Strand Connector◀

2.04 The color codes to be used with each size of galvanized strand are shown in Table A.

TABLE A

B STRAND CONNECTOR FOR GALVANIZED STRAND

STRAND SIZE	STRAND DIAMETER	COLOR CODE
2.2M	3/16	Red
6M	5/16	Black
6.6M	1/4	Yellow
10M	3/8	Orange
16M	7/16	Green
25M	1/2	Blue

2.05 Strand connectors made of stainless steel are commercially available for joining like sizes of corrosion-resistant (CR) strand. These connectors are similar in appearance and application to the B Strand Connector with one exception: ◗halfway between the center marking and one end of the subset is an additional marking. The dual color markings designates the use of the connector for *CR Strand only.*◖

2.06 The color codes to be used with each size CR Strand are shown in Table B.

TABLE B

STRAND CONNECTOR FOR CR STRAND [1]

STRAND SIZE	STRAND DIAMETER	CENTER COLOR CODE	CR COLOR DESIG.
6M	9/32	Black	Green
10M	5/16	Orange	White
16M	3/8	Green	White

Note 1: These connectors may be ordered commercially from the Preformed Line Products Company, Cleveland, Ohio as follows:

6M — Strand, Splice, SLS- 1112
10M — Strand, Splice, SLS- 5104
16M — Strand, Splice, SLS- 5105

3. PRECAUTIONS

3.01 ***B or CR Strand Connectors are not to be reused after initial installations.***

3.02 Do not attempt to pull equipment (such as cable lashers, cable block, cable block pusher, cable guide, etc) across a splice made with a strand connector except as noted in 4.02(7). These items may catch the ends of a strand connector and pull one or more individual wires off and weaken the splice.

3.03 ***B Strand Connectors should not be used as a reduction splice. For joining the ends of two different sizes of strand use the B Strand Reducer.***

3.04 ◗***Strand connectors should not be used on sizes of strand other than those specified in Tables A and B.***◖

4. INSTALLATION OF SUSPENSION STRAND

4.01 Check the strand ends. If they are not straight or cut off squarely, or if they are deformed or untwisted, cut off a length sufficient to ensure that strand in good condition will be placed under the strand connector. Before cutting, straighten the strand to remove coil curvature, and apply a maximum of two half-lapped layers of vinyl tape over the area to be cut. It will not be necessary to remove the tape after cutting the strand.

4.02 To install a B Strand Connector at a strand splice, proceed as follows.

(1) Take a set which contains the greater number of wires and position the center color marking at the end of one strand. Hold the strand in place with thumb or hand pressure. Apply one half of the set on the strand by rotating and pulling the set slightly away from the strand as illustrated in Fig. 2.

(2) Locate the second strand about 1/8 inch from the end of the first strand. ***DO NOT BUTT THE STRAND ENDS TOGETHER.*** Hold the second strand end in place with thumb pressure and apply the second half of the set by rotating and pulling it slightly away from the strand, as illustrated in Fig. 3.

(3) Take another set and line up the center color marks. Start applying this set to the strand about one and one-half pitch lengths away from the center color mark. This is illustrated in Fig. 4. Apply this set against one edge of the set which is in place, and apply it for approximately two thirds of its length.

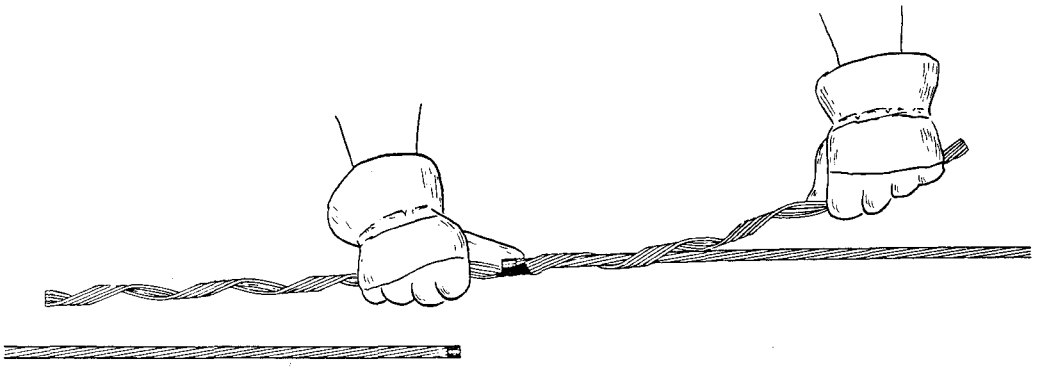


Fig. 2—Placing B Strand Connector (1st Set)

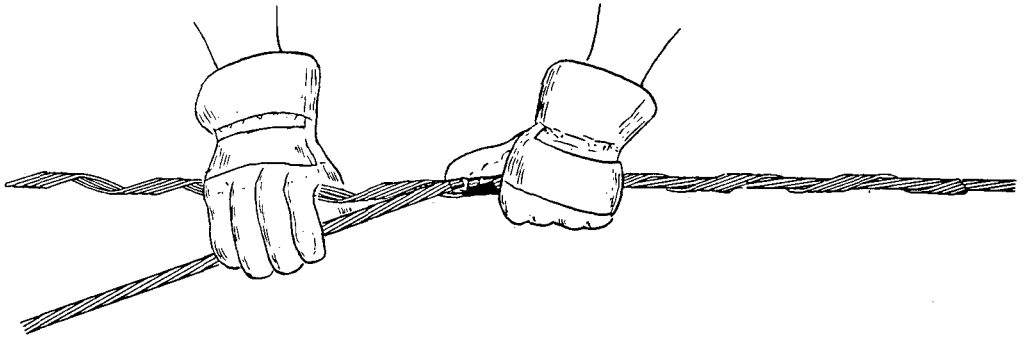


Fig. 3—Placing Opposite End of B Strand Connector (1st Set)

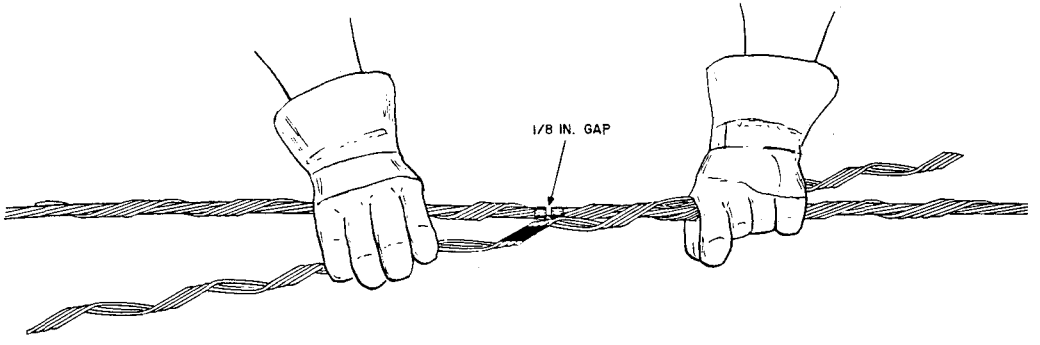


Fig. 4—Placing B Strand Connector (2nd Set)

(4) Start applying the third set (if required) from the opposite side of the starting point of the second set. This is illustrated in Fig. 5. Apply this set for approximately two thirds of its length.

(5) Finish applying the ends of the second and third set, making sure to snap the ends into place. In some cases it may be desirable to split a set for a turn or two, as illustrated in Fig. 6, to facilitate completion of the application.

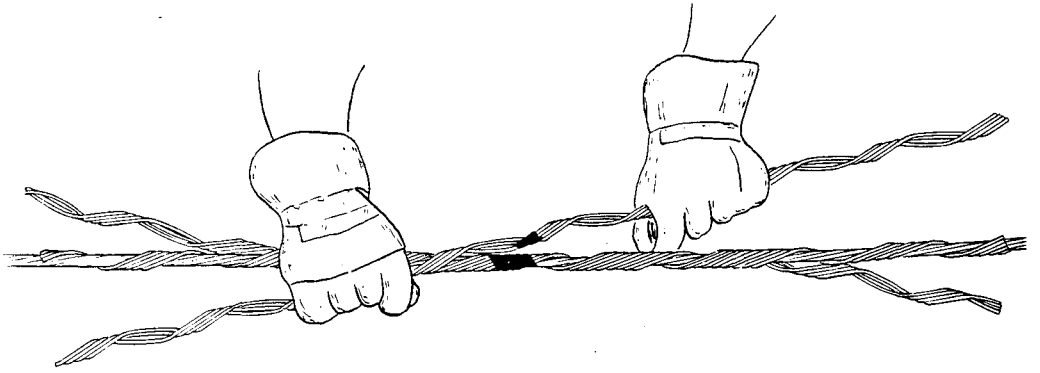


Fig. 5—Placing B Strand Connector (3rd Set)

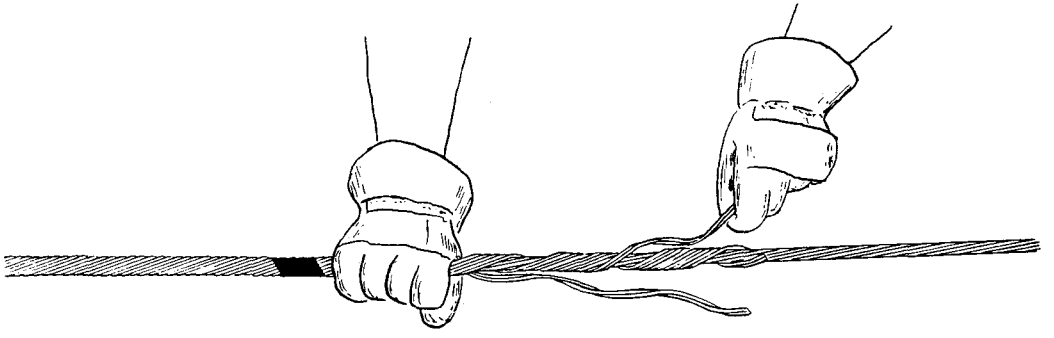


Fig. 6—Completing Splice

(6) Apply three half-lapped layers of vinyl tape at each end of the connector (and strand), as illustrated in Fig. 7, to prevent damage to the connector during cable placing operations.

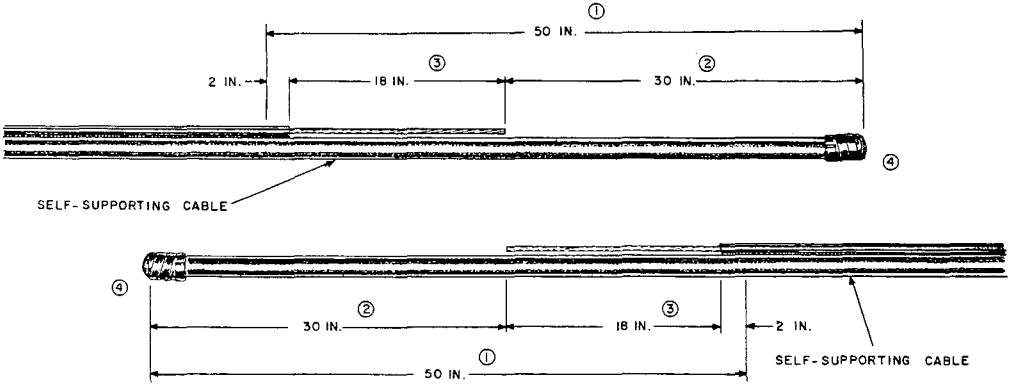
(7) When placing cable by the moving reel method and using an F Cable Lasher and D Cable Guide, the equipment can be pulled across a splice made with a B Strand Connector where the ends have been taped. In all other cases, equipment must be manually lifted over the forward end of the strand connector.

4.03 The B Strand Connector should be applied as a reinforcement on the weak point in slightly damaged strand in the same manner as outlined in 4.02 except that the strand is not cut. In this application, the weak point in the strand is located at the center of the splice.

Self-Supporting Cable

4.04 Where the B Strand Connector is to be used for joining the support strand of self-supporting cable, the cable ends should be prepared as shown in Fig. 8. If the detailed plans call for a cable overlap other than the 5 feet shown, measurements 1 and 2 in Fig. 8 must be adjusted accordingly.

Fig. 7—Completed Splice



① SLIT WEB
② CUT AND REMOVE SUPPORT STRAND
③ REMOVE JACKET FROM SUPPORT STRAND
④ SEAL CABLE ENDS (TAPE OR PLASTIC CAP)

Fig. 8—Preparing Self-Supporting Cable Ends for Splicing

4.05 When the cable ends have been prepared as shown in Fig. 8, the two ends of strand are joined as outlined in 4.02. It is not necessary to remove the flooding compound from the strand.

4.06 The use of vinyl tape is not required on the ends of strand connectors used on self-supporting cable.

4.07 A B Strand Connector installed on self-supporting cable is shown in Fig. 9.

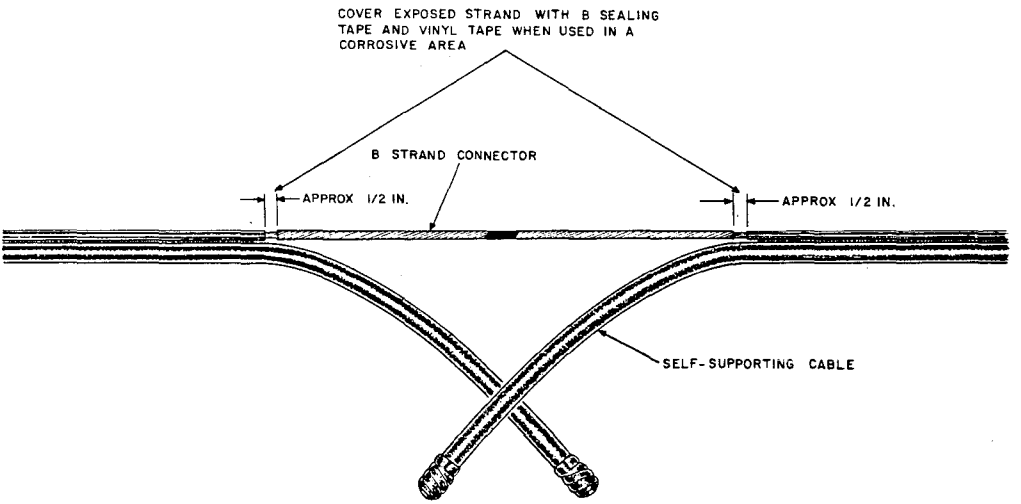


Fig. 9—B Strand Connector Installed on Self-Supporting Cable