

SINGLE LACE

Single lace can be started with a square knot and at least two marling hitches drawn tightly. Details of the square knot and marling hitch are shown in figure 2-41. Do not confuse the marling hitch with a half hitch. In the marling hitch, the end is passed over and under the strand, as shown in view A of the figure. After forming the marling hitches, draw them tightly against the square knot, as shown in view B. The lace consists of a series of marling hitches evenly spaced at 1/2-inch to 1-inch intervals along the length of the group of conductors, as shown in view C of the figure.

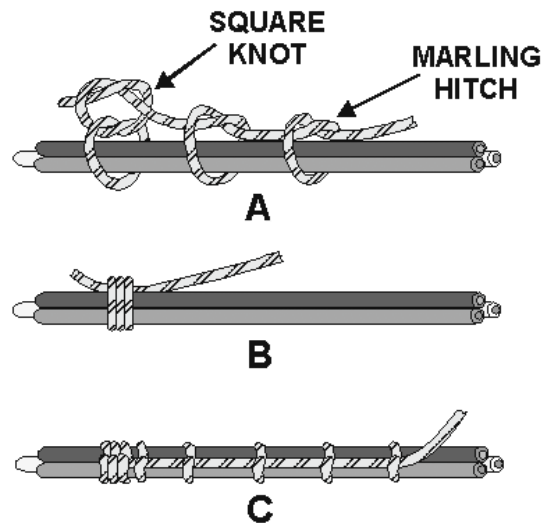


Figure 2-41.—Applying single lace.

When dividing conductors to form two or more branches, follow the procedure illustrated in figure 2-42. Bind the conductors with at least six turns between two marling hitches, and continue the lacing along one of the branches, as shown in view A. Start a new lacing along the other branch. To keep the bends in place, form them in the conductors before lacing. Always add an extra marling hitch just prior to a breakout as shown in view B.

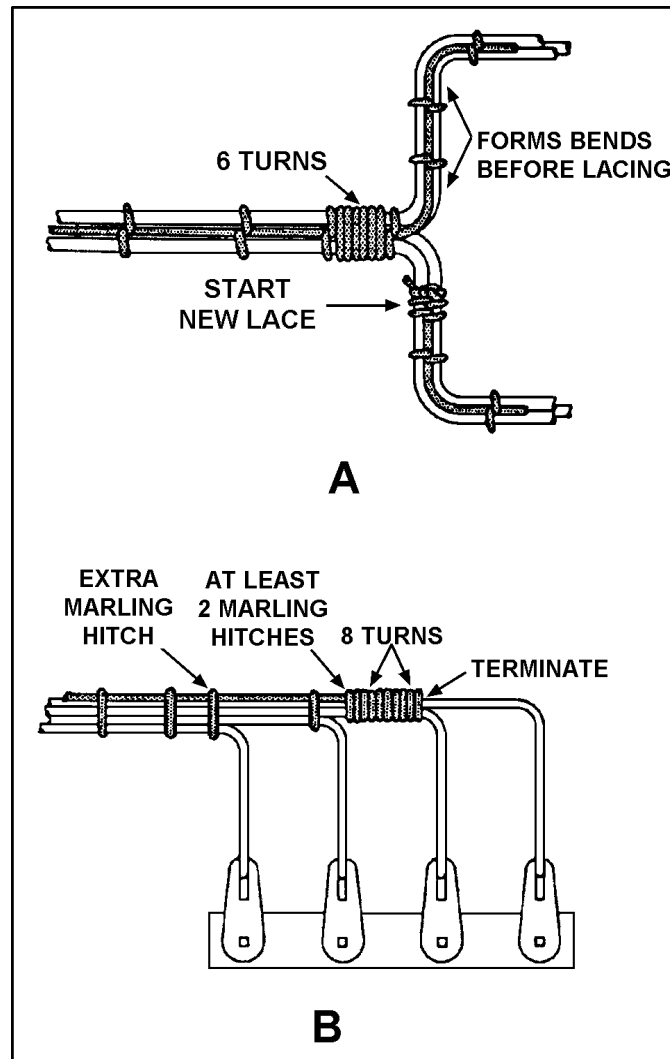


Figure 2-42.—Lacing branches and breakouts.

Double lace should be used on groups of conductors that are 1 inch or larger in total diameter. Either a single lace or a double lace may be used on groups of less than 1 inch.

Q50. How is the single lace started?

DOUBLE LACE

Double lace is applied in a manner similar to single lace, except that it is started with a telephone hitch and is double throughout the length of the lacing (figure 2-43). Both double and single lace may be ended by forming a loop from a separate length of cord and using it to pull the end of the lacing back underneath a serving of approximately eight turns (figure 2-44). An alternate method of ending the lacing is illustrated in figure 2-45. This method can also be used for either single- or double-cord lacing. Another method is by using a marling hitch as a lock stitch (figure 2-46) to prevent slippage. This procedure will also prevent unraveling should a break occur to the lacing.

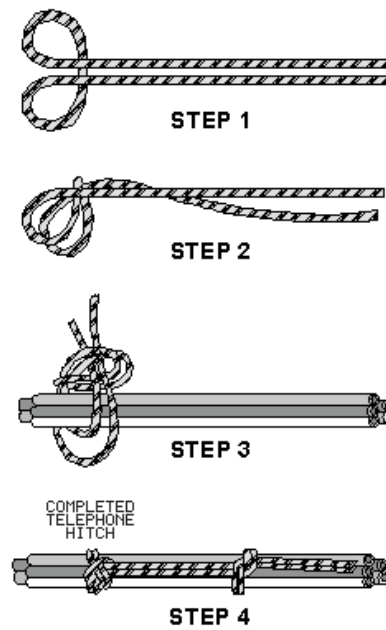


Figure 2-43.—Starting double lace.

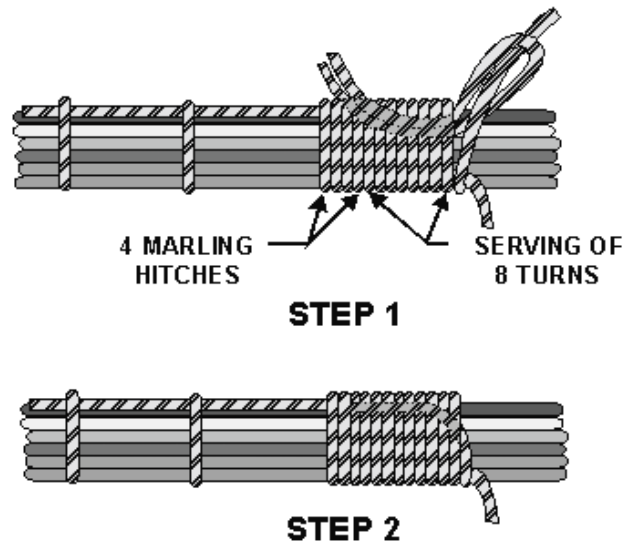


Figure 2-44.—Terminating double lace.

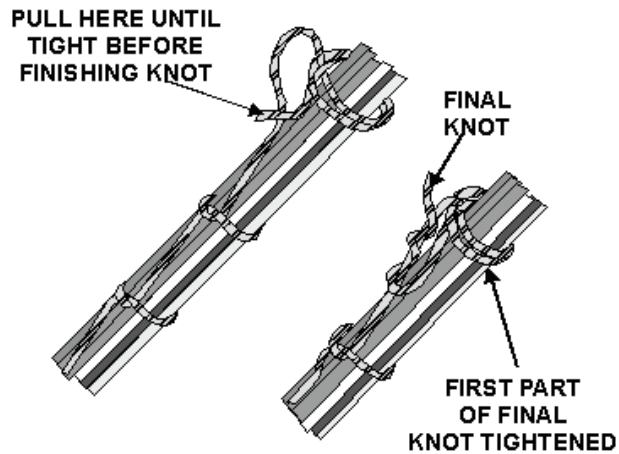


Figure 2-45.—Alternate method of terminating the lace.

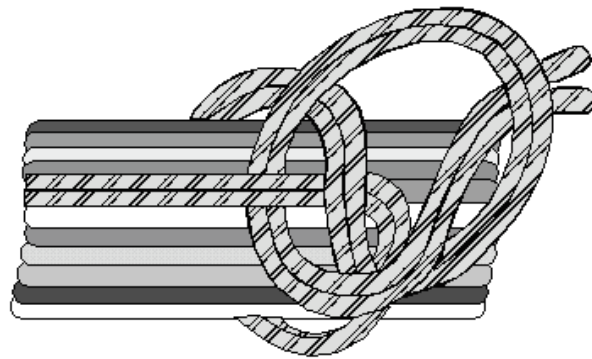


Figure 2-46.—Marling hitch as a lock stitch.

The spare conductors of a multiconductor cable should be laced separately, and then tied to active conductors of the cable with a few telephone hitches. When two or more cables enter an enclosure, each cable group should be laced separately. When groups are parallel to each other, they should be bound together at intervals with telephone hitches (figure 2-47).

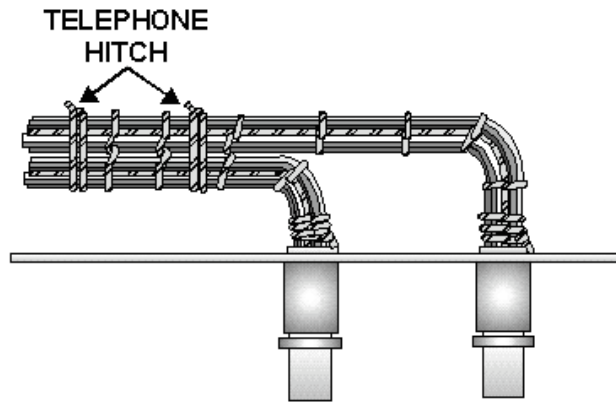


Figure 2-47.—Spot tying cable groups.

Q51. What size wire bundles require double lace?

Q52. How is the double lace started?

Q53. How are laced cable groups bound together?

SPOT TYING

When cable supports are used in equipment as shown in figure 2-48, spot ties are used to secure the conductor groups if the supports are more than 12 inches apart. The spot ties are made by wrapping the cord around the group as shown in figure 2-49. To finish the tie, use a clove hitch followed by a square knot with an extra loop. The free ends of the cord are then trimmed to a minimum of 3/8 inch.



Figure 2-48.—Use of spot ties.

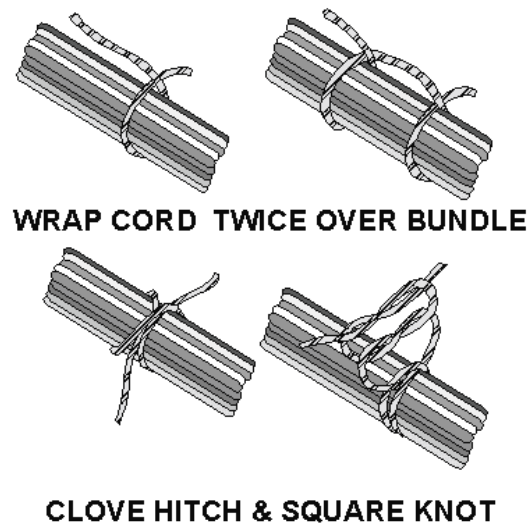


Figure 2-49.—Making spot ties.

SELF-CLINCHING CABLE STRAPS

Self-clinching cable straps are adjustable, lightweight, flat nylon straps. They have molded ribs or serrations on the inside surface to grip the wire. They may be used instead of individual cord ties for securing wire groups or bundles quickly. The straps are of two types: a plain cable strap and one that has a flat surface for identifying the cables.

CAUTION

Do not use nylon cable straps over wire bundles containing coaxial cable. Do not use straps in areas where failure of the strap would allow the strap to fall into movable parts.

Installing self-clinching cable straps is done with a Military Standard hand tool, as shown in figure 2-50. An illustration of the working parts of the tool is shown in figure 2-51. To use the tool, follow the manufacturer's instructions.

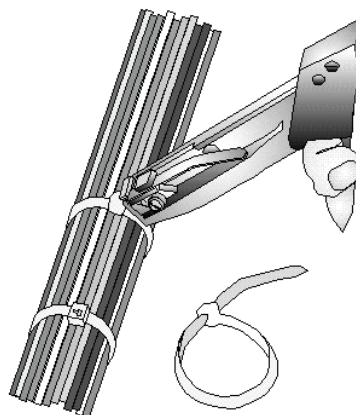


Figure 2-50.—Installing self-clinching cable straps.