



16-Strand Class I Eye Splice

Class I 16-strand ropes are made from any or all of the following fibers: olefin, polyester, or nylon. The eye splice is used to place a permanent loop in the end of a rope, generally for attachment purposes to a fixed point. An eye is also used to form the rope around a thimble, which is used to protect the rope, especially when it is to be attached to a shackle, chain, or wire rope.

TIP: For this rope a wire fid is easier to use than a tubular fid. Also, leave as little tape as possible on the end of the rope. This will help on Step 4A when you begin the taper.

STEP 1 MEASURING AND MARKING

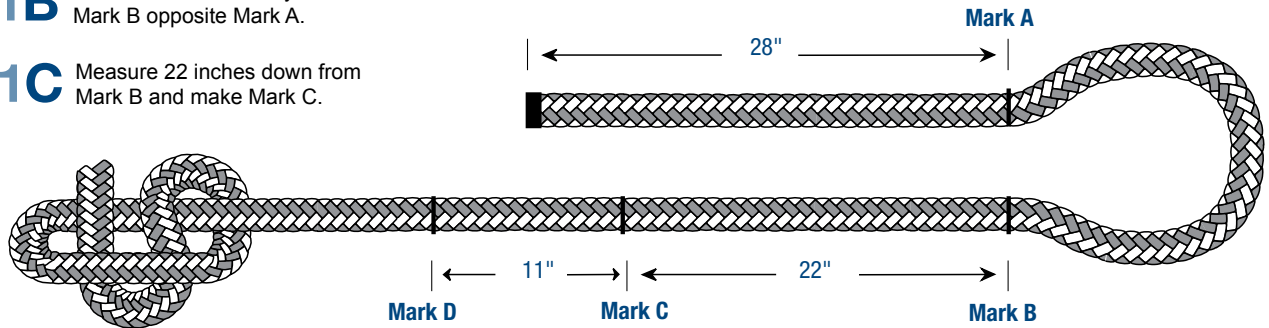
1A Measure a minimum of 28 inches from the end of rope and make Mark A.

1D Measure 11 inches down from Mark C and make Mark D.

1E Tie a knot in body of the rope about 20 inches down from Mark D.

1B Form desired size of eye and make Mark B opposite Mark A.

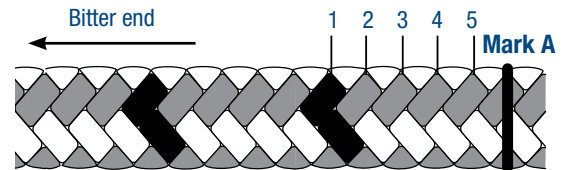
1C Measure 22 inches down from Mark B and make Mark C.



STEP 2 MARKING COVER TAPER

2A From Mark A count 5 strand pairs toward the end of rope and mark the 5th pair (left and right strands.)

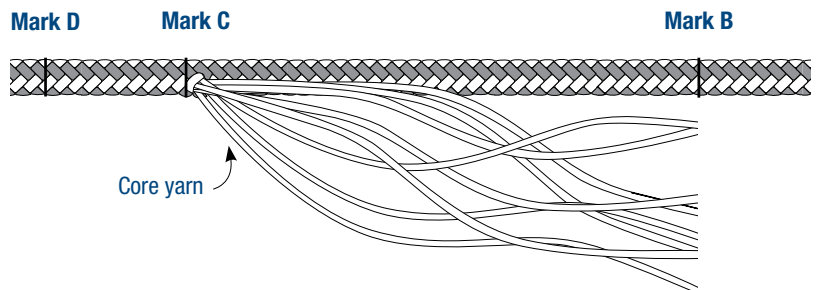
2B Continue counting down 5 pairs and marking the 5th pair until a total of 5 strand pairs are marked.



STEP 3 REMOVING THE CORE

Carefully open up the braid at Mark C and pull out the core yarns from the end of the rope back to Mark C.

TIP: Cut the core yarns in half. This makes the yarns easier to work with.

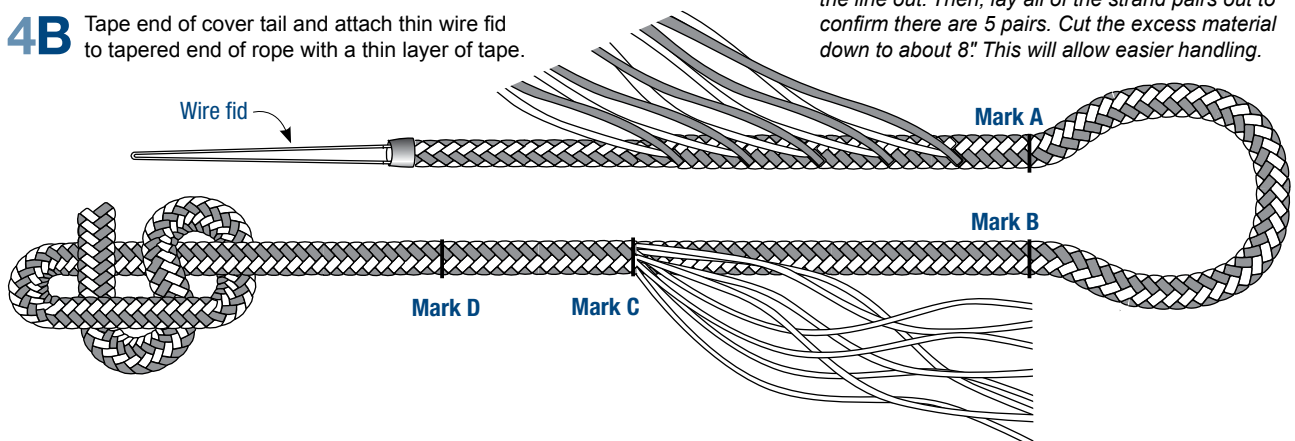


STEP 4 TAPERING END OF ROPE

4A Pull out marked strand pairs from cover braid. Do not cut.

4B Tape end of cover tail and attach thin wire fid to tapered end of rope with a thin layer of tape.

TIP: Once 2-3" are pulled out, wrap extra around a stationary point to help pull the rest of the line out. Then, lay all of the strand pairs out to confirm there are 5 pairs. Cut the excess material down to about 8". This will allow easier handling.

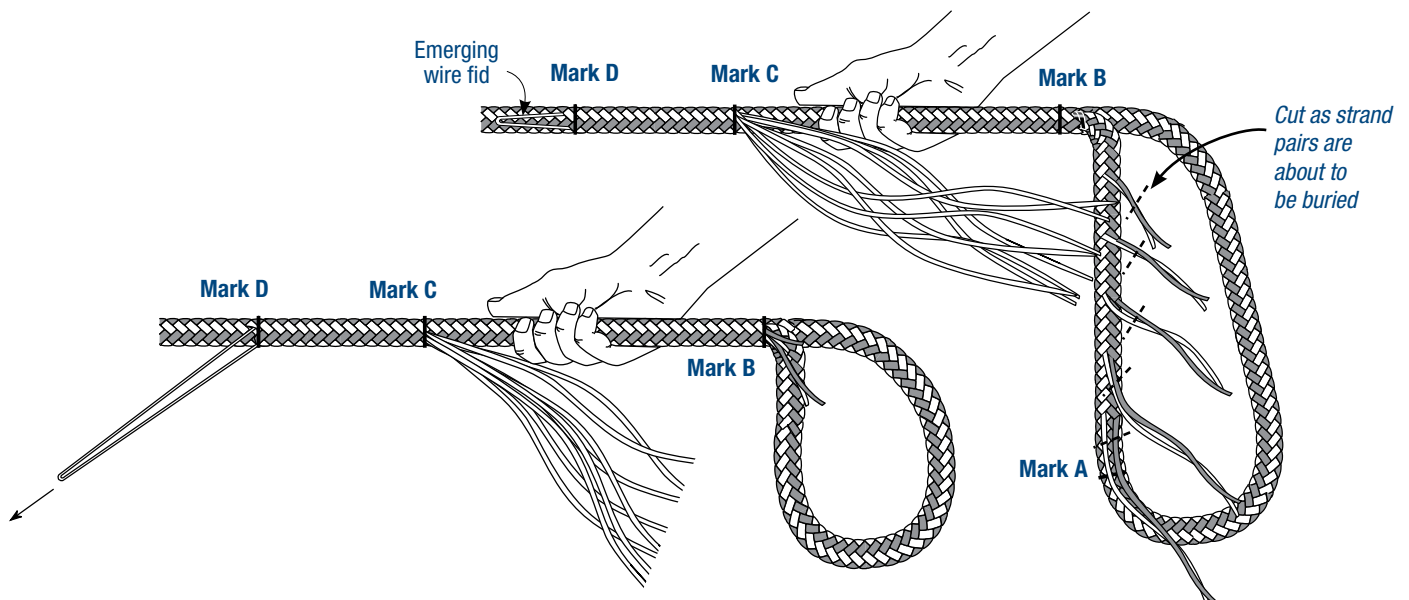


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STEP 5 PERFORMING SPLICE

- 5A** Insert fid into rope at Mark B and out at Mark D.
- 5B** Pull tail through body of rope from B to D.
- 5C** As each marked strand pair is about to be buried in the rope at Mark B, carefully cut each strand in the marked pair.
- 5D** Continue to pull the tail end of the rope through until Mark A and Mark B coincide.

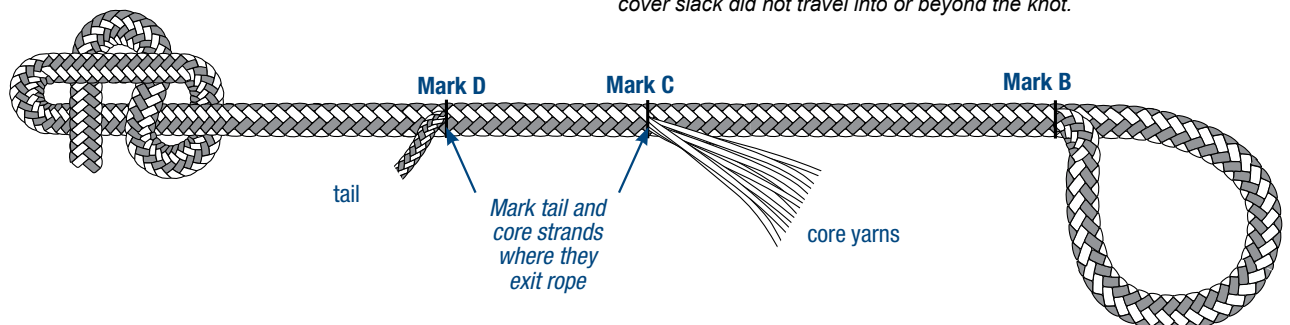
TIP: If struggling to pull cover tail through Mark C and Mark D, secure the end of the wire fid and using one hand on the cover and one on the core tails pull against the wire fid. Applying tension to the core and body can help reduce binding between the splice tail and the other parts of the rope.



STEP 6 MARKING TAILS

- 6A** Smooth rope from eye at Mark B, back to Mark D to remove all slack in the braid.
- 6B** Smooth rope from knot to Mark C to bury as much of the core yarns as possible.
- 6C** Mark both cover tail and core yarns where they exit from the body of the rope.

TIP: Smoothing the rope is a key step, continue smoothing until the entire area from the knot to the eye is firm with no cover slack. Also check to make sure cover slack did not travel into or beyond the knot.

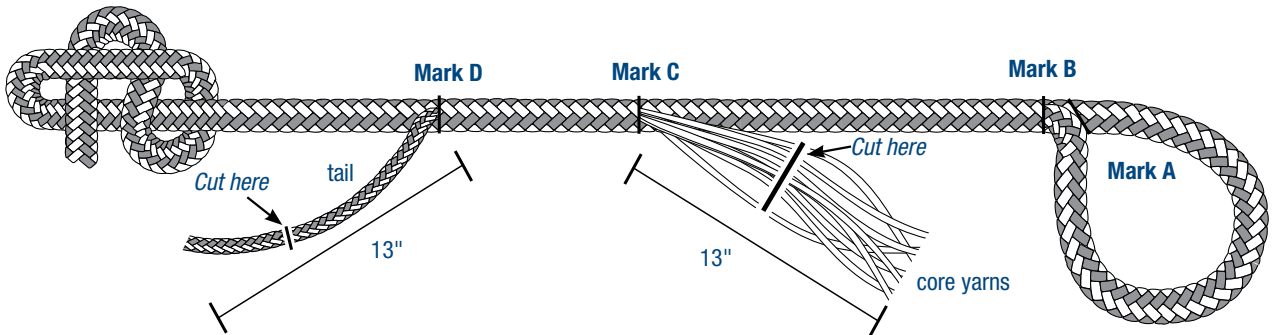


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STEP 7 FINAL TAPER

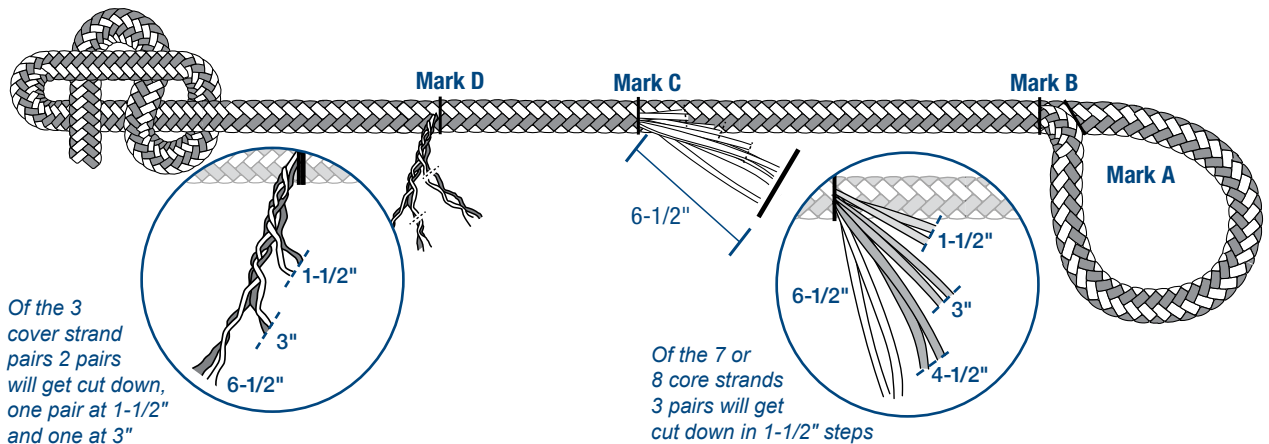
7A Pull buried core tails and cover yarns out of rope at their respective exit points until about 13 inches are exposed. This is the distance that the tail and core yarns overlap in the splice.

7B Cut both cover tail and core yarns where they were marked in Step 6C.



7C Measure from the cut ends back 6-1/2 inches towards the tail exit points and mark each of the tails. From the mark measure approximately 1-1/2 inches and cut 1 S-twist and 1 Z-twist strand. Continue measuring 1-1/2 inches down and cutting strands until 1-2 strands are left uncut for each tail. This taper provides a smooth transition from the buried tail of the splice to the core yarns extending down the remainder of the rope.

7D Bury the exposed ends by alternately smoothing the rope from the eye down and from the knot up.



STEP 8 FINISHING THE SPLICE

8A Secure knot firmly in place and pull sharply on eye to make sure all slack is removed from splice area and that the cover and core tails are seated properly.

8B Optional: Apply whipping to base of eye for a distance of about 1 inch or 2 rope diameters.

