



# 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

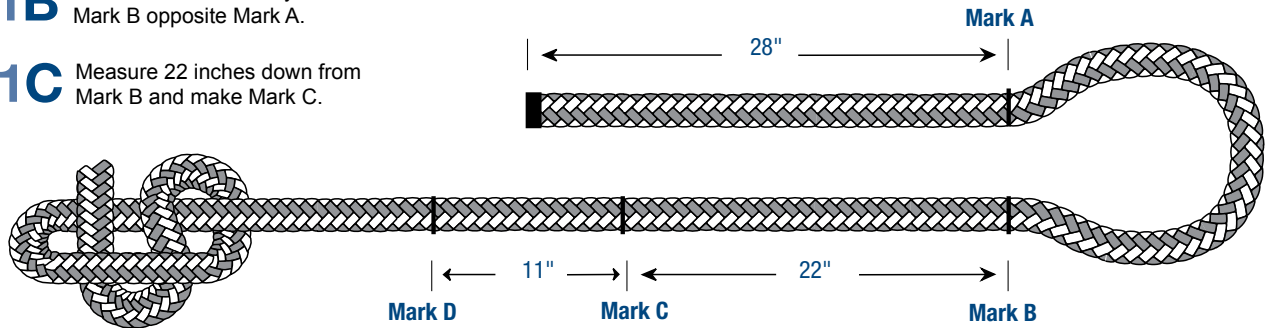
**1A** Measure 28 inches from end of rope and make Mark A.

**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.

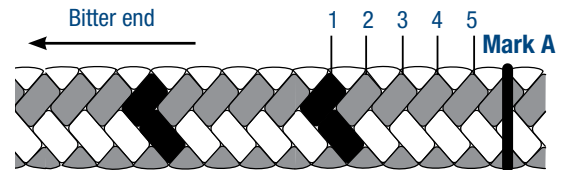
**1C** Measure 22 inches down from Mark B and make Mark C.



## 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.)

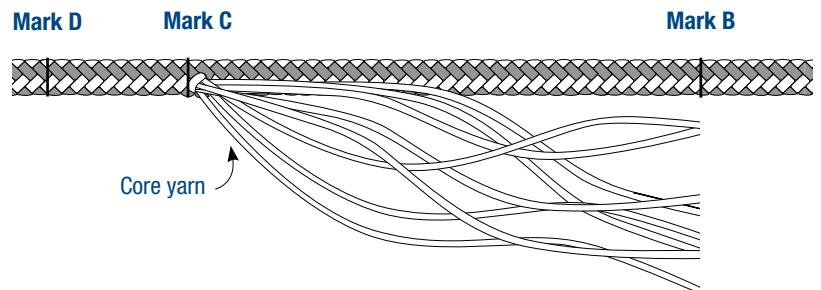
**2B** Continue counting down 5 pairs and marking the 5th pair until a total of 5 strand pairs are marked.



## 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.

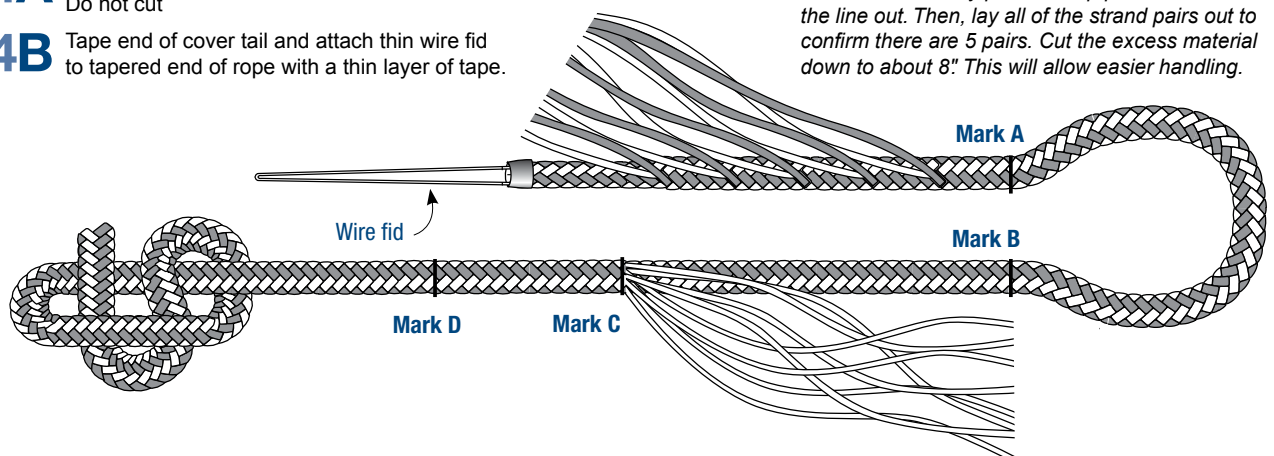


## STEP 4 TAPERING END OF ROPE

**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.

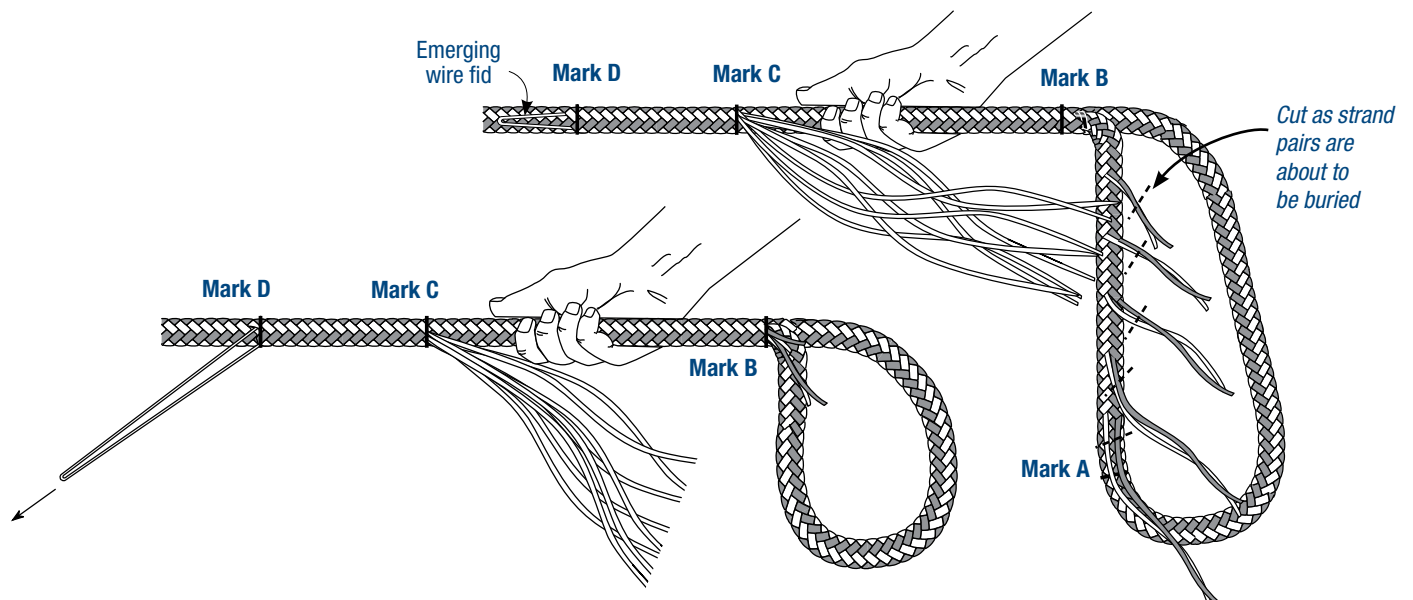




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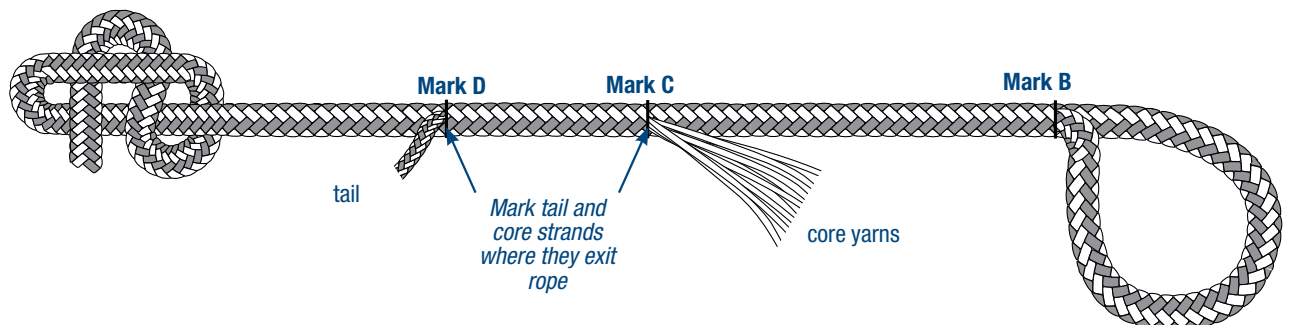
## STEP 5 PERFORMING SPLICE

- 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.



## 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.

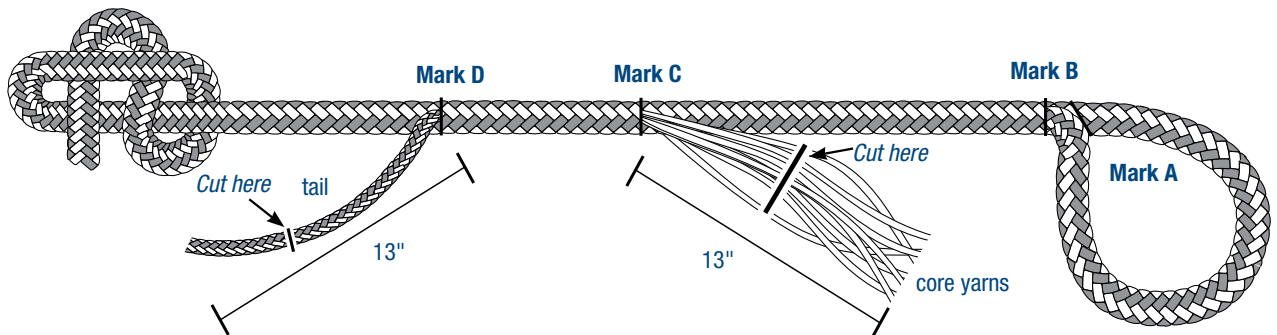


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## STEP 7 FINAL TAPER

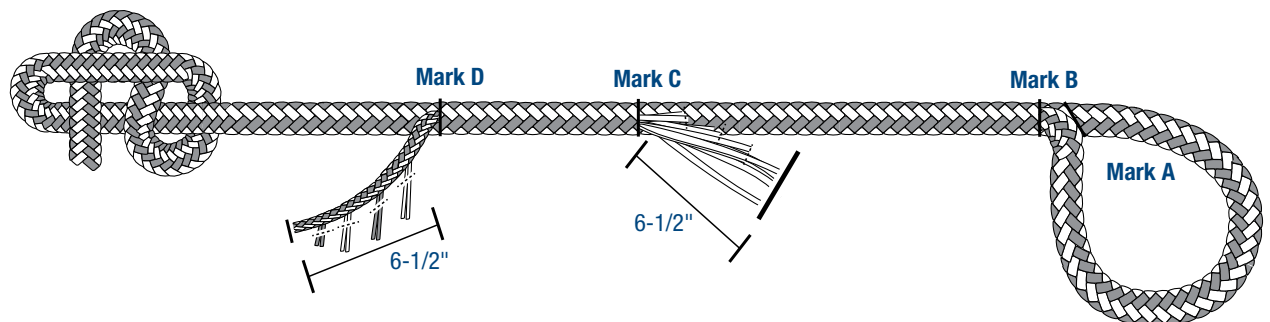
**7A** Pull buried core tails and cover yarns out of rope at their respective exit points until about 13 inches are exposed. This is the distance that the tail and core yarns overlap in the splice.

**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 point where they exit from the rope (both the cover and core tails.) Taper the tails by cutting out 1 S-twist and 1 Z-twist strand approximately every 1-1/2 inches. 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.

