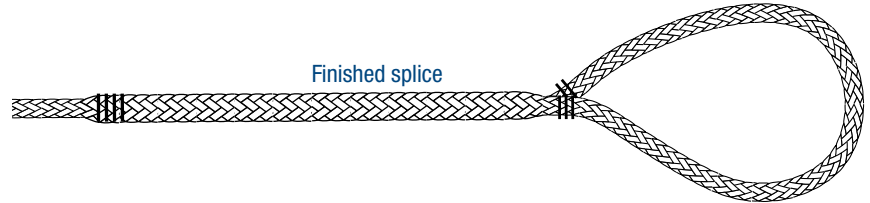


# 12-Strand Class II Eye Splice

Class II ropes are made in whole or part from any of the following high modulus fibers: Dyneema®, Vectran®, Technora®, and Zylon®.

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.

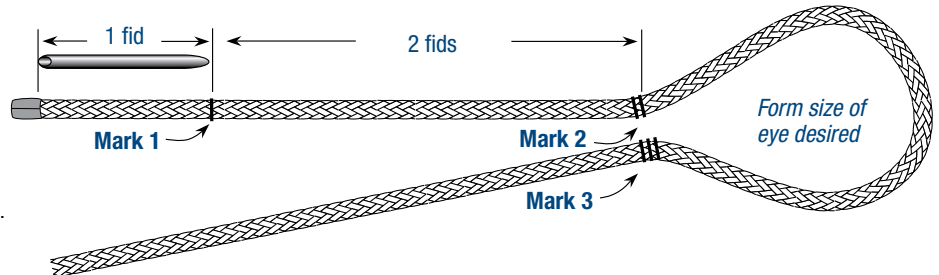
This eye splice may be performed on new or used rope. This is an all-purpose splice technique designed for people who generally splice used rope as frequently as new rope. By following the procedure below, the splice can retain from 90% to 100% of average new rope strength and in used rope up to the same proportion of residual used rope strength.



## STEP 1 MEASURING

Tape end of line to be spliced and measure 1 tubular fid length from taped end of line and make Mark 1.

From Mark 1 measure 2 tubular fid lengths and make Mark 2. Now form size of eye desired and make Mark 3.

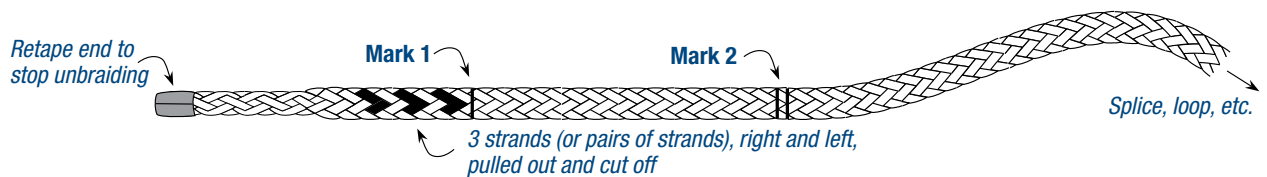


## STEP 2 MAKING TAPER

From Mark 1, in the direction of the taped end of the line, mark every second right and left strand\* for 3 strands.\*\* Pull every marked strand out of line and cut (tape at end can cause resistance and may have to be removed in order to pull out cut strands.) Tapered end will now have only 6 strands remaining (or 4 strands for an 8-strand braid.) Tape tapered tail tightly to keep from unbraiding.

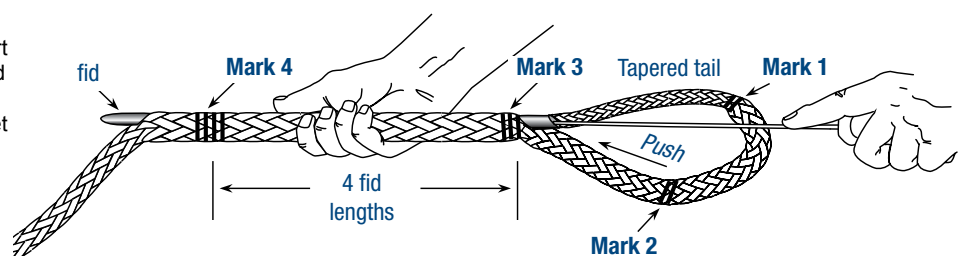
*\*Some rope diameters may have pairs of strands in right and left direction. In this case, treat the pairs of strands as a single strand, marking and cutting both in each direction as described above.*

*\*\*Some very small diameter ropes may be 8-strand. For an 8-strand construction, mark every 3rd left and right strand for 2 strands.*



## STEP 3 BURYING TAIL INTO STANDING PART OF LINE

Measure 4 tubular fid lengths from Mark 3, make Mark 4. Insert fid and tapered tail at Mark 3 and bring fid out beyond Mark 4. Pull fid and tapered tail out. Do not let the line twist.





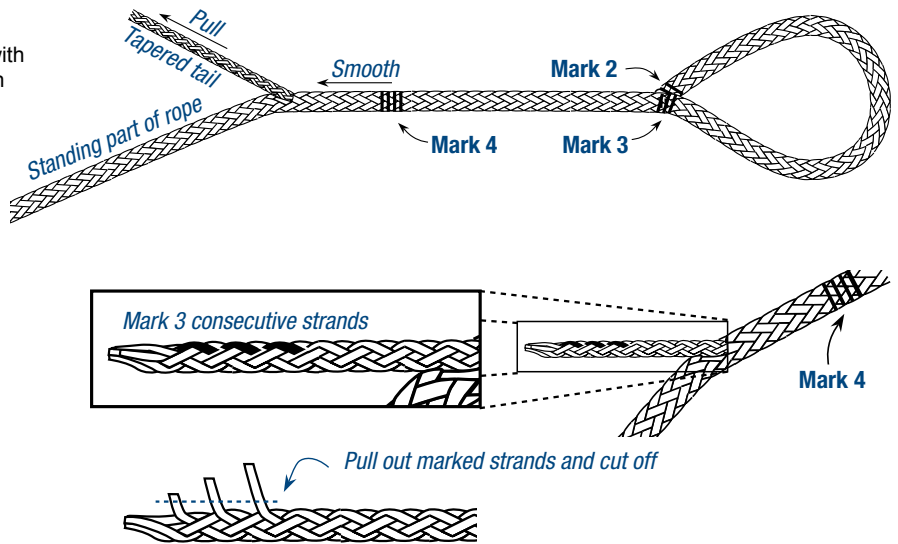
# 12-Strand Class II Eye Splice

## STEP 4 FINISHING BURYING

Remove fid. Pull hard on tapered tail with one hand. With the other hand, smooth bunched line towards eye splice until Marks 2 and 3 converge.

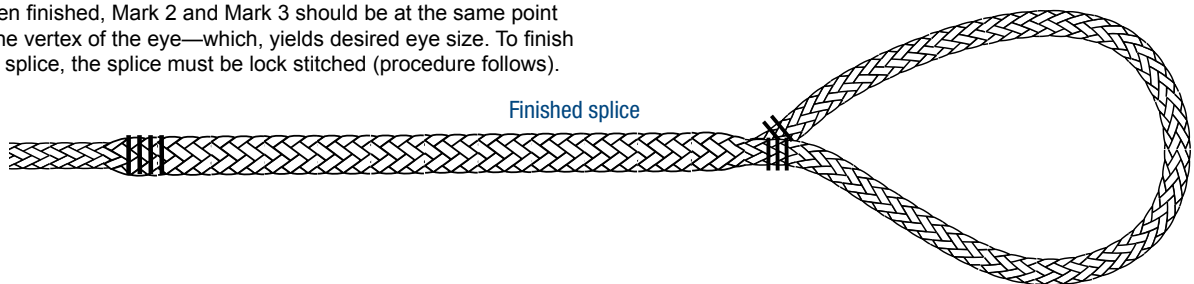
**4A** Remove the fid and any tape at the end of the tail. From the end of the tail, mark 3 consecutive strands, as shown. Pull them out of the braid and cut off close to the body of the rope.

**4B** Now, using both hands and the weight of your body, smooth the cover slack from Mark 3 towards Mark 4. The tail will disappear into the rope, and a smooth, gradual taper should result.



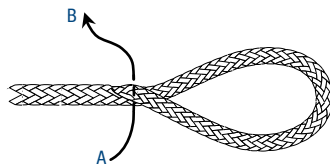
## STEP 5 FINISHING EYE SPLICE

When finished, Mark 2 and Mark 3 should be at the same point at the vertex of the eye—which, yields desired eye size. To finish eye splice, the splice must be lock stitched (procedure follows).

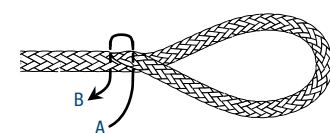


# Lock Stitching Procedure

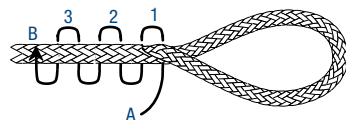
**STEP 1**  
Pass stitching twine through spliced area near throat of eye as shown.



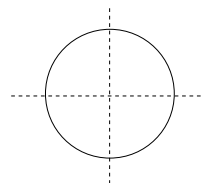
**STEP 2**  
Reinsert twine through the rope. The twine should cover 2 strands from the exit point. Pull the twine snug, but not tight.



**STEP 3**  
Continue to reinsert as shown until you have at least 3 complete stitches on each side of the rope. Each stitch should cross over 2 strands in the rope.



**STEP 4**  
After completing Step 3, rotate spliced part of rope 90° and reinsert end A into spliced area in the same fashion as in Steps 1, 2 and 3. The splice will now be stitched on 2 planes perpendicular to each other. Make sure you do not pull the stitching too tight.



**STEP 5**  
After stitching at least 3 complete stitches as in Step 3, extract both ends of the twine together through the same opening in the braid. Tie them together with a square knot and reinsert back into braid. For double braids, re-insert the knot between the cover and core.

