



**Samson**  
THE STRONGEST NAME IN ROPE

## EYE SPLICE DOUBLE BRAID CLASS I

Class I ropes are made from any or all of the following fibers: olefin, polyester, or nylon.

\*This splice is not suitable for core-dependent double braid constructions (Double Braid Class II).

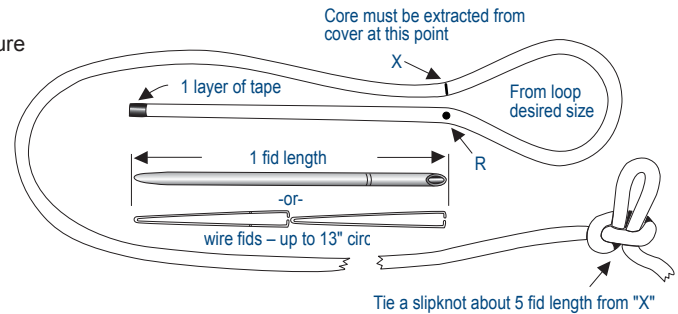
The eye splice is used to place a permanent loop in the end of a rope, generally for attachment purposes to a fixed point. An eye is also used to form the rope around a thimble, which is used to protect the rope, especially when it is to be attached to a shackle, chain or wire rope.

Additional rope needed for splice:  
Circ. of rope in feet plus length of eye;  
with thimble: 1-1/2 x circ. of the rope in feet.

### STEP 1 MARKING THE MEASUREMENTS

Tape end to be spliced with one thin layer of tape. Then measure one (1) tubular fid length or two (2) wire fid lengths (because a wire fid is half size) from the end of the rope and mark. This is point R (Reference).

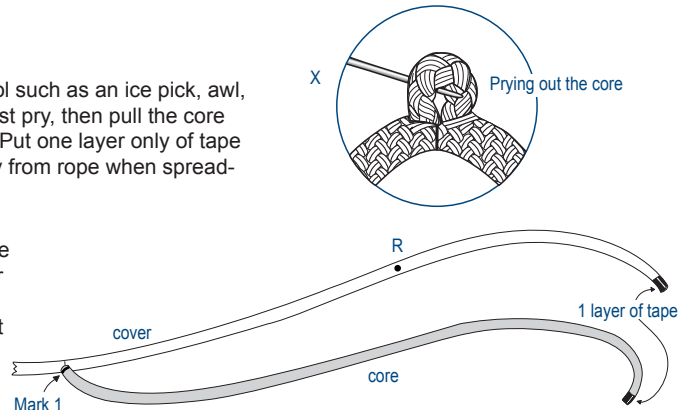
From R form a loop the size of the eye desired and mark. This is point X where you extract the core from inside the cover. If using a thimble, form the loop around the thimble. Tie a tight slipknot approximately five (5) fid lengths from X.



### STEP 2 EXTRACTING THE CORE

Bend the rope sharply at X. With the pusher or any sharp tool such as an ice pick, awl, or marlin spike, spread the cover strands to expose core. First pry, then pull the core completely out of cover from X to the taped end of the rope. Put one layer only of tape on the end of the core. **Note:** Do not pull cover strands away from rope when spreading cover as this will distort the rope unnecessarily.

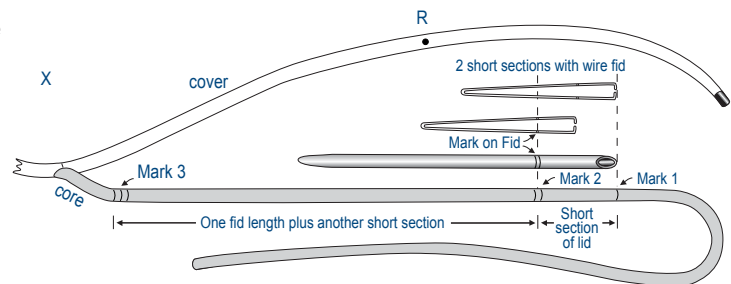
To assure correct positioning of Mark 1 do the following: Holding the exposed core, slide cover as far back as possible toward the tightly tied slipknot. Then, firmly smooth the cover back from the slipknot toward the taped end. Smooth again until all cover slack is removed. Then, mark the core where it come out of the cover. This is Mark 1.



### STEP 3 MARKING THE CORE

Again slide the cover toward the slipknot to expose more core. From Mark 1, measure along the core toward X a distance equal to the short section of a tubular fid (two short sections if using a wire fid) and make two heavy marks. This is Mark 2.

From Mark 2 measure in the same direction one fid length plus another short section of the fid (with a wire fid, double measurements) make three (3) heavy marks. This is Mark 3.



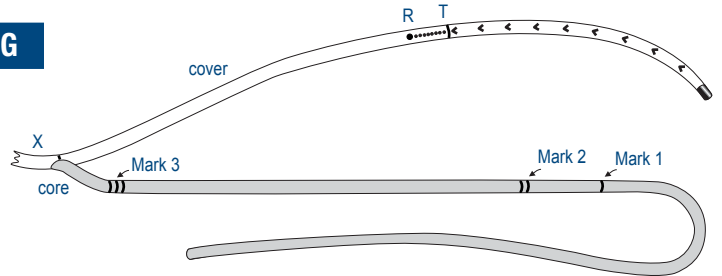


## STEP 4 MARKING THE COVER FOR TAPERING

STEP 4

Note the nature of the cover braid. It is made up of strands with either one, two or three ends. By inspection you can see half the strands revolve to the right around the rope and half revolve to the left.

Beginning at R and working toward the taped end of the cover, count eight (8) consecutive strands (single or pairs) which revolve to the right (or left). Mark the eighth (8th) strand. This is point T. Make point T go completely around the cover. Starting at T and working toward the taped cover end, count and mark every fifth (5th) right and left strand until you reach the end of the taped cover. For those ropes with a 20 strand cover, count and mark the fifth (5th) right and left strand. From that mark count to the fourth (4th) right and left strand. Proceed in this manner, marking the fifth (5th) right and left strand and then marking the fourth (4th) right and left strand, until you reach the end of the taped cover.

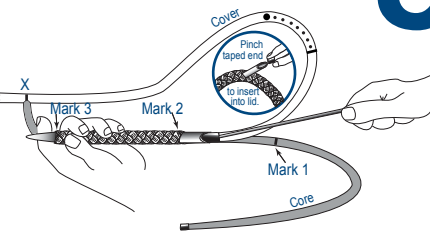


STEP 5

## PUTTING THE COVER INSIDE CORE

Insert the fid into the core at Mark 2. Slide it through and out at Mark 3. Add extra tape to the cover end; then jam it tightly into the hollow end of the fid (see insert). Hold core lightly at Mark 3, place pusher joint into taped end and push fid and cover through at Mark 2 and out at Mark 3 (with a wire fid, first press prongs into cover, then tape over. Then, after fid is on, milk braid over fid while pulling fid through from Mark 2 to Mark 3). Take the fid off the cover; continue pulling cover tail through the core until Mark R on the cover emerges from Mark 3. Then remove the tape from the end of the cover.

\*If splicing an eye with a thimble with "ears", insert thimble prior to inserting cover into core. Put core through ears and slide past Mark 3.

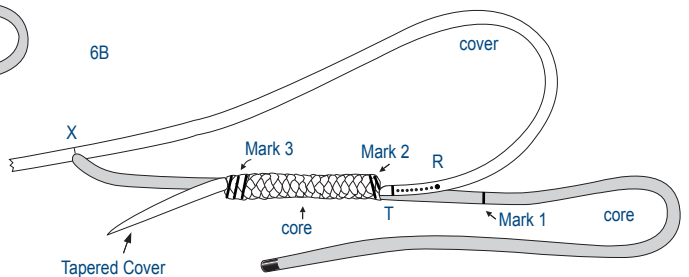
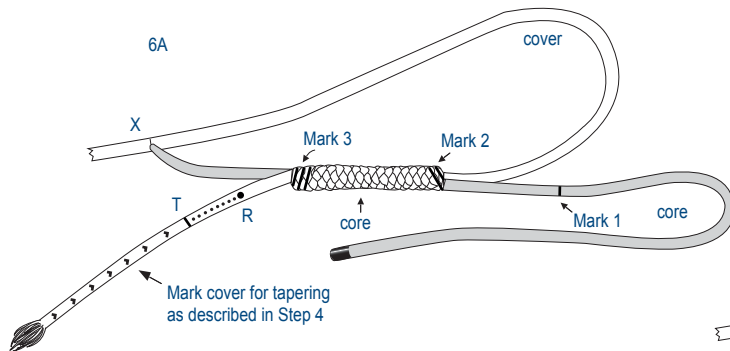


STEP 6

## PERFORMING TAPER

Make sure the tape is removed from the cover end. Start with the last marked pair of cover strands toward the end, cut and pull them completely out (Fig. 6A). Cut and remove next marked strands and continue with each right and left marked strands until you reach point T. Do not cut beyond this point.

The result should be a gradual taper ending in a point. Very carefully pull the cover back through the core until point T emerges from Mark 2.





## EYE SPLICE DOUBLE BRAID CLASS I

### STEP 7

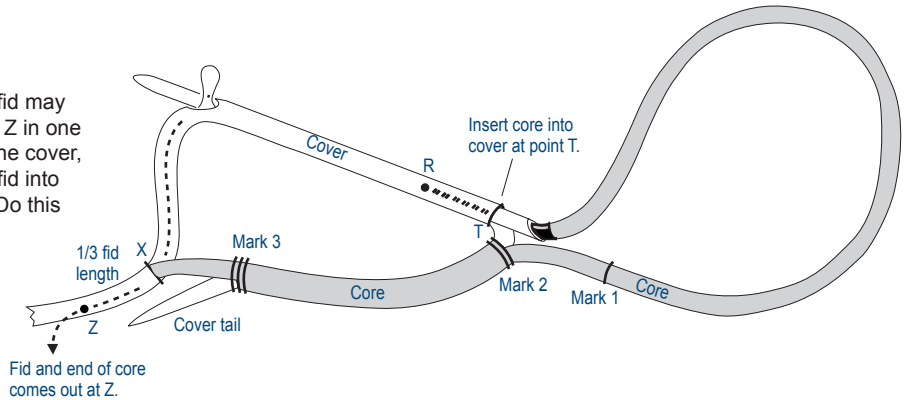
#### REINSERTING CORE INTO COVER

From X on the cover, measure approximately one-third (1/3) a tubular fid length toward the slip knot on the rope and mark this as Z.

You are now ready to put the core back into the cover from T to Z. Insert the fid at T, jam the taped core end tightly into the end of the fid. With the pusher, push the fid and core through the cover tunnel, past X and through the cover at Z.

When pushing the fid past X to Z, make sure the fid does not catch any internal core strands.

**NOTE:** Depending on the eye size, a fid may not be long enough to reach from T to Z in one pass. If not, bring the fid out through the cover, pull the core through and reinsert the fid into exactly the same hole it came out of. Do this as many times as needed to reach Z.



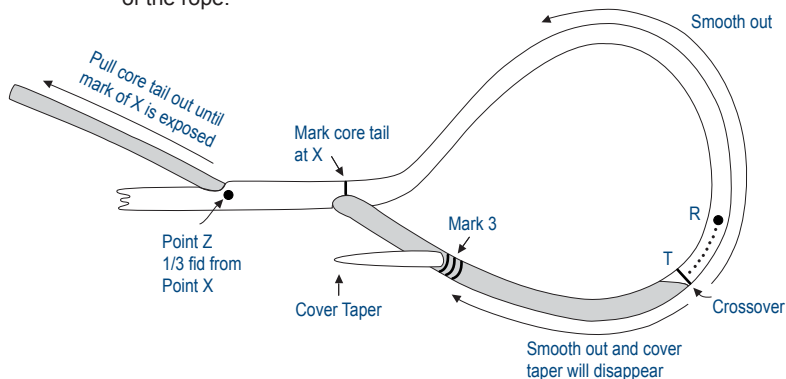
### STEP 8

#### MARKING REDUCE VOLUME TAIL CORE

Alternately pull on the core tail at Z, then pull on the tapered cover at Mark 3. The crossover should be tightened until it is approximately equal to the diameter of the rope. Smooth out the cover of the eye completely, from crossover T toward X to get all the slack out of the eye area.

Mark the core tail through the cover at Point X.

Pull the core tail out until the mark just made on the core is exposed at Z. Reduce the core volume at this point by cutting and removing one strand at each group, progressing around the circumference of the rope.



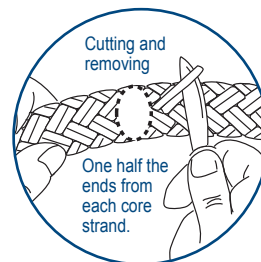
### 8A

Measure 1/3 fid from start of reduction cuts (mark) toward end and mark. Cut off remaining tail at this point. Make cut on a 45° angle to prevent a blunt end (see insert).

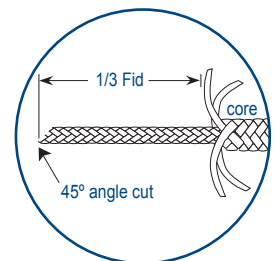
With one hand, hold crossover — MARK T.

Smooth cover section of eye out firmly and completely from crossover toward X; reduced volume core tail should disappear into cover at X.

Smooth out core section from crossover towards Mark 3 and cover taper will disappear into core.



Do this at mark made on core (through cover at X).





## EYE SPLICE DOUBLE BRAID CLASS I

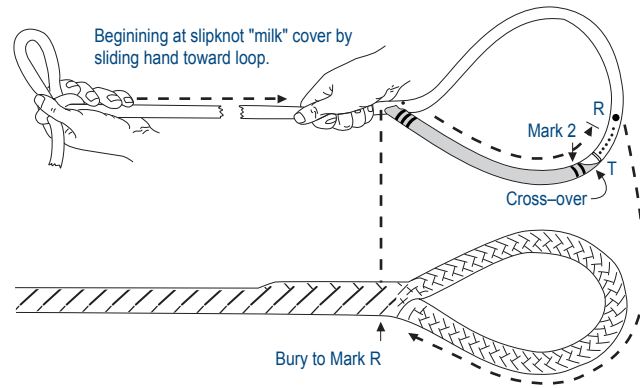
### STEP 9

#### BURYING THE EXPOSED CORE

Hold the rope at the slipknot and with the other hand milk the cover toward the splice, gently at first, then more firmly. The cover will slide over Mark 3, Mark 2 and crossover T up to R (it may be necessary to occasionally smooth out eye during milking to prevent reduced volume tail catching in the throat of the splice).

If bunching occurs at the crossover preventing full burying, smooth cover from T to X. Grasp crossover at T with one hand and then firmly smooth cover slack (female side of eye) with the other hand toward the throat (X). Repeat as necessary until bunching disappears.

Continue milking until all cover slack between the knot and the throat of the eye has been removed.



### STEP 10

#### TIP: BEFORE BURYING THE CORE

**A.** Anchor the loop of the slipknot by tying it to a stationary object before starting to bury. You can then use both hands and the weight of your body to more easily bury the cover over the core and crossover (see Figure 1 and Figure 2).

**B.** Holding the crossover tightly, milk all the excess cover from R to X.

Flex and loosen the rope at the crossover point during the final burying process. Hammering the cover at X will help loosen the strands.

With larger ropes it is helpful to securely anchor the slipknot, attach a small line to the braided core at the crossover and mechanically apply tension with either a block and tackle, capstan, come-a-long, or power winch.

Tension will reduce the diameter of the core and crossover for easier burying (see Figure 2).

In order to prevent no-load opening of your eye splice, Samson recommends lock-stitching the eye.

Please download lock stitch instructions to complete this splice.

