



# Double Braid Class I End-For-End Splice

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

This splice can be performed on new and used rope. This is an all-purpose splice technique designed for people who generally splice used rope as frequently as new rope.

Finished splice

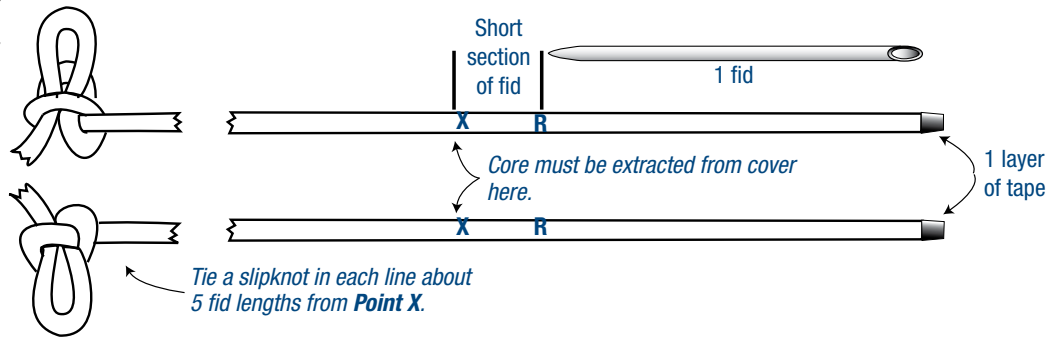


## STEP 1 MEASURING AND MARKING

Tape the end of each rope with 1 thin layer of tape. Lay 2 ropes to be spliced side-by-side and measure 1 tubular fid length from end of each rope and make a mark. This is Point R (Reference).

From Point R measure 1 short fid section length (as scribed on the fid) then mark. This is Point X (where you should extract core from inside cover.) Be sure both ropes are identically marked. Tie a slipknot approximately 5 fid lengths from Point X.

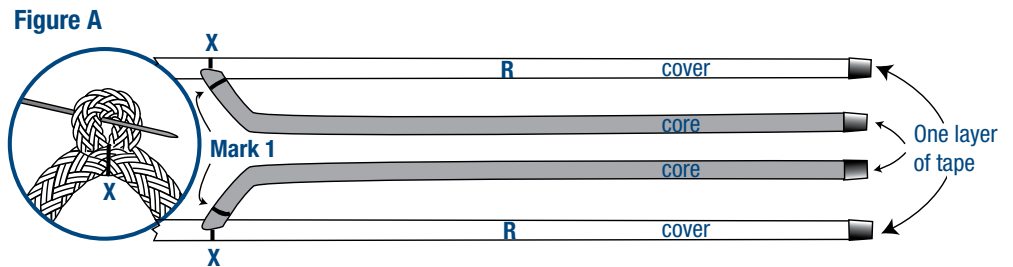
**Note:** If you require the rope with the finished splice to be a certain overall length, refer to "Double Braid Class I Special Tips for Splicing," on the last page of these splice instructions.



## STEP 2 EXTRACTING THE CORE

Bend rope sharply at Point X. With a pusher or any sharp tool, such as an ice pick, awl, or marlin spike, spread cover strands to expose core. First pry, then pull core completely out of cover (shown in white) from Point X to the end of rope. Put 1 layer only of tape on end of core (shown in gray).

To assure correct positioning of Mark 1 do the following: holding the exposed core, slide cover as far back towards the tightly tied slip knot as you can. Then, firmly smooth cover back from the slip knot towards taped end. Smooth again until all cover slack is removed. Then, mark core where it comes out of cover. This is Mark 1. Do this to both ropes. (Fig. A)



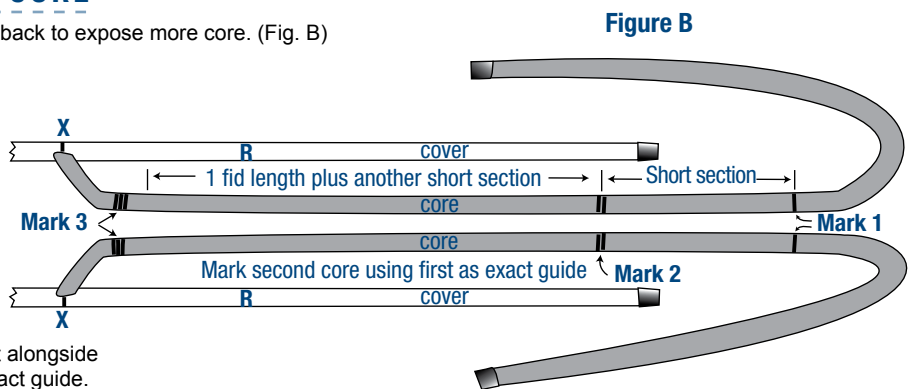
## STEP 3 INSERTING CORE INTO CORE

Hold 1 core at Mark 1 and slide cover back to expose more core. (Fig. B)

**3A** From Mark 1, measure along core towards X a distance equal to the short section of fid and make 2 heavy marks. This is Mark 2.

**3B** From Mark 2 measure in the same direction 1 fid length plus another short section and make 3 heavy marks. This is Mark 3.

Mark second core by laying it alongside the first and using it as an exact guide.





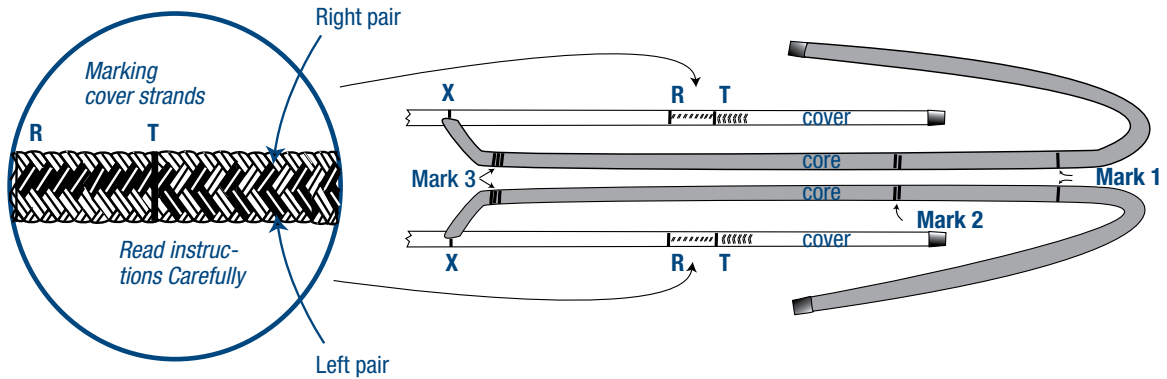
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## STEP 4 MARKING THE COVER FOR TAPERING

Note nature of the cover braid. It is made up of strands. By inspection you can see that half the strands revolve to the right around the rope and half revolve to the left.

Beginning at Point R and working toward the taped end of cover, count 8 consecutive pairs of cover strands that revolve to the right (or left). Mark the 8th pair. This is Point T, which should go completely around cover.

Starting at Point T and working toward the cover's taped end, count and mark every second right and left pair of strands for a total of 6. Then, on the other rope starting at Point T, count and mark every second right and left pair of strands for a total of 6. Make both ropes identical.



## STEP 5 PERFORMING THE TAPER

On the first rope, remove tape from cover end. Starting with last marked pair of cover strands toward the end, cut and pull them completely out. 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. Retape tapered end.

On the second rope cut and remove marked strands on the other marked cover, again stopping at Point T. Retape tapered end (Fig. C).

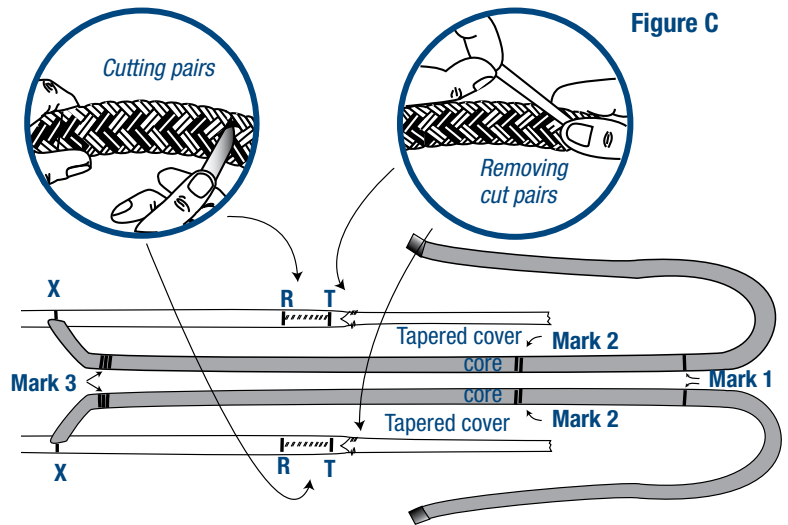


Figure C

## STEP 6 REPOSITIONING THE ROPES

Reposition ropes for splicing according to Fig. D. Note how the cover of one rope has been paired off with core of the opposite line. Avoid twisting.

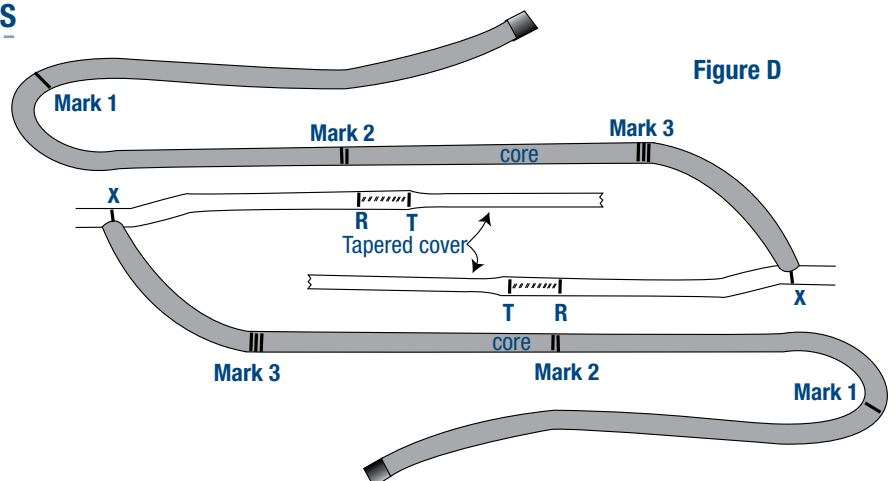


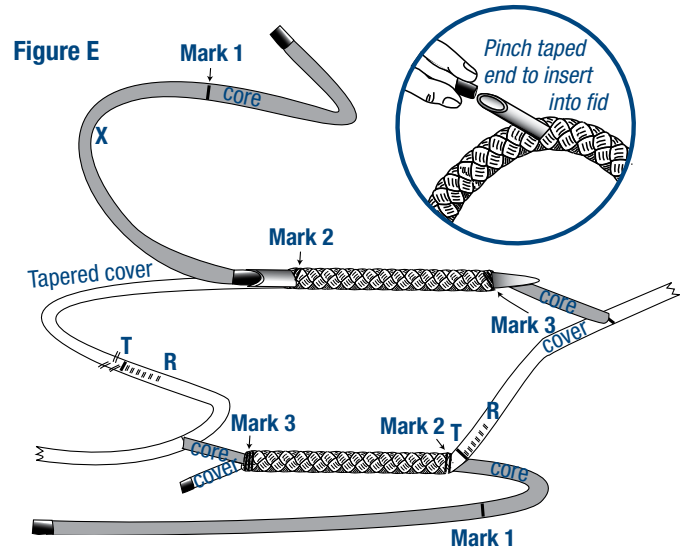
Figure D



# Double Braid Class I End-For-End Splice

## STEP 7 PUTTING THE COVER INSIDE CORE

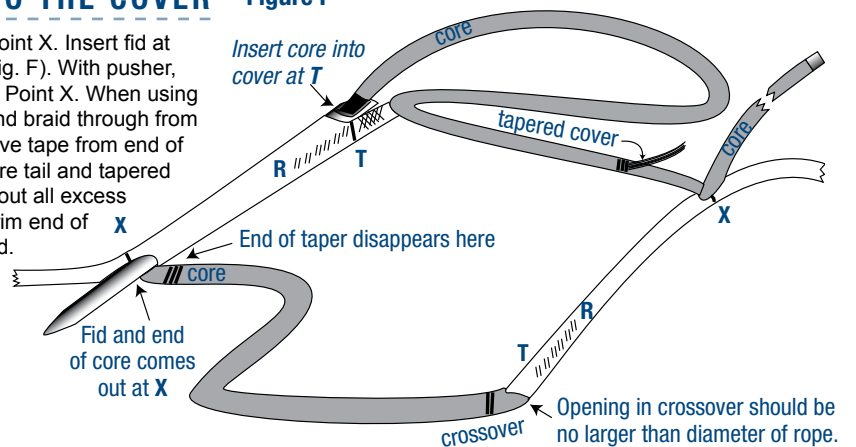
Insert fid into first core (shown in gray) at Mark 2 and bring it out at Mark 3. Add extra tape to tapered cover (shown in white) end then jam it tightly into hollow end of fid. Hold core lightly at Mark 3, place pusher point into taped end pushing fid and cover in it from Mark 2 and out at Mark 3. (When using wire fid, attach fid to cover.) Then pull fid through from Mark 2 to Mark 3. Pull cover tail through core until Point T on cover meets Mark 2 on core. Insert other cover into core in same manner (Fig. E).



## STEP 8 REINSERTING THE CORE INTO THE COVER

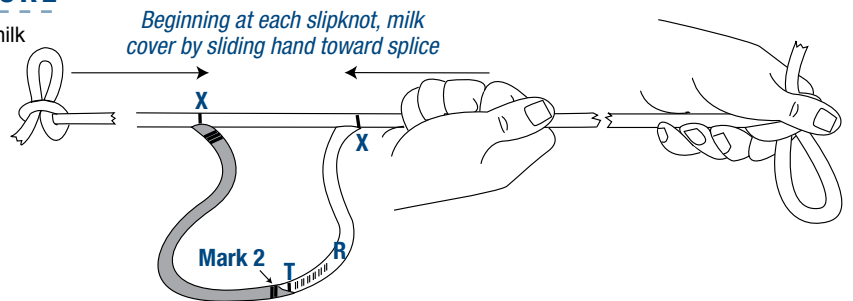
Now put core back into cover from Point T to Point X. Insert fid at Point T, jam tapered core tightly into end of fid (Fig. F). With pusher, push fid and core through cover bringing out at Point X. When using wire fid attach fid to tapered core. Then pull fid and braid through from Point T to Point X. Do this to both cores. Remove tape from end of cover. Bring crossover up tight by pulling on core tail and tapered covered tail. Hold crossover tightly, smoothing out all excess braid away from crossover in each direction. Trim end of tapered cover at an angle to eliminate blunt end. Tapered cover tail will disappear into core at Mark 3. Cut core tail off close to Point X at an angle.

Figure F



## STEP 9 BURYING THE EXPOSED CORE

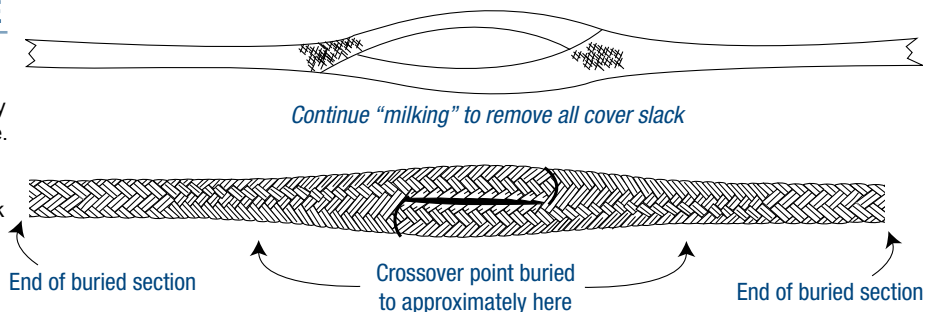
Hold rope at slipknot and with other hand milk cover toward the splice, gently at first, and then more firmly. The cover will slide over Mark 3, Mark 2 the crossover and Point R. Repeat on the other side of the splice. Continue burying until all cover slack between the knot and the splice has been removed.



## STEP 10 FINISHING THE SPLICE

The splice is finished when all cover slack has been removed and there is an opening in the splice approximately equal in length to the diameter of rope. If, at the opening, one side of the splice is noticeably longer than the other side, something is wrong. Check Steps 1-9 and remake if necessary.

Now untie the slip knots.





# Special Tips for Splicing Double Braid Class I

## SPLICE WITH THIMBLE

Follow Step 1 of the Eye Splice Double Braid Class I for determining the correct eye size. When burying exposed core, as in Step 8, bury to crossover, then insert thimble into eye before milking cover all the way. If using a thimble with ears, before inserting cover into core, as in Step 5, insert core through the rings (dog ears) and slide thimble beyond Mark 3. Proceed to make the splice according to instructions.

**Note:** Before final burying, slide thimble around to cover side of eye. To secure finished eye tightly around thimble, either whip throat or dip the eye in hot water for several minutes. Hot water will shrink the eye tightly around thimble for nylon and polyester fiber ropes.

## SPLICING ROPES 3" DIAMETER OR LARGER

Before splicing rope, measure back 8 fids and insert a large fid through the rope to anchor the core and cover together. Use a milking strap to milk slack of cover toward end of rope. A milking strap is a smaller diameter rope that is cinched around the rope to create more seizing power than a human hand can apply. It helps to pull the milking strap with mechanical means (a winch or come-along.) Cut off any excess cover.

Milking the cover is a crucial step and will be done several times during this splice. The milking process aligns the core and cover braid angles and allows them to more effectively share the load when the rope is in use. It is best done with a milking strap for ropes 3" diameter or larger

After milking, check for cover slack. If cover slack remains, repeat milking process until slack is gone.

## MINIMUM LENGTHS

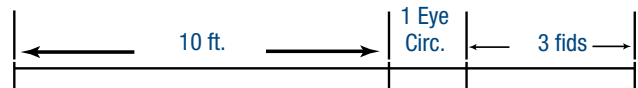
Minimum eye-and-eye sling length with Class I Double Braid is 5 fid lengths from extraction Mark X to extraction Mark X, regardless of rope diameter. The size of eye does not affect the minimum length. Proceed to make the eye splice as per instructions.



**Example:** How to make an Eye-and-Eye Sling 10' long overall with two 6" eyes:



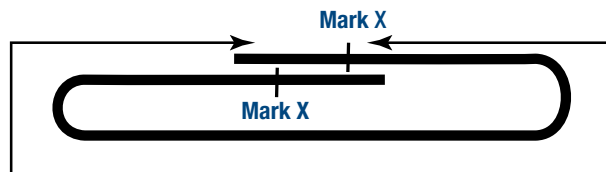
Measure and cut a length:



Then start with Step 1 of Class 1 Double Braid splice.

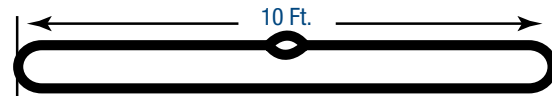
## END-FOR-END SPLICE

Minimum endless loop (Grommet) with Class I Double Braid is 10 fid lengths between extraction Mark X to extraction Mark X, regardless of rope diameter. Proceed with the Class I Double Braid End-for-End splicing instructions.



Exact overall lengths with endless loops are determined by allowing for extra rope consumed in making the End-for-End Splice. The length of extra rope is equal to 4 fid lengths.

**Example:** To make an endless loop 10' overall:



Measure and cut a length:



Then start with Step 1 of the End-for-End Double Braid Class I Splice instruction.