

SAMSON SPLICING INSTRUCTIONS

Double Braid Class I Z Eye Splice

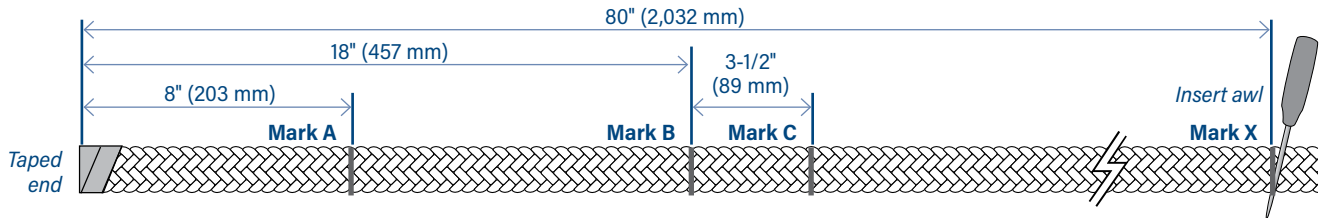
FOR ALLEGRO™, ALLEGRO XL™, AND VELOCITY PLUS™



This eye splice was specifically designed to allow ropes to be used with the ZigZag ascender.

Note: These measurements are for creating a 3/4" (19 mm) eye splice. Adjust all dimensions as needed for other eye sizes.

STEP 1 MEASURING AND MARKING



These measurements are for creating a 3/4" (19 mm) eye splice.

Tape end to be spliced with one thin layer of tape. Then measure 80" (2,032 mm) from the end of the rope and make Mark X. Insert a securing awl or pin through the cover and core at Mark X.

Measure 8" (203 mm) from the taped end and make Mark A.

Then measure 18" (457 mm) from the taped end and make Mark B.

From Mark B measure 3-1/2" (89 mm) and make Mark C.

STEP 2 EXTRACTING THE CORE

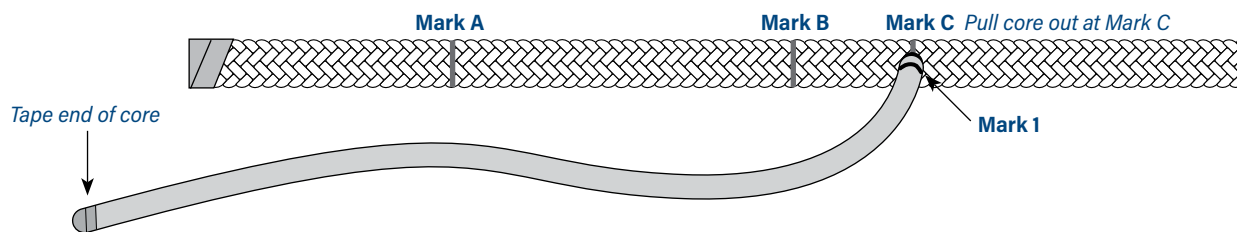
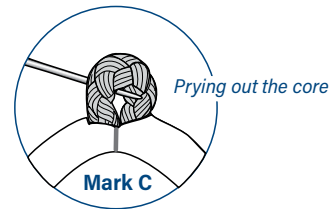
Pull the core out of the cover from the bitter end until there is resistance. Approximately 10" (254 mm) or so, it's not critical. The purpose is to put slack in the cover.



Bend the rope sharply at Mark C. With a 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 the cover from Mark C to the taped end of the rope. Put 1 layer of tape on the end of the core.

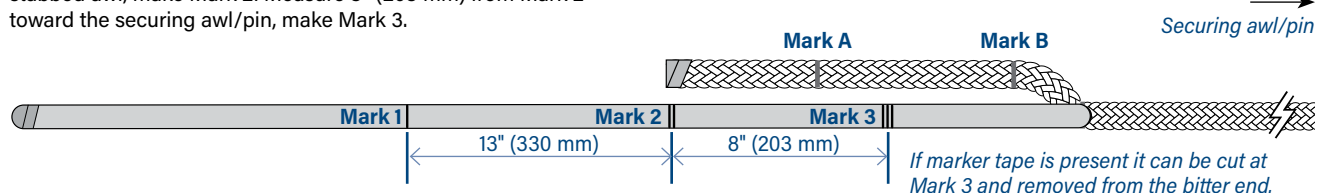
Note: Do your best to avoid overstretching the cover strands.

To assure correct positioning of Mark 1 do the following: Holding the exposed core, slide cover as far back as possible toward the securing awl/pin at Mark X. Then, firmly smooth the cover back from the stabbed awl toward the taped end. Smooth again until all cover slack is removed. Then, mark the core where it comes out of the cover. This is Mark 1.



STEP 3 MARKING THE CORE

Measure 13" (330 mm) from Mark 1 on the core toward the stabbed awl, make Mark 2. Measure 8" (203 mm) from Mark 2 toward the securing awl/pin, make Mark 3.



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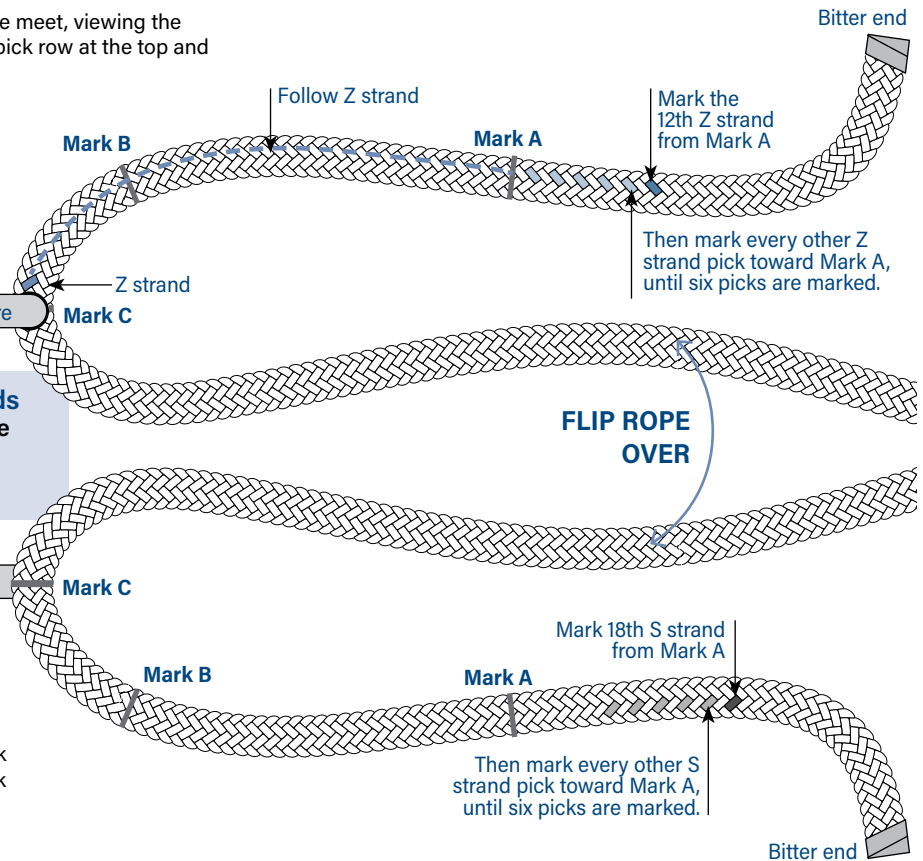
STEP 4 IDENTIFYING & MARKING PICK ROWS

At the crossover where the cover and core meet, viewing the extraction point as the center, locate a Z pick row at the top and follow that pick row to Mark A.

From Mark A toward the bitter end, count and mark the 12th Z pick. From that marked Z strand, working back toward Mark A, skip a pick and mark the next pick, continuing to skip and mark picks until six picks are marked.



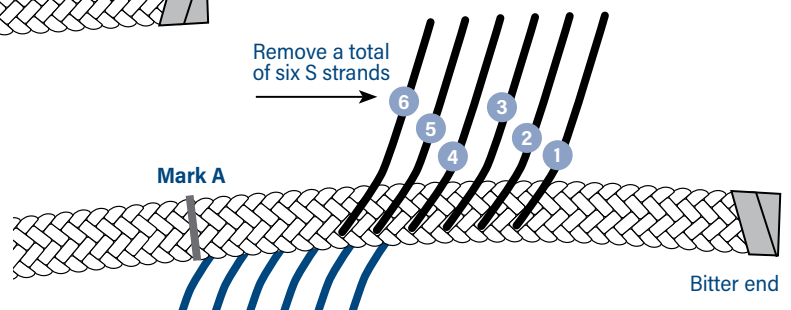
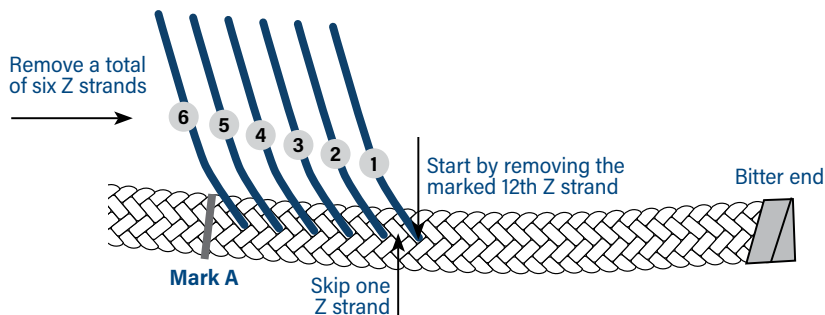
Rotate the rope 180 degrees to the opposite side. From Mark A, count and mark the 18th S pick toward the bitter end. From that marked S strand, working back toward Mark A, skip a pick and mark the next pick, continuing to skip and mark picks until six picks are marked.



STEP 5 EXTRACTING COVER STRANDS

Extract the six marked Z cover strands. Move to the marked S strands on the opposite side. Extract the six marked S cover strands. Pull only from Mark A toward the bitter end. Use caution that the yarns are not being pulled toward Mark B.

Note: Exit points of the strands will not be symmetrical.



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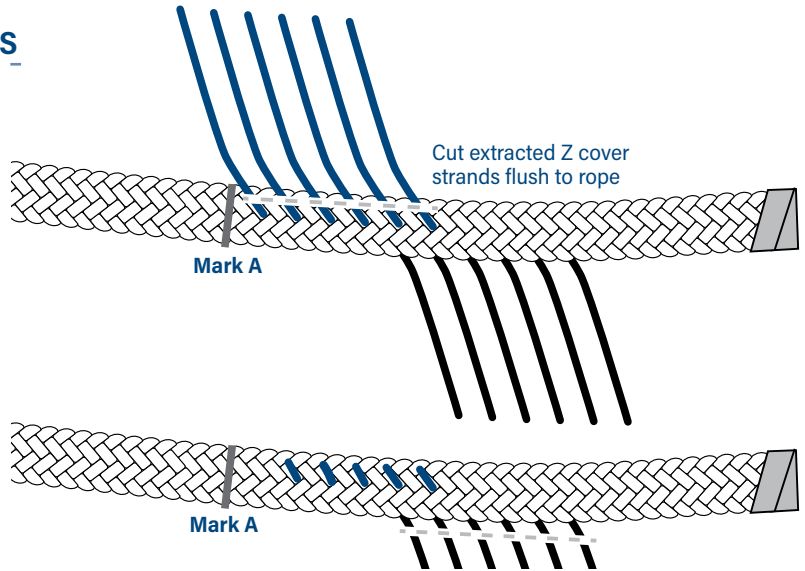


STEP

6 CUTTING EXTRACTED STRANDS

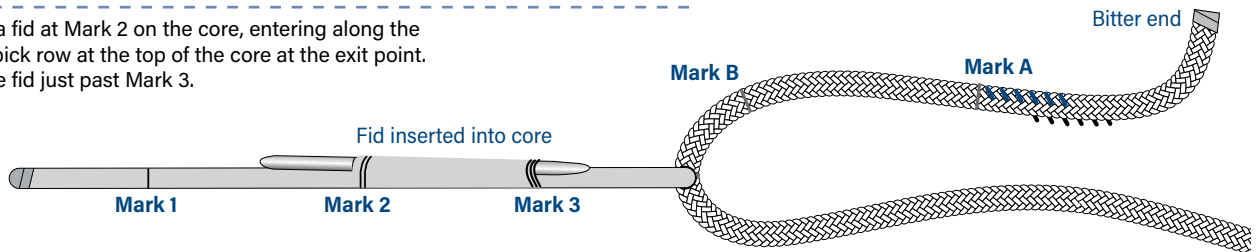
Cut the extracted S and Z strands flush, pulling as little as possible.

Ensure there is no twist in the extracted core from the exit point to Mark A.

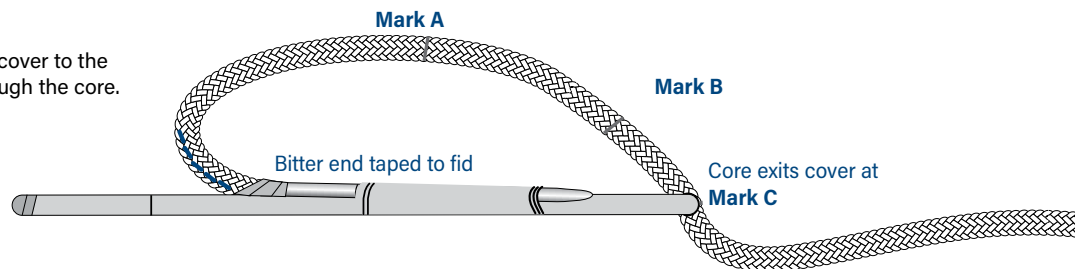


7 INSERTING THE COVER THROUGH THE CORE

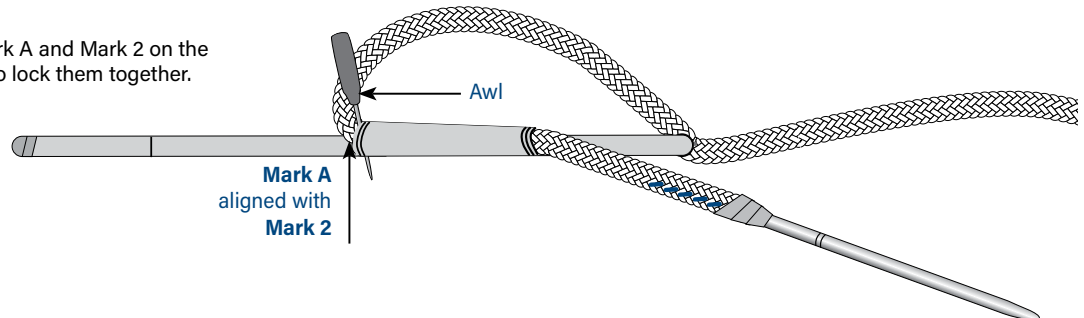
Insert a fid at Mark 2 on the core, entering along the same pick row at the top of the core at the exit point. Exit the fid just past Mark 3.



Tape the bitter end of the cover to the fid and pull the cover through the core.



Continue pulling until Mark A and Mark 2 on the core meet. Place an awl to lock them together.



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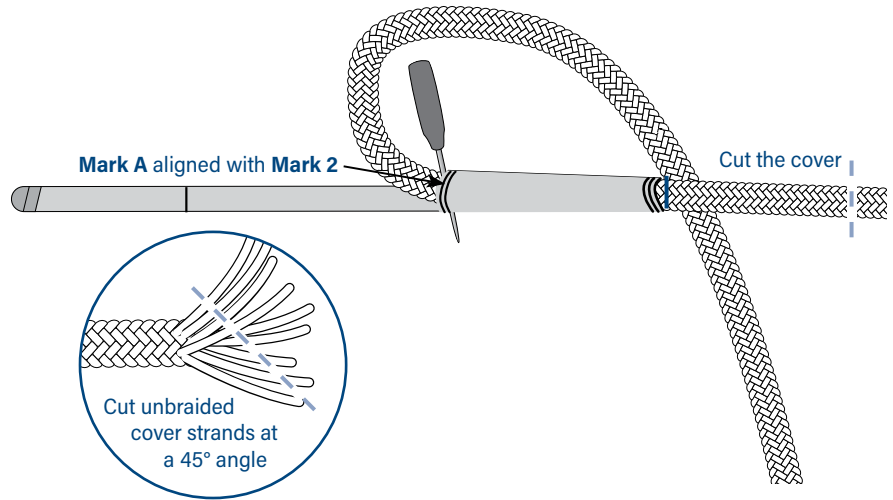


STEP 8 TAPERING THE COVER

Milk the core over the cover. Mark the cover where it exits the core at Mark C, then pull the cover out. Cut the cover just below the exit mark and unbraid the cover for approximately 1" (25 mm).

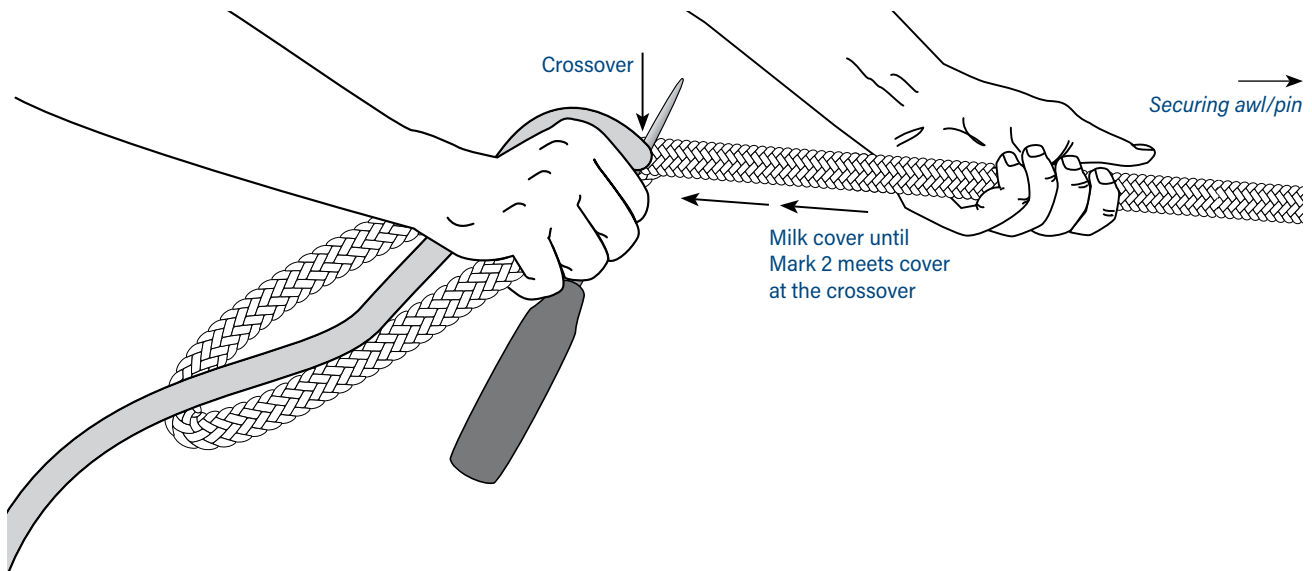
Cut the unbraided strands at a 45-degree angle. Milk the cover back into the core.

Note: Trim any edges that may be sticking out. Ensure that Mark 2 and Mark A stay together.



STEP 9 SMOOTHING AND POSITIONING

Holding the rope at the pin off point begin milking the slack out of the cover. Do not pull on the eye while milking. Apply light, even tension to the core at the crossover and milk the cover to Mark 2. Support the crossover and do not allow the cover to slip from the core.



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STEP 10 TAPERING CORE & FINISHING SPLICE

Remove the awl/pin that once held Mark A and Mark 2 together. Mark the core approximately 1" (25 mm) from Mark 2 toward the bitter end. This creates a tapered point for the transition.

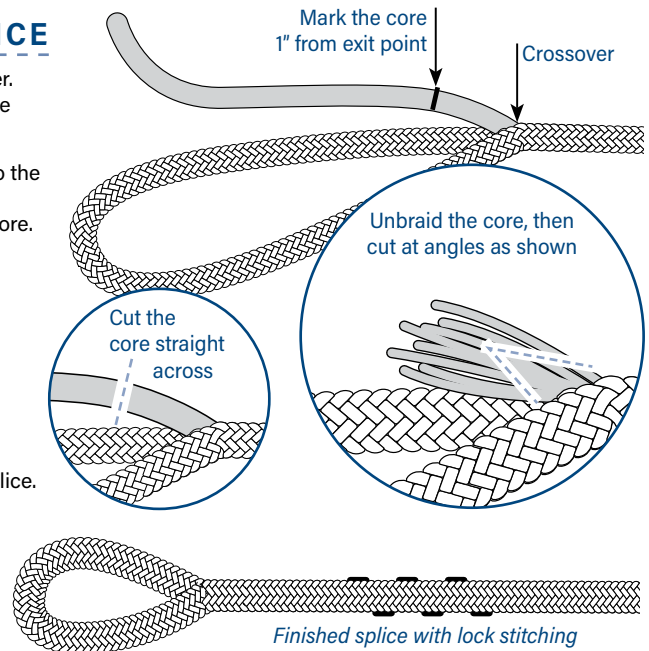
Cut the core flat at the 1" (25 mm) mark and unbraid the core to the crossover. From the exit point of the core to the cut end, cut an angle from the exit point to the centerline on each side of the core.

Milk from the secured pin-off area until all slack is removed. Once the core is buried there will be a distinct reduction in diameter from the bury to the eye. This will result in a slightly smaller than 3/4" (19 mm) eye.

Perform the lock stitching procedure shown below.

Once the eye splice has been lock stitched, unhitch the rope and lightly hand milk from the eye approximately 10' (305 cm) down the body of the rope to reduce any distortion from the splice.

Note: If the eye collapses entirely, the splice will need to be started over. Confirm all measurement marks were made correctly, as accuracy is critical for small-diameter eye splices.



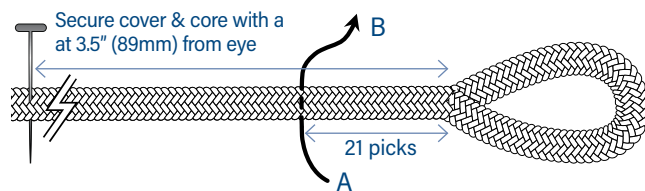
Lock Stitching Procedure

THESE INSTRUCTIONS ARE FOR THE Z EYE SPLICE ONLY

The splice should be pinned at 3.5" (89 mm) from the bottom of the eye with another stitching needle or a small T-pin. Once the pin is in place, open the eye to 3/4" (19 mm) by milking the slack toward the T-pin. There should be a small amount of slack, about 3/8" (9.5 mm). Once the lock stitching has reached or passed the T-pin the T-pin can be removed.

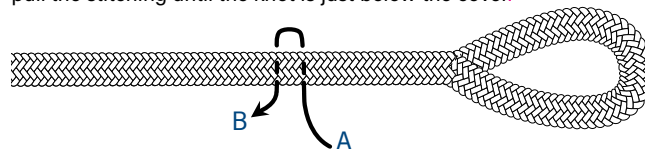
STEP 1

Start the stitching twine 21 picks down from the throat of the splice. This is an important step because of localized cover slack.



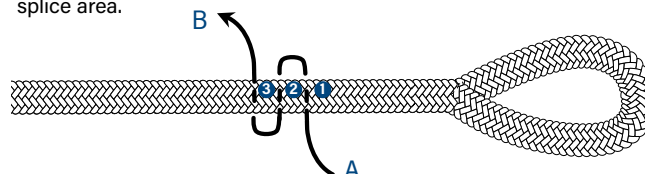
STEP 2

Reinsert twine through the rope. The twine should cover 3 rope picks, from the exit point. Pull the twine snug, but not tight. Tie a square knot on the loose end. After the first pass through, gently pull the stitching until the knot is just below the cover.



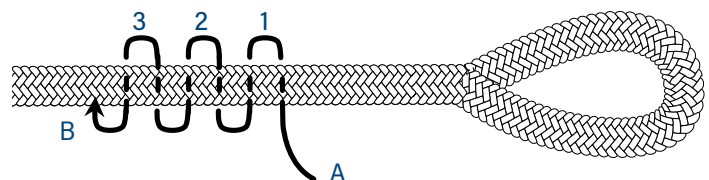
STEP 3

Once the twine has made three passes through the rope in an over 3, under 3 pick pattern, milk any remaining slack out of the splice area.



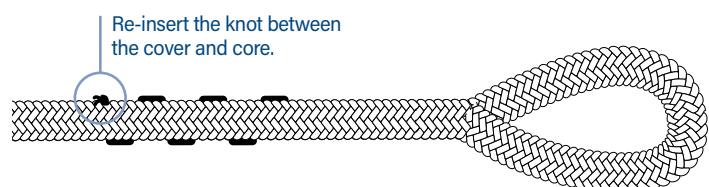
STEP 4

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



STEP 5

After stitching 3 complete stitches on 2 sides of the rope take the bitter end of the stitching twine and tie a square knot as close to the rope as possible. Bury the square knot into the rope between the rope picks directly where the twine enters the rope. After the knot is buried, cut off any remaining twine sticking out. Re-insert the knot between the cover and core.



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