Double Braid Class II Eye Splice Modified for Turbo-37
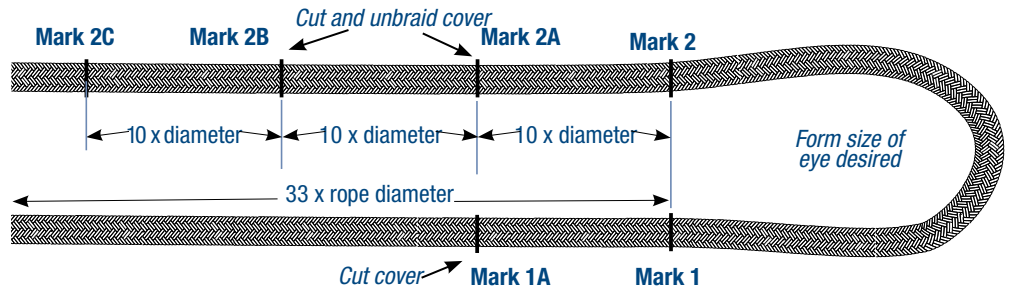
SAMSON
THE STRONGEST NAME IN ROPE

STEP 1 — MEASURING AND MARKING

From the end of the rope, measure a length that is equal to 33 times the rope diameter (in inches) and make a mark on the cover. This is Mark 1.

Using Mark 1 for reference, form the desired eye size and make Mark 2. Securely tape the cover just beyond Mark 1 and just ahead of Mark 2.

Keep Marks 1 and 2 aligned, measure in the direction shown, a distance of 10 times the rope diameter, and mark the cover on both legs.

Mark 2C Mark 2B *Cut and unbraid cover* Mark 2A Mark 2

10 x diameter 10 x diameter 10 x diameter

Form size of eye desired

33 x rope diameter

Cut cover Mark 1A Mark 1

These are Marks 1A and 2A. From 2A measure down standing part 10 times rope diameter and make Mark 2B. From 2B measure down standing part and additional 10 times rope diameter and make Mark 2C.

STEP 2 — INSTALLING SPLICE COVER MATERIAL

Using an appropriate sized cover material, slide the cover onto the rope and slide back past Mark 2C (onto the standing part of the rope.) This cover material will later be used to cover the exposed cores in the splice area.

STEP 3 — REMOVING COVER

Cut the cover of the rope at Mark 1A and remove. Cut the cover at Marks 2A and 2B and unbraid the cover strands back to Marks 2 and 2C, respectively. Unbraid the section of cover between Marks 1A and 1.

Remove and discard the section of cover between Marks 2A and 2B.

Standing part of rope

Mark 2C

Mark 2

tail

Mark 1
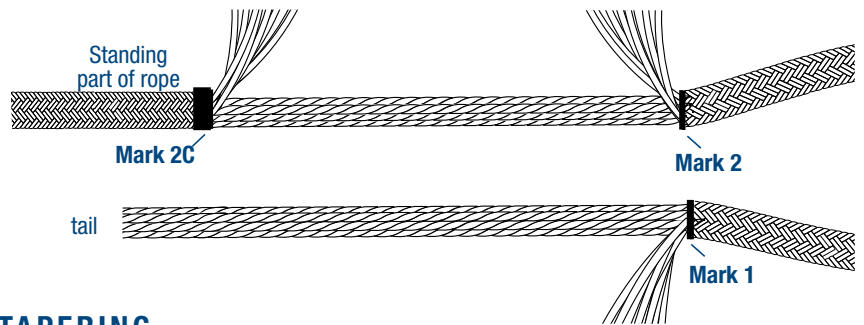
STEP 4 — MARKING THE COVER FOR TAPERING

All tucks should be made against the lay (Fig. A). After the 1st tuck, each tuck consists of passing the tail over 1 strand, then under the next strand (Fig. B). When pulling the tail through, pull perpendicular to the direction the rope is lying, and take care not to over tighten the tuck (this will cause unnecessary distortion (Fig. C). As the splice progresses, the tail should gradually spiral around the standing part. To accomplish this, it is necessary to pull the tail underneath the standing part of every 3rd or 4th tuck (Fig. D).

Complete 15 tucks with full volume tail, then remove 1 strand from tail and complete 3 tucks with the remaining 2 strands (Fig. E). Now remove 1 strand and complete 3 tucks with the remaining 1 strand (Fig. F). Tape the tails to the rope.
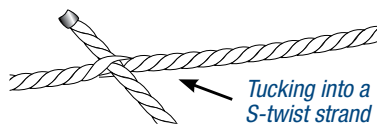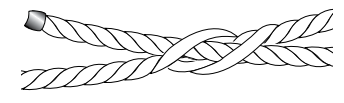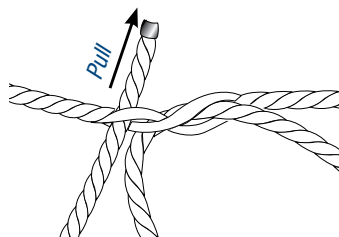
Figure A

Tucking into a S-twist strand

Tucking into a Z-twist strand

Figure B

Figure C

Pull

Figure D

Pull

Figure E

3 tucks   3 tucks
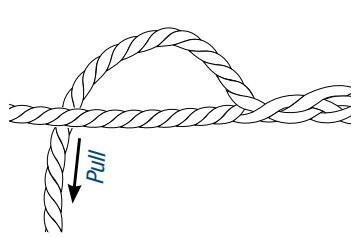
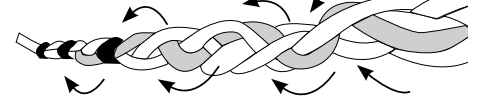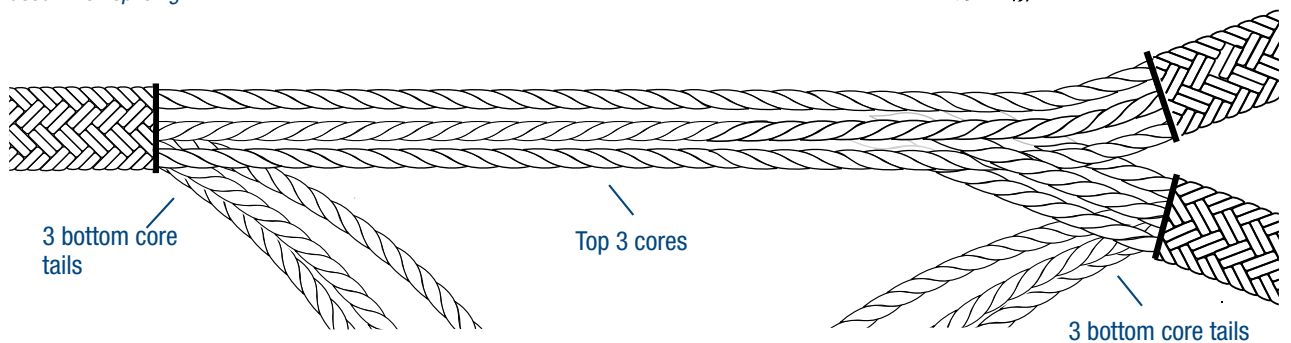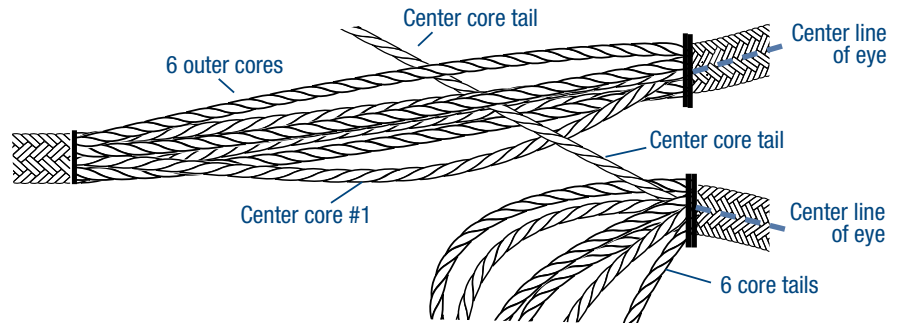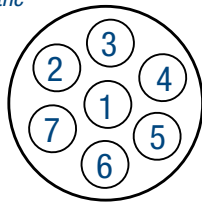**Figure F**

Double Braid Class II Eye Splice Modified for Turbo-37

samson
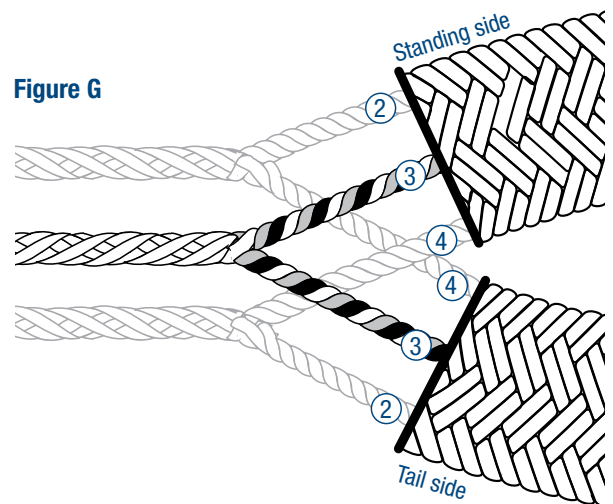*THE STRONGEST NAME IN ROPE*

STEP 5 — SPLICING CENTER CORE

The first part of the splice uses the center core and the center core tail (core #1). Both the center core and the tail should be pulled out between the top 3 cores and the bottom 3 cores. Put the center core tail under the center core so that the 2 sections continue in the line of the 2 legs of the splice. Begin tucking the core tail into the standing part where they intersect.

The cores are arranged parallel within the braided jacket with one core in the center and six cores around it. The cores are numbered in the splicing instructions to help identify which core is used when splicing.

Center core tail
6 outer cores
Center line of eye
Center core tail
Center core #1
Center line of eye
6 core tails

3 bottom core tails
Top 3 cores
3 bottom core tails

STEP 6 — SPLICING TOP 3 CORES

Lay out the top 3 cores and core tails as shown above.

Maintain the angle of the legs of the eye splice when positioning the cores and core tails. Pass core tail #4 under cores #4 and #3 and then begin tucking into core #2 where they intersect.

Pass core tail #3 over core #4 and begin tucking into core #3. Finally, begin tucking core tail #2 into core #4.

When finished, the rope should appear as shown in Fig. G.

Figure G

Standing side
2
3
4
4
3
2
Tail side

Double Braid Class II Eye Splice Modified for Turbo-37
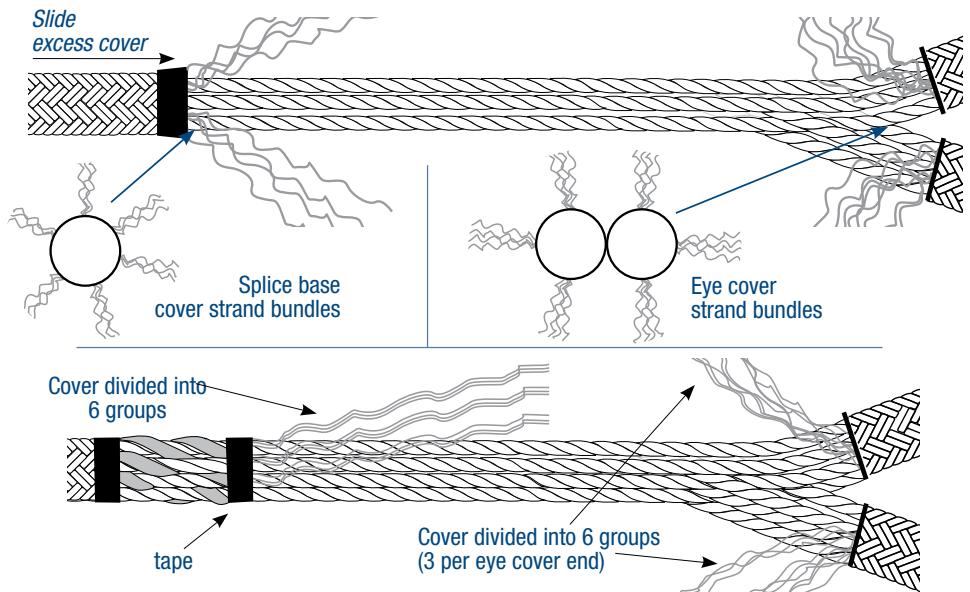
STEP 7 — SPLICING BOTTOM 3 CORES

Turn the rope over and repeat Step 6 using the last 3 cores and core tails. Core tail #5 passes over core #5 and #6 and tucks into core #7. Core tail #6 passes under core #5 and tucks into #6. Core tail #7 tucks directly into core #5 (Fig. H).

Figure H

Tail side

Standing side
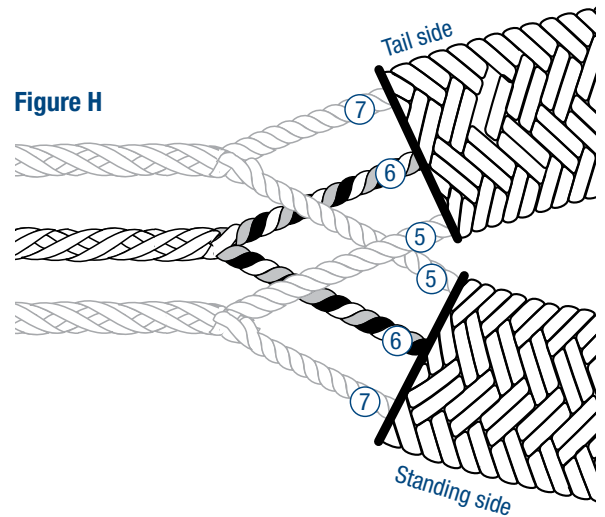
STEP 8 — DIVIDING COVER INTO 6 BUNDLES

Put the rope under tension and slide the cover from the base of the splice back up the rope towards the splice area. It will be necessary to unbraid the end of the cover for some length in order to remove all the slack from the braided section. Slide past the braided section as far as possible up past the end of the splice.

Then tightly tape the braided cover at the point where the braid begins to come apart and divide the unbraided cover yarns into 6 separate bundles. Finally divide the unbraided cover yarns from the eye into 6 separate bundles (3 bundles from each leg of the eye.)

Slide excess cover

Splice base cover strand bundles

Eye cover strand bundles

Cover divided into 6 groups

tape

Cover divided into 6 groups (3 per eye cover end)

STEP 9 — GROUPING AND TUCKING COVER

Starting at the base of the splice, take 1 of the 6 cover braid bundles, pass it over 1 of the cores and under the very next core (forming a simple tuck similar to that used in splicing 3-strand rope.) When tucking the cover bundle be careful not to go under the core in the center of the rope. Repeat this procedure with each of the 6 cover bundles. The direction of the tucks should be as shown.

When all 6 bundles have been tucked once, tightly tape around the rope at the point where the tucks occur. Repeat this procedure until a minimum of 3 complete tucks have been made with all 6 cover bundles. Additional tucks can be made if there is sufficient length left. When the last set of tucks has been made and taped, cut off the excess cover yarn bundles flush with the last taped section.
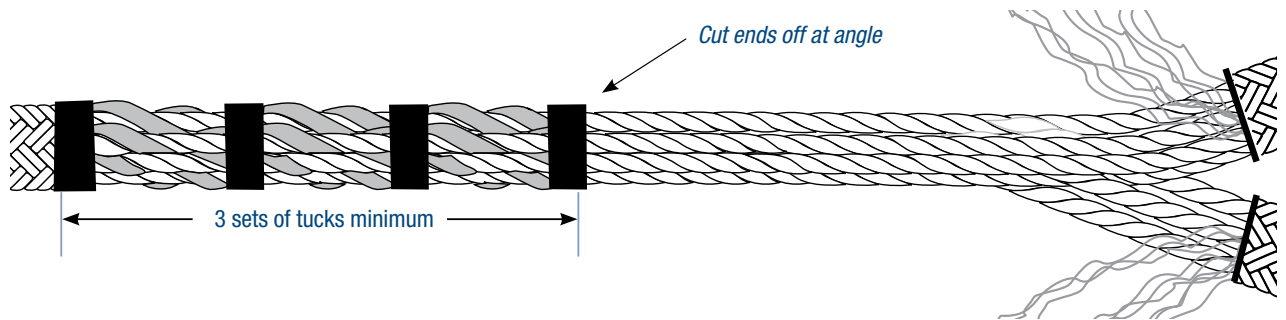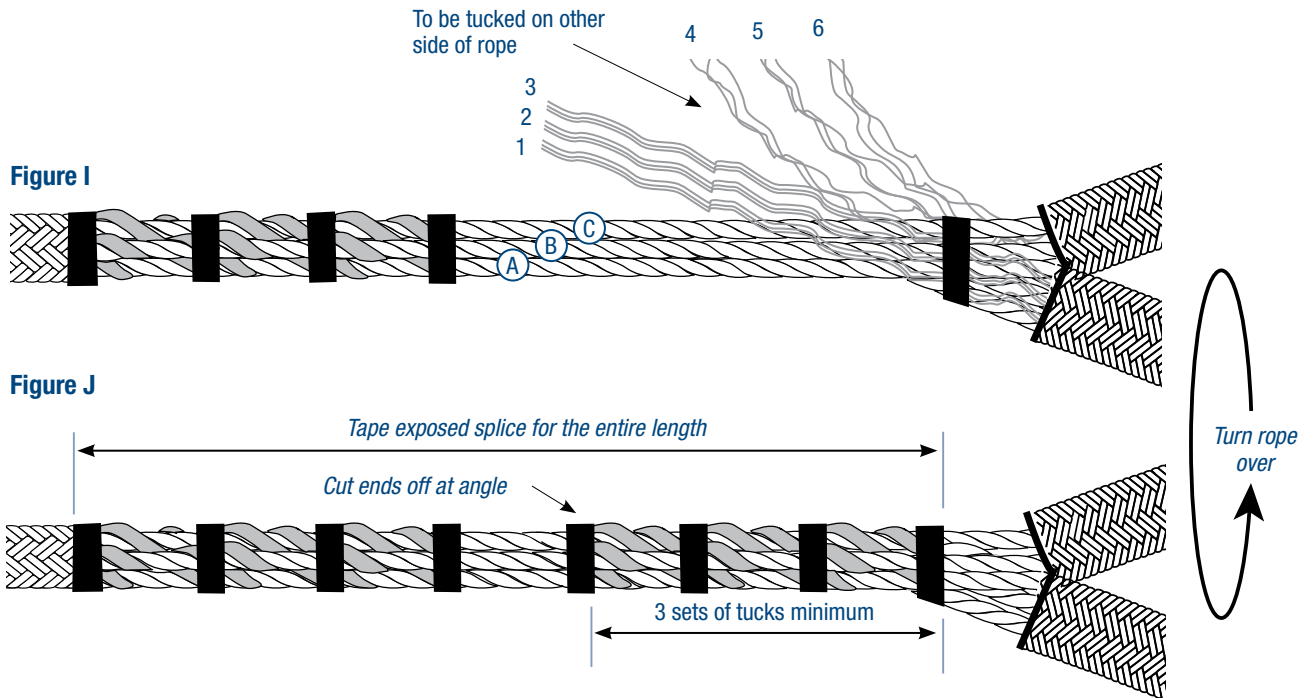
Cut ends off at angle

3 sets of tucks minimum

Double Braid Class II Eye Splice Modified for Turbo-37

STEP 10 — TUCKING EYE COVER BUNDLES

Next, tuck the 6 cover braid yarn bundles at the base of the eye. With the eye laying flat (as shown in Fig. I) take bundle closest to the throat of the eye (bundle #1) and pass it under core A. Take the next cover yarn bundle (#2) and pass it under core B. Take core bundle #3 and pass it under core C.

Turn the rope over and continue this process with the 3 remaining cover yarn bundles (Fig. J). The direction of the tucks should be as shown. Tape around the rope at the point where the tucks occur. Repeat this procedure until a minimum of 3 tucks have been completed. When the last set of tucks has been made and taped, cut off excess cover yarn bundles flush with the last taped section.

Figure I

To be tucked on other side of rope

4   5   6
3
2
1

C
B
A

Turn rope over

Figure J

Tape exposed splice for the entire length

Cut ends off at angle

3 sets of tucks minimum

STEP 11 — FINISHING THE SPLICE

Slide the cover material (which was put on the rope in Step 3) up over the exposed cores. At the eye-end of the splice, separate the strands of the cover material into 4 equal size bundles (2 on the top of the rope and 2 on the bottom.)
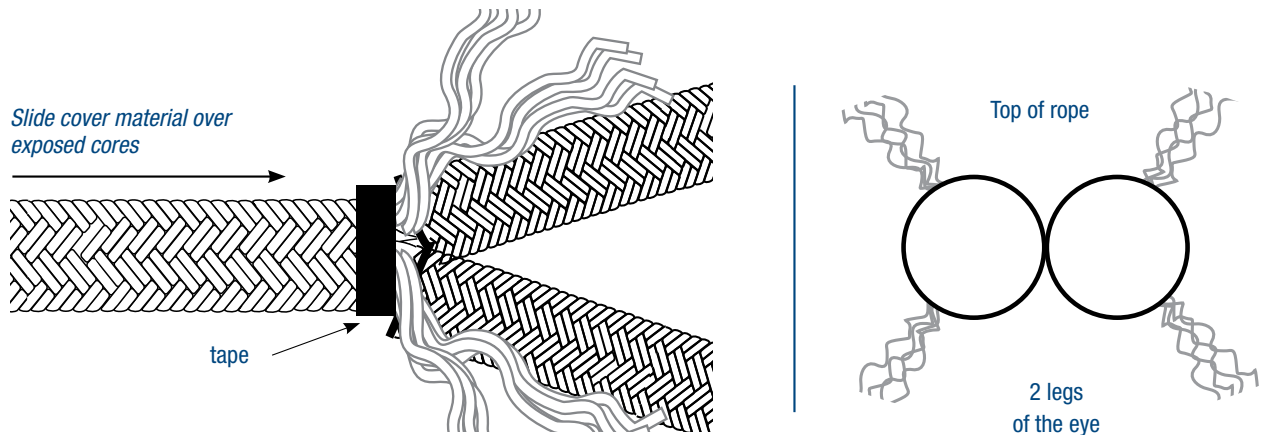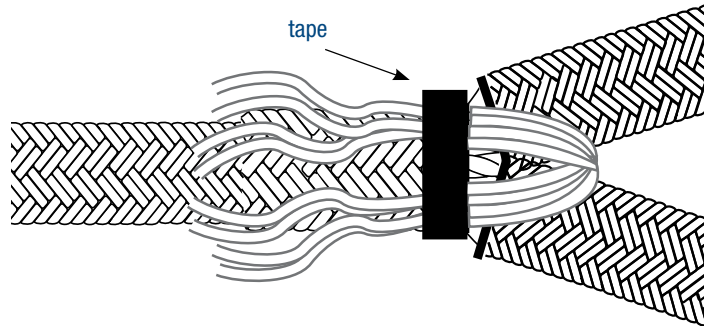
Slide cover material over exposed cores

tape

Top of rope

2 legs of the eye

# Double Braid Class II Eye Splice Modified for Turbo-37

11A One at a time, pull the 2 strand bundles through the throat of the eye. Pull the bundles tight and tape them down on the back side of the rope. Turn the rope over and repeat with the remaining 2 bundles.

tape

11B Seize over the area (from the throat of the eye down the standing part) for a distance of 2 times rope diameter (in inches) using nylon seizing material.

2 x rope diameter (minimum)
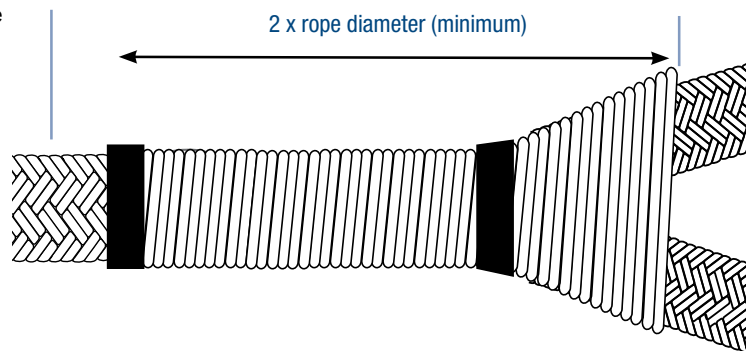
11C Milk all of the excess cover slack from the cover material down towards the standing part of line. Tightly tape the cover to the rope approximately equal to rope diameter (in inches) back from the end of the cover. Unbraid the cover strands from the tape to the end.

2 x rope diameter (minimum)
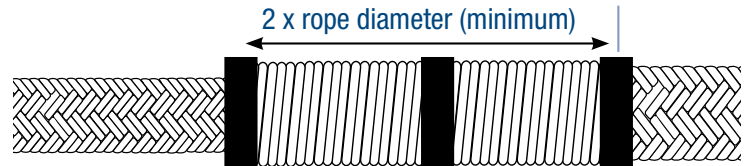
11D Seize over the area for a distance of 2 times rope diameter (in inches) with nylon seizing material.

After seizing both ends of the cover material, apply a two-part urethane coating over the seized areas as shown, extending the urethane coating 1/2 the length of the seized area on both sides of the seizing.

Coated area

Seized area

Coated area

Seized area