Report Date: 25 Jun 2014

Summary Report for Individual Task
551-88K-3718
Facilitate Advance Marlinespike Seamanship
Status: Approved

Condition: Assigned as a crew member aboard various type of Army watercraft, in an Operational Environment (OE), in any weather condition day or night. Given; Pub No. 9, TC 4-15.15, a line, tape, amarlinespike, a fid, a marker, and scissors Some iterations of this task should be performed in MOPP 4.

Standard: Facilitate Advanced Marlinespike Seamanship ensuring porper constructionofan eyesplice in a 2-in-1 braided line and a standard eye splice without causing any injuries to the crew or damage to the equipment IAWTC 4-15.15.

Special Condition: None

Safety Risk: Low

MOPP 4: Sometimes

Task Statements

Cue: None

DANGER

None

WARNING

None

CAUTION

None

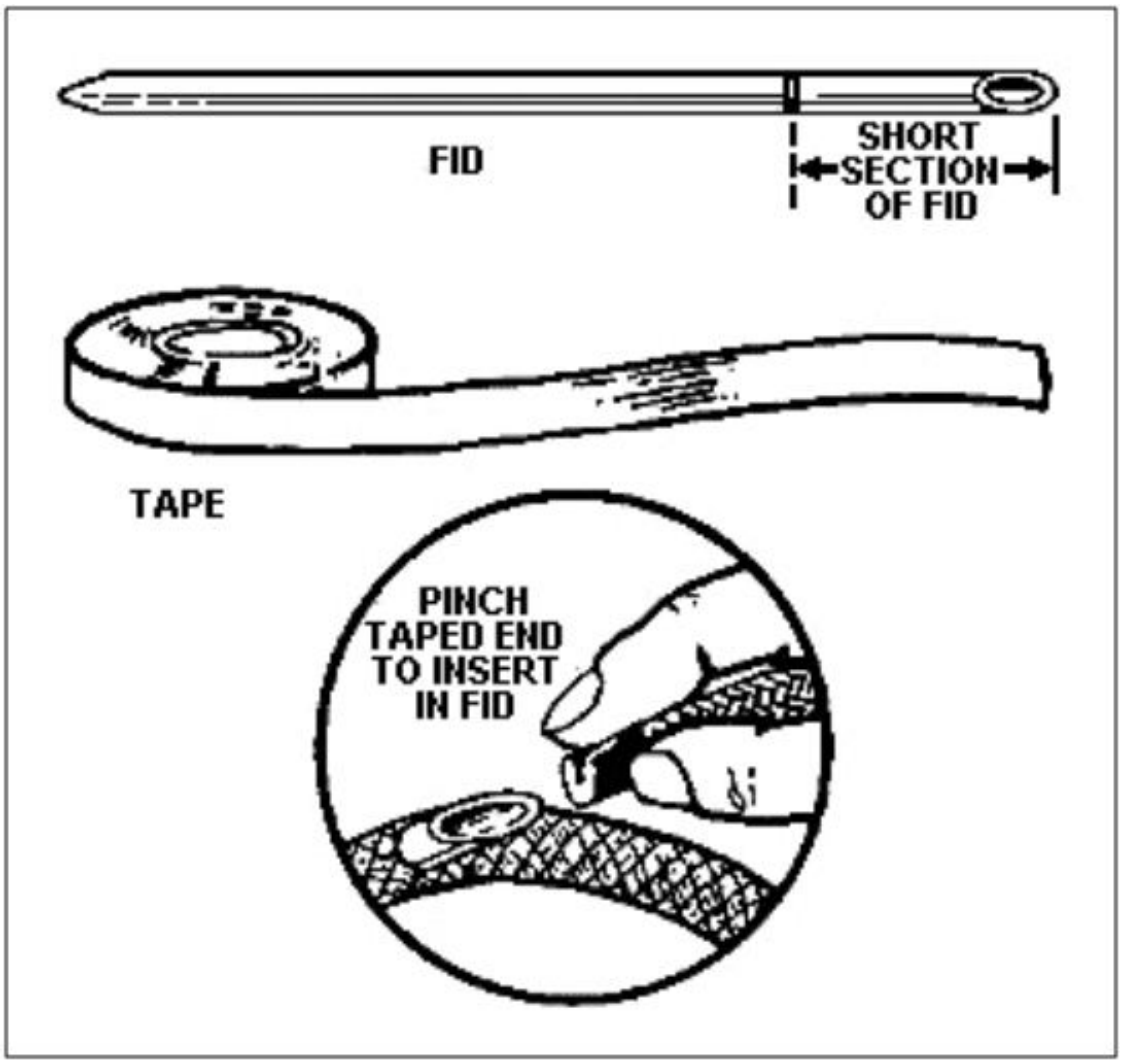
Remarks: None

Notes:

Performance Steps

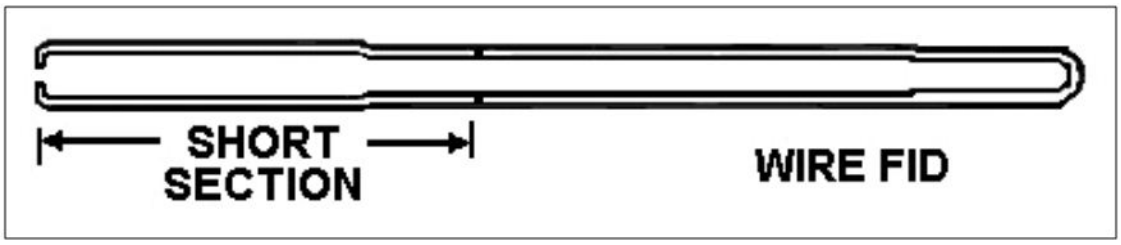
1. Ensure Soldier is provided the required tools.

a. Tubular Fid- The hollow steel tool used for cover and core insertions



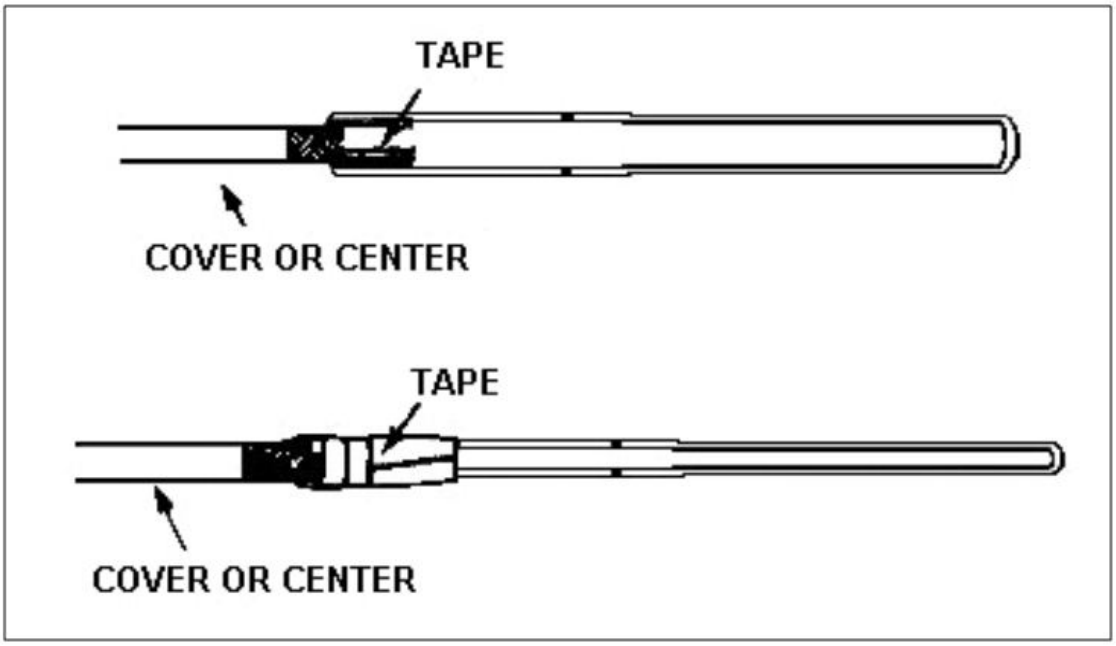
Tubular fid

b. Metal wire fid. For line over 1-inch diameter.



Metal wire fid

c. Pusher. Ice-pick-like tool used to extract core from cover and to aid in sliding fid through rope elements.



Pusher

2. Facilitate constructing an eye splice in a 2-in1 braided line

a. Ensure Soldier has up-to-date TC 4-15.15 or a related manual.

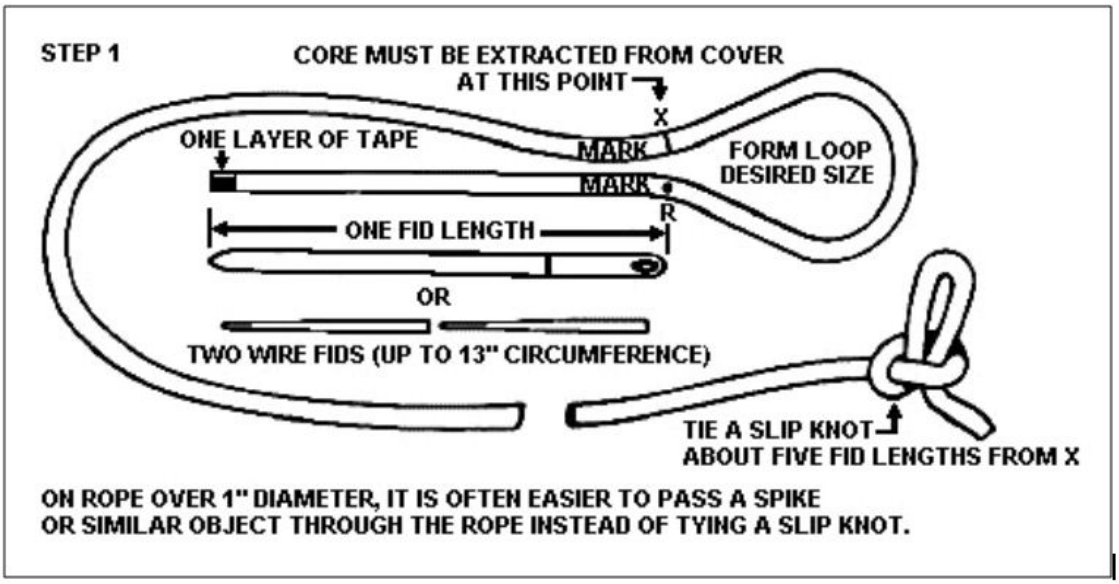
b. Ensure Soldier has the individual steps and diagrams in TC 4-15.51 or the practical exercise.

3. Facilitate construction of the standard eye splice

4. Ensure Soldier follows correct steps:

Note: This Samson eye splice is for new line only. It retains about 90 percent of the average new line strength.

a. Step 1. Marking the measurements. Tape end to be spliced with one thin layer of tape. Then measure one tubular fid length (two wire fid lengths because wire fid is one-half size) from end of line and mark. This is point R. From R, form a loop the size of the eye desired and mark. This is point X (where you extract core from inside the cover). If using a thimble, form the loop around the thimble. Tie a tight slip knot about five fid lengths from point X. THIS MUST BE DONE. If you require the line with the finished splice(s) to be a certain overall length.



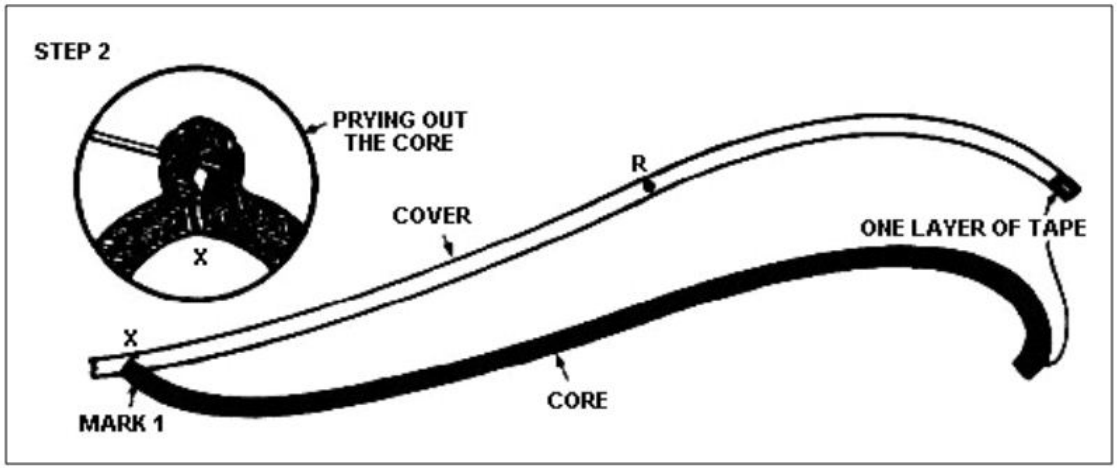
Marking the measurement (Step 1)

b. Step 2. Extract the core.

(1) Bend the line sharply at point X. With the pusher or any sharp tool such as an ice pick, an awl, or a marlinespike, spread the cover strands to expose the core. Pry and then pull the core completely out of the cover from point X to the taped end of the line. Put one layer only of tape on end of the core

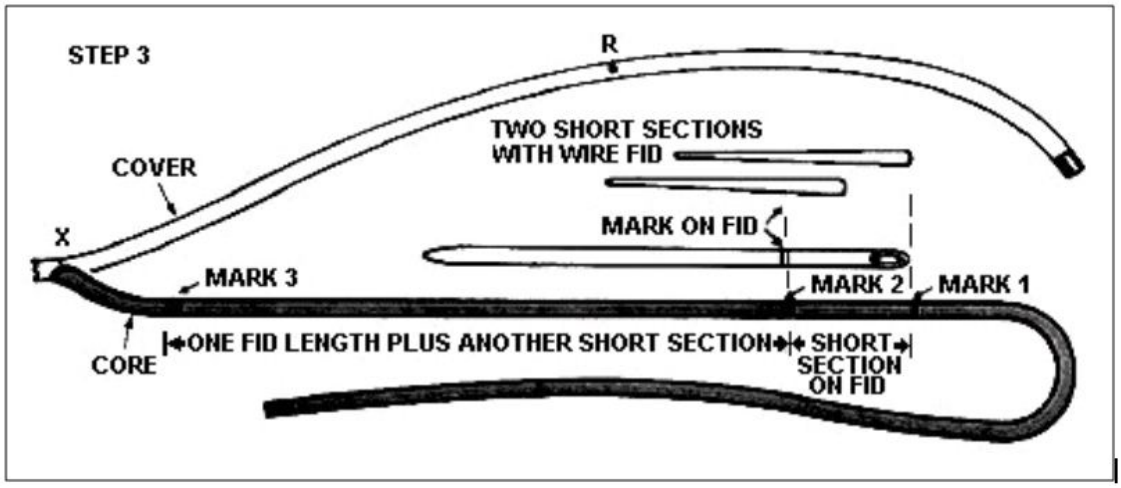
Note: DO NOT pull cover strands away from line when spreading as this will unnecessarily distort the rope.

(2) Holding the exposed core, slide cover as far back towards the tightly tied slip knot as you can. Then, firmly smooth the cover back from the slip knot towards 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.



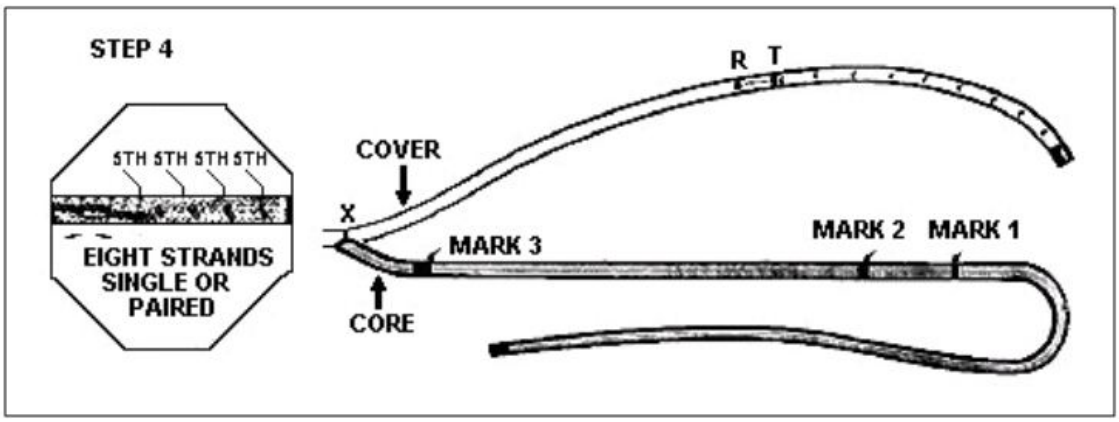
Extracting the core (Step 2)

c. Step 3. Marking the core. Again, slide cover toward slip knot to expose more core. From Mark 1 following the core towards point X, measure a distance equal to the short section of tubular fid (two short sections with 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 wire fid, double measurements). Make three heavy marks for Mark 3.



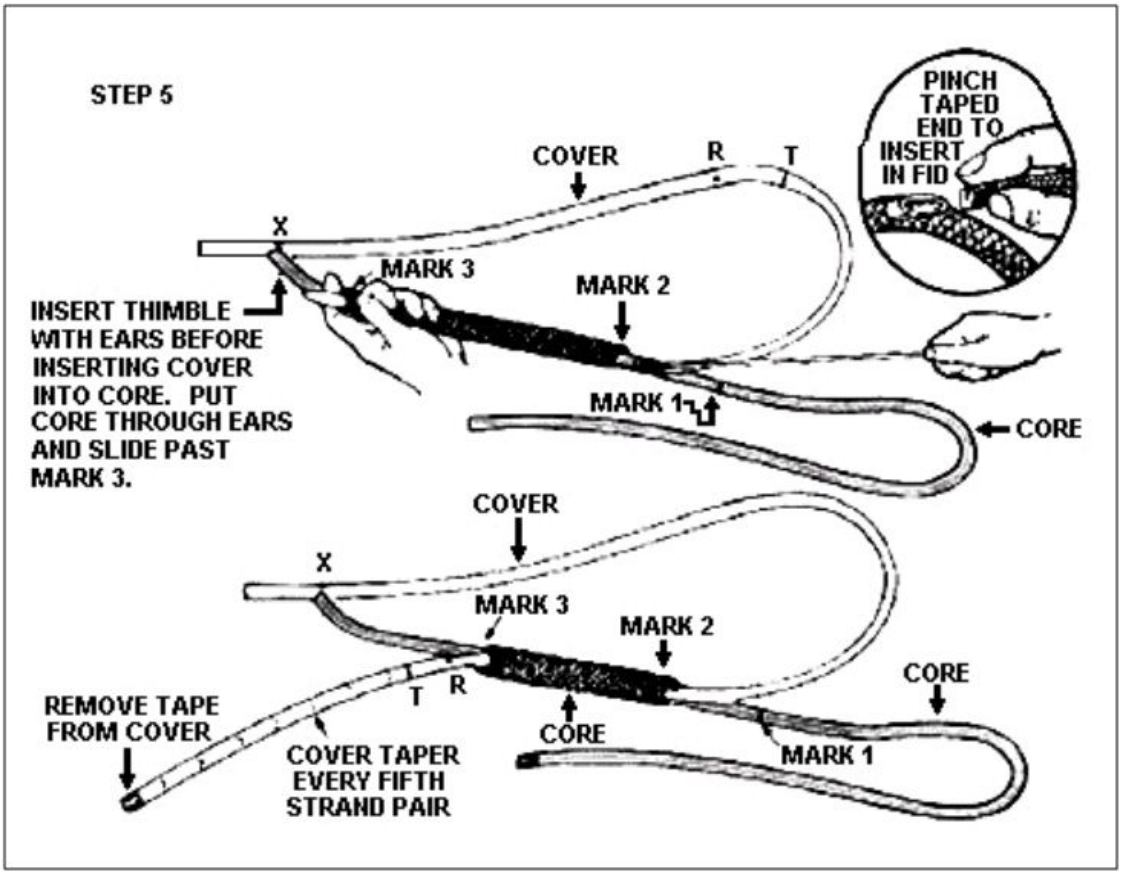
Marking the core (Step 3)

d. Step 4. Marking the cover for tapering. Note nature of cover braid. It is made up of strands -either one or two (pair). By inspection, you can see 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 the cover, count eight consecutive strands (single or pairs) which revolve to the right (or left). MARK THE EIGHTH STRAND. This is point T. Mark point T completely around cover. Starting at point T and working toward the taped cover end, count and mark every fifth right and left strand (single or paired) until you have progressed down to the end of the taped cover.



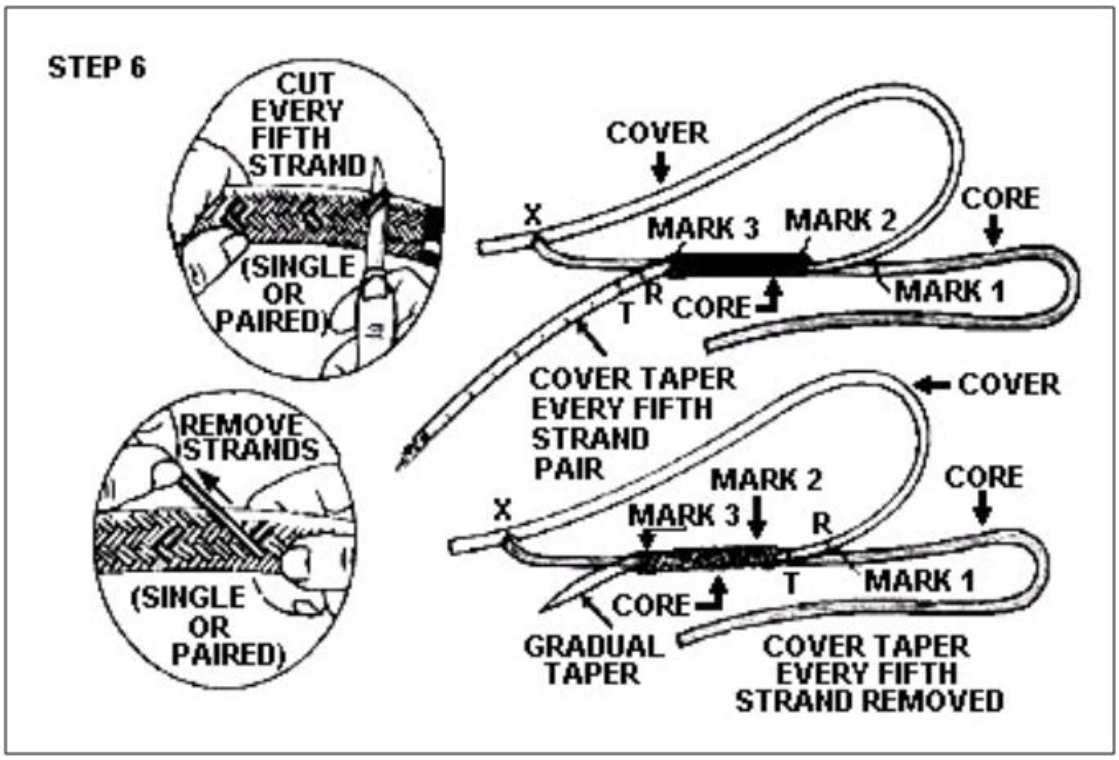
Marking the cover for tapering (Step 4)

e. Step 5. Putting the cover inside the core. Insert fid into core at Mark 2. Slide it through and out at Mark 3. Add extra tape to cover end; then jam it tightly into the hollow end of fid. Hold core lightly at Mark 3, place pusher point into taped end, and push fid and cover through from Mark 2 and out at Mark 3. Press prongs of wire fid into cover. Then tape over them. After the 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 point R on the cover emerges from Mark 3. Then remove tape from end of cover.



Putting the cover inside the core (Step 5)

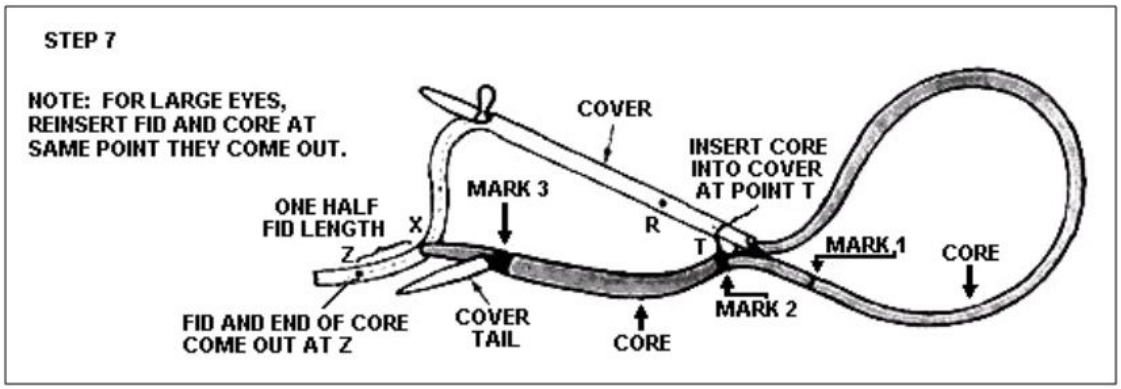
f. Step 6. Performing the taper. Make sure tape is removed from cover end. Starting with the last marked pair of cover strands toward the end, cut and pull them completely out. Cut and remove next marked strands and continue with each right and left marked strands until you reach point T. DO NOT cut beyond this point (see Figure 8-54 insert). The result should be a gradual taper ending in a point. Very carefully pull cover back through core until point T emerges from Mark 2 of core.



Performing the taper (Step 6)

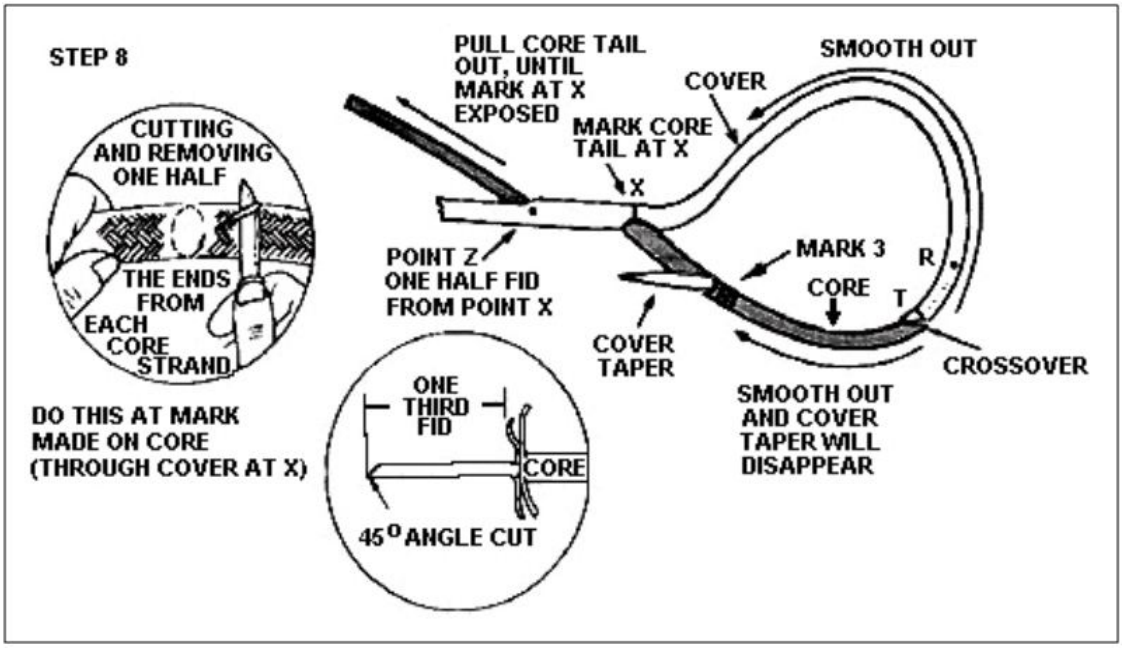
g. Step 7. Reinserting the core into the cover. From point X on cover, measure approximately one-half fid length toward slip knot on line and mark this as point Z. You are now ready to put core back into cover from point T to point Z. Insert fid at point T. Jam the taped core end tightly into end of fid. With pusher push fid and core through cover "tunnel," past point X, to and through cover at point Z. When using wire fid, attach fid to taped core. After fid is on, milk braid over fid while pulling through from point T to point Z. When pushing fid past point X to point Z, make sure fid does not catch any internal core strands.

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



Reinserting the core intor the cover (Step 7)

h. Step 8. Marking the reduced volume tail core. Alternately pull on core tail at point Z, and then pull on tapered cover at Mark 3. Tighten the crossover until it is about equal to the diameter of the line. Smooth out cover of eye completely, from crossover at point T toward point X, to get all slack out of eye area. MARK CORE TAIL THROUGH COVER AT POINT X. Pull core tail out until mark on core just made is exposed at point Z. Reduce core volume at this point by cutting and removing one strand at each group, progressing around the circumference of the rope. Measure one-third fid length from start of reduction cuts toward end and mark. Cut off remaining tail at this point. Make cut on a 45-degree angle to prevent a blunt end. With one hand, hold crossover—Mark T. Smooth cover section of eye out firmly and completely from crossover toward X; tapered core tail should disappear into cover at point Z. Smooth out core section from crossover towards Mark 3 and cover taper will disappear into core.



Marking the reduced volume tail core (Step 8)

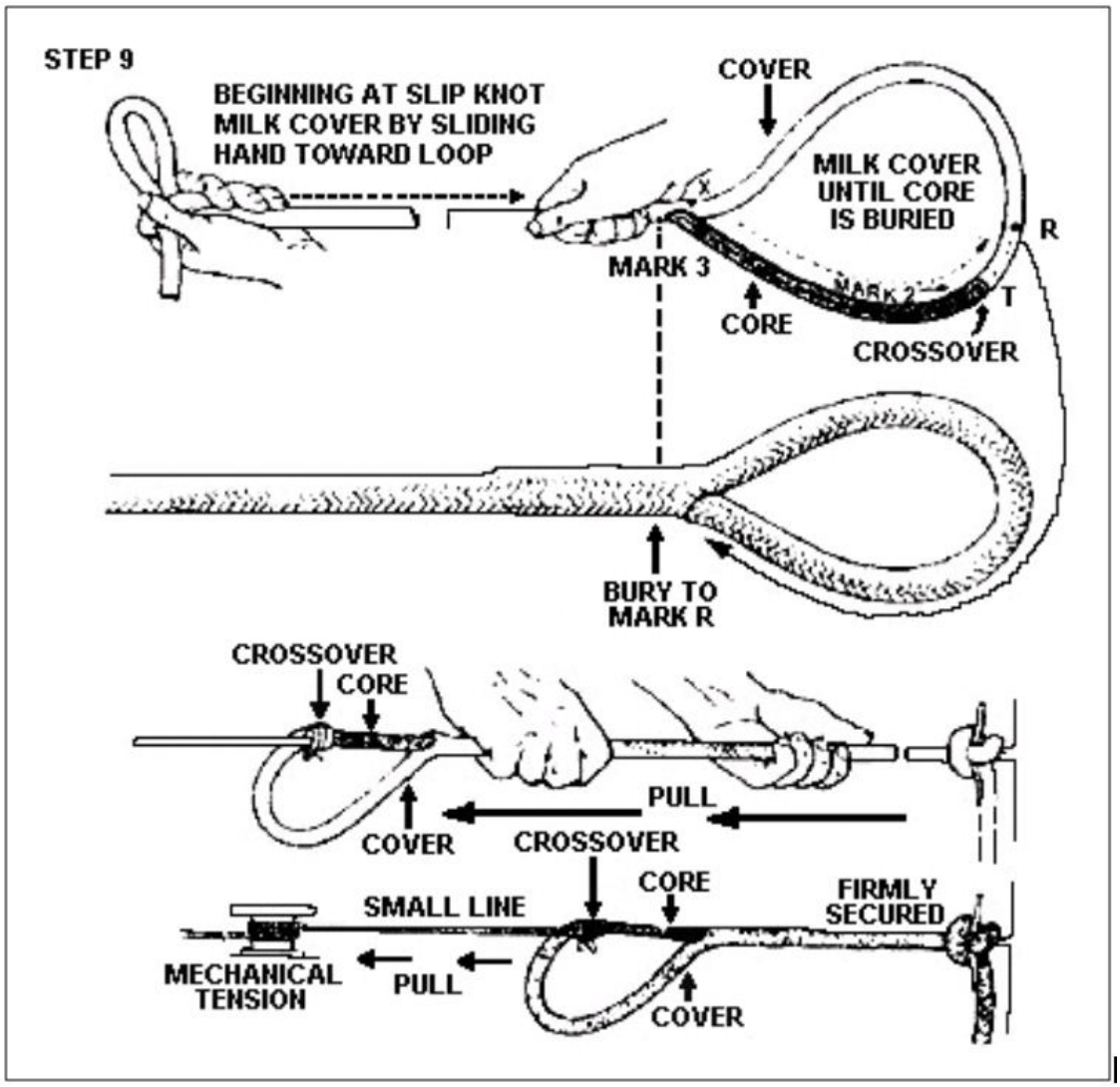
i. Step 9. Burying the exposed core.

Hold rope at slip knot and with other hand milk cover toward splice, gently at first, then more firmly (see Figure 8-57). Cover will slide over Mark 3, Mark 2, the crossover, and point T and point R. (It may be necessary to occasionally smooth out eye during milking to prevent tapered tail from catching in throat of splice.) If bunching occurs at crossover preventing full burying, smooth cover from point T to point X. Grasp crossover at point T with one hand and then firmly smooth cover slack (female side of eye) with other hand towards throat point X. Repeat as necessary until bunching disappears. Continue milking until all cover slack between knot and throat of eye has been removed.

Note: Tip: Do the following before burying the cover over the crossover:

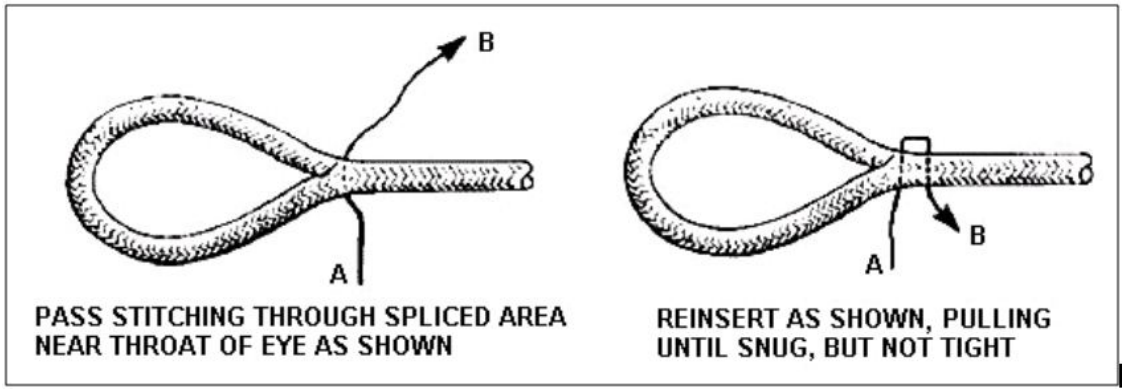
- Anchor loop of slip knot by tying it to stationary object before starting to bury. You will then find you can use both hands and weight of body with more ease to bury the cover over the core and crossover (last two views in illustration).
- Hold the crossover tightly and milk all the excess cover from point R to point X.

- Flex and loosen the line at the crossover point during the final burying process. Hammering the cover at point X will help loosen strands. With larger ropes it is helpful to securely anchor a slip knot, attach a small line to the braided core at the crossover and mechanically apply tension with a block and tackle, capstan, come-a-long, or power winch. Tension will reduce diameter of core and crossover for easier burying
(last view in illustration).



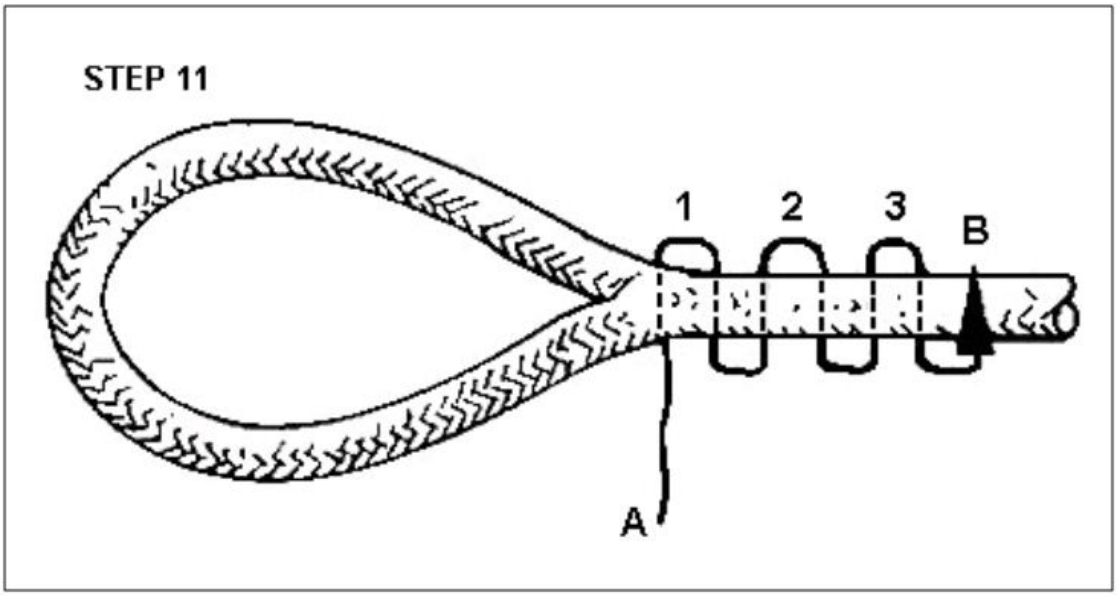
Burying the Exposed Core (Step 9)

j. Step 10. Finish the eye splice with lockstitch. Lockstitch splices to prevent no-load opening due to mishandling. Use about one fid length of nylon or polyester whipping twine, about the same size as the strands in the line you are lockstitching. You may also use the same strands cut from the line you are lockstitching.



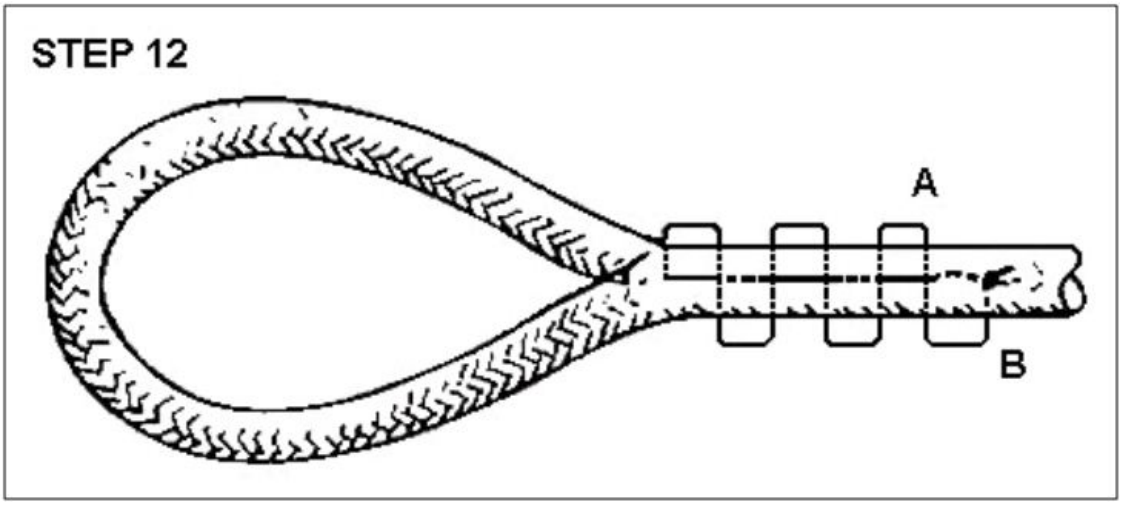
Finishing the Eye Splice with Lockstitch (Step 10)

k. Step 11. Continue lockstitching. Continue to reinsert as shown in until you have at least three complete stitches.



Continuing Lockstitching (Step 11)

l. Step 12. Complete lockstitching. Rotate spliced part of line 90 degrees and reinsert end A into splice area in the same fashion as before. Make sure you do not pull stitching too tight. Complete last stitch so that end A comes out through the same opening in the braid as end B. Tie them together with a square knot and reinsert back ends into braid between cover and core.



Completing Lockstitching (Step 12)

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Score the soldier GO if all steps are passed (P). Score the soldier NO-GO if any steps is failed (F), if the soldier fails any step, show what was done wrong and how to do it correctly.

Evaluation Preparation: Ensure that all information, references and equipment required to perform the task are available. Use the FM and the evaluation guide to score the soldier's performance. Brief the soldier. Tell the soldier what he is required to do IAW the task conditions and standards.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Ensured Soldier is provided the required tools.			
2. Facilitated constructing an eye splice in a 2-in-1 braided line			
3. Facilitated construction of the standard eye splice			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	TC 4-15.51	Marine Crewman's Handbook	Yes	No

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT.

Safety: In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination.

Prerequisite Individual Tasks :

Task Number	Title	Proponent	Status
551-88K-2717	Conduct Eye Splice in 12 strand Line	551 - Transportation (Individual)	Approved
551-88K-2716	Conduct Eye Splice in 2 in 1 Braid Line	551 - Transportation (Individual)	Approved
551-88K-1516	Apply Marlinespike Seamanship Onboard a Vessel	551 - Transportation (Individual)	Approved
551-88K-2718	Apply Advanced Marlinespike Seamanship	551 - Transportation (Individual)	Approved

Supporting Individual Tasks :

Task Number	Title	Proponent	Status
551-88K-2717	Conduct Eye Splice in 12 strand Line	551 - Transportation (Individual)	Approved
551-88K-2716	Conduct Eye Splice in 2 in 1 Braid Line	551 - Transportation (Individual)	Approved

Supported Individual Tasks :

Task Number	Title	Proponent	Status
551-88K-1505	Conduct Line Handling Onboard a Vessel	551 - Transportation (Individual)	Approved

Supported Collective Tasks :

Task Number	Title	Proponent	Status
55-5-0016	Direct Vessel Operations	55 - Transportation (Collective)	Approved
55-2-1508	Conduct Vessel Operations	55 - Transportation (Collective)	Approved
55-2-0042	Plan Vessel Towing Operations.	55 - Transportation (Collective)	Approved

ICTL Data :

ICTL Title	Personnel Type	MOS Data
MOS 88K Watercraft Operator SL 4	Enlisted	MOS: 88K, Skill Level: SL4, Duty Pos: TFJ
MOS 88K Watercraft Operator SL3	Enlisted	MOS: 88K, Skill Level: SL3, Duty Pos: TAV