

ATLANTIC BRAIDS

Longer End-to-End Splice

*Strength you can
count on!*



Longer End-to-End Splice

This splice is intended for SupreemX-12™ and other 12-strand ropes made with high modulus fibres such as Dyneema® fibre (HMPE), Technora®, Vectran® etc.

PREPARATIONS



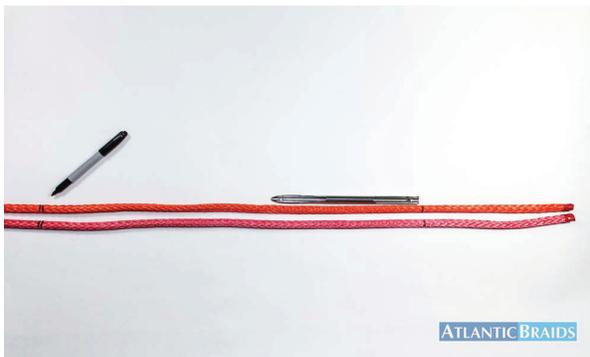
Items required for this splice include...

1. 2 matching ropes and an appropriate fid.
2. Measuring tape
3. Marker
4. Tape
5. Scissors
6. Needle and nylon twine

STAGE 1 – MEASUREMENTS & MARKING



1. Place one end of each rope to be joined beside each other.
2. Make a “taper mark” at 1 fid length (*21 times the diameter*) from the bitter end of each rope.



1. Make a “crossover mark” $3\frac{1}{2}$ fid lengths (*74 times the diameter*) from the bitter end of each rope.

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1. Make an “exit mark” $7\frac{1}{2}$ fid lengths (158 times the diameter) from the bitter end or 4 fid lengths (84 times the diameter) from the “crossover mark” of each rope.

STAGE 2 - THE 1ST BURIAL



1. Attach the fid to the bitter end of one of the ropes.
2. Carefully enter the hollow of the other rope at the “crossover mark”.

As always, be sure to avoid snagging or threading the fid through a strand.



1. Work the fid up the hollow of the rope and exit at the “exit mark” made earlier.

STAGE 3 - THE 1ST TAPERING



1. Pull out a fid length of rope (look for the taper mark) and remove the fid.



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1. Mark every 4th S and Z pair, starting at the "taper mark".
...There should be 3 picks between the marked ones.

Note. If the rope being spliced is double-stranded (see Static-12DS), treat the two S-strands and the two Z-strands as a single strand and mark them both.



1. Mark and then cut the next three consecutive strands towards the bitter end.



1. At the bitter end, cut the remaining strands at an angle to complete the tapering of the tail.

STAGE 4 – THE 2ND BURIAL & CROSSOVER



1. Carefully run a small fid through the tapered rope tail to keep the it from slipping back into the rope.

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STAGE 4 Continued...



1. Place other end of the other rope into the fid and enter at the “crossover mark”.
2. Run the fid carefully up the hollow of the the rope and exit at the “exit mark”.

Try to avoid threading the nylon twine through strands by weaving the needle between them as much as possible.



1. Remove the fid and set the crossover by holding the buried rope's tail and bunching the outer rope back towards the “crossover mark”.



1. Now repeat the process with the other ropes tail to complete the setting of the crossover.

STAGE 5 – THE FINAL TAPER



1. Mark the rope at the “taper mark” as done earlier with the other end.
 2. Mark every 4th S and Z pair, starting at the “taper mark”.
- ... There should be 3 picks between the marked ones.*

Note. If the rope being spliced is double-stranded (see Static-12DS), treat the two S-strands and the two Z-strands as a single strand and mark them both.



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STAGE 5 Continued...



1. Cut and remove the strands you marked in the previous step and mark the next three consecutive strands towards the bitter end.



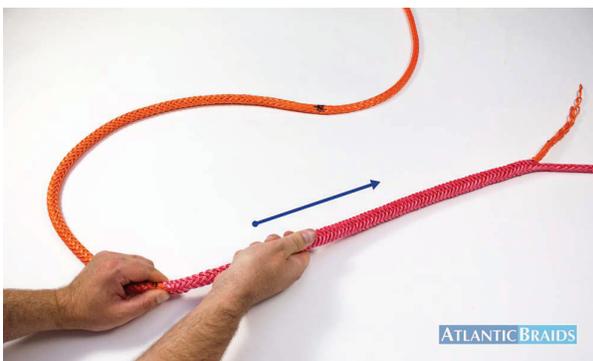
1. Cut remove the three consecutive strands marked in the previous step and then taper the remaining strands at the bitter end of the rope.

Remove the small fid securing the tail of the other rope.

STAGE 6 – THE DISAPPEARING ACTS



1. Keep a firm grasp on the crossover point throughout this stage to keep the splice from slipping out.



1. Firmly hold the crossover point, milk/smooth the rope away from the crossover point on one side and then the other

Notice on the orange rope, that the red tail has now disappeared.

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STAGE 6 – Continued...



1. Both tapered tails have disappeared and the end-to-end splice is ready to be lock-stitched.

Note: A lock-stitch is necessary with this splice. The nylon stitching keeps the splice intact by holding the buried portion of the two ropes in place during zero-load conditions.

STAGE 7 – ABL LOCK STITCH



1. The ABL lock stitch starts by threading the needle through the centre of the rope 6 picks away from the “crossover mark”.

As you make the stitches, try to avoid threading the nylon twine through the centre of the strands, instead, weave between the strands as much as possible (see the next step).



1. Thread the needle back and forth through the centre of the rope every 2 picks until 3 stitches have been made on each side of the crossover point.

Shown is a closeup of the 2 pick spacing, notice that we have avoided threaded the needle into the strands.



1. Here is a view of the stitching up to the halfway point.

The stitching has been left “loopy” for illustration purposes, normally the stitching would be pulled snug after each stitch.



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STAGE 7 – Continued...



1. Stitch back through the way you came, with the new stitches closing the gaps.

2. Tie the two ends of the nylon thread together with a secure knot and trim the excess thread to finish the lock-stitch.

Or, cut and then singe the ends of the nylon thread.



The Longer Bury Eye Splice is now complete.

...As mentioned at the start of these instructions, this splice is intended for high modulus 12 strand ropes.

The completed ABL lock stitch should now look similar to the one in the photo.

Notes:

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ABL Rope - Quality and Performance

Performance

Atlantic Braids Ltd. has been designing and manufacturing rope for decades. We specialize in manufacturing braided synthetic cordage, producing over 2,400 variations of our products, all designed with application performance in mind.

Quality

We are an ISO 9001:2015 certified company; this quality management system is in place to ensure that every effort is taken to manufacture and deliver the finest products and services. Manufacturing processes take place in a safe and clean environment with experienced workers using premium raw materials on professional equipment.

Rope Usage & Safety

Always Inspect your rope

Any rope or steel cable will fail if it is worn out. Be sure to visually inspect your cordage before and after every use. While some rope fibres handle certain elements perfectly fine, the following rules generally apply.

- You should always keep your cordage clean
- Protect it from making contact with sharp edges, abrasive surfaces, harsh chemicals and unnecessary prolonged exposure to sunlight.

Rope Specifications & The WLL

Tensile strength is determined by testing done on new cordage under laboratory conditions. NEVER use the nominal/tensile/break-strength listed for a rope or steel cable as the working load limit. A safe WLL (working load limit) is determined by dividing the minimum break strength of a rope by an appropriate design factor (also known as a Safety Factor). For example: A design factor of 10 to 1 means that a rope with a minimum break strength of 30,000lbs will have a WLL of 3,000lbs.

For more information, you can visit our website and consult the Cordage Institute's International Guideline on the "Safer Use of Fibre Rope".

Safe Use

Understanding a specific rope's strengths and weaknesses is an important first step in understanding whether it is suitable for a particular application or not. It is ultimately the responsibility of the end user to take all possible precautions when using a rope. It is also the end user's responsibility to have sufficient knowledge and a complete understanding of the proper techniques required for any specific rope application.

Always put safety first!