Brummel Eye Splice with Dyneema 1-End

Strength you can count on!
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This version of the Brummel only requires access to one end of the rope being spliced and is intended for SupreemX-12 and other 12-strand ropes made with high modulus fibres such as Dyneema® fibre (HMPE), Technora, Vectran etc.

Note. For photographic reasons, the bury length used in the following photos has been reduced.

PREPARATIONS

Items required for this splice include...

1. Rope and matching fid
2. Measuring tape
3. Marker
4. Tape
5. Scissors

STAGE 1 – MEASUREMENTS & MARKING

1. Make “mark 1” 2¼ fid lengths from the bitter end of the rope. (47 times the diameter)
2. From “mark 1”, add 3x the diameter of the rope away from the bitter end and make “mark 2”.
3. Shape or measure the desired eye size and make “mark 3” directly across from “mark 2”.

STAGE 2 - GOING INSIDE-OUT

1. Place the bitter end of the rope into the fid and carefully pass it through the centre of the rope at “mark 2”.

As always, be sure to have an equal number of strands on either side of the fid and avoid snagging or threading the fid through a strand.
1. Pull the bitter end through entirely; stop pulling as soon as the loop disappears.

1. Place the bitter end back into the fid.
2. Pass through the centre of the rope at “mark 3”.

*Again, stop pulling as soon as the loop disappears.*

1. The rope now has two inversions, one at “mark 2” and the other at “mark 3”.

1. Unroll the inversion at “mark 2”.
2. Pass “mark 3” through “mark 2”.

...Done correctly, “mark 3” should be pulled towards “mark 2”.

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1. Match up “mark 2” and “mark 3” to form the eye.

1. Begin unrolling the “mark 3” inversion, the short section leading to the bitter end should be pulled through (as indicated in the photo).

1. Set the brummel by pulling the splice so that the crossovers are pulled tightly together.

1. Make a mark on the long length of the rope at a distance of 1x the diameter (or 2 pics) away from the newly formed eye.
2. Make an “exit mark” on the rope 2-2/3 fid lengths (or 56 times the diameter of the rope) away from this mark.
3. Attach the bitter end to the fid and carefully enter the rope with the fid as shown and run it up the hollow middle towards the “exit mark”.

STAGE 4 – THE BURIAL
1. Cut the strands marked in the previous step.
2. At the end, taper the tail further by cutting the remaining strands at an angle.

1. Holding the eye, milk the rope to bury the tail.

The Locked Brummel Eye Splice is complete.

STAGE 5 – THE TAPERING

1. Carefully exit at the “exit mark”, remove the fid and any tape and pull the tail out ½ a fid length (10.5x the diameter).
2. Mark three sets of “S” and “Z” strands as shown, leaving 1 pic between the marked sets.
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!