

Rope Splicing. A brief guide to 3-strand rope splicing.

Having a permanently fixed loop (eye splice) on a rope-end removes the need to tie and then untie a knot each time you wish to use it. Splicing is a very strong method of fixing a loop eye; as the rope is pulled tighter so the spliced strands become more and more squeezed and locked in place.

Splicing removes the worry of a knot becoming undone and a spliced eye is less bulky. You can buy 3-strand rope (and 8-strand) with an eye already spliced in by the supplier or you can make your own. I learned to splice at Sparsholt College, Hants as part of an N.C.H course. Its easy to learn and quite relaxing to do.

Preparation.

You can splice any kind of 3-strand rope or cord. This example uses 12mm Nylon climbing rope but I also splice ends into 3-strand polypropylene working ropes (12, 18 & 24mm) and 6mm cord (useful for small tools such as secateurs, pruning saws etc).

The necessary tools required for the job are scissors (or Stanley knife), sticky tape (any kind you like) and a cheap lighter for heat sealing the rope ends.

If using particularly large diameter rope or rope that is quite old you may need a tool to help prise each strand away from the rope. See [Swedish Fid.](#)

Stage 1.

Wrap a length of sticky tape at a distance of approximately 300mm



from the rope end (see arrow, I used sellotape so you can see through at the lay of the strands, but any tape is ok).

Then unravel the three strands (the sellotape stops then unravelling further than we require).

Wrap tape around each end to stop the fibres within each strand from separating, (can also slightly melt the end of each strand with a lighter, to make threading even easier).

Note: The strands have been daubed with colour for illustrative purposes, there is no need to do this on your rope!



Stage 2.

Lay the rope flat (as shown) and decide how big you wish your loop to be.

Position the three strands as shown and, at the position where you wish the loop to terminate, feed the central strand through one coiled strand of the rope (to do this, you need to gently prise a strand away from the coil without deforming its lay).

Note the direction the strand feeds through the coil, it must travel at right angles to the laid strands and in a direction away from the loop.



Stage 3.

Continue with the second strand.
Feed it through an adjacent strand on
the coil.

Make sure both strands feed through
at **exactly the same point along the
rope.**



Stage 4.

Now turn the rope over and feed the
remaining strand through the last
strand of the rope. Again, **it must**
feed through at the same point along
the rope so that all three strands lie
adjacent to each other.

Keep the same direction away from
the loop, it may look odd at this stage
but once tightened will lay correctly.



Please note, the guidance contained within these web pages has obvious limitations. It is recommended that you obtain proper instruction from a relevant training provider before using spliced ropes for serious applications such as tree climbing etc.

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Stage 5.

Now start to pull all 3 strands through the rope evenly. Note how they are all aligned along the rope (the red is hidden at the back).

Its crucial to get the first weave correct so that all following weaves lay correctly.

Pull the three strands tight.



Stage 6.

Now continue to weave by threading each strand through one coil in turn. Do this by passing the strand over a coil and then under the following coil.

Once each strand has been threaded once, pull the weave tight by tugging on each strand in turn. Keep them as tight as possible.

This picture shows the blue strand starting its second weave with the red strand already threaded twice.



Stage 7.

Continue weaving. Remember to keep the strands tight.

This picture shows 3 weaves completed for each strand with the red strand starting its fourth by passing over and then under a rope coil.



Stage 8.

Weaving is now complete. You need a minimum of 5 weaves for each strand, I've completed 6.

Trim each strand by leaving a stub of 25mm or so. I wrap mine with tape and then heat seal the end with a cigarette lighter to keep it neat and to prevent it from separating.



Stage 9.

The finished article.

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