

# 13.09.2011

## General

Design: Jacketline with a core of parallel strands out of twisted ropes. Each of the strands or sub-ropes consists of a three-strand rope that will be produced in both right-hand lay and left-hand lay. The lay-up of the sub-ropes is such that the finished rope will have a torque-balanced construction. The sub-ropes will be laid parallel to each other and a composite braided jacket will cover the rope.



## Tools

The rope is best spliced on a clean workbench or floor with a fixed point (this will allow pulling on the rope as it is being spliced). To make the splice a sharp knife, electric tape, a tape measure, seizing rope, polyure than glue and a marker pen are needed.

#### Preparation

- a) Lay the rope to be spliced on the working surface. Put insulating at 4.5 m from the free end. Apply reasonable tension to lock the cover on the cores.
- b) Form the eye, for a so-called soft eye a minimum size of 1 meter is recommended. If a thimble is to be used the eye should be just large enough for the thimble.
- c) Put insulating tape on the standing end opposite the tape on the free end and again pressure should be applied on the tape as it is wound on the rope. Put a third piece on the standing rope 2,5 m away from the second tape.
- d) Remove cover as shown, using a sharp knife. Keep a length of approximately one meter of cover yarns cut of the remaining length. When the splice is finished this extra length of cover yarns will be worked into the splice to prevent the cover from getting loose. The rope now looks as shown in the sketch.
- e) Tape the standing and the free end together at the eye, as shown in the sketch. If a thimble is to be used, then it should now be fitted into the eye and the tape should be tight enough to prevent the thimble from falling out. For easy splicing the eye should now be laid over fixed point, like a pin or hook.

#### Splicing

Each 3-strand core member in the free end is spliced individually into each 3-strand core member in the standing part of the rope. Start splicing with the centre cores of the free end into the centre core of the standing part taking the most direct route as shown.



cores standing end cores free end

Each complete core from the free standing part is tucked under the nearest strand of the corresponding core in the standing part of the rope. This represents one tuck.

Leave 3 crowns space and perform the next tuck (Tuck 2). Repate this operation until 6 full tuck are made.







To obtain a taper in the splice one strand from the core of the free standing part should be removed. Then three more cycles of tucks should be made. Finally a second strand should be cut, so that one third of the original core remains. Again three more cycles of tucks should be made. Cut the free strands some ten centimetres away from the standing part. The first core is now finished.

Proceed splicing progressively outwards from the centre of the rope, core by core, with the cores in the outer layer being spliced last. The splice is now complete.

## Protecting the splice

The cover is worked back into the splice to prevent the cover from getting loose

- a) Pull the cover as hard as possible over the unprotected area.
- b) Make as many groups of cover yarns as there are cores.
- c) Splice these yarns into the cores as if they were a strand.
- d) Repeat this thrice to obtain four full tucks.
- e) Cut the free cover yarns (at least 2 cm away from the rope).
- f) If possible put a thin coat of polyurethane glue over the cut yarns.
- g) Wrap the splice in Deltaweb, see sketch.
- h) Stitch the web together, see sketch.
- i) Protect the beginning of the web with whipping, see sketch.











