

# Fact Sheet

## Splicing Tuck 12strand braid

13.09.2011

### General

Braided ropes consist of an equal number of interwoven clockwise and anti-clockwise strands. They are well established where ease in handling and non-rotating behaviour is important. They are produced on a braiding machine containing twelve reels, each containing one strand. The rope is slightly hollow.



### Splicing twelve strand single

#### Preparation

The rope is best spliced on a clean workbench or floor. To make the splice a sharp knife, tape, a marker pen, a tape measure and a splicing fid are needed. The use of a protective sleeve over the eye is strongly recommended, e.g. flexible fire hose.

#### Calculation of the free end

Take the number of tucks and divide this number of tucks by two. This number multiplied by the theoretical plait length plus 300mm is the length of the free leg in mm. Example: A rope with a plait length of 300mm.

Number of tucks 3-2-2 = 7 tucks  
7 : 2 = 3,5  
3,5 x 300mm = 1050mm  
1050mm + 300mm = 1350mm free end

Material	Number of tucks
PP	3-2-2
Composite	4-2-2
HMPE	5-2-2

### Splicing

- Mark the free end (A) and the length of the eye (B). See photos 1a&1b
- Bend the free end and the eye on the right side of the standing leg. See photo 2
- Put a halter at mark A. See photo 3

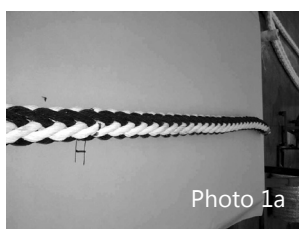


Photo 1a

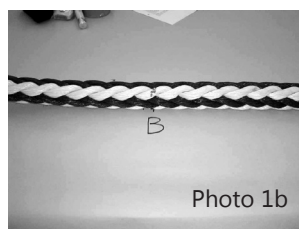


Photo 1b

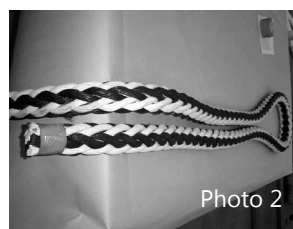


Photo 2



Photo 3

- Apply 15cm tape on each strand. See photo 4
- Unlay the rope up to mark A. See photo 5
- Separate the strands in two vertical groups, which exist of three left handed strands and three right handed strands. See photo 6
- Take a left and a right handed strand, put sufficient torsion on it and tape them together. Repeat this until all strands become a pair. See photo 7



Photo 4



Photo 5



Photo 6



Photo 7

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- Tuck the three pair of strands from the left group in one hole on the right side of the rope. Then let the strands come out on the left side of the rope, each in a different row. See photos 8, 9, 10



Photo 8



Photo 9



Photo 10

- Tuck the three pair of strands (of the right group), each in a different row on the right side of the rope. See photos 11,12,13
- Now all pair of strands are tucked once. See photo 14

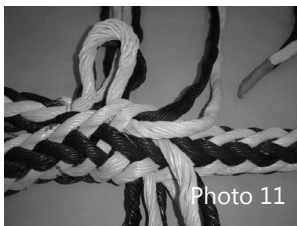


Photo 11

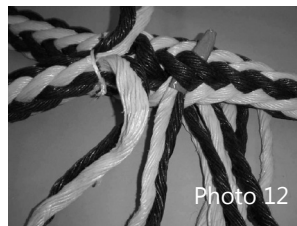


Photo 12



Photo 13



Photo 14

- Complete the full tucks. See photo 15
- The first tapering:  
Continue with three of the six pair of strands. There for we either takes the strands that are tucked under the S strands or we take the strands that are tucked under the Z strands. See photos 16,17



Photo 15



Photo 16



Photo 17

- Complete the first tapering.
- The second tapering:  
Undo this pair of strands and continue splicing with one strand in each row. See pictures 18,19,20
- Finishing touch:
- Apply some tape on the ends of the tucked strands. See picture 21

For this we use next calculation: Size of rope in mm x 4 = the length of the splice ends, which will be taped half.  
Example: 80mm x 4 = 320mm, which will be taped of 160mm.  
In order to make these splice ends less striking, they could be tucked once more.



Photo 18

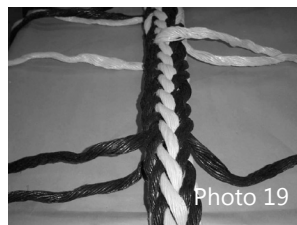


Photo 19

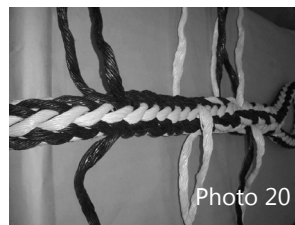


Photo 20

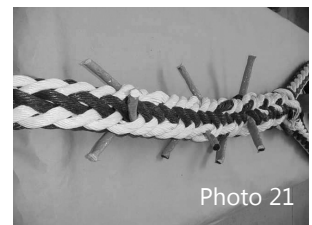


Photo 21