OKHI—Jan van Leeuwen (Translated by Jolanda Van Leeuwen)

OKHI
This model is of Korean origin. The OKHI is a combination of the Edo (former name of Tokyo) and the Sanjo Rokkaku.

This kite has the characteristics of both ancestors, namely "majestic and stable". The flight range is between 2—25 mph. This is remarkable, because at 25mph it's not easy for a slightly curved kite, to fly stably (without a tail).

For this model we use a central spine of 2 metres long. You can vary this standard length. We do not recommend shorter but longer makes the kite more impressive (so more fun to make and to fly), but for now we choose a nice entry level.

MATERIAL
± 1.6 m 36 grams spinnaker nylon
1 rod Reinforced Carbon Fibre (RCF) Ø 8 mm for the central spine 2 m
6 rods RCF Ø 3 mm 60 cm long
12 soft nylon endcaps Ø 3mm
1 soft nylon endcap Ø 8 mm
1 split cap / tensioning cap Ø 8 mm (arrow nock)
5m spinnaker edging tape
25 m bridle line 1 mm
3 bridle rings
Dacron for reinforcements and pockets
60 cm tape for ties
6 wooden beads ± 1.8 cm

SAIL
Our choice for the composition is separate panels (pay attention to the grain) at the top and bottom. Be very accurate cutting the five panels, take care of the seams and make neat square corners.

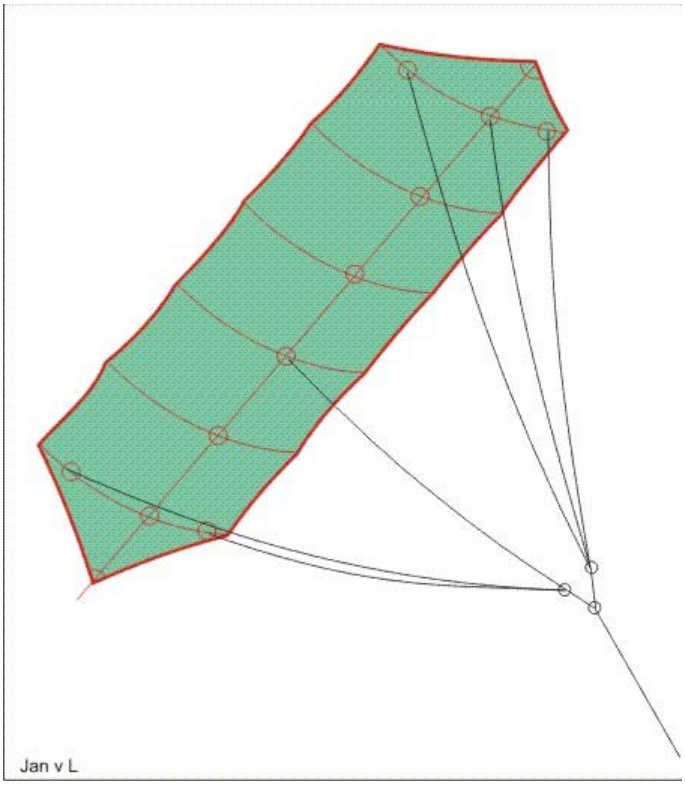
For the triangles at the top and bottom, it is best to make a template. In this model we assume that the kite is made in one colour.

1. Sew the two triangles together along the short sides.
2. Sew the seam flat.
3. Sew this panel to the middle panel sewing the seam flat.
4. Do the same on the other end.
5. Now place the edging tape around the kite.
6. Once this is done mark the positions of the six horizontal spars on the edge. The spars are put in Dacron pockets.
7. Now make the pockets.
8. Take the Dacron 2.5 cm wide and 7 cm long and fold it, one side has to be ± 1 cm longer (see detail drawing). By making the pockets first they can easily be sewn onto the kite in the right place just next to the edge of the kite (± 2 mm) on the rear.
9. Make the pockets quite big because a line is used for bowing the spar. We put the bowing lines through the pockets on both sides of the spar. So enough space is needed to burn/ pierce two holes in the pockets, without damaging the stitching (see detail drawing).
10. Then sew the reinforcements at the crossings of the central spine and the horizontal spars and at the bridle points.
11. At every cross point put a tie, so the frame can be secured at that point. The horizontal spars can't flip away and the central spine stays right in the middle when tension is placed on it.
12. Finally put the Dacron pocket on the top and a reinforcement piece on the bottom corner and put a tension line at the bottom.

FRAME
Put the end cap at the top of the central spine, at the bottom put the arrow nock. Put the central spine into the Dacron pocket at the top and tie the tension line loosely at the bottom arrow nock.

Now measure the horizontal spars and cut them a bit bigger. Put the nylon end caps on the spars and put them into place. If the fabric wrinkles at right angles to the central spine, try to put more tension on the line at the bottom or maybe the horizontal spars are a bit too long. Try to make your sail without wrinkles because the smoother the better.

TENSION HORIZONTAL SPAR
Through the pockets of the horizontal spars, put a line (±15 cm), which is tied together at the back of the kite. So every pocket has a loop. At one side of the kite tie the bow line (± 60 cm) on the loop. On this line put one of the beads. The bead has to be tied at a certain place in the line (look at it when the kite is complete and adjust). So the bead can be hooked behind the loop at the other side, by bending



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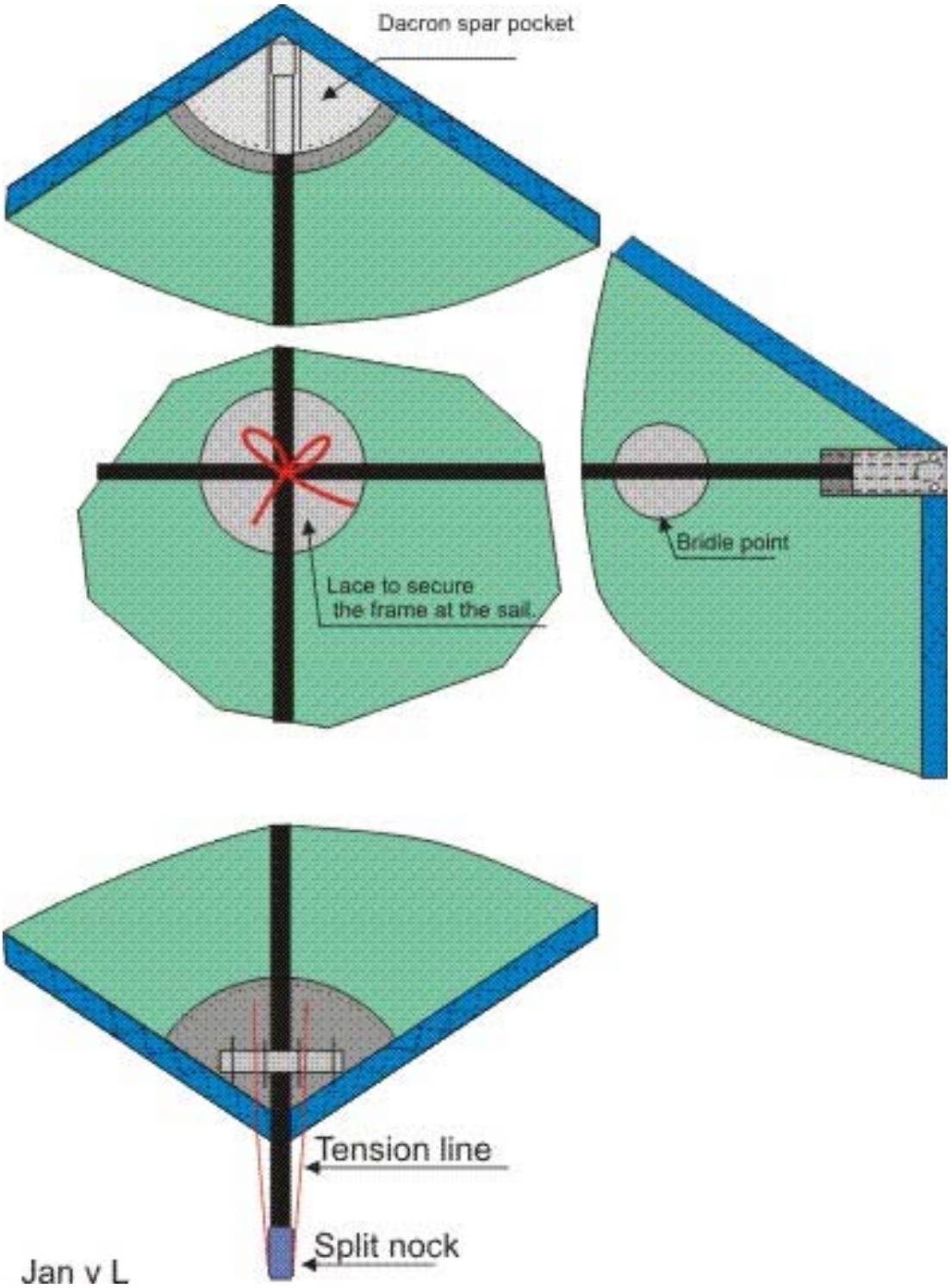
the spar. The V shape of the loop will hold the bead in its place and the spar will stay bowed. This adjusting takes a while, but when you fly the kite, it will be very fast and accurate. The bow has to be 9cm for every spar.

BRIDLE
To make the bridle points burn a little hole in the Dacron and spinnaker. Tie the bridle around the horizontal spars with a clove hitch.

Attach the top set of bridle lines together with a bridle ring. On another ring put the lower three bridle lines. By connecting the both rings with an additional line (length ± 1m), you can adjust the bridles. Put another ring in this line (larks head), attach the kite line on this ring.

Go fly the kite :-)



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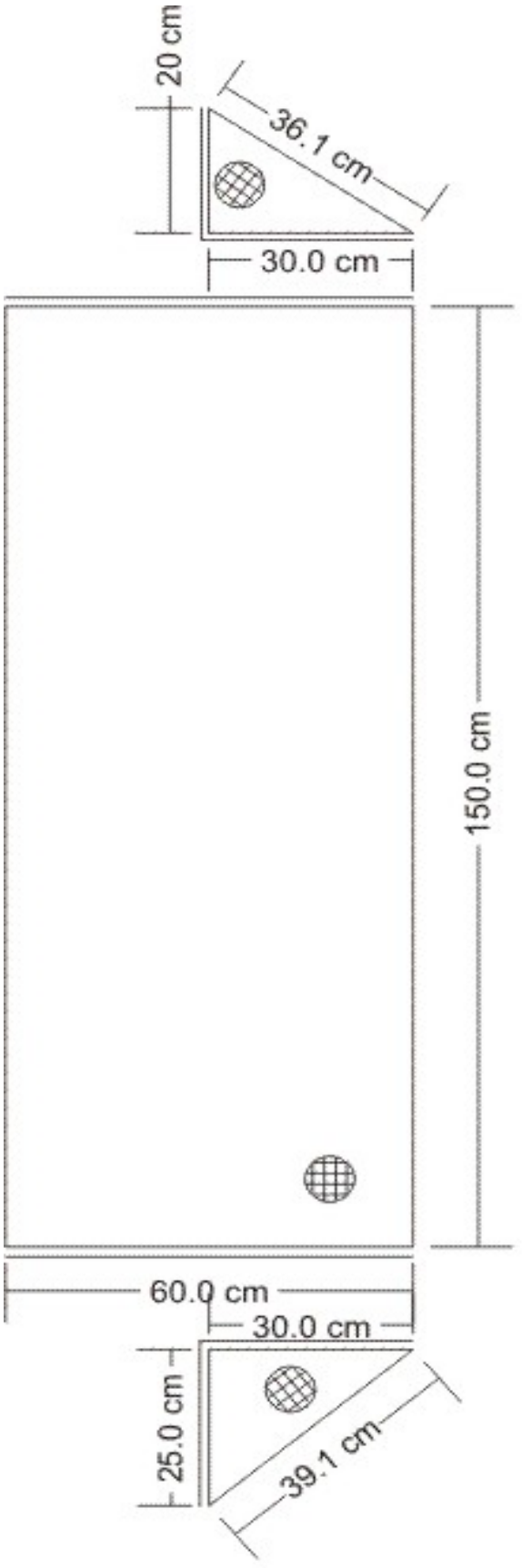

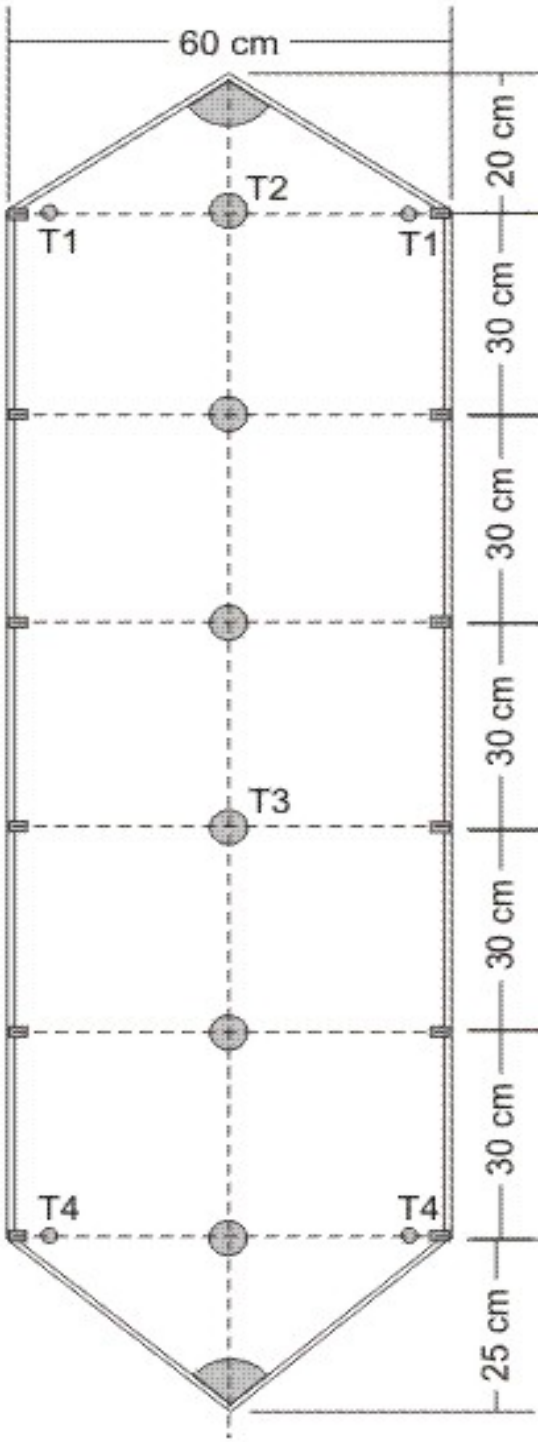

Bridle	Length
T1	3160
T2	3070
T3	2990
T4	3520

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