KOI 4 Sheeter by Ron Petralito

Figure 1

Sheet #1
Cut along this line
17"
11"
2"
LL Tape

Figure 2

Sheet #3
Cut along this line
17"
17"
22"

Sheet #4

Back Side View
The wooden dowels and the paper need to be prepared before assembly begins. Dowels need to be sanded and given two coats of lacquer spray and the four sheets of 11"x17" paper need to receive two medium-light coats of lacquer on each side. If you spray to heavily the paper may become too brittle. Always spray only in a well ventilated area. Lacquer dries in 24 coats of lacquer spray and the four sheets of 11"x17" paper also need to receive two medium-light coats of lacquer on each side (to temporarily hold paper in place while taping).

Tools Required

1 Sheet of 100 - 120 grit sandpaper
1 Scissors
1 Utility knife
1 Metal yard stick
1 Ball point pen and pencil
1 12" ruler
1 Push pin or awl (to punch holes)
1 Rectangular pink eraser (to back up the paper when punching holes)
1 Roll of masking or blue painters tape
(to temporarily hold paper in place while taping)

Carefully align the left and right edge of the sail and temporarily fasten them to the work surface. Place the final piece of 2" LL tape over the joint between these two edges, press firmly and trim both ends (Figure 5).

Attach the 8½" stiffeners on the back side over the joints between Sheets #1 & 2 and #3 & #4 using ⅛" by 2" RS tape (Figure 5). (Note: When installing tape over dowels it is important to always to use something thin to take the tape around its circumference, on each side, before attaching it to the sail. I like using a end of a thin plastic ruler to do this.)

To complete the sail, attach the metal ring with two ⅜" x ⅜" strips of RS tape in an X configuration ⅛" down from the nose at a 45° angle to the lines of the spine and spar (Photo 9). This is so the spine and spar can pass through the ring easily (Figure 6). Cover this tape with two additional RS strips ⅛" x 2" (Photo 9). Next place two 1" squares each comprised of two crosshatched layers of RS tape at each bridle point location Figure 5. (Optional: If a third tail attachment point is desired an additional RS crosshatch tail reinforcement area can be located on the sail at the base of the spine (Photo 10).

To attach the spine to the sail, begin by placing the 27½" spine through the metal ring and align one end with the nose of the sail and attach it in three places using 1½" x 2" RS tape. The first attachment point (1) is centered over the bridle point at the nose of the kite, second (2) is where the sail color changes along the spine, and third (3) is ⅛" above the end of the spine (Figure 6). (Note: The spine will not extend to the bottom of the sail to leave some room to attach another snap swivel for a possible third tail.)

To create the bow line, install the spar in the spar pockets and mark a spot on each pocket in line with the spar and ⅛" in from the edge. Remove the spar. Punch holes in each of the spar pockets at these marks by first inserting the eraser into the pocket. Fasten one snap swivel through one of these holes. Attach the line to another snap swivel and fasten it to the other spar pocket through its hole (Photo 11). Run the open end of the line through diagonal holes in the button and through the snap swivel on the opposite spar pocket. Return that line to the button and tie it firmly there by one of the remaining holes (Photo 12).

Finally, punch holes on each side of the spine through the 1" square crisscrossed RS tape placed at the two bridle points. From the front side (non-taped side) of the kite tie each end of a 72" length of 30½ kite line onto the spine through these holes (Figure 6). An adjustable tow point can be made from a 6" loop of line and a Prusik knot.

For additional possibilities in color patterns you may even use two sheets of 8½"x11" paper taped along the 11" edge to create the 11"x17" sheets used in making the sail. It might also be fun to make this kite with papers that have designs printed on them using a color copier or even hand painted.

The NOL kite kit can be stored, along with its spar, in a 4"x8" cardboard shipping tube purchased from the FedEx Office store. Remove the spar and carefully roll the sail up (it will be easier the second time) from one pocket to the other. Roll this so the spines is on the inside. Place a loosely fitting rubber band around the sail and place it, along with the spar, in the tube. Making sure both plastic ends are securely in place. On occasion I have even pop-riveting the bottoms cover to the cardboard roll to assure it will not come loose.

Kite making and flying should be fun so keep that in mind as you build this kite. I find the reward in making and flying a kite you build yourself is endless. So enjoy! x
Ron Petralito teaching at last winter’s Maryland Kite Society Retreat.

KOI 4 Sheeter photo 1

KOI 4 Sheeter photo 2

KOI 4 Sheeter photo 3

KOI 4 Sheeter photo 4

KOI 4 Sheeter photo 5

KOI 4 Sheeter photo 6

KOI 4 Sheeter photo 7

KOI 4 Sheeter photo 8

KOI 4 Sheeter photo 9

KOI 4 Sheeter photo 10

KOI 4 Sheeter photo 11

KOI 4 Sheeter photo 12

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