

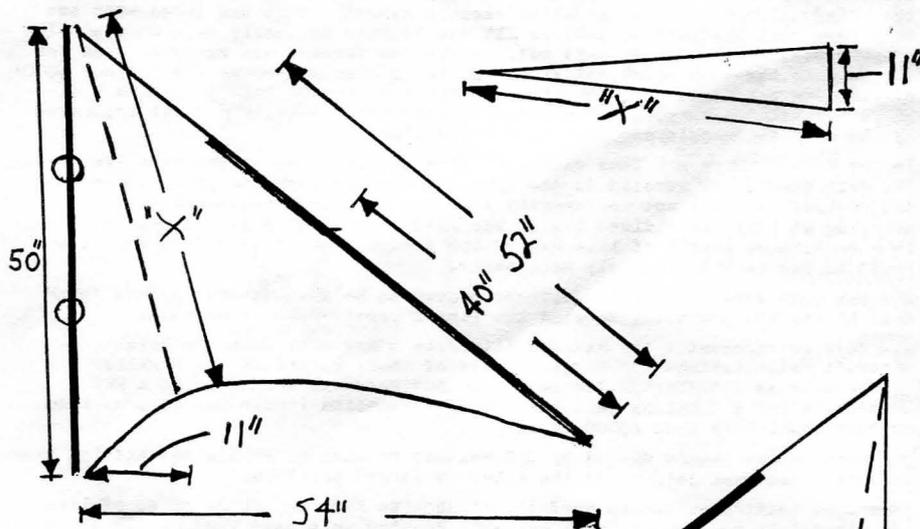
TUNNEL KEEL DELTA

To housemaids knee, athletes foot and tennis elbow let us add a new occupational hazard - Delta Neck. This a creaking in the higher vertebrae caused by staring up at thermalling deltas. There is no known cure but we fanatics are happy to suffer!

As my contribution to the spread of the disease I offer the Tunnel Keel Delta. I evolved this in order to improve the performance and appearance of a standard delta. The Tunnel Keel turns all the under surface into lifting area, and still provides necessary directional stability. For added adjustability a bridle is fitted, and for appearance, well I think the smooth curve cut into the trailing edge is very elegant and incidentally removes destabilising trailing edge flap.

In flight the Tunnel Keel seems to have more poise than the standard delta, probably because it rides the wind smoothly like a boat planing on the water. The only problem is a tendency to oscillate in very high winds, This mystified me at first, but I think its because there is wider area ahead of the centre of effort, causing the nose and tail to work against each other.

This is the plan, which is the one used in 'Kite', the Northern Kite Groups newsletter, where details of the Tunnel Keel first appeared. The narrow triangle of cloth is sewn X-X on the top surface to form the characteristic tunnel keel shape. The very bold lines show where the spars go and the circles indicate the bridling points. I have taken the idea one stage further and made the hang glider. This needs thin glass fibre battens in the wing tips to stiffen the sail, but this slight added complication produces a really elegant and efficient kite. Batten onto this one chaps, and I will see you at the Osteopaths!



by MARTIN POWELL

