WELCOME TO THE CANTERBURY "J CLASS"

We hope you find the purchase of your "Canterbury J Class" a most rewarding experience.

Whether as a part or full kit, or a purchase of an existing model, in the Canterbury J you will have a radio controlled yacht that has proven to be one of the most versatile and easily sailed craft around. From the icy waters of a Central Otago lake to the warmth of a Californian pond, Canterbury Js can be found throughout the world.

Naturally they abound on the waters of their birth, Victoria Lake, Hagley Park, in Christchurch. This is especially so on Wednesdays and Saturdays when upwards of twenty J's can be seen handling all sorts of conditions, be they human, pond weed, or weather.

MENTORING

Members of the Canterbury J Class Owners' Association, and members generally of the Christchurch Model Yacht Club, are keen to see that you enjoy your model yachting experience. To that end a number of individuals are willing to partner up with new comers, as mentors, to ensure that in the building and sailing of your model, you may call upon them to support you with practical help and assistance.

If you live in Christchurch, this is done on a one to one basis, and we endeavour to match you up with a member who not only may live in your neighbourhood, but whom as well, can often extend practical workshop assistance during the building stage.

Out of Christchurch, we have found that email partnering with a mentor can be of great assistance during the building stages and the initial sea-trials.

Feel free to email (or phone) any of the following

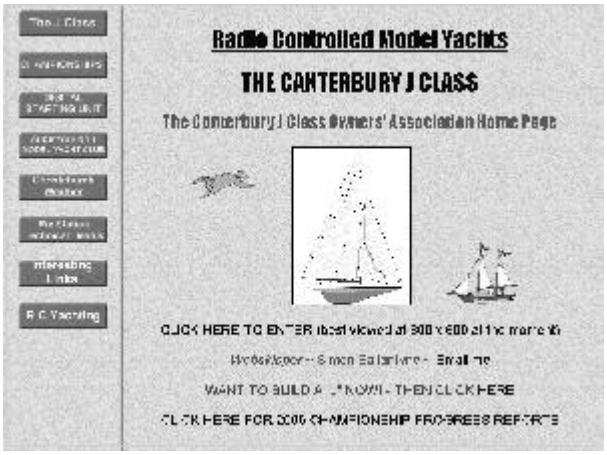
Simon Ballantyne	<stball@paradise.net.nz>	Ph 03 322 8826
Bob Wing	<wincle@xtra.co.nz>	Ph 03 322 1289
Ian Scott	<ian-s@woosh.co.nz>	Ph 03 365 7285
Peter Vincent	<vincentp@ihug.co.nz>	Ph 03 312 6230

THE CANTERBURY J CLASS OWNERS' ASSOCIATION

The Association of J owners was formed when it became apparent that in the Canterbury J it was found to be a boat that was going to be very popular; not only within the membership of the Christchurch Model Yacht Club, but throughout New Zealand and internationally.
It became imperative that the basic specifications for the Class be recorded and controlled by an association of members so that the aims of the Class might be maintained - that it be both affordable, and of a size that could be transported within a domestic vehicle.
If you have purchased a hull and lead keel then you are a member of the Association for your first year. It is the Association's hope that you will renew your membership each year ($10.00) and help preserve a fraternity of owners who continue to work for the standardisation of the Class, hold an Annual Canterbury J Class Regatta, and generally support the proliferation of the yacht as an ideal entry radio controlled model yacht.
If you purchased an already built-up J then we would welcome your support of the Association by taking out a membership subscription. Currently Simon Ballantyne is the Association's Secretary/Treasurer – give him a call (contact <stball@paradise.net.nz>, or Ph 03 322 8826).

THE ASSOCIATION'S WEB PAGES

Most people today have access to the Inter Net. If you are able to access the page below and follow the link "The J Class by clicking on the button at top left, you will find a series of pages showing the model with plenty of photos. A link on the page "Building the Commemorative J 100" shows how Simon Ballantyne built "J 100" as a Commemorative '100th" J Class, for his son (also named Simon) who drew the lucky ticket in the Association's raffle.



The pages have been updated since last year with a major revision. Contained within the pages are some good sequential assembly photos and technical information.
Other buttons will take you to "The Rules" and other articles.
When viewing the pages don't forget to scroll down the window! For instance on the page "The J Class" are articles about both the "Big Js" and the Little Js"

SOME HANDY HINTS

Naturally you will be keen to see your craft on the water as soon as possible. However there are a number of pitfalls during the construction stages that can turn an outwardly nicely fitted and trimmed yacht into an absolute dog on the water. So make haste cautiously!

If you live in Christchurch then there is available from the Christchurch Model Yacht Club a construction jig which greatly facilitates the laying up and gluing of the gunwales and cross beams within the hull to ensure a good undistorted job.

When flaring the lead keel to the hull many of us made the mistake in the early days of filing off the lead "bulges" to keep a symmetrical profile rather than filling up the hollows with 'bog'. The results have been a small but significant loss of ballast weight low down where it is needed. The principle to keep in mind is to keep the below-waterline weights at their maximums and do everything that can be done to keep the topsides as light as possible, so that in the end, the boat weighs in at 6.5 kilograms. *Most industries that have precision scales are only to glad to weigh your "J" from time to time as you come to the finishing stages.*

In setting up the standing rigging beware of using heavy and ungainly fixtures on the one hand, and on the other, of using fittings that are too light and unable to stand the strain of the odd bit of 'dock rash', or a hefty collision on the water. It is also debatable whether a second pair of shrouds and cross stays for the mast is really necessary.

With the running rigging of the craft, simplicity' is the key word. Complicated winch lines and fancy pulleys inevitably come to grief under racing conditions. You're not going to race! Don't believe it – two boats on the water will always start pacing each other!

Do take the trouble to learn something about 'sail setting' - there are many simple but good books available at most libraries. Whenever two or more "Js" are together on the water, 90% of the better performance one over another, is derived more from the skipper's experience and knowledge rather than from a case of being a better boat!

When sailing in a fleet there are two paramount rules of 'Right of Way': -

A boat on starboard tack (wind from the right) has right of way over a converging boat on the opposite port tack (wind from the left).

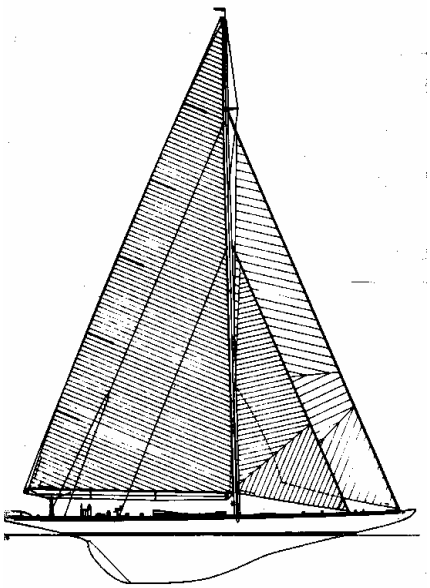
When two boats converging are on the same tack then the boat to windward (up-wind) gives way.

Right-o-Way rules, even in a recreational pastime like model yachting, are just as important and logical as the Rules of the Road that we all observe.

Building the J Class Yacht

Revised by Simon Ballantyne April 2006

These instructions are offered as a guide and providing the Class Rules are complied with, a builder should feel to adopt their own favourite construction techniques.
Note that at all stages you should think ahead as to how the running rigging and ruder is to function and how 'below deck' components can be accessed and adjusted.



1. Make a boat stand. It is useful to hold the yacht while working. If you have not built a yacht before the weight of the keel makes it difficult to turn over easily you will be surprised at the mass of the keel. Shaping of the contours may require adjustment to fit the hull. Fill and paint the stand. Use carpet to line the edges of the stand where it touches the hull - use contact glue to secure-(staples from a staple gun will scratch the finish!)

2. Drill keel holes to fit lead keel - Check fit and shape remembering to remove as little lead as possible - an 80 grit faceplate sander works well. A Black and Decker power file also makes it easy. Use body filler to fill gap between hull and lead - bolt up lead remembering to fit the balance weight in the hull - this needs a hole 40mm from the trailing edge to be correctly fitted. Smooth off lead plug.

3. Varnish/epoxy 3ply keel brace in bottom of hull if not already done.

4. Plane and sand gunwale strakes to match curve of top of hull.

5. Rough the top inner lip of the hull for better adhesion -use gap filling slow cure epoxy. Place a strip of masking tape around the outside of the gunwales-just in case the glue spreads over - much easier to clean up!

6. Glue in gunwales - use as many clothes pegs as you can steal!! Place narrow strip of thin ply or Formica on the outside of the hull to spread the clamping load and to stop rippling on the edge of the hull - better still for Christchurch builders, borrow the Club jig.

7. Make deck beams measurements from the bow. Fit deck beams and the 12mm ply mast plate at widths and places as per hull diagram, but check first where you want to place the hatches (one for the rudder post and the other for radio gear and winch) otherwise you will be cutting the deck beams

out again. Make and fit King Plank, half lap join into deck beam. Make 12mm ply bow and 6mm stern plate from ply - cut gunwale-checking slots. If making a hull stepped mast make mast box bottom support glue in see diagram.

8. Cut deck outline so you have some thing to work on while glue is drying on hull

9. If using a hull stepped mast make the mast box - inset into deck plate.

10. Make up rudder - cut outline, add extra width to allow for saw cut to inset 1/8 brass rod post.

11. Fit bottom bearing to lead keel by insetting the brass tang and fix to lead with 1/2 x 4 stainless steel ‘posidrive’ screws.

12. Drill top hole in hull for rudder post. Start with small drill-make a block to hold the top tube bearing and loosely fit into top of hull - fit rudder and bottom bearing - adjust rudder hull gap with cardboard packer and tape rudder securely to keel stern post - glue in top bearing support block once you are satisfied with the alignment making sure that the rudder tube/hull is securely sealed against the ingress of water.

13. Fill, prime and paint rudder ready to fit once the hull is painted

14. Cut deck ply to shape plus 6mm, also mark actual hull shape line to help you mark out the placing of the deck hatch or hatches.

15. Deck cut out hatches with sharp craft knife, see suggested diagram. Really it is up to the builder to decide what size hatch and placement - fit lip underneath on decking. Fit radio and breather caps into deck. Stain deck top and draw planking lines if needed.

16. Epoxy paint all wooden surfaces inside and the underneath of the deck **BEFORE GLUING DECK TO HULL!!!!**

17. Make up servo tray and position according to your design – be sure that the winch can be easily installed or removed, and its drum accessed, through your intended hatch before fixing in place.

18. Glue deck to hull, checking that it is square on the hull - use strips of masking tape to hold the deck onto the hull and leave to cure overnight. The next day trim the decking to follow the curvature of the hull. Be careful not to damage the gel coat while doing this.

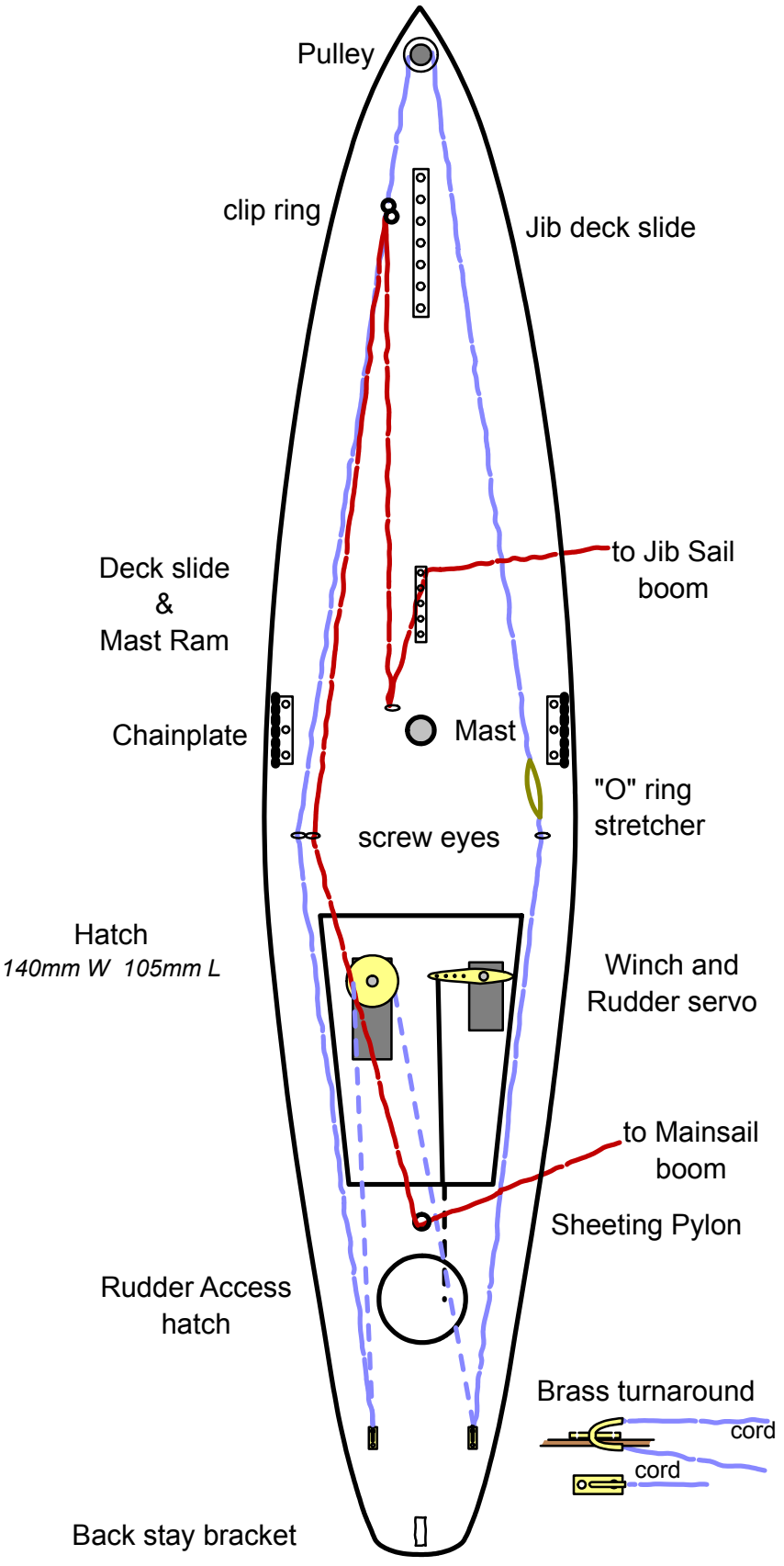
19. You may now elect to paint the hull and deck or continue with the deck fittings and paint later.

20. Running rigging: There are many ways to do this and much of it comes from trial and error. It is a good idea to complete the mast, booms and sails and then experiment before finally finishing the hull. A suggested scheme (one of many) of winch, running sheets (sail cords), pulley and eyelets is shown below. With this scheme there is a double pulley on the winch with an 'endless' cord passing through two tubes at the stern, through two eyelets just aft of the mast and through a 'turn around pulley' on the bow. Sheets for the jib and mainsail are clipped just short of the pulley. If the attachment points to the booms are set at the correct radius, running the clip ring sternwards should effect an almost 90^{o} swing out to either side of the boat. No hard and fast dimensions can be given as different winches have dissimilar amounts of rotation in proportion to the movement of the transmitter control. A popular variation is to have only a single line from the winch with an elastic cord to provide 'return tension'.

21.

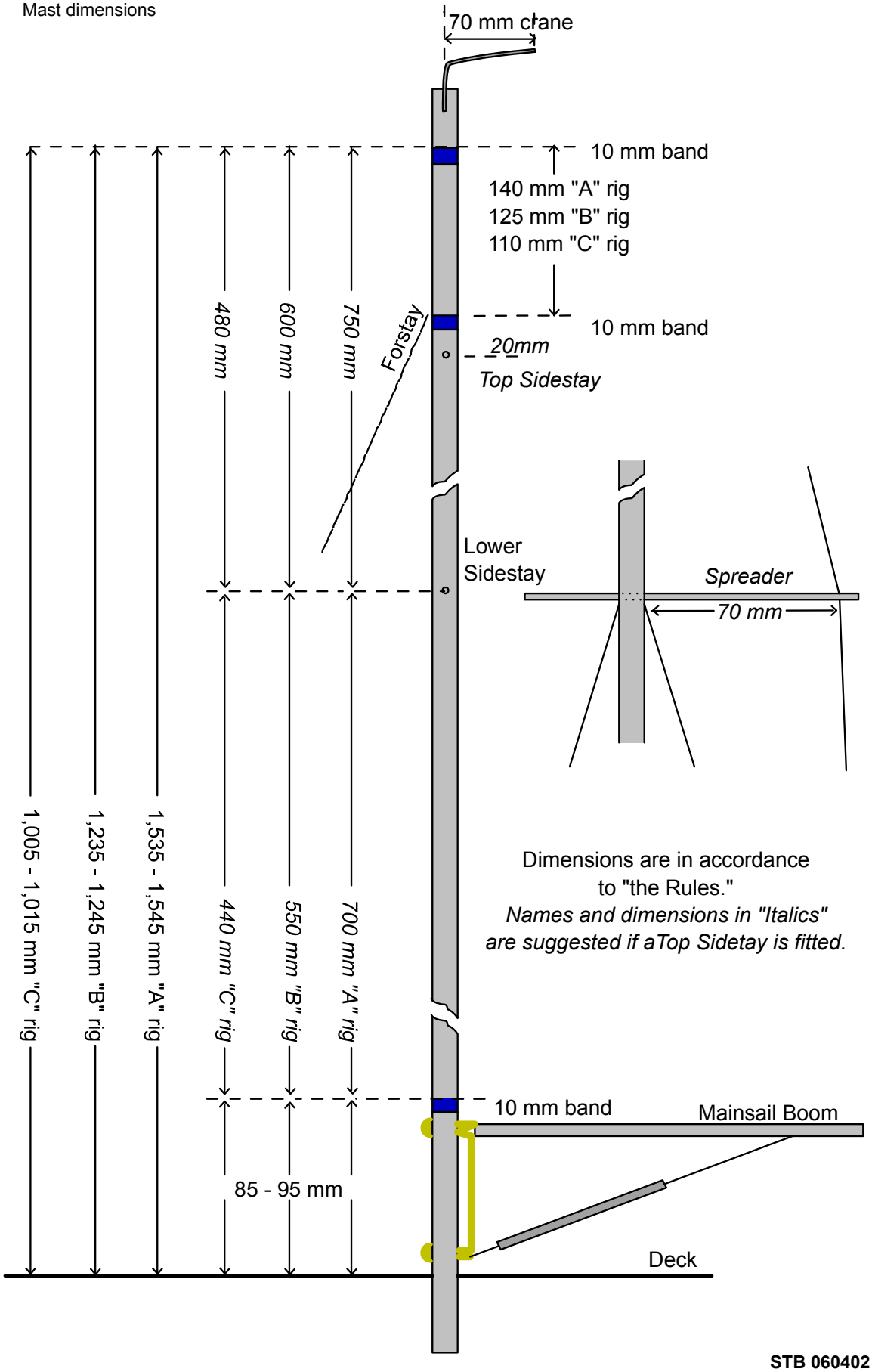
Revised 2nd April 2006, by Simon Ballantyne

A SUGGESTED SCHEME FOR THE RUNNING RIGGING



THE CANTERBURY "J" CLASS

Mast dimensions



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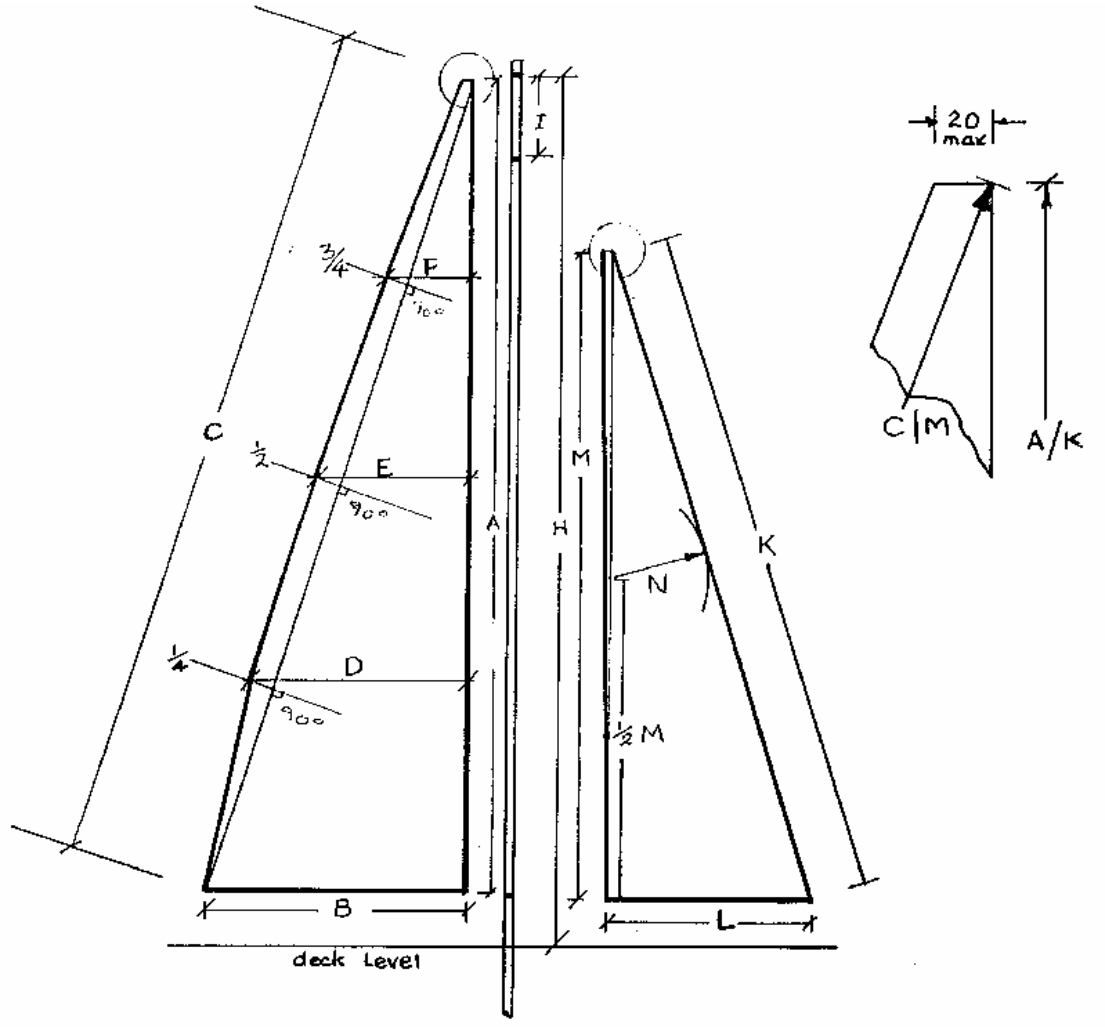
SAIL DIMENSIONS



CANTERBURY "J" CLASS ~Mast and Sail dimensions			
Dimension (mm)	A Rig	B Rig	C Rig
A	max 1450	max 1150	max 920
B	470 - 480	470 - 480	470 - 480
C	1490 - 1500	1205 - 1215	995 - 1005
D	390 - 400	395 - 395	395 - 405
E	275 - 285	295 - 295	285 - 295
F	150 -160	165 - 175	165 - 175
H	1535 - 1545	1235 - 1245	1005 - 1015
K	1210 - 1220	985 - 995	800 - 810
L	360 - 370	345 - 355	345 - 355
M	1140 - 1150	915 - 925	715 - 725
N	180 - 190	170 - 180	160 - 170
I	140	125	110

Revised April 2006 ~ Simon Ballantyne