

BUILDING A CANTERBURY “J” CLASS RADIO CONTROL YACHT

GENERAL

The Canterbury J is a one-design yacht with rules that;

- a) Govern the source of the glass hull and lead keel.
- b) prohibit exotic materials.
- c) define a fixed minimum weight.
- d) strictly control dimensions of the hull & three sizes of sail and rigs.
- e) limit the control features to 2 channel radio control equipment.

The main principal being to have an economically priced boat that suits our lakes and finances, with all materials easily sourced and the boat constructed by most, nearly anywhere.

Although many features are controlled there is a great deal of freedom for the average builder to reflect ingenuity and skill, with the rigging, hatches, internal layout of components and deck layouts and composition. A round figure of 30-40 hours to complete a boat has been mentioned.

Talk to THE CANTERBURY “J” CLASS (ONE DESIGN) OWNERS ASSOCIATION INC. appointed hull and keel suppliers, they will co ordinate the supply of hull, lead keel, lead trim weight and several other parts, and direct you to suppliers of parts you may require.

Our hull and keel suppliers do change from time to time so they wont be mentioned here, all members of Canterbury J Association should be able to point you to at least one of them. Prices of material and parts also change from time to time, individual requirement also change, so no prices will be quoted here.

Second hand boats also are available from time to time but may not be there for long. We would suggest before buying a second hand boat check with the current owner and maybe the association if it has a current measurement certificate and still measures OK. This will enable you to enter into various competitions run by the Canterbury J Association. You might also like to make sure The Canterbury J Association are aware of you as a new owner and we can keep you up to date with matters by sending you our newsletters.

The use of crystals in radio control equipment has nearly ceased and most units are digital. Unless you use an older type of crystal set, you will not need to register your frequency.

Before commencing a build, get a copy of the class rules and the measurement sheets, they go together and complement each other, they are available off our web site. Check they are the latest, generally changes may take place after the Association’s AGM around October each year. When you make a request to have your boat measured you will be asked to supply the measurement forms and allow approximately an hour or so for the measurement process.

The build of the boat, although governed, must suit what the owner wants, whether it be all out for racing, or a traditional look or a compromise, but if you want a measurement certificate the rules must be followed.

The Association also has a hull building jig that is available for a small donation.

CONSTRUCTION, *this is a very generalised guide only.*

Pre-planning is important, what type of receiver, winch, servo, sheeting system will be used, and where will they be located. Mast diameter and will it be keel or deck mounted. Hatch(s) & type of hatch(s) needed. Pulley & sheeting points

Your construction is optional but remember the lower the centre of gravity the better. The following is a "suggested path". Construction varies greatly and no one method will be recommended here, talking with others who have built is a good idea.

Step 1: Measure carefully and drill holes through the keel bottom to take the threaded rod of the lead keel, you may wish to seal the exposed timber.

Step 2: Cut and fit "blocks" of a suitable size to the bow and transom, consider how you will fit the gun whales to/into these blocks.

Step 3: Attach the gunwales.

Step 4: Consider if this could be a good time to fix any mounts for equipment you will mount in the hull and think about how you might drain water from the boat.

Step 5: Fix the deck support structure and cross members in the place of your choice, ensure the finished width of the deck is within the measurement criteria of the rules at the given points.

Step 6: Prepare for either the deck mounted mast (support structure) or keel mounted mast (mast box) and fix whatever is needed in place, remember the mast is to be between given points from the bow. This may mean fitting the keel and trim weight in place at this point. The fitting of the keel and trim weight does make the handling of the boat a little more difficult and if the jig is used, it will no longer fit.

Step 7: Make and fix the rudder post in position.

Step 8: Make the rudder with a suitable easily worked material and ensure it is within the size and shape required.

Step 9: Work the bottom of the rudder and the bottom of the lead keel so as to be able to achieve the attachment of the rudder to the lead keel by use of a gudgeon, ensure the length of the aft face of the keel is within the measurement rules.

Step 10: Seal all timber in the hull with an appropriate seal, ensure future gluing won't be an issue.

Step 11: Possibly a good time to ensure the hull internals are all sorted, test fit everything, test run everything, check everything will be accessible through the planned hatch(s).

Step 12: Seal the underside of the deck material if required, ensure future gluing won't be an issue, also make sure any cut outs can be achieved without damage or interference with any structures, (cut outs could be done prior to gluing), make sure you can still access and fit any items that may need accessing or fitting in the hull in the future and attach the deck to the prepared hull.

Step 13: Finish and seal the deck however you wish.

Step 14: Fit chain plates, hatch(s) and any deck fittings required. This should be all pre-planned.

Step 15: Sail winch, rudder servo, receiver and sheeting can now be fitted. Keep the receiver and any plugs/sockets up high and seal any parts of the winch and or servo that may end up in water should you get water inside the hull, which is quite probable.

Step 16: Sails need to show the boat class and hull number, ensure they are placed where the rules require them to be. Having them measured and signed off is a good idea prior to attaching them to the mast (not totally necessary).

Step 17: The mast and booms need to be made from nothing other than permitted materials and be no greater than the max diameter allowed as described in the rules. The mast also needs measurement bands at particular points, refer to the rules for these, (the booms do not have any measurement points).

Step 18: Providing the mast, booms and sails are within the rules, the following is over to the builder to decide;

Attaching the sail to the mast and booms.

Attaching the jib boom to the deck.

Attaching the main boom to the mast with the goose neck and kicking strap.

Attaching a spreader to the mast if one is to be used.

Attaching the forestay, sidestays (2 maximum) and backstay to deck and mast, (the forestay must not be above the prescribed measurement point on the mast).

Step 19: If all is finished, weigh the boat, it must not be less than 6.5KG all rigged and ready to go, including batteries, WITH the A rig fitted.

Step 20: Arrange with any one of the measurers a time to have the boat measured, this can be up to a an hour process so no surprise or urgent measurement requests should be made.

Final Step: Enjoy yourself, these are pleasurable toys, not multimillion dollar liabilities.

