



A Jolly good project

Words by **Rob Neeley** Photos by **Rob Neeley** and **Ben Gladwell**

Aged six, I convinced my father to retrieve his Cherub from the barn and take me sailing on Kawhia Harbour. Now it was time to teach my own kids some skills.

Before I started my DIY project I had a primary objective: to give my three children the same opportunity my father had given me. When I was six, we had pulled out his old Cherub and, after a quick coat of paint, we had created what would become some of my fondest memories as he taught me to sail on Kawhia Harbour.

Now, as my eldest child, Daniel, turned six at the time, it was time

for me to return the favour.

With that in mind, our new yacht needed to meet the following criteria:

- be a fun boat to sail with my kids
- be competitive for racing at a local club
- be relatively simple to build in the garage with basic power tools
- be affordable.

Since I'm a boat builder, I guess it is not a true DIY project, but I hadn't used my tools in a few years and wanted to keep it simple. After a few phone calls to yachting mates and visits to the local yacht club, I decided a Jollyboat met my criteria.

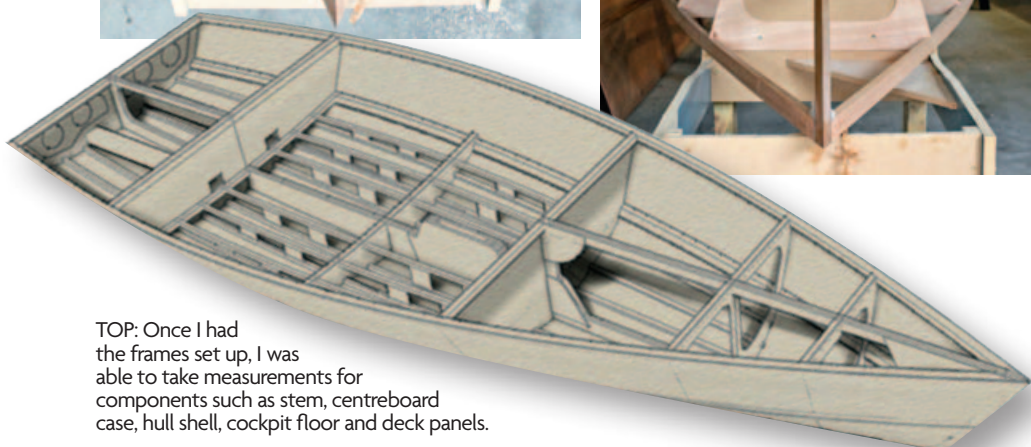
The Jollyboat is a fast, simple, plywood-construction, centreboard design by John Spencer. At 4.22m long, lightweight with a roachy mainsail and self-tacking jib, the Jolly is well suited to adult-child crews, two teenagers or a weighty adult. Any of these combinations can be competitive at national level. The Jollyboat has a strong class committee which has worked hard to create an excellent kitset for DIY construction.

Decision made: I would build a Jollyboat.

The full kitset version of the Jolly comprises computer-cut plywood components for the boat and building jig, accompanied by comprehensive plans which take you through the process of



I could have bought the plywood frames pre-cut but to save money, I had their shapes printed full-size and glued them onto plywood, so I could cut them out carefully with a jigsaw using a fine-tooth blade.



TOP: Once I had the frames set up, I was able to take measurements for components such as stem, centreboard case, hull shell, cockpit floor and deck panels.

assembly, glueing and glassing to complete the boat. However to save money, I decided to cut out the pieces myself, rather than buying them pre-cut by computer. I had the shapes of the plywood frames printed full-size on a large plotter.

I cut out the paper frames and contact-glued them to 4mm European Gabon plywood. I used Ados glue in a spray can but kept the application light, so it would be easy to remove the paper from the ply later. I carefully cut out the frames with a jig saw using a fine tooth blade.

The next job was to build the jig on which to set up the frames. To save time, you can have these computer-cut or borrow a jig someone else has made for their Jollyboat. I made my own and saved cost by using off-cuts of MDF from a mate's cabinet making shop and cut the parts for the jig with a jigsaw.

It was fun constructing the jig and setting up the frames, as I progressed quickly from having an empty, clean garage floor to having my frames set up, ready for me to start building the boat. To ensure the jig stayed level and wouldn't move during the boat's build, I epoxy glued and coved the legs of the jig to the floor. Once I had the frames set up, I was able to take measurements from them

to make the other components such as stem, centreboard case, hull shell, cockpit floor and deck panels.

About this time, my wife walked into the garage and asked where she was going to park her car. Where did she think I was going to build the Jolly?

I made another visit to my mate's cabinet-making shop with a couple of planks of cedar and soon had all the gunwales, chines, stringers, keelson and other timber components cut and dressed to size. Mostly, the installation of these items went well but I had few issues with the chines. The plywood frames were too thin to screw into and the chines needed significant twist to fit properly. It took several attempts to have enough blocks screwed to the frames and clamps to hold the chines in place. The other issue was fitting both chines at the same time; otherwise the tension in the first chine to be fitted would pull the stem off-centre.

The hull skin is 4mm Gabon ply. If I'd got the pieces pre-cut as a kitset, there would have been minimal shaping involved to get a perfect fit where two pieces came together, but as I'd cut them myself, there was a little shaping required. I cut them as accurately as possible with the jigsaw and then shaped the edges carefully,



ABOVE: Shaping a blank to make the centreboard using a power-plane. RIGHT: The jig is assembled to give the overall shape of the boat before the ring-frames and stringers are glued in place.

checking as I went, with a hand planer and sandpaper.

This is well within the capability of a good DIYer, but the computer-cut frames make it even easier.

Fitting the plywood hull skins; ie, bottoms and topsides, was fairly straight forward but pre-joining panels with scarf joints helped to keep the panels fair when bent to shape. There is a lot of tension in the ply in the forward section so I used a lot of small screws to pull the ply into the curve. It was great to see the shape of the hull emerge. When I had started the project in July 2011, I hoped to launch the boat that summer, but summer was approaching fast.

To speed up progress and save money, I laid the 200g glass cloth over the upside-down hull and applied fairing compound the same day while the resin was still green. I used a concrete trowel and carefully I applied a thin, even coat of filler that would be fairly easy to longboard, ready for undercoat.

I turned over the Jolly to sit on a temporary cradle. I had to run a few stringers for the cockpit sole and I used 6mm Goldcore ply in the sole for additional strength. I installed the mast step, forestay gussets and cockpit drains and applied a couple of good coats of Evidure epoxy sealer.

Then I glued down the fore and aft decks, which are flat and sit on top of the plywood frames, so this stage was fairly straightforward.

Hey, I had a boat. I wish. There were still many jobs to do – fitting the external gunwale, painting the boat,



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RIGHT: The boat's structure is based on stringers of different thicknesses depending on their location.



When working with silicone sealant, cut rags into pieces 5cm x 5cm. Use each one once and dispose of it into a bag or bin. This will keep your job much cleaner and prevent sealant spreading via your hands or reusing a dirty rag. — **James Murray**

TIP



making the foils and rig. It was Christmas, so no Jolly sailing was going to happen this summer.

As with most DIY projects, life happens and progress halts for a while. Things changed at work and the Jolly ended up in a loft at work for more than a year. I did manage to laminate some nice heart kauri gunwales but it was not great progress. Luckily, the kids were still young.

Almost two years into the project, I suddenly had time available for my DIY. I blew off the dust, moved the boat back to the garage and took stock of what to do next.

My first job was to paint the hull and decks and get some coats

of varnish on the kauri gunwale. I didn't want to spray paint in the garage as I did not have a compressor and boat paint on the kids' bikes would have been messy. I had read some interesting articles on the roll/brush polyurethane top coats. After discussing it with Adrian White at International Paints, I got busy with a roller and brush using the International Perfection system. Wow, what a success – it would be difficult to distinguish it from a spray job. The glossy, snow white contrast with the kauri gunwale looked fantastic.



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Fine-tuning the frames for a perfect fit for the stringers.



When applying varnish, make your first two coats a 1:1 mix of thinners and varnish, applied about half an hour apart, as a sealer-coat. Leave for 24 hours before sanding with 240-320 grit sandpaper and applying remaining coats. – **Greg Ball**



TIP

Now to produce some nice looking foils – the centreboard and rudder, for which I laminated together pieces of cedar to create the approximate dimensions. Under class rules, there are maximum size restrictions on the foils; apart from that you can have any shape you like, so I used a foil section from a naval architect. I created a template out of MDF and used this as a guide to shape the foil sections using a hand plane. I glassed them and gave them a clear-coat finish. The centreboard ended up too light for class rules so

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The carbon fibre rudder stock, which I made on a temporary MDF mould, with the hand-planed centreboard.

I put some lead in the top.

This led to some interesting discussions. One camp said the weight should be at the bottom of the centreboard to enhance stability, but the other side, which I was on, felt that would induce pitching and since I wanted to sail the boat flat, stability wasn't the issue. I wanted the weight in the centre of the boat.

My boatbuilder's skills came in handy for building the carbon rudder stock. I built a temporary male mould out of timber and plywood, smoothed the surface with packaging tape and



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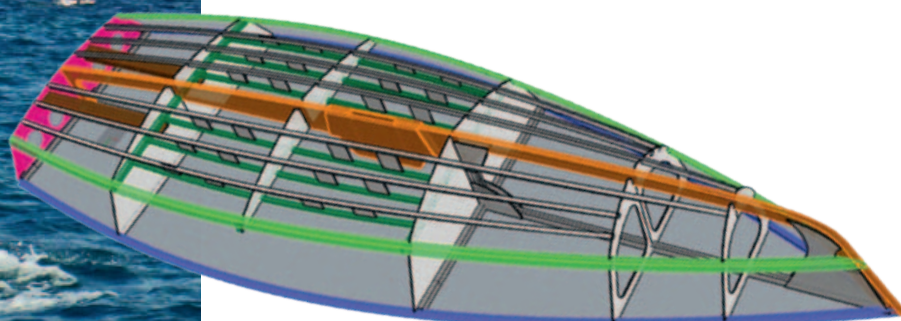


applied a release wax. It's an economical method when making just one, small component but was fiddly to do – however the result was lightweight and looked good with a clear-coat finish.

We launched *Casper* at French Bay Yacht Club with small bottle of bubbly sprayed on the bow and all kids involved. The first season, Daniel, now aged nine, was my crew, and the youngest sailor at the Sir Peter Blake Regatta.

We won the Jollyboat Auckland Two-Handed Championships and the Jollyboat Nationals Two-handed Championships. All-up, the Jollyboat cost me around \$3500. It was fun, so I had achieved all four of my primary goals. I'm now building one on commission for another father with similar aspirations. ☐

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