

# The making of *Mingming II* – Part 2

By Roger Taylor



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Roger Taylor continues the work of building *Mingming II* with his eye always on the need for simplicity and strength as demanded by the harsh Arctic environment that will be her cruising home.

The winter of 2012/13 was long and cold, but somehow I managed to keep work on *Mingming II* moving along. With the watertight bulkheads and mast step installed I was able to start on the insulation and rebuilding of the interior.

I developed a new system for attaching the 25mm Plastazote foam and its covering of carpet. Once a section of foam was cut to size and ready for gluing, I applied alternate strips of double-sided carpet tape and beads of construction contact glue. The carpet tape held the foam in place until the glue had dried. Carpet was attached over the foam the same way. With this system I could work quickly in any temperature, without having to apply heat to the contact glue. Retaining just some of the original framing to work off, I constructed a space for my single burner Origo stove with a chart table over it, a cool locker underneath and, at last, a port-side bunk. *Mingming I* has

only ever had a narrow berth to starboard. It was luxury indeed to see bunks taking shape on each side. I rebuilt the starboard backrest/shelving, replacing all the plywood in the process, and built new shelving to port.

## SAILMAKING

As winter deepened and the snow settled in it became too impractical to work aboard, but there were still tasks that could be accomplished. The major one was the sewing of the sail. I had long since decided to build my own sail, so that I could sew it exactly as I wanted. I bought

23 linear metres of Odyssey III material, a lightweight synthetic cloth made by the US



Fitting insulation panels with double sided tape and glue.



Building the chart table and galley with its Origo cooker.



Above: Roger The Sailmaker at work in his dining room loft. Below: Adding the Mingming insignia.

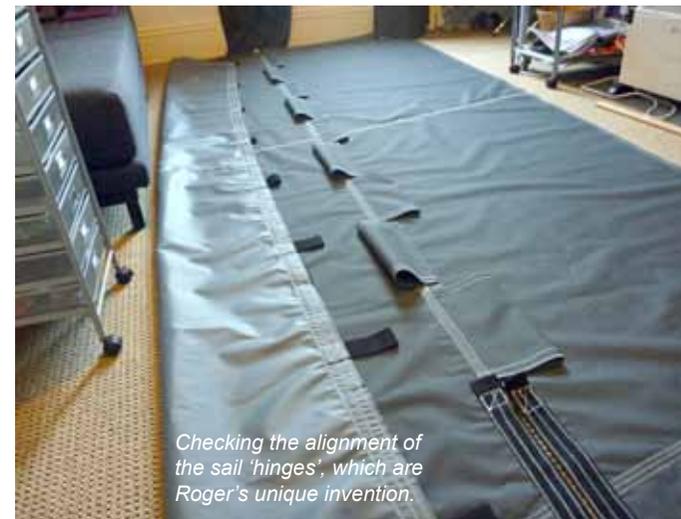


sailcloth makers Bainbridge. The junk rig sail, being fully-battened and well supported, is very forgiving on cloth and Odyssey III has been used successfully for many junk-rigged ocean cruisers. I also invested in a Sailrite sewing machine, with the intention of selling it on one day once I have no more use for it. That set me back £800, and the sailcloth about £300. All in all this seemed a good deal for what was eventually a 25m<sup>2</sup> sail, every seam triple stitched, built exactly to my own design. I called the design the Triple H – Horizontally Hinged Hybrid sail – but it is beyond the scope of this article to go into detail on that.

I sewed the sail on the dining table of our London flat over the Christmas/ New Year period. There was just enough room on the floor of Brenda's study to lay out a panel lengthwise. The luff and leech and all stress points were reinforced with 50mm webbing tape and *Mingming's* trademark sun and moon insignia were applied to the top panel. I had to wait more than six months before I could lay the whole sail out on the lawn and see what it looked like.

### NO GOING BACK

During the spring I carried on as best I could with the interior, building a new cabin sole and priming and undercoating all the new joinery. However, I had to wait until June,



Checking the alignment of the sail 'hinges', which are Roger's unique invention.

when I started a solid three month stint on the boat, to attack the really difficult and critical part of the rebuild: the complete reconstruction of the main hatch area and the addition of an observation pod – a sort of doghouse over the after part of the cabin. To achieve all this I had to cut out a huge section

of the coachroof and forward part of the cockpit – one of those scary jobs that can take just a few minutes but is totally irrevocable once done.

The observation pod serves several purposes: it gives 360° visibility from inside the cabin; it gives me full headroom



The carbon fibre sail battens are sleeved internally for joining.



**Above:** Constructing the bridgedeck, which will reduce cockpit volume, limiting the amount of water it will hold in heavy weather, while also providing useful space within the lookout area.



**Above:** Boarding the upper surfaces of the new bridgedeck.  
**Right:** The framework for the main hatch begins to take shape over the companionway.

underneath; it gives a good high position for mounting navlights, and provides shelter for the main hatch installed just aft of it. It also has a serious role for offshore sailing, giving a higher level of instability to the hull if inverted. In fact it makes a full capsize less likely, as the volume of the doghouse creates over 500lb of additional flotation and its associated righting moment. However, it is exposed to a breaking beam sea, so I built it with massive framing, mainly of recycled hardwood. The six windows were built of

9mm polycarbonate in homemade ply frames with a Lewmar portlight, exactly the same as *Mingming I*'s, in the after coaming. I had cut out a section of the cockpit, to reduce its volume and give me more space inside, and I now started work creating a very strong bridgedeck and framing for the main working hatch. As with the doghouse, all outside ply and timber was sheathed in glassfibre. A Houdini hatch was installed at the top of the doghouse and a Lewmar main hatch put in place. The cabin and deck were painted in 'Mingming grey' back to the bridgedeck and suddenly



*The rope stop that replaces a conventional stainless steel yard sling.*



*Mingming II* started to look a much more purposeful yacht. I made a sprayhood for the main hatch from copper piping and hand sewn duck canvas.

In the meantime work had been continuing on the rudder. I had decided to have a new rudder built with a solid stainless steel stock rather than tube. Time was getting tight so I asked a shipwright friend to make it. The tiller stock was replaced with a much more robust Lewmar fitting and I made a new tiller, long enough for me to handle from the main hatch.

There then remained only one more exterior structural task – the sealing of the cockpit lockers, thereby making the whole hull completely watertight. This was quickly done with glassfibre tape. The grey deck paint was extended to the transom and at last *Mingming II* looked, externally anyway, exactly as I had planned her.

## MAST AND SAIL

There was no time for complacency, though. It was important that I have her ready for



*The newly fabricated masthead crane.*

launch by early September, so that I could do some autumn sea trials. Attention now turned to the rig. The lamp post mast was given nine coats of epoxy paint in all – primer, undercoat and topcoat. I designed

a stainless steel masthead fitting that was welded by a Southminster engineer. I decided to go for carbon fibre tube for the sail battens; the new sail was likely to be quite powerful and carbon fibre gave the best combination of strength and lightness. I built the yard and boom from ordinary 'redwood' from the local Travis Perkins, laminated for strength and stability, and epoxied for protection.

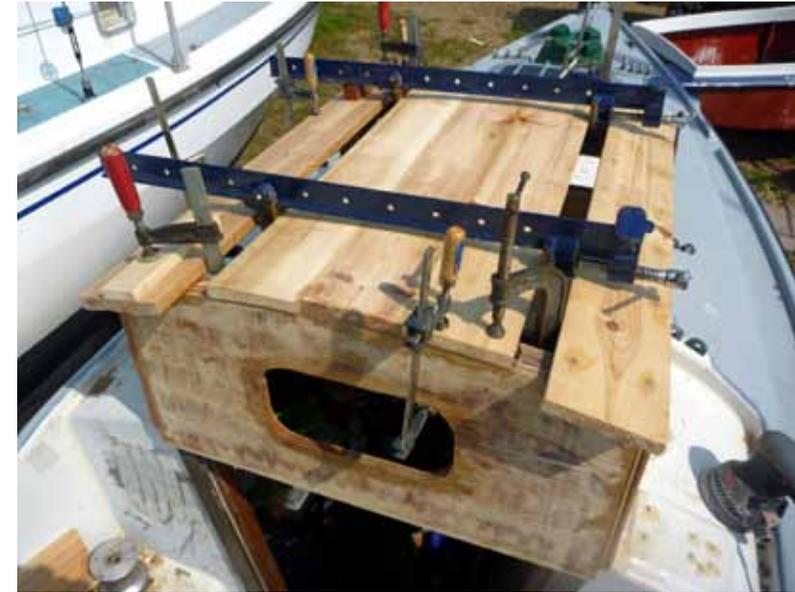
With the help of two mates we carried the mast the half mile back to Rice and Cole, where I dressed it with its newly made up topping lifts, mast lift, main halyard and flag halyard. About the same time I hand sewed a mast boot from duck canvas. Rice and Cole's rigger brought round their little telescopic crane and the mast was lifted in and wedged. I had made fittings at the mast step for a 10mm through-bolt to hold the mast in place.

I was pleasantly surprised how well the mast looked once stepped. It is a mighty spar and I feared it might look oversized, but not at all; it looked reassuringly solid, but in scale with the rest of the boat.

I made a number of trips on foot from home to the boatyard, carrying the boom and yard and sail, which I managed to assemble



*Above: The 'observation pod' or doghouse begins to take shape.*



*Above: Planking the roof of the observation pod.*



*Above: The doghouse roof is finally sheathed with plywood.*



*Above: The completed observation pod is finished in 'Mingming grey'.*

*in situ* on the boat. I attached the batten parrels at roughly the right length and added

the yard-hauling and luff-hauling parrels. The yard spans were attached and mainsheet rove.

I led all the various lines through their blocks and fairleads and, with just a faint breeze



A big rectangular hole is cut for the main hatch.  
Inset: Main hatch fitted and bridged with glassfibre sheathing.



The main hatch coamings built and painted, but awaiting the fitting of the sprayhood canopy.

from dead ahead, tentatively hoisted the sail. Naturally it hung limply, but it went up and down easily. It was big and imposing, and clearly meant business.

We were nearly there. Although the interior was still by no means finished, the only thing left to do before launch was to slap on a couple of coats of antifouling. I had been at it for 18 months. I was tired, but relieved and pleased to have got so far

with the project.

There now remained just one big question – the mother of them all. How would she sail? Had I got my calculations right? There was only one way to find out. I spoke to Michael, the yard foreman, and arranged the launch. In a day or two I would know whether it had all been worthwhile.

**ECS**

Since writing this article for ECS, although her interior is far from complete, Roger has launched *Mingming II* and begun sea trials and I'm delighted to report, from personal experience, that she sails like a dream. She's fast, handy and could well be all that Roger hoped. We look forward to hearing more in the future. **CJ**



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