



AMATEUR BOAT BUILDERS' ASSOCIATION

Jan/Feb 2011



An exquisite model fishing dinghy, only about 20 cm long, complete with Seagull outboard, by Brian Lemmon

HIGH CLASS STRIP PLANKING

Harry Speight concluded his two-part series on strip planking on Wednesday, 24 November by describing the construction of his own folding trimaran, a 27' Farrier F82A. The "A" (for "Amateur") indicates it is planked in timber, Western Red Cedar (WRC) in Harry's case; there's an F82R ("R" for "Racing") which is meant to be built in foam.

Harry eventually bought all his WRC from Queensland, ready machined, after being left less than satisfied with local dealer responses. All this was back in about 1999, dealing with Cedar Sales, PO Box 558, Archerfield, Q. He was able to specify the exact section he wanted and ended up agreeing on 25mm x 9mm bead and cove section with radiuses at the ends of 5mm. This left a slightly sharp, but not impossible, edge each side of the hollow (cove) end of the section. This occasionally broke off in places, but not too

often, necessitating the use of filler. Somehow Harry calculated that he'd purchased 2.5km of very floppy WRC in total. I'm not sure how long the pieces were, but they were less than the boat of course so hundreds of joints would be necessary. Given the other options of butt joints and scarf joints, he decided to take out a second mortgage and purchase a finger jointer head for his router which sits in a Triton Work Bench. It's a very large cutter with radially three rows of five cutter blades each around the shaft. Harry had to set the router to a slow speed because of the large radius of the cutter blades. It's difficult to describe only in print but he held each strip vertically and at right angles to the Triton fence and moved it across the moving cutter blades. Since one end of the joint was slightly different from its partner he would do a whole heap of one kind before adjusting the cutter and doing the other kind.

But enough of the strips; how about the building jig? This was to be a female mould, that is, the frames fitted the outside of the hull, not the inside, and of course the strips are laid up inside them as mentioned last issue. Additionally the hulls (there are three, remember) are made up in port and starboard halves, including the deck in each case. Each half is planked on its side with the gun'1 down and the centreline up. Eventually the two halves of each hull are glued together and the decks are already done. When each half is finished the temporary frames which were used can be reassembled to make a jig for the opposite side saving some material. Harry even built in little ledges on the mould frames just near the hull to hold a strip vertical while applying glue to the edge. It has to be remembered that Harry's built this entire project single-handed so little ideas that create second pairs of hands are very valuable. All edges of the mould frames were, of course, sheathed with plastic packaging tape so the hull wasn't accidentally glued to them.

He started on the outrigger hulls (the amahs) first and these are small enough not to allow for any crew accommodation so are totally enclosed apart from a couple of hatches. They needed a couple of permanent internal bulkheads however and these in turn needed temporary guide battens to make sure the two bulkhead halves lined up, out of sight, when the whole shebang was glued together. Did Harry leave the temporary guides in place to add unnecessary weight? Not a bit of it. He made sure the temporary bits were within reach of the hatches when they were cut in, and removed them. Initially the finger joints in the planking were glued together off the hull and this soon lead to a further bit of assembly-line process, gluing up several planks at a time. But even the amahs must be 20' long resulting in planks not much stiffer than rope to handle. So the FJs were glued up off the hull for the two amahs but then Harry decided that for the main hull he could glue the FJs on the job, so that is what he did. I imagine this would be a lot quicker and less stressful because each joint could be made by aligning against the adjacent plank, instead of a line on the floor or a straight edge.

Back in 2000 epoxy, suitably thickened, was the glue of choice for strip planking and that's what Harry used throughout, and still prefers today, especially where much twist is involved. However, today, Botecote "Purbond", a single-pot polyurethane, would at least be easier to use. To dispense the epoxy a suitable sized zipper-lock plastic lunch bag with a small corner cut off to create a squeeze spout was used. Frequent replacing of the lunch bag was necessary.

The main hull was quite difficult to plank because it's a very exotic shape. It's narrow and conventional up to the waterline but then flares out dramatically further up to provide internal accommodation, before rolling over into a turtle-deck and then reflexing again into a cabin top. The strips are started along the line of the upper chine or bilge line and built up from each side of that but after a while they cease to be at all parallel to the keel. Eventually it was necessary to cut off an appropriate number of strips at an angle closer to the keel line before continuing the planking. The sharp edges of the cove edge of planks broke off from time to time, and many of the planks were cross-grained and broke under twist. At this stage I'd have been wishing I'd built the foam version! Still, Harry laboured on, applying filler over breaks and misaligned planks so that he'd have a clean surface on which to glue the inner furniture, after 'glassing, of course.

After completing the first hull-half internally, and still working on his own, he rolled the structure over 180 degrees using slings, removed the temporary frames and hauled the structure into the roof. Then directly below that he set up the frames the other way around to allow construction of the second half. The hull skin is symmetrical about the centreline so that proceeded as before, followed by internal 'glassing, but the furniture is not the same, so some variety crept in there.

When it came to joining the two halves together the first half was lowered down from the roof over the second. To avoid gluing the hoist straps in place, about four scissor-type car jacks were sat in the lower half in

strategic places and the upper half was lowered onto them, held a few inches high, and the straps removed. After some jiggling to get the alignment right and applying epoxy to all gluing edges the jacks were lowered down bit by bit until contact was complete and the epoxy could set.

So far the fibreglass sheathing has been rather glossed over, but it was not without its moments. Air bubbles formed under many areas and Harry eventually assumed they were associated with staple holes in the timber. He'd used an electric staple gun to fasten down difficult planks in many places. Indeed he had photos of two such guns, a cheapie and good one, and they both looked like large lumps of epoxy – there was so much of the stuff flying about. After removal of the staples with a blunt chisel the remaining hole was capable of discharging air due to atmospheric temperature changes.

Since peel ply was being used to get a good surface, air couldn't very well escape through it and these areas frequently had to be cut out and re-glassed later.

So much for the hulls and the strip planking. Harry's also finished the outrigger arms and hinges and fastened the arms to the amahs and these have been taken down to Legend Boat Builders for professional fairing. Pretty soon the main hull will follow. Wire rigging has been spliced up at Boating Hardware and Harry is now negotiating for someone else to make up his synthetic main shrouds (Spectra?) which will allow easy folding of the mast when rigging.

And so work goes on. Harry must surely be getting close now. It's been a saga, but he's going to have an immaculate, super-fast yacht very soon. Many thanks for the insights, mate.

A BLAST FROM THE PAST

On Saturday, December 11, we had another visit to the private museum of Barry and Doris Hicks in Cannington. I include Doris at this early stage because her afternoon teas are spectacular and a real feature of any visit. Mention should also be made early of Brian Lemon, who was also present and whose exquisite scale models line all the edges of the display. The museum recently featured on the ABC's "Collectors" programme.



In fact, on first entering the large backyard shed which chiefly houses the museum, the eye is immediately grabbed by a trio of Lemon models near the entrance. The

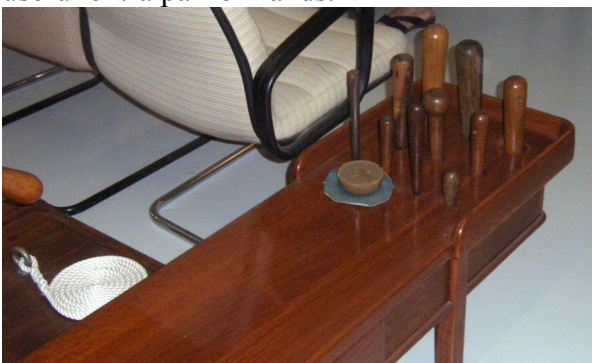
smallest of these was of the 32' navy cutter "Albatross", the model about 15" long. Barry and his son, Robin, rescued and rebuilt the original about five years ago. Next to this, and somewhat larger, was the colonial cutter, "Gem". The full size vessel actually sank just north of Rottneest in 1876. How Brian did his research on this boat I do not know, but it's very convincing. The largest of the three models was of the English trading schooner, "Kathleen and May", a three master, built originally about 1900. She was restored recently and survives somewhere in the south-west of England.

Barry and Robin had a major role in the rigging of STS "Leeuwin" and the "Endeavour" replica and must have made a thousand timber-cheeked pulley blocks for these vessels in sizes ranging from about 2" long up to 2', which are damned big blocks. Clearly they had a few left over and these make up several displays, both rigged and unrigged. There's also original blocks looking as if they've done a far bit of work.

Another feature of the museum is traditional hand tools by the score, all well presented in glass cases according to use. Chisels, planes (many of them hand made for particular jobs), saws and much more adorn the walls. There's even a case of hand-braces fitted with long drilling bits; so long that they have universal joints at their bases so one can drill around corners in tight spots! One special tool, which won't fit a glass case, is a special horizontal band saw which was used to trim the spars to eighths and sixteenths before rounding off when the "Endeavour" was built. This was made and used by sparmaker, Ray Miller, who addressed us about a year ago. It's displayed near an original ship's binnacle, complete with compass.



One intriguing exhibit turns out to be a sailmaker's bench (it's another replica). It's a long bench for sitting astride with marlin spikes and other tools all fitted into purpose-made holes at one end. The sailmaker could have stretched out his ropes, splices and sails while working on them. In a workshop behind the main display could be found not one but two three-jawed vices. They appeared to be for holding large eye splices while being worked on and appeared to be still in use. A useful extra pair of hands.



And uncaptioned nearby was a large brass searchlight. Difficult to say much about this one, but it was probably naval in origin.

But for me the piece-de-resistance is the replica double helm wheel from the huge wheat barque, "Moshulu". The original four-master had an empty displacement of 3,000 tons and could carry 4,000 tons of cargo at up to 17 knots in heavy seas. The steering had no mechanical assistance at all! Consequently the wheel was about 6' in diameter and was partnered by another at the other end of the same shaft, making room for four men to be gainfully employed at times when things were tough. Robin built the replica from photographs and a set of drawings prepared by Ross Shardlow. I believe the original vessel still survives in Philadelphia as a restaurant ship. She was well described by Eric Newby in "The Last Grain Race" which is well worth a read.



But back to the models. There must be twenty or more, so I can't describe them all, but some which caught my eye were a delightful small fishing dinghy on its own trailer with a Seagull outboard on the transom, which couldn't be faulted. There were beautiful models of Windemere steam launches like "Lady Elizabeth" and "Bat", both preserved in The Lakes District and the huge model of the Clyde Puffer "Skylight" (a small coasting steamer).



One I hadn't given much attention to on previous visits was the Thames tug, "Varlet", the original used to tow large barges up and down that river. And then there's the "Krait". Named after a small, lethal Indian snake. The original, an adapted Indonesian fishing boat, carried underwater commandos from Exmouth in WWII for a daring and successful raid on Japanese shipping in Singapore harbour. She's now preserved at the National Maritime Museum in Darling Harbour, Sydney.



Perhaps the only model not by Brian, and a big one, was the "Watt Leggatt", from the hand of Ray Miller, a pearling lugger converted for mission purposes, in a glass case at one side. Once again, it couldn't be faulted.



On top of all that there was Doris's afternoon tea, prepared and set up by that lady and her ever-present off-sider, Irene. It was delicious, including, amongst other treats, scones, fruit mince pies and sausage rolls. The only trouble is, I fear we didn't eat enough to keep Doris really happy. To those two ladies, and to Barry and Brian, we offer our heartfelt thanks for another wonderful visit to this well kept secret in the suburbs. I think, give it a year or so, and we'll be back again.

ADMINISTRATION NOTES

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Well, Happy New Year, if it's not too late to say that! We start 2011 with yours truly still in the editor's chair, and at least the first couple of meetings covered and we must thank members for there. However we still need ideas for future meetings, so please keep your thinking caps on.

JANUARY TECHNICAL MEETING

This was a bit more difficult to organise – the usual last Wednesday is Australia Day. Fireworks and the closure of the Narrows Bridge notwithstanding, SofPYC also holds its own celebration that evening, so we wouldn't be very welcome. So please note carefully: the meeting is set for Monday, 24th January at the usual time of 7.30 for 8pm, in the Committee Room. Unfortunately for the few of us who eat there, food is not normally available on Mondays.

The guest speaker is one, John Nuccitelli, from the E/S, who is going to tell us about a line of paint and sealing products for which he is agent, called "Ultralast". The range has been around for 30 years and has passed all the stringent tests of the UK Paint Research Association. It hasn't much been connected with marine use, but carrying as it does a 10 year warranty it should be very useful for us. Rosemary and Paul Naylor are planning to use it on their Dogger restoration. Other products

in the range include coatings to restrict termites and protect thatch! They've probably got one suitable for non-skid decks, too.

FEBRUARY TOOLBOX VISIT

This is to the home of member, John Bougourd, at 29 Barang Circuit, Karawara, on Saturday 12 February, between 2 and 4pm. He's building an Oughtred "Tirrik" of which I've not heard before. Since it's described as a 5.35m, double ended beach boat, one can only assume it's a big brother to the Whilly and Ness boats. John's fitting out the interior and has already done his centreboard, rudder and spars for a balanced lug rig. These sorts of boats are an excellent project for builders at an intermediate level and it sounds as if we could all learn from this visit. See you there.



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