Miss Daytona build – 3

This document was written by Paul Naylor and is published here for FMES online viewing, and was written during 2026.

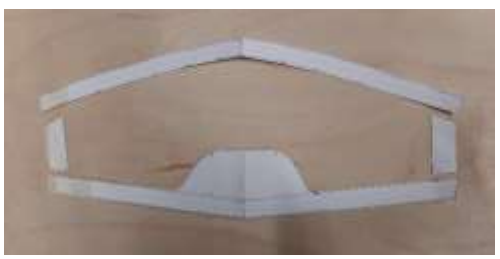
On with the frames then. I am making all of these as complete frames without cutouts for stringers, keel or deck hatches. This does waste a little wood and time, but it allows me to more easily make each frame shape as the drawing and get them glued up without distorting. My experience with *Sundowner* showed me the best way (for me) to proceed: I am not given to putting much detail into the drawings apart from that necessary to make the design shape (like the frames), and prefer to make each part then define the detail when I can see how it might assemble. I have ideas of course and make allowances when I think about it, but making things from wood is a lot easier than metal: if you cut too much off or need an extra bit, you can glue it on and expect it to be as strong as solid timber. The frame making proceeded along the following lines, at least for the basic shape without cutouts for keel, stringers etc:

- Make an outline tracing of each frame from the drawing, this one is frame 5, forward of the step and it has a deep keel at this point, so the central allowance is larger.

- I wanted them 10mm deep all the way round, so mark on this ‘inner frame line’. Add a bit around the keel position, the more you add the stronger it is and the less room there is inside…

- Fold them in half (to check symmetry) and cut round the lines. I then had a paper template. This one needed a little adjustment at one side (the left, in the photo) using masking tape.

- Cut each into four parts, the bottom, top and two sides to make templates for the wood pieces.



- Tape each onto the obechi and mark round the shapes. Get the grain in the best direction. Note that it is a little wasteful of wood and juggling shapes is necessary!

- Cut round them (I used a bench 'scroll' saw - jigsaw - but coping saws etc will do) and smooth off the edges. Obechi sands very quickly so be cautious. Check they assemble OK against the drawing.

- Glue the pieces together to make a frame with the grain running all round it. I clamped them onto a piece of stainless steel that was covered with plastic until the glue set. I left a little extra at the edges, especially at the sides, for trimming back to size.

- File the flat surfaces to remove glue spillage (carefully: there is only a small glue line at this stage and a file because it keeps the surfaces flatter).
- Draw round a frame end on a piece of 1.5mm ply, fairing the corners neatly and cut four out, two for each side. The grain of the ply is less important for these bits.
- Glue and clamp the ply to the frames.
- When set, finish round the edges and check/adjust against the drawings.

- I also decided to add some plywood doublers around the keel, so this is similar to the doublers at the sides and will help strength when I have to cut the allowance away to slot the keel in.

Repeating essentially the above steps for all ten frames gives an encouraging pile of bits ready for the next stage: fitting to the keel and the location of stringers.

In parallel with building the frames, I have been thinking about the skin. I will use the beech slats I have for longitudinal stringers under each plank join, as described earlier. I did a test run on a slat, firstly sanding the lacquer off and then my bandsaw with a temporary fence produced long and fairly even strips from each slat. But what to make the planking from? Using the photos, I did some research as to what the boat was probably made of judging by the varnished appearance of the planks. The nearest I can find is 'Greenheart' wood, which is a tropical hardwood (and is very similar to Teak, another

option), these days supplied from supposedly eco-friendly forests. It is a hard, water-resistant wood much used in structures exposed to sea water, and with a grain appearance very similar to the photos (the colour in the sample above is a little less golden though). The photo on

the left is unfinished greenheart and that on the right is the transom of *Miss Daytona*. The rub is that it is available to order in great big lumps but not 2mm thick planks: it also has a reputation for not gluing very well (maybe why there are loads of screws on the real boat). Finally, the grain ideally should be scaled too, but 1/8 size greenheart trees are hard to find. Hey ho, so what else might look like this? I have some straight grained thin oak veneer with an idea of backing it onto thin plywood: that seems quite a good match to the colour, but the grain, although 'tight', is quite prominent (and typically oak). On *Miss Daytona* the grain is most pronounced on the transom and sides, the deck appears quite plain: I found a supplier for some 1.6mm thick boxwood (called 'structural veneer' – slightly thicker than normal veneer) that possibly meets the need for the deck at least but it might be too thin on its own, with a tendency to warp. The same supplier has 2mm teak too that looks a good match, but I am scared off by the oiliness of the wood that apparently is ideally glued with marine grade epoxy glue after wiping with acetone, and not PVA like Titebond - that sounds messy and expensive. At least I have some options here and if the wood is light in colour, it gives some opportunity to use dyes to change it appropriately. Obviously ply planking would be best structurally as it would not tend to split with the grain, but it would look like (birch) ply too: I expect that I will have to epoxy coat the insides anyway (if not the outsides as well) and this should help prevent cracking and stiffen the wood used. Unlike *Sundowner,* the insides here are visible - at least 'aftwards' - and I should try to make the finish internally representative too.

After some more internet searches, I found a site that sells lots of bits of many different types of wood (www.thewoodveneerhub.co.uk). The wood I eventually settled on was 2.2mm thick maple (not figured, like 'birds eye maple') structural veneer. Maple is a tight grained whitish coloured wood that is quite hard. The pieces they sell are not 'to order' and are different sizes, wood types and thicknesses, so I had to strike 'while the iron was hot' and get it ordered as it might not be available if I waited. The photo shows it unfinished and fresh, apparently it goes golden with age anyway if not assisted by wood dye.