

Accumulated wisdom about building Mouse-style boats

Gavin Atkin, 26 June, 2001

- The Mouse family is designed to be easy to build, even for woodbutchers - and the designer has large woodbutcherish tendencies. Observant woodbutchers will note that there are no hard joints - not even halving joints - and it is worth remembering that most errors and gaps can be covered up with a little epoxy and tape if necessary.

- Mark out the sheet material with care - and check your work at least once before getting your saw out of its box. This is only the old carpenter's rule about measuring twice and cutting once, but it's still relevant when marking out ply for a boat. I'd say, that it's also worth measuring the dimensions that are supposed to be the same, such as the width of the lower chines at the bow and the bottom of the stem panel - and similarly for each frame and station along the bottom chines right back to the transom.

- This boat is built by stitch and tape. There are some excellent tutors on this on the Web - follow them and you'll be all right. However, I would advise that you always tie with the knotty side on the outside of the hull, and fillet and tape the inside of the boat first. Don't believe people who say that it's ok to tape the outside first - they are in thrall to the diabolic powers, and the result will be much messier - believe me, I know from experience. So... fillet and tape the inside first, then cut off the ties on the outside and make a neat taping job on the hull's exterior.

- Mice have easy curves and you won't have to tie at every six inches. Start off by stitching close to each station and then add whatever additional stitches are required.

- Cable ties are great for this job, but don't use the tiny ones, as they slide off. Don't worry about making slightly larger holes than you'd like in order to accommodate the ties, as they will likely be covered over by your epoxy - the holes need be no further than a quarter of an inch (6mm) from the panel's edge, and no nearer.

- With epoxy you really have to work fast, but keep it as clean as you can. And if you have any spills, wipe them up with a bit of kitchen roll - there's no need to get it all up, but you won't want to have to clean up any nasty lumps, as it can add hours to the building process.

- A boatbuilder can never have too many clamps. However, the easy curves of the boat enabled me to use clothes pegs for adding the slender inner gunwales I used. The help achieve a nice neat final appearance, I intend to add more attractive outer gunwales after decking has gone into place..

And for Flying Mouse builders...

- The hull will need to be doubled or trebled at various points to allow various fittings to be attached, including chain plates for the shrouds and forestays, and the steering oarlock or rudder pintles. At a minimum, the points to reinforce are on the sides near the bows, the upper part of the sides between the first frame and the second (midships) frame, and the central area of the stern where the steering oar lock or rudder pintles will fit. I added doubling at a few more points in the prototype Flying Mouse in anticipation of various experimental modifications in the future.

- If you're building a Flying Mouse, thoroughly protect the inside of the centreboard before fitting. The centreboard I'm currently making for my boat has been treated with Cuprinol (the sort that is designed to be painted over) and primer, and will receive a coat or two of paint before it is finally fitted.

- Fitting the centreboard case is more straightforward than might at first appear. First I made my centreboard a couple of inches deeper than the hull, and big enough to accept a half-inch board - that is, the slot is three-quarters of an inch or so wide. I then used a tape measure to position the case accurately fore-and-aft. Then I attached horizontal and vertical battens along the part of the case forward of the central frame. Next, I taped the daggerboard case temporarily into position and used a handy off-cut and a pencil to 'spile' the shape of the bottom - that is, I held the pencil on the off-cut and ran it along the bottom of the boat in order to trace the profile of the bottom on the case, taking care to make sure that the case would still be deep enough once I had cut along the line. (Spiling is a time-honoured boatbuilder's technique.) Then, having cleaned up the joint with a file to make the case fit well, I epoxied the case into place using my tool box for a weight, taking care to make sure everything was properly lined up.

- The daggerboard case is supported by battens running from each side of the centreboard case to the stem. Between the stem and the first frame they are backed by a sheet of scrap ply to form two strong I-shaped girders when the deck is in

place. These are intended to support the mast, and in the prototype formed a very rigid structure. Two holes will need to be drilled in the ply between the battens however to prevent a rot-inducing sealed structure from being created. A similar single I-beam is created at the stern to support the afterdeck.

- How did I make the slots? I used a tenon saw to cut through the batten at the top of the central frames, and then clamped a batten tight on the opposite side to the batten across the frame just below the line of that batten. A couple of sharp taps with a small hammer and the wastewood was gone, and I was left with two neat slots. The batten I used for clamping was then clamped onto the otherside and glued both to the frame and to the daggerboard supports.

- A good rasp will clear a neat slot for the daggerboard once it has been glued into place, once I had used a hand jigsaw to clear away some of the material to make room for the rasp.