

Ch. 10 Planking

All 6 planks on each side need to be glued to the boat, and the procedure is the same for each. The garboard is the first, and probably the hardest, so once that is on, the build proceeds fairly quickly.

Chapter 8 covered the fairing of the hog, frames and stems, but there is one further step needed before glueing. In order for each plank to lie flat on the previous plank, a flat surface has to be planed on the previous plank for the width of the lap. In this boat the lap width is 22mm. Each edge of each plank needs a pencil line drawn on it 22mm from the edge. You can get the right angle for the lap bevel at the frames, because the lap has to be in line with the flat cut on the frame for the next plank.

Each plank needs to lie flush with the plank above and below, at the stem and stern. Over all the rest of the boat the planks are overlapping, and the exposed thickness of the new plank as it is glued on the outside of the previous plank is what gives a clinker built boat its distinctive appearance.

If you continue the step in the same way right to the ends of the boat you will get a step or bump right on the stem. This will keep the water out but it is ugly and not recommended.

To get the desired flush appearance, with all planks smoothed into one another at the stem, there are basically two possible methods. One is to cut a "gain" in the previous plank which means that the lap bevel changes to a rebate, gradually sinking down through the previous plank till at the stem there is no thickness left. This allows the new plank to lie flush with the previous plank without taking anything off the back of the new plank.

I think this method weakens the previous plank by introducing a sharp internal corner, which can split. But many builders have used it, and it is traditional. With epoxy it is quite strong enough.

The other method is called a "dory lap". With this method, the lap bevel stays a flat surface looked at across the plank, but twists as you look along the plank. Over the end 12 inches or so of the plank, it goes from a normal plank bevel to full thickness at the end. So at the end of the plank the thickness of the plank goes from full thickness 22mm from the lower edge, to zero thickness right at the edge.

Laying a full thickness new plank on this would not work, so the back of the new plank also has to be cut away in a matching twisting bevel.

This photo shows the first part of cutting the dory lap on the garboard. A line is marked for the lap, 22mm from the edge. Then over about 12 inches the end of the plank is cut back to zero at the extreme tip.



The final desired surface is twisted and cannot be done with a plane, so it is finished off with a spokeshave.

This dory lap at each end, or the gain if you choose to do that, is easiest made before the plank is glued to the boat, but the rest of the lap can be left till after the glueing.

When you are happy that the plank fits the stem, hog and frames, you can glue it on. Temporary screws are best to hold it to the hog and stems, with clamps at the frames.

The screws are taken out when the glue sets, and the holes filled with spare glue.

Make sure the planks are glued on to the frames as well as the plank below, but keep the temporary plywood moulds covered with parcel tape to stop them sticking to the boat.

Each side of the glue joint needs to be wetted with glue so that the wood surface absorbs enough glue to make a good joint and not suck all the glue from the gap between the components. Use a disposable brush to coat all the surfaces being joined with a fairly runny mix of glue. It will stiffen up when some of the resin soaks into the wood, leaving more thickener in the remaining glue.



Planking clamps are included in the kit, and need wedges pushed in to grip the planks together. Get the overlap between the planks right using the pencil line drawn on the previous plank.



This picture shows how the dory lap should look when the ends of the planks are planed back to the outer surface of the inner stem.

The apparently thicker top plank is in fact the same 9mm ply as the rest of the boat but because it arrives at the stem at a wider angle it looks thicker.