



The Worshipful  
Company of  
Shipwrights

## **Case Study - Sam Hicks - Apprentice Marine Engineer (funded 2015-16)**

### **Blackwater Barge Company, Maldon Essex**

I am really enjoying my marine engineering apprenticeship with Blackwater Barge Company and Pioneer Trust, I'm learning something new every day and different ways of building marine components out of wood. I have learnt a lot from the Pioneer Trust and Blackwater Barge Company. Most of the things I have learnt so far at Pioneer I have used in my jobs for example scarf joints I used on Hydrogen's skippers hatch and on Reminders barge boat bulkheads.

Some things were challenging to do, using a spiling gauge to make a template for Reminders barge boat bulkheads and getting the curves on a plank right to fit the curve of Hydrogens skippers hatch, when I have a problem with something I ask and am taught ways to do it that make it easier.

Recently I have completed a whole range of jobs on my own and with Ralph the shipwright in the yard:

- Replaced 10 keel bolts on Hydrogen
- Rebuilt a leeboard for Thistle
- Fitted new bulkheads in Reminders barge boat
- Fitted new head linings in Reminders galley
- Rebuilt Hydrogens skipper's hatch which is detailed below.

The latest job that I have done on my own has been Hydrogen's skippers sliding hatch which had started to go rotten, it was made of pine with a cherry hatch top. I had to replace 3 planks on the side of the hatch and I used iroko to replace them, the corner post had gone



rotten it was replaced with a piece of oak shaped to fit the deck cut out, I used stainless steel screws to fix the new planks to it and used West epoxy glue to make a strong joint.

I shaped an iroko board using a compass plane to fit the curve of the old runner to make sure the hatch would slide correctly on it, then scarfed the board into the back of the hatch to make a waterproof joint and used stainless steel screws and epoxy glue to fix it down.

The washboard runner had to be replaced I used iroko and cut the runner angle at the same angle as the wash board to make sure it would not get stuck when going in, I scarfed it to the runner bed and fixed it on with stainless steel screws and epoxy glue. I refitted the old runner to the hatch in its original position so the slider would run smoothly then fixed it down with stainless screws but no epoxy so if it breaks it will be easy to replace.

The top wash board needed replacing I didn't have a piece of wood wide enough to make it so I had to epoxy glue a section of wood on the edge then shaped the angles on the edges to fit the runners and made sure it run smoothly I cut a rectangular hole in the middle of the board to fit a brass vent and rebated it in place so it sat flush with the board, I fitted the hasp and staple on the hatch so it could be locked at night.

Part of the hatch runner had broken off at some time so I planed the break straight using a block plane and shaped a piece of oak to fit it, then cramped it with epoxy glue once that had gone off I planed the top side to fit the curve of the runner, then sanded it smooth so that I could epoxy coat it to help protect it against the sliding action.

I used aluminium wood primer to coat the new pieces of wood to protect them from the weather then undercoated the inside of the hatch with white undercoat and finished the inside with brilliant white gloss. I sanded the outside smooth and primed the whole hatch including the washboards and hatch slider, I painted the outside with golden brown undercoat and let that dry, then I painted it with golden brown gloss. Once the paint had gone off fully I put it back on the barge and secured it down it looks good and I am very pleased with the finished hatch.

