

Conserving the Roger

Bulbourne Dry Dock, Jan-Mar 2012

It's over 10 years since Rickmansworth Waterways Trust, the Heritage Education Charity who also organise the Rickmansworth Festival, finished rebuilding Roger, one of the last wooden working boats left in working order, between 1997 and 2001.

Roger is now the Trust's main heritage asset, and her conservation is one of their five "outputs".

It was very alarming for me, as one of the Trustees as well as a Chiltern Branch IWA member, to find last spring that an area of rot needed rather more than just a dose of preservative and some filler. I asked Jem Bates to come down to have a look.

His verdict was that the stem post, fore-end flashes and at least some of the bottom planking should be replaced, sooner rather than later. A small area affected by rot, of which we were aware and had been watching, had spread much more quickly and widely than expected, and significant work was needed to prevent very major work being needed later.

The likely cost was very, very much more than the Trust could afford. So I set out in pursuit of grant funding, and found it from three very generous sources. Three River DC agreed a capital grant of £6000, the PRISM Fund of Arts Council England gave £12,000, and the Heritage Lottery Fund offered just less than £14,000.

The Heritage Lottery Fund is especially interesting, since they require one of the outputs of the project to be a Heritage Learning package so that others can learn about the skills required for the conservation of this sort of boat. At first I was stumped by this: but after a while I understood what was required, and found some help. We've been supported by a student of film at West Herts College who has advised us on taking extensive footage of the work, and is now editing it into a short DVD while will form a central part of talks that we'll be able to give later in the year. We'll also produce a booklet, and leaflets: and that has allowed HLF to give their vital support.

We got the boat up to Bulbourne just before New Year - and just before the canal was closed! A close run thing. But it let Jem start work early in January, and that continued for 2 months.

The first event, of course, was a full hull survey by Trevor Whitling, who specialises in wooden boats. He confirmed Jem's initial diagnosis, and also found a few other areas needing attention – although, to our huge relief, some of the timber that we feared might also have been affected turned out to be sound.

So the work proceeded.

First, a new stem post – in oak. One of the key skills of the wooden boat builder is to be able to take a template from existing components, size up an oak tree, and cut the right piece out of it. Ours looked like this after the first cut: it weighed around a quarter of a tonne!



Then it was shaped, and went in like this: Steve Dearden, one of Jem's four team members, is supervising.

It then took a lot of shaping and fitting, with the bow planking itself having to be reshaped a bit to get it right. This process took well over 2 days – one of the features of conservation, as opposed to building or even restoration, is that everything new takes much longer to fit into place against the old.

The sight of a wooden boat with the stem post out is just horrible, by the way – it really looks beaten up, much worse than holes in the hull.

But it didn't stay that way....

Jem's team then renewed the forward 14 ft of bottom planking, in opepe. The original elm just isn't available now, and opepe is often being used instead – as long as the supply holds out. It's interesting stuff – very toxic to wood boring insects, which is great, nice even grain, which is also great, but very nasty to work on, which is not so great. But it's been done – cut from templates, nailed and bolted in place, and carefully caulked. More of the caulking process later!



New opepe bottom planking

Fortunately, the keelson, the four-inch baulk of oak running, with two scarf joints, the full length of the boat, was in good order. Jem did a boat recently where that proved not to be so – not good. There are no guarantees.

The next task was to replace the flashes, in oak, of course.



The new flashes held in position after steaming to shape

Having again taken careful templates, the tree was planked by Jem (he does all his own plank cutting) and shaped, and the new planks, 14 ft long, steamed for a couple of hours (about an hour per inch thickness). They then had to be quickly carried in and fitted to the old structure, braced from bits of dock with Acro props, and left for the weekend.

After the weekend, the new planks were taken down, and the old material, quite badly affected, cut out. The new planks, roughly in the required shape, then had to be exactly planed and cut to fit – as before, this took quite a time and a lot of effort.

But eventually, they too were in place – bolted through the hull, and caulked in.



*New flashes
being prepared*



New side top plank

While this was going on, a new top plank on the starboard side had to be replaced – a length of heartwood had appeared, and begun to fail.

This was rather more straightforward, needing less shaping: but it still all had to be cut and fitted by hand, and caulked as well.

There was also a block repair to a damaged area in a second plank in the same area

By now it was time to replace the stem guard iron, which in turn required the removal and replacement of the oak fore deck block, which had been made in one piece but came away in three. Even re-shaping the guard iron to the new deck block took several hours to get just right, and a great deal of heating and hammering.

At the same time as all this, the hull, including the bottoms (great job, that, with 18 ins of headroom in near-zero temperatures), was being caulked. Caulking does more than just keep the water out, it's an essential part of the stability of the hull.



It requires the existing caulking to be either hooked out or hammered in, then the oakum to be rolled and hammered, hard, into the seams, which have to be opened up if necessary. In

the picture you can see Scott hard at it, with caulking iron and hammer: you can just see how he's twisted the oakum to form a coarse rope, pushed in ahead of the iron. He says he finds it therapeutic, but if he gets it wrong there will be a real problem later.

Once the caulking is done, the seams are sealed with marine glue, and the hull can be blacked – with hot pitch. This itself is a pretty painstaking and messy job requiring buckets of the stuff to be carried around safely – not for the fainthearted.

A number of other jobs were done as well, including the complete replacement of the tinplate guard for the bottom planks to prevent water penetration of the end grain – this, of course, requires the boat to be jacked up, one side at a time, and more hot pitch and chalice (yes, really) applied.

We'd also had to ask Jem to cut up and remove the long lengths of railway track ballast so that the surveyor could look properly at the bottom planks. It was done through the

removed area of the bottom, so it just lay fell to the floor of the dock. Getting it back was something else: but 6 of us were able to manhandle 2 tons of cut railway track in a couple of hours – a fine voluntary task!

So there we were – after 2 months, job done. Except that it wasn't, quite.

I went up at the start of the last week to gently rub down the cabin back bulkhead, to find that it felt a bit odd. And how! The planks (softwood, these, not oak) were full of absorbed water, from bottom to top – quite rotten. Gloom – only a few days left, still lots to be done, and an unexpected major task.

But nothing daunted, Marlon and Steve took it on. The wet planks were removed that night and taken, once again, as a template. New planks were cut, brought back, then painstakingly fitted, primed and ready.

And so we did, indeed, get to the end. A final visit from the surveyor, flooding up to check for leaks round the new bottoms and move the boat a couple of feet to allow caulking of the planks previously sitting on the blocks, a visit from the (very helpful) staff of the Arts Council, a start to the painting of the new timbers (new oak will have to be painted again within a year anyway) - and ready to go. Wow!

There were a number of other small jobs of the sort you always find when docked, but this will give you an idea of the sort of tasks, and the skills, required to conserve wooden boats like the Roger. It's a very different problem from a steel boat of the same age – which is why there are lots of 1930s steel working boats around and very few (less than 20) wooden ones: you can't take your eye off any of it, or you have a major task to get it back. It's essential to avoid a "restoration" of the sort Chris Collins did 15 years ago – the figures nowadays are just mind-bending.

But it's worth it – these are just great boats, and we really have got to keep some of them – and men like Jem Bates have to be available to do this skilful work as well. We're deeply indebted to the Arts Council England, the Heritage Lottery Fund and Three Rivers District Council for their vital and generous support, which we hope the public (including IWA Members) will repay by coming to see the Roger, and understanding what's involved.

The effect of all this is to give assurance of the good health of this historic boat for a number of years to come. Now, we have to keep it going.

Fabian Hiscock



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