pimp my dinghy

Hull pimp

Pete Vincent at West Country Boat Repairs starts the job of bringing our old hull up to date...

Having found ourselves a replacement hull, on a budget, there was plenty of work to do to get our boat into racing shape for the Fireball nationals at the end of July, and its first visit was Pete Vincent's 'dinghy hospital' at West Country Boat Repairs, where Pete and his team have a wealth of experience repairing and updating a range of wooden and fibreglass dinghies.

Our hull was a High Performance Sailboats. Now their trademark was to produce white Fireballs – which meant not only was the hull painted, but the decks and inside the cockpit as well. Not a problem with a new boat, but with a second-hand boat it means you cannot see the usual visual signs of the wood deteriorating and water getting in.

'This is a good example of the need to do your homework on a class before you buy a second-hand boat,' says Pete Vincent. 'High Performance Sailboats were well-known Fireball builders, with a good reputation for building sound boats. Seeing that in the advert for our hull, we knew we had a reasonable chance that the boat would be sound.

'The painted cockpit meant we had to check the boat very carefully all over by feel and sound. To do this properly, you need to know where common problems are likely to be so you can ensure you don't miss any serious problems. In the Fireball, as with many wooden classes, the particular areas to check are around the hog and centreboard case. Basically anywhere that water will pool up if the boat is not drained properly is a potential problem area.'

Gunwale damage

The only significant problem with our boat was the gunwales. At some point someone had tried to make a groove pattern on the edge of the hull so that when the crew was trapezing, they had something to grip on. That meant that over time water had got in where the grooves were and the edge of the gunwale was delaminating.

Pete Vincent explains, 'We basically stripped all the paint off in that area, going quite a way away from the gunwale because you need to be able to see the wood and get all the varnish off so the dampness that is in there can be dried right out.

Right **Gunwale damage needed to be fixed with epoxy and fillers.**

Below **When using epoxy, mix small amounts at a time as the mixture will go off quickly – especially in warm temperatures.**

'We stuck wedges into where the wood was splitting, forcing the crack open to allow the air to circulate and allow any moisture that had got inside to get out.

'Fortunately it wasn't very bad, so we could just epoxy the wood back on, no wood had been lost and it had been caught early enough so that not much water had got into the wood and it was still in good condition.

'Knowing that crews trapeze off there and it's a high wear area, we also put a thin layer of glass over it just to reinforce and protect the whole area. We followed that by putting Pro-grip on the area as well to give good grip for the crew to trapeze on, especially if combined with them wearing proper boots.'

Changing the jib-sheeting

The other major thing we did with the hull was to update the whole jib-sheeting system. The idea of the way you tune and fit out a Fireball has changed a lot since this hull was built 20-odd years ago, and Pinnell & Bax were planning to fit vertical jib tracks, so we needed to put blocks of wood into the cockpit floor to hold the tracks.

'First we obviously made the blocks and shaped them,' Pete Vincent explains. 'But before putting the glue on we needed to completely remove the existing paint and varnish – if you try to glue wood without doing this, then the blocks would have simply adhered to the paint, and as you know paint can flake, so the wood would have come away. We needed to take the area right back to bare wood.

'Then we glued the blocks in using a very simple epoxy mix. If you are doing this yourself at home, it's worth noting that you should ensure you buy appropriate-sized pumps to go with the epoxy – it is an exact chemical reaction and the volumes need to be accurate.

'We also mixed some colloidal silica into the epoxy, which makes it into a thick paste that both improves bonding strength and is also good filler, so any holes or sections in the join are filled up. We then coated the wood and the area around to protect them.'

Applying Pro-grip

Pete Vincent shares a few simple tips to making a professional job of applying Pro-grip...

Clean surface

The key to fitting Pro-grip properly is to ensure you have a really clean surface before sticking. Pro-grip can be put on with most well-known compact adhesives, but preparation is everything.

Cut to shape and prepare the deck

Cut the Pro-grip to shape first and make sure it fits. Then use masking tape to mask up around where it's got to go on the deck. The masking tape will ensure you don't get any adhesive on the deck and ensure you get a clean edge around the Pro-grip.

Apply your adhesive

Lie the Pro-grip on a flat surface the wrong way up. Put adhesive on to the deck, and then coat the underside of the Pro-grip. Then you usually need to leave it for 5-10 minutes, depending on the adhesive used.

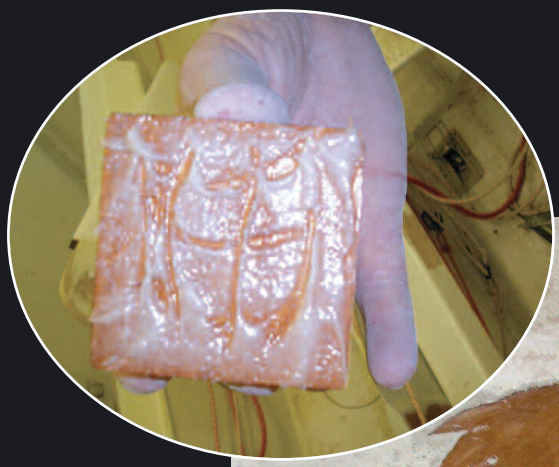
Smooth on the Pro-grip

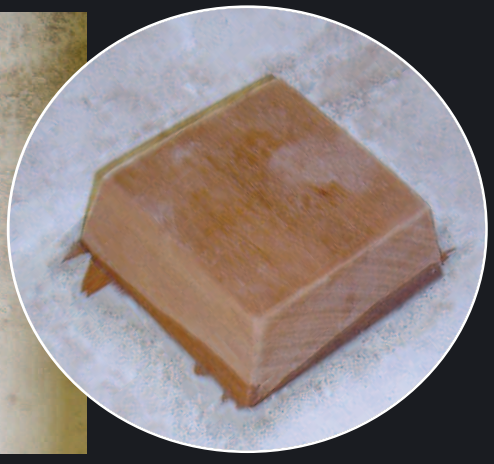
When it comes to actually applying the Pro-grip it will usually take two of you to make a good job of it. Don't just plonk on, start at one end and use your hand to gradually smooth the Pro-grip down so you don't end up with big ridges or air bubbles.

Filling the old screw holes

Screw holes were a major downfall on our original boat, particularly around the centre hog and centreboard case. Fittings had been changed and moved over the years and the screw holes hadn't been filled. 'This is such a big area of weakness,' explains Pete Vincent, 'So as Harken was fitting new hardware to our boat, all the old fittings holes had to be filled.

'It might sound daft, but what we do is to drill a hole a little big bigger than the hole that has been left by the screw. In that way you are removing the wood edges, which the screws have affected – this bit of the wood has probably got a bit of





Below (and inset left) Wooden pads were fitted to enable us to update the sheeting system.

Left Any area that needed to be epoxied had to be stripped to bare wood.

blackness or damp in it, even if you can't see it. Then we leave it for a while to breathe, so that any tiny bit of dampness can get out.

'Again we used epoxy, this time with a bit of Microballoons mixed in. This makes it brown and thickens it up, so it makes a very good filler which doesn't flow out of the holes. Also, because it's brown, it looks a darn sight better when you are filling wood.

'Preparation is everything, and in the temperatures we have at the moment – you might think it's not very warm for June, but it's very warm – you've probably only got 10 minutes before the epoxy starts going off in your cup. Therefore it's better to mix up several cups, mixing small amounts at a time, as you won't get round the whole boat in one go.'

A new rudder

Our final challenge was the foils. Pete says, 'The rudder was not very good. Its condition was okay, but the shape and size was not very good. We took an existing blade which we had and we adapted it for the stock we had on the boat. The new rudder was a bit thick in the head, so we had to sand down the head – which is not as easy as it sounds as you have to do it evenly on each side and you have to do a little bit at a time otherwise you will end up with a head which is too loose in the stock, which is a disaster.

'Then we had to shape it so it would fit the stock and produce a notch so it would go totally vertical. As this is an area of maximum wear, we stuck a Tufnel pad on the top so it won't wear away too rapidly.

'The position of the pivot bolt hole is crucial, and you have got to do that with the rudder on the boat. We had to lift the boat up a long way to fit it on because you have to check it is dead vertical and only then can you drill it – I am constantly amazed at people who try to do it off the boat, you need to raise the boat and extend the rudder fully to get it right.'

Centreboard repairs

Next was the centreboard. The shape of the centreboard was fine, but the condition was just what you expect to see for a 20-25-year-old board with a rather bashed up bottom and not a very good front edge.

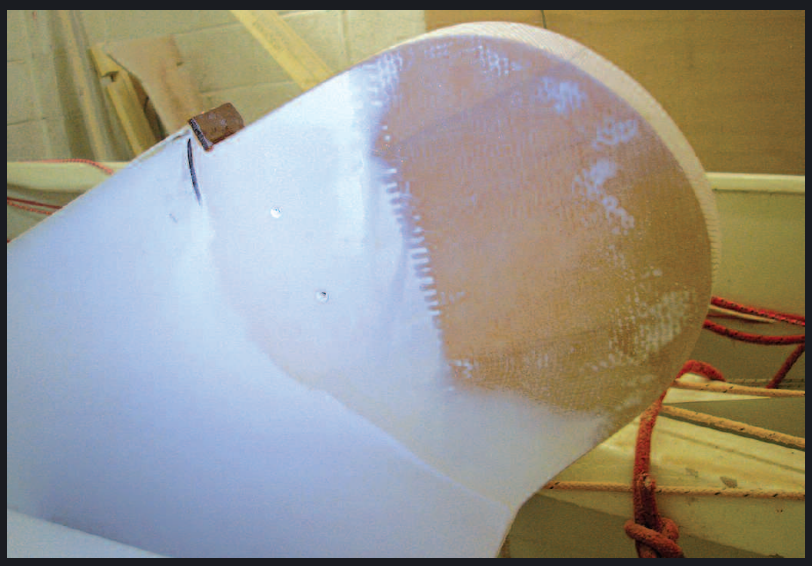
'We cut a notch in the bottom and, using epoxy with a lot of fillers, we filled that notch so that bottom front edge has a really reinforced front section. Similarly, we epoxied all the bumps and nicks and wet and dried that down so the foil now has a really smooth nice finish.'

Finally there was a fair bit of wear and tear around the centreboard bolt hole, which had taken a few knocks over the years where the boat had hit the bottom.

'Any hole in wood is a potential weakness,' says Pete. 'We completely drilled out the existing bolthole, again with a larger drill, both in the foil and in the boat as well. We did the same epoxy mix as we had with the screw holes, put backing piece behind the hole and filled both the hole in the centreboard and in the boat. Then when it was dry we simply drilled through so the bolt now has a good strong hole in which to go through, so there's not so much movement in the centreboard fore and aft.'

And next...

With the major basic work done, it just left the paintwork to be patched-up... next issue our boat visits Harken to get a full set of new fittings. ■



Below In order to get our new rudder to fit we needed to slim down the rudder's head.

Right We fitted a strengthening Tufnel block to minimise wear.