Amaryllis

-75 year old Brigham Sharpie restored by David Hamilton and racing again.

Amaryllis, locally known as a "Brigham Sharpie", was built around 1930 ago by Walter Silverwood, a founder member of the Brigham Sailing Club. Walter was an amateur boat builder and one of a group of yachtsmen from the Hull area who sailed on the River Humber, Hornsea Mere and the Driffield Navigation from the early 1900s.

> The Humber Yawl Club Yearbook of 1933 records – "*A few years ago, three or four men who sailed on the Upper Hull started a small boat club at Brigham for the purpose of arranging races each weekend. The project has grown considerably and there were at Brigham during the summer of 1933 a fleet of 13 boats – 3 sharpies, 4 open boats, 2 International 14s and 4 canoe-yawls"*
>
> "All the boats are rigged with a single balanced lug, except "White Rose" and "Arline", both of which are Bermudan sloops".

Amaryllis was built almost entirely from mahogany using plank on frame construction. The bottom, sides and deck were originally ¼" thick x 12" wide mahogany planks. The hull design closely resembles a Norfolk Punt, she is 16' overall length and 4'6" beam. The single hollow pine mast carries a 175 square foot balanced lugsail bent on bamboo spar and boom. The mast, spar and boom are all original. She has a forward hinged centre-plate and a mahogany rudder blade which can be both raised to clear weed and shallows.

Left
Racing in 1930, Walter in Amaryllis closely followed by Gypsy.

Right
Walter Silverwood

She was owned and successfully raced by Walter Silverwood, who was also club commodore for many years until his death in 1972. The boat then passed to members of his family and was eventually sold and left the club. She was then recovered by another club member in the mid 1990s who replaced the bottom, centre-plate housing and restored much of the surrounding framework and raced her for a few seasons before she went back into storage for the next 10 years.

In 2001 I discovered that Amaryllis was still in existence. Having a strong sentimental attachment to the boat, as I had sailed as crew in the late 1950s when a very young lad, I resolved to try and get another look at her. A year later I eventually made contact with the owner and arranged a "viewing". She was in surprisingly good condition and on a very windy October afternoon in 2002 I signed the cheque and she was all mine, complete with trailer, mast, boom, spar sail and rigging.

Amaryllis in October 2002 before restoration

The main problem areas were the fore and aft deck, and the floor boards. The centre deck panels were the worst and they warped badly due to humidity and temperature changes. The mahogany panels expand and contract across the grain quite significantly when exposed to the weather. The resultant cracks had been subsequently filled with epoxy and the material had then warped when exposed to humidity. I initially considered replacing the whole deck with teak strips but finally decided that at least 70% of the original decking was still in good condition, and the centre panels could more easily be replaced. It then became my primary objective to preserve as much of the original construction as possible.

I started the serious programme of restoration work at the beginning of February 2003, being fortunate in having a large indoor heated workshop. The project plan was as follows:

Remove the deck fittings, mast step and buckled deck panels.

Inspect the hull interior, repair, refurbish or replace any damaged or decayed framework.

Reinforce the framework to allow the mast to be stepped on to the deck. Previously the mast had been stepped through the deck on to the keel. As the boats spend all summer out on the canal I preferred to keep the deck as weather-proof as possible.

Make and fit new decking from mahogany ply.

Make new mast step.

I decided to fit watertight bulkheads fore and aft to increase buoyancy in the event of capsize, not an uncommon event, and the less water to be bailed out the better.

Repair and rebuild the floor panels.

Rub down the mast, refit the rubbing strakes at the masthead and refurbish the hand-made mahogany cleats for topping lift, flag halyard etc.

Repair the boom and spar.

Make new tiller and associated linkage.

Cut and profile new centre plate.

Finally, sand down deck and re-varnish.

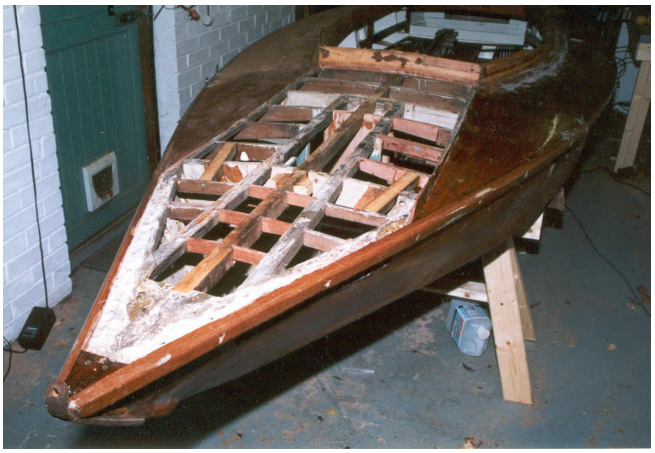
Target date for completion was end of March 2003.

Down to work!

In retrospect the best thing I did was to spend the three winter months thinking and planning what to do and how to do it. The main challenge appeared to be sourcing suitable materials, particularly for the deck. It was a safe bet that I could not easily or economically get hold of ¼" thick sheets of mahogany to match the existing material. I finally decided on 6mm mahogany plywood (Super-Elite) from Robbins Timber, I was a little concerned that the new ply would be thinner than the adjacent original material. However it soon became evident that years of sanding down had reduced the original ¼" material to as near 6mm thick as made no difference.

The deck

Removal of the deck panels was a relatively easy task. Walter had used brass wood screws throughout in the construction, no nails anywhere, and these were easily removed. I endeavoured to remove the old panels intact as I had in mind a use for them later. Once opened up it was evident that the frames were in better condition than I had hoped. Apart from a few small areas where the wood had rotted, mainly around the mast step, there were only a few loose frames where the glue had deteriorated.



The foredeck has been removed to allow access to the frames and hull.

Old joints were cleaned up and re-glued using either Balcotan or West System Epoxy. New frame parts were made from meranti strip, I reinforced the frames under the mast step and added ½" plywood supports between the deck and the keel to carry the downward thrust of the mast. One of the worst jobs was the removal of the old and dehydrated white lead putty which had been used to caulk the joints between the deck panels and the frames.

The remaining decking was generally in good condition, but there were several large cracks and one area where the deck was buckled. I decided that the best solution was to cut out the damaged areas and inset a "patch". Over the 70 odd years there have been many areas of damage which have been repaired this way, and the "patchwork quilt" effect is an attractive feature of the boat. I evolved a method of using a router with a V-cutter to excise the offending areas and create a 45degree scarf joint. Simple cracks were routed out with a single straight cut. The old deck panels were used as a source of material for the patches.

All the new timber framework was given a good coating of Deks Olje D1 as a preservative and the new deck panels were fitted. The panels were set in and caulked with the acrylic mastic sold as window frame sealant and secured with brass screws. I tried to salvage and re-use as many of the original screws as possible, although many had been sanded down until there was almost no head left.

Mast step

Made from white oak purchased from local timber yard. My original idea was not a success as the hole for the mast was not deep enough. It was quickly modified and finally rebuilt in winter 2003.

Watertight Bulkheads

As built she was originally open from stem to stern. I was initially reluctant to change this but I was persuaded that in the event of a capsize I would have a ton of water to bail out. In view of my relative inexperience as a skipper and Amaryllis' reputation as a "lively" craft I took sound advice and fitted bulkheads. These were made from Robbins Elite and incorporated two screw-in hatch covers in each. I fitted and sealed these bulkheads in position before fitting the new deck panels. In the event they proved their worth first time out when she capsized while running down wind. An interesting experience, I felt somewhat miffed at being dunked after spending two months restoring the boat!

The cockpit view after restoration

Floor panels

The floor panels were a work of art. The all-mahogany duck boards were curved and fashioned to fit the oval shape of the cockpit. Many of the strips and frames were either rotten or broken and it was a real challenge to figure out how to restore them. Meranti seemed a good choice of material as the colour match was good, it was relatively cheap and readily available from B&Q. I decide against completely dismantling and rebuilding the four panels as I doubted whether I could reassemble them back to the original size and shape. I therefore removed each damaged piece and replaced it in situ, starting with the support framework. Using Balcotan adhesive and 12degree scarf joints I removed the damaged sections and joined in new sections one by one. This was the longest and most tedious job by far.

An interesting insight into the dedication and craftsmanship of the original builder was revealed when it was found that all the wood screws in the floor panels had the slots aligned fore and aft!

The mast, boom and spar

The original pitch pine mast was in good condition. The few cracks were opened out and filled with West System Epoxy. There were originally four strakes where the spar rubs against the mast, these had fallen off. They were replaced using material salvaged from the old decking. Finally the mast was sanded down and given several coats of Deks Olje D2.

The boom and spare were made from bamboo, 2 – 2½" diameter. Amazingly they appeared to be original and in generally good condition. There were numerous longitudinal cracks which I tried to repair several ways. Bamboo is quite weak across the grain and just poking adhesive into the cracks and then clamping up to close the joint does not work. The method I evolved was as follows:

Clean out the crack, removing and loose fibres of bamboo.

Mix West System epoxy and paint the joint faces. Then fill the cracks with epoxy loaded with microfibre filler and colloidal silica mixed to a thick paste.

Clamp up to close the cracks using Jubilee clips located close to the bamboo ‘knots’.

When cured, sand down to remove excess epoxy. DON’T remove the Jubilee clips.

Using 2” wide glass tape and West System epoxy, make a ‘belt’ of two to three turns of glass/epoxy mid way between the bamboo ‘knots’.

When cured, remove the Jubilee clips and sand down smooth.

When subsequently varnished the epoxy glass belts are almost un-noticeable.

Tiller mechanism

When the aft deck had been removed it was evident the tiller and associated linkage had been changed several times over the years. I therefore took the opportunity to locate the pivot for the tiller at a place which felt right for me. This involved the manufacture of a new bushing, tiller arm and linkages.

The tiller arm was fashioned from an adze handle purchased from the local agricultural stores. The linkages, part of a parallel bell crank arrangement, presented a different challenge. I finally came up with the idea of using an 8mm rigging screw and a length of ½” stainless steel tubing to make an adjustable linkage. The rigging screws were cut in half and the shell bored out to be a tight fit on the stainless tubing, then secured with adhesive.

Centre plate

This was cut to shape from 6mm aluminium (5083) blank using an electric jig saw. I originally had ideas about getting the outline plasma cut, but cost was prohibitive. Half an hour with the jig saw and two blades did the job at virtually no cost. The leading and trailing edges were profiled with an angle grinder and sanding disk.

Finishing off the hull

The sides and bottom of the hull we in good condition and needed little further attention, at least for the 2003 sailing season. The existing decking was sanded down with a belt sander to remove all the old varnish. I decided on Deks Olje D1 and D2 as the best finish for the topsides. Unfortunately it was not as robust as I would have liked and did not weather as well as I had expected. It did not stand up to the dings and scratches of boating life and I had to remove it all at the end of the season and re-varnish with Blakes Classic for 2004.

Rigging

The existing standing rigging was scrapped. Apart from age and corrosion, I had stepped the mast up on the deck and it was now about 200mm higher than before.

There were however a number of problems to consider:

The mast used to be stepped through the deck on the keel, and derived some lateral and fore/aft support from the deck.

The chain plates for the shrouds, two each side, were rather close to the foot of the mast and I would have preferred them further aft.

There were no running backstays.

After some deep thought, A-level maths, spreadsheets and a trawl around the internet for mechanical properties of stainless steel wires I decided on two 4mm shrouds each side, a 4mm forestay and two 3mm running backstays, all 19 strand stainless. It may seem overkill, but wind conditions

here can be gusty and unpredictable at times and having been caught in a severe squall later in the season I feel reassured that the decision was correct.

Was it worth it?

Yes.

Amaryllis is one of the most attractive boats on the navigation. She is an exciting boat to sail, totally different from the flat bottomed scows against which she competes. She is very nimble and points well into the wind, quick on the turn and tacks like a dream. On our narrow waterways that is a great advantage.

With 175sqft aloft she is a great boat for light airs but needs reefing down when the wind gets above 12kt.

Our boats are all handicapped and I am now fairly satisfied that I have about the same handicap as when Walter was sailing her 40 odd years ago.

Thanks to:

Robbins Timber for plywood, meranti, adhesives and fasteners.

Aalco for the aluminium plate and stainless tubing.

Scarborough Marine for all rigging, blocks, shackles etc.

Kildale Marine (Hull Marina) for Blakes varnishes, primers etc.

New sail in 2005

Racing for the Loulia Cup in August 2003