

Model of Steam Yacht Gondola

I fell in love with this steam-powered boat having had a ride on her when we visited Coniston Water in the UK Lake District last summer. I took some pictures but of course not nearly enough. Fortunately I struck up an ongoing contact with Dennis Whittaker the engineer who runs the steam plant on the boat, which is owned and run by the National Trust. Dennis very kindly sent me many pictures to assist in my conception and design.



Having never attempted to build a model boat like this before, let alone to build one from scratch, I launched into the project with lots of enthusiasm and not much else. I had visions of making her a steam driven project eventually.

I settled on a meter overall length as a suitable size. This is a narrow boat not dissimilar to a canal boat in overall proportions. There is a vague touch of the gondola in her lines not surprisingly.

You can view her and her wonderful story at the NT web site.

<http://www.nationaltrust.org.uk/main/w-vh/w-visits/w-findaplace/w-gondola/w-gondola-history.htm> There is also a more extensive history by Dennis himself at: <http://www.steamengine.com.au/index.php/water/22-steam-yacht-gondola>



After making a drawing based on dimensions taken from the photographs and the overall dimensions data I had to wait for a Christmas present. I was presented with an electric scroll saw by my wife on the great day and was thus enabled to start with the

keel and formers. This was the mostly a trial and error phase of the work as there was some suck it and see involved in making the shape approximately right from the information I had. At this point I will say that my objective was to build ‘stand off’ scale. I think my hull came out a little more fulsome in the beam possibly but I am quite pleased with the lines nonetheless. I built the hull from good quality ply formers with balsa chine for the hull. This was then covered with glass resin inside and out. I bought a close to scale three blade prop and shaft. Creating the superstructure was fun, as was using veneer strip for the decking and other features. I decided that I didn’t like the addition of the current bridge structure. This type of bridge is probably necessary to comply with current survey laws but does nothing for the Gondola’s good looks, so because I had an old picture form the original operation in years gone by, I put a pulpit and wheel behind the saloons like the old days.



Original Picture

I found unexpected help from a local shop, which caters for ladies who make their own jewellery. I found little frames for my travel pictures to go in the saloons. Beads to make bollards. Little brass pins for use in supporting the whistle pipe on the funnel. I do like to find things like this to use rather than shelling out for expensive “model” bits. The whistle itself is a bullet crimp connector with the insulation cut off – it looks the business! I have been asked how much I had to pay for a whistle that looks so real?

It is time for me to admit to a few boo boo’s at this point:

I put a 12volt 540 electric motor in her. This resulted in trouble later.

I should have reinforced the hull with a layer of glass and not just used resin. I did drop the hull once and I think it would have bounced but instead I was left with a hole to fix. When I bought the reversing dc speed controller the guy at the shop asked if I wanted a balloon to put it in. I should have said yes. More trouble later!

The boat was too small to change the electric motor later to a steam plant. I was advised that there is insufficient width or length to accommodate the boiler and associated gear required because of the stern power plant layout of the yacht. A two-meter size boat would be needed for the steam plant to fit in. Well at least a meter size model will display nicely in our lounge room!



Superstructure and Decking

I was pleased with myself when I calculated the displacement I would need to make the boat stable and float correctly. I worked out that about 1500 grams would do the trick. I tested it in my back yard pool – did I say I live in Queensland Australia? Anyway, I struck on the idea of using 400g tins to check my figures. I found that about 1200g would do the job. I used 1kg of lead sinkers for ballast; this spread along the hull together with the motor and other gear would I hoped arrive at my desired result.



Displacement Test

At about 95% completion I installed the electrics and radio gear. Once I had checked it out on the stand it was time for the water test. The first problem to manifest itself was that the motor I had installed was far too powerful. It only took a small control input to have the boat shooting across the surface. Too much reverse had it going backwards just as fast! Not too good! Then I had an accident. I tried to check out the answer to helm but the boat shot across the pool and tried to climb out when it reached the side. The shapely prow did not help as it caused the bow to rise up over the edge of the pool. The nice balance from the ballast in the rear part caused the stern to sink under the water. I raced round and lifted the boat out with about a third of the rear end under water and the rest following fast Titanic style. I'm sad to report that the electrics were kaput!

Having dried her out I continued with the finishing work and was pleased with the overall appearance. I used one of the wood based modelling compounds to make the twin tail snake/dragon figurehead and associated bits.



Internal Saloon



Nearly Finished

I bought a new motor with a max speed of 5000 rather than 20,000 rpm. The new speed control is automatic and waterproof. The new 2.4Ghz receiver is installed in a balloon! I tried it out and it runs just right, which means slow! I managed to find some little people to go for a ride in the boat. They are HO gauge railway size – correct for the scale – totally by luck and not judgment on my part. You can find all the marine type bits on the net from model boat suppliers and the like.



Done

If you find yourself in the Lake District allow a couple of hours to treat yourself to a little trip on Coniston Water cruising the good Steam Yacht Gondola, even on a wet day it's a real pleasure craft.

Happy sailing.

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