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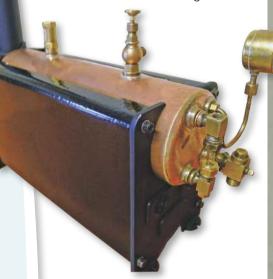
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What's coming up in your favourite modelling magazine!

editorial

ell, there goes another month in the blink of an eye, it's easily done this time of year as the model boating calendar is pretty well crammed. I do try and cover as many events as possible and if you really want me there, please give me as much notice as you can (six months would be good) as I can rarely drop tools a few days before, unless I really am at loss at what to do at the weekend, a feeling that I have not experienced since the early 1990s! Please don't take it personally if I have to say 'no', as life can be a little hectic and not every weekend is my own, at least until I'm retired and, going by what I've seen of the modern retired, life will be no less busy.

On another subject, I heard through the grapevine that a few people were being very 'vocal' on a popular model boating forum regarding the availability of the magazine. I don't tend to take a lot of notice of forums or contribute to them as there only ever seem to be a hair's breadth between total calm and mindless ranting; the funny posts are the ones that are on the side of the 'ranter' who often have no idea of the facts behind the thread or why they are agreeing with the complainant in the first place. So the solution, or should I say solutions are a) walk up to the owner/manager of the establishment (it does not have to be a newsagent) and ask why there are no copies of your favourite magazine on the shelves (at this point we are hoping the reply is 'We've sold out sir/madam, because it's so popular'). So what can you do? Ask the owner/manager to order you a copy every month maybe? – problem solved. b) What about a subscription? I did not want to waste valuable editorial space selling subs but this is the cheapest and most efficient solution and you are guaranteed 13 copies per year without leaving your workshop and to top that off, you are helping to secure the future of this great old magazine. c) Yet another option is to visit www.modelboats.co.uk and on the right-hand-side of the home page you will see a 'Magazine Locator'; just pop in your postcode and this great little tool will actually tell you where you can buy it (up to a distance of 20 miles). There is another convoluted method of getting a copy of the magazine and that is to contribute to Model Boats and then ask (you don't ask, you don't get) for a free copy of it as an extra reward; if that does not get you contributing then I don't know what will!

Anyway enough of all that – I hope you enjoy this issue of the magazine which features a plan from days gone by which many of you will already have in your Model Boat archive. I'm not going to make a habit of re-publishing old plans but, as it was 32 years ago when it first came out, I thought it could do with another airing.

Martyn Chorlton

COMPASS 360 Our news round-up from the model boating world

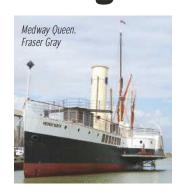
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Medway Queen Promotional Wagons

for 2018

ew wagons in support of the Medway Queen have been commissioned for 2018 in both N and 00 gauges. They continue the theme of wagons that might have been worked to Gillingham Pier and, as can be seen in the photographs; they honour the small band of dedicated volunteers who give up their spare time to work on our ship. Come down to Gillingham Pier and see what we are doing and buy your wagons in person! The Ship and her Visitor Centre on Gillingham Pier are open on Saturdays from 11am to 4pm (last admissions 3pm).

The N gauge wagons, available in dark red and dark blue liveries, have now been received from Dapol and are



on sale with immediate effect. The colours are inspired by the badges depicting the 'Invicta' white horse on Medway Queen's funnel. The price has been held at £11.75 per wagon plus UK P&P at £3.30 per order. For 00 Gauge modellers, a seven-plank wagon to the same design, available in green or grey body colour. The price of the 00 models has also



ABOVE: Engineers Wagons for N Gauge. BELOW: Engineers Wagons for 00 gauge.



been held, at £12.75 per wagon. Again, UK P&P is £3.30 per order. All wagons will be available from Medway Queen's Reading Support Group at the Bristol Model Engineering Exhibition (Thornbury in August), The International N Gauge Show (Warwickshire in September) and other events attended by the group. They can be bought in person at the ship and her Visitor Centre on Gillingham Pier or you can order by post from Richard Halton. Please note that the contact details for Richard and

for the Reading Support Group have changed. Email is now richardhalton 1502@gmail.com. Postal address 2 Drury Close, Hook, Wootton Basset, SN4 8EL. An order form is available on www.medwayqueen/reading-group-sales.html or you can write to us at this address. Cheques payable to 'R. Halton' please. All proceeds from sale of these models are passed to the Medway Queen Preservation Society to fund further restoration of the aft saloon.

Report on the GAMES 4 and Interclub 3 event at Abbey Meads Lake

hilst it was very disappointing to receive only one entry from outside the Guildford club, we were delighted that Peter Popham came from the Three Rivers club to enjoy a warm day with the wind blowing most of the time straight down the lake from the North. Peter was excited, as he brought his brandnew boat which he and Max Lemke had been building over the last few months using the UPROAR mould and copious instructions that now go with it.

DIY building is now remarkable in itself, but this boat is part of a scheme originally to build three new boats and update the Three Rivers club Marblehead fleet. The plan has now been extended to four new boats, so this is very encouraging for the Marblehead class and in the future we hope to see more of these boats in local open races. Peter's new boat UPROAR 71 looked magnificent, sprayed bright orange and with some fancy lettering as shown in the photos. I helped set up his rig



Peter Popham's bright orange UPROAR 71

and he enjoyed some good racing despite controlling the boat from his chair in just one location. He enjoyed winning three of the twelve races.

Whilst it would be nice to have more local club sailors, everyone enjoyed the event and those who didn't come, missed out on some good sailing. There were other attractions this weekend and the IOM ranking event at Southport took away several likely sailors and holidays took away several of our own members. However the question has to be asked how local Marblehead sailors can be persuaded to travel, for some of them very short distances, to increase the level of attendance and enjoyment at these local GAMES/Interclub Marblehead events?

Richard Halton

Results: 1st Alan Viney Guildford PRIME NUMBER 19, 2nd Peter Popham Three Rivers UPROAR 21, 3rd Peter Dunne Guildford STARKERS CUBED 25.

Roger Stollery





ABOVE LEFT: A general view of the boat launching area and our purpose-built trolley parking area. ABOVE RIGHT: Part of the display set up under the gazebos beneath the shelter of the trees.

Alvaston Pirates Model Boat Club

Fifth Annual Regatta -

In previous reports of our annual regatta, I have 'been economical with the truth' when describing the weather on the day and have had to eventually come clean and admit to less than perfect conditions! Our luck with the weather on regatta day had to change and boy did it change. June 24, 2018 at Alvaston Park Lake in Derby dawned bright and dry and improved markedly from there on. Only the yachtsman were slightly disappointed with the very light breeze.

We enjoyed a record Pirate turn out and attracted a significant crowd of spectators. With more boats than ever on the water, a fantastic display was put on and we received definite interest in joining the club from a number of people. In addition to the Alvaston Pirates own offerings, we were delighted to be supported by model boats from the Hinckley & Bosworth MBC.

Model displays were set up under an assortment of gazebos which were necessary this year as sun shades, where in previous years we had been afraid they would be blown away and/or swamped!

On the Water - Following a briefing for boat skippers, which included frequency discipline for anyone not on 2.4GHz, the day's sailing began at around 10am with all sorts and classes of boats on the water together in free sailing mode. As with the 2017 regatta, we decided to abandon the 'slot' system for different classes of models and to trust in the judgement of individual

skippers in running dissimilar types of model on the lake at the same time. This worked really well. All in all, it was a great day and would not have been possible without the members who turned up early to set everything up and who stayed late at the end to clear away. Members Alex Byna and Dave Hurst donated models to be sold on the day to boost club funds, with the able assistance of 'auctioneer' Raleigh Mander, who it seems has the ability to sell fridges to Eskimos. Photographs were taken on the day by Ian Richardson and Jeremy Roskrow and are reproduced with their permission.

Phil Button

DIARY DATES 2018

Saturday 4th August

Rawdon MBC Open Day at Larkfield Road, Rawdon, LS19 6EQ – 10am start, refreshments available all day – fun for all the family.

Sunday 5th August

The Heron Model Boat Club present's 'Boats On the Mote – With Cygnets'. This is the Cygnets Club annual regatta at Mote Park, Mote Avenue, Maidstone, ME15 7RN. Visit www.heronmodelboatclub.org.uk.

Sat/Sun 11/12th August

150th Anniversary of RNLI Station Angle, Pembrokeshire, Model Lifeboat Display. I am inviting Model Lifeboat owners from all over the country, together with other types of models. There will be camping for exhibitors with tents, motorhomes and caravans and there is also a pub nearby and another in the village as well as a cafe for your food or possibly accommodation if wanted. We cannot guarantee a hook up, but obviously we will have an electricity supply in the Marquee. If you prefer, there is a camping site in the village about 10mins away. There will be at least three Historic Lifeboats attending, hopefully more, which will include the ex-Angle Watson Lifeboat.

Contact Mick French on 01209 820844 or e-mail stiveshake@btinternet.com

Sunday 12th August

Gipping Valley Model Boat Club Open Day. Static and floating displays; guests from other clubs; 'have-a-go' boats, raffle, cake stall and wacky boats. Come and join in with the GVMBC at Needham Lake off the B1078, Needham Market, Suffolk. Contact Neil Hodson on 10449 720565. Web: http://www.gippingvalleymodelboat.club.

Sat/Sun 25/26th August

The Model Boat Convention 2018 'The show by modellers for modellers' at the Haydock Park Racecourse and Convention Centre, Newton-le-Willows, WA12 0HQ (Mg Jt.23). Indoor and outdoor events, 100s of models on display, specialist trade stands, model boat materials and equipment, ;Have a go' at sailing on the small pond, fun activities for all the family. Visit www.modelboatconvention. co.uk for more details.

Saturday 1st September

Solent Radio Control Model Boat Club Annual Charity Exhibition (in aid of the RNLI and Hampshire Air Ambulance) at All Saints Church Hall, Greenbanks Close, Milford-on-Sea, Hampshire, SO41 0SQ. Open 10am until 4pm; Entry by charity donation; Refreshments available and free parking. We will have large display of over 80 models of all types together with a RNLI Souvenir Stall and representatives from RNLI Sea Safety and Coastwatch. Contact David on 07887967887 or e-mail david.mcnairtaylor@sky.com

Sunday 2nd September

Black Park MBC Annual Regatta – free entry (although there is a fee for the car park) with all proceeds being donated to the RNLI. For more details visit www. blackparkmodelboatclub.org.uk/page3html. Contact Bob Kiralfy on 01753 867713 or e-mail bob.kiralfy@btinternet.com

Sunday 9th September 2018

Kirklees Model Boat Club will be holding their final event of the year their Autumn Open Day (formerly it was called Navy Day) from 9.30am to 4pm at Wilton Park, Bradford Road, Birstall, Batley WF17 8JH. Visiting clubs, both on and off the water displays, refreshments, raffle, free car parking. The theme for the day will be Naval/Military and we would like to open this up to model lifeboats and tugs, but anyone is welcome with any kind of boat but no IC or fast electric. There will be a display of RC controlled tanks and other military vehicles and hopefully some large yachts. Any steam models will require up to date paperwork. Anyone requiring further information e-mail kmbc2015info@gmail.com

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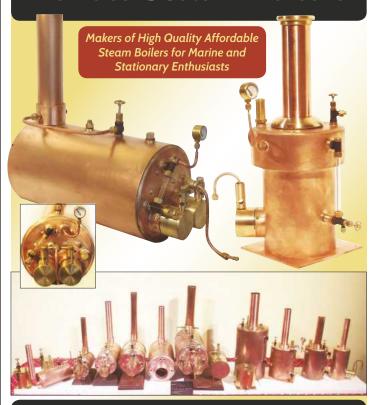
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Boiler Room

Metal Suitability

A collection of thoughts on Model Steam Plants by **Richard Simpson**

ometimes I have to think long and hard about a suitable subject for the next 'Boiler Room' article and then sometimes a subject simply crops up during either a conversation or during a job or project and I suddenly realise that I have a perfect topic for an article. Such was the case with this month's subject 'Metal Suitability' where I thought it might be interesting and worthwhile having a brief look at not just what some of the more common metallic properties are, but why these properties make them suitable for the tasks we put them to. This then helps us to decide which metals may be best suited to a particular job we have in mind or, more to the point, which ones may be unsuitable. A lot of this may seem fairly obvious but it may provide a bit of food for thought and promote further discussion.

As an example, a project I enjoyed working on a number of years ago and which took a few years to complete was the refurbishment of a Stuart Turner plant consisting of three different engines and a traditional Stuart turner horizontal spirit fired boiler, I found that the mountings on the end of the shell were all screwed directly into the threaded copper shell. No bushes were used. When I asked Stuart about this, they unsurprisingly said that they would never produce such a boiler in that way, so quite how it came to be in existence remains a mystery. I had to manufacture bushes and silver solder them into the end plate to refurbish the boiler

to a suitable standard, (**Photo 2**). What it did clearly indicate, is that someone had made a boiler without understanding the very basics of metallurgy and the suitability of various metals for the tasks we have in mind for them. Hopefully, this article we will, at the very least, be able to prevent anyone ever cutting a thread directly into the end of a boiler shell again.

Metallic properties

A number of years ago I put together a couple of deeper articles on the various properties of metals and how we used them, such as 'Full Metal Cardigan' in the 2012 Model Boats Magazine Winter Special and 'Full Metal Anorak' in the 2013 Winter Special edition, but to simplify things here a bit just one or two of the properties that are particularly useful to us are as follows. This is by no means a definitive or even comprehensive list, but just a few of the more significant properties that we might want to consider when rummaging through the scrap box for a suitable off cut of bar stock for a particular use.

A) Hardness/Softness. Starting off with a fairly straightforward one, hardness is simply the resistance that a metal demonstrates to an indentation. The standard hardness test incidentally does just that, it indents a sample of the metal with a pointed tip using a known force and the depth of the indentation is measured, and gives you a measurement

1: Sometimes you think you are simply taking on a cleaning and painting job, but occasionally projects such as this Stuart Turner plant may well end up requiring a basic knowledge of metallurgy and an appreciation of when something may not be quite right. Such as threaded copper boiler shells!

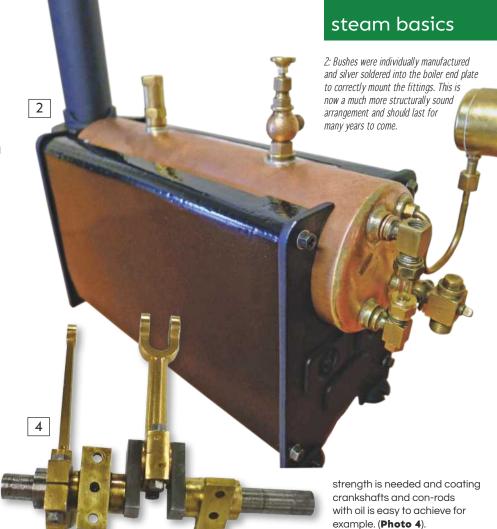
of hardness known as the Brinell Hardness Number. A hard metal may be advantageous for a strong structure, but it invariably comes in conjunction with a dense and therefore heavy structure and possibly a brittleness. Just to give you a comparison, mild steel has a Brinell Harness of around 120 HB while tool steel is anywhere from 600 to 900 HB and pure aluminium is around 15 HB

B) Corrosion Resistance. This is a fairly straightforward one to understand and is nothing more complex than a metal's ability to resist reverting to its natural state by a process of oxidisation. Some metals resist this very well and remain in their metallic state almost indefinitely whereas some will revert back very easily unless we intervene and prevent the oxygen from getting to the surface of the metal.

C) Malleability/Ductility. These two terms are regularly confused and hardly surprising, as they mean almost the same thing. They both refer to a metal's ability to deform without damaging the crystal structure of the metal, so consequently the strength of the metal is maintained. The difference is that ductility is the ability to deform when the metal is put under tension, or stretched and malleability is the ability to deform when the metal is put under compression. To consider them in more practical terms, ductility is the ability to maintain strength when stretched into wire and malleability is the ability to maintain strength when rolled into sheets. Just to help us understand why we bother with the two different properties which may seem so similar as to be the same, gold is actually both ductile and malleable whereas lead is only considered to be malleable. Most metals can be considered to be both malleable and ductile to varying degrees when compared to non-metallic materials. Looking at an extreme, lead is so malleable it can folded and shaped by hand when in sheet form such as in lead flashing. (Photo 3).

D) Electrical and Thermal **Conductivity**. Although these are obviously very different properties they virtually always go hand in hand, so a metal with a very high thermal conductivity invariably is also a very good conductor of electrical energy. Not surprisingly, the two properties are invariably considered separately as it is usually a specific property we need for a specific purpose. As examples, wiring around our models needs to be manufactured from a material of a good electrical conductivity whereas the boiler tubes need to be of a material that has very good thermal conducting qualities. Whereas we may end up using the same metal, i.e. copper in both these cases, it is actually for very different reasons.

E) Brittleness. A metal is considered brittle if, when subjected to a deforming force, it fails with very little deformation. Usually it requires a relatively little force to achieve this and the metal will fail instantaneously even when normally



considered to be a strong material in compression and possibly a very hard metal

F) Melting Point. This is a fairly obvious property to consider and clearly definable but it is a very significant property to us as a metalworker. Just consider the construction of a complex boiler, which you may want to silver solder in a number of stages and avoid re-melting previous joints as you heat up the temperature required for later work. In such cases, the silver solder is carefully graded to be of specific temperature melting points, with the higher ones being used first, and lower ones being used for each following step of the process. It also means that the production of cast fittings for our models can be significantly cheaper to produce from heating costs alone if we use lead as opposed to say brass to cast them.

They are probably the most well-known and the most valuable properties we can consider when selecting a particular metal for a specific task. On top of those, there are a huge range of other properties such as the ability to bond or alloy with other metals, density, wear resistance, machinability, weldability, work hardening abilities plus many atomic and chemical properties, but we can determine enough from the above.

Common metals available to us

While we could get our hands on various weird and wonderful metals if we really wanted to, there are really only four or five metals that we might want to consider from a cost and availability point of view. The properties of these metals do vary quite significantly though and tends to force us into using them in a way that takes advantage of these properties. The common ones, with various strengths are as follows:

A) Steel. Mild steel is very strong and relatively hard, making it a very common metal for many purposes. Its main downside is its readiness to revert back to its natural state of iron oxide, or rust, but this can be

4: Even a detailed assembly such as a crankshaft can contain a number of different metals. Mild steel is used for the shaft here as it is easy to machine and can be kept rust free easily with oil. The running components are brass, as they bed in very well with the mild steel and can be easily remanufactured and replaced if they wear with age.

offset by either coating with oil, grease or paint or alloying it with chrome to make stainless steel. Stainless steel however, is harder than mild steel, so much more difficult to machine and the chrome content makes welding a lot more of a challenge. Mild steel is regularly used on our models where

B) Cast Iron. Steel in its most basic raw form, before any other additives are alloyed with it is cast iron. Its main advantage is the ease with which it can be cast so it finds a use where complex shapes are required and casting is a far better option than fabrication would be. Its main disadvantages are the fact that it is actually far more rapid to corrode than mild steel, so it rusts very easily and it is very brittle, leading to a crack failure rather than a deformation which could be rectified. It is extremely difficult to weld which can easily lead to stress cracks but machines easily. These properties tend to lead to it being used for complex shaped components such as cylinder blocks, 'A' frames and bedplates on larger engines, (Photo 5).

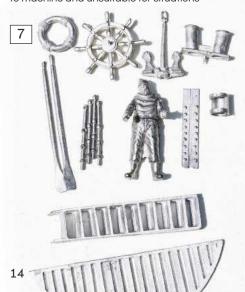
3: Lead epitomises the property of malleability and can even be shaped by hand when in sheet form as it is so soft. Being very dense also makes it useful as ballast as it takes up proportionally less space for a required weight. 5: Complex structures can be fabricated, which can be time consuming and expensive, or they can be cast and machined, as with these engine frames and base. Iron casts very well and forms complex shapes easily.





steam basics 6: A typical boiler shell will be copper for its flexibility under varying heat inputs and pressure deformations, combined with brass bushes for their strength, wear resistance and machinability properties. 7: Having a very low melting point makes lead an easy choice for cast detail fittings. Unfortunately it comes with a very soft structure giving it little strength so long thin shapes such as handrails are very easily deformed. 6

c) Copper. Raw copper is very malleable and ductile with a high ability to transfer heat and electrical current. This makes it perfect for the manufacture of copper wire, where flexibility is required and boiler shells, where the stresses induced by the regular heating and cooling are accommodated by the flexing without any loss in the strength of the boiler shell. It is also quite soft, making it very difficult to machine and unsuitable for situations



8 Carriage C

where strength and hardness is required such as threads or running surfaces.

D) Brass. If you mix the copper with zinc in the proportions of around 60% copper to 40% zinc you will get brass. There is actually a whole family of different brasses depending on the proportions but that is a rough guide. You can also easily add other metals to improve other specific properties, such as lead to improve machinability, so it is very easy to alloy and create a specific set of properties. Obviously very resistive to corrosion combined with a good hardness, easy to machine and easy to weld, making it a very useful metal for many applications. In modelling, we use it for bearings, as the lead content also assists its lubrication and many functions where we want the strength and corrosion resistance together. It is also used for boiler bushes as it easily takes to silver solder yet provides a hard surface to

take threads as well as bodies for many fittings such as safety valves, pipe work fittings gauge

glass fittings and valve bodies. (**Photo 6**). **E) Lead.** Lead is really a bit of an anomaly as it has very few of the normal metallic properties and is so soft and malleable as to be useless as a machinable metal. Its key properties are a great asset with the extremely low melting point and very high ductility and malleability combined with a high density, making it perfect for making cast ballast weights. It is so soft you can even cut it with a knife and, in sheet form, can be cut with scissors. The low melting point make it relatively easy for home casting so detail fittings and figures can be easily made from it as well as keels and keel fillings, (**Photo 7**). It must never be forgotten that lead

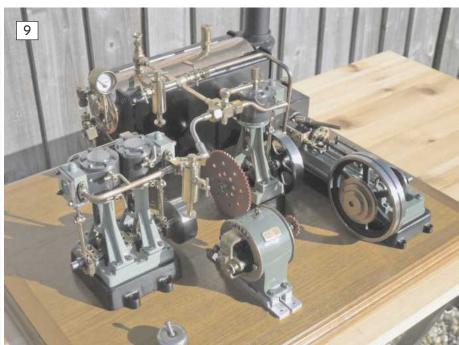
8: Aluminium comes with good heat conductive properties making it a very useful and cheap choice for such components as heat sinks on this circuit board. It tends to crack easily under stress reversals, so flexing must be avoided.

is poisonous and is a cumulative poison, so great care must be taken with its handling and breathing in fumes during heating; gloves, face masks and goggles are essential.

F) Aluminium. The last metal we may come across fairly frequently is aluminium which, while quite common, is also a metal that has one or two unique properties. The advantages of aluminium are its light weight combined with a reasonable strength, making it a very useful metal for modelling purposes. The main disadvantage is its unique property of very easily creating an oxide skin on the surface, making it extremely challenging to weld. Consequently, if mechanical fastenings are to be used to join structural members then aluminium is very useful. Another challenge with aluminium is a property only briefly mentioned above and that is work hardening. Work hardening is where the crystalline structure of the metal changes with stress and makes the metal significantly harder as repeated stress is applied. Aluminium work hardens very easily in this way, so is not a very good metal to use if any regular flexing or bending is to be applied. It does cast easily though so does find a lot of use in cast components and, under the right conditions can be easily machined, (Photo 8).

So there we have just a few metals and a little bit of the reasoning as to why you might find them used in the situations we come across. If nothing else, I hope this at least stopped someone from cutting a thread in a copper boiler shell and screwing a sight glass fitting into it! Metallurgy is obviously a huge subject and one to which a very wide range of careers can be based on, however from a modelling point of view and in particular a steam modelling point of view, it is well worth noting just what metals are best suited for various tasks and why. We only need a brief understanding of the few common metals available to us to be able to do that. This will assist us to make the right choices and produce a plant that is fit for many years of reliable service, (Photo 9).

9: A simple understanding of some of the most basic of metallic properties can help us either manufacture or refurbish such projects as this Stuart Plant to give us a long lasting and reliable piece of engineering.





The Nishimura submarine by **John Parker**

odel submariners have a far more restricted choice of types on which to base their model than modellers of surface vessels, so when information on a previously unknown or obscure type becomes available it is very welcome. Such was the case in 2010 when an article in Marine Modelling by Mike Williams alerted me to the existence of the Japanese Nishimura submarine, a type I was not previously aware of and I decided to see if I could find out more about it.

Through a mutual friend I was able to contact a Japanese correspondent who helped to uncover the background of the craft, largely through a tribute page compiled by Mr Eiji Nishismura, nephew of the designer, found on the internet. I am indebted to both these gentlemen (the correspondent doesn't wish to be named) for much of the following information in my account.

http://hajimen.fc2web.com/ n_shiki/18b.htm

Origins

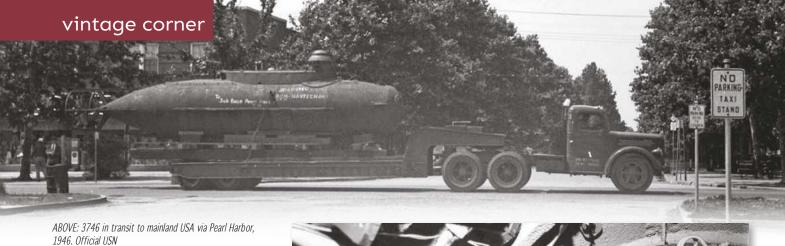
Ichimatsu Nishimura was a self-taught engineer and inventor who in 1927 designed a small submarine, the Nishimura Type 1 Submersible, for collecting coral and underwater exploration. The prototype was completed by the Kee Lung ironworks in 1929 and was soon able to demonstrate its ability to farm coral and do other work at depths of up to 180m using the manipulating arms fitted to the front of the craft. To address the various shortcomings he found with the craft, Nishimura designed an improved version with the help of Mitsubishi, the Type 2, which was launched from their Yokohama works in August 1935.

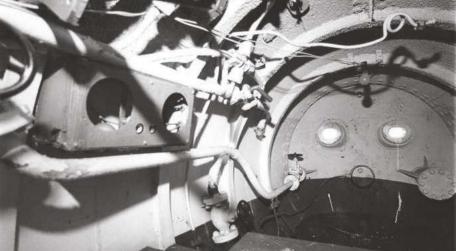
It was powered by an electric motor of 16hp (a second motor was held in reserve) which provided the 20-ton craft (some accounts say

3746 being prepared for road transportation. 1946. Official USN

23 or 24 tons, which could be the submerged displacement) with a speed of 4.4kts. The hull was a cylinder of 1.83m diameter with tapered ends, there was a small entrance turret with sighting ports and shrouds to protect the stern mounted single propeller, rudder and hydroplanes. The crew normally consisted of four men. Further sighting ports at the front aided the crew operating the various manipulation devices, from which dislodged items could be dropped into a retrieval net suspended from the large front fender.

Both prototypes proved their value in research, carrying out geological excavation and survey work for a cross-harbour tunnel and conducting experiments in underwater sound propagation. They were acquired by the Japanese Navy for rescue work when the two submarines I-60 and I-63 collided and sank in February 1939. The craft proved unsuccessful in the rescue attempt due to their limited endurance, but the Navy was encouraged enough to hurriedly build two revised Type 2s which were completed by August 1939 and given the code numbers 3746 and 3747. Comparing different accounts and photos of the revised with the original Type 2, the main differences appear





ABOVE: Interior view looking forward, showing viewing slits and suction pipe. Official USN



ABOVE LEFT: Interior view looking aft showing rudder control shaft and one of the two motors, driving into a reduction-combining gearbox. Official USN. ABOVE RIGHT: Interior view looking aft amidships, showing twin ballast tanks and battery trough. Official USN

to be: installation of a buoyancy tank along the spine; deletion of the front hydroplanes; revised arrangement of two internal ballast tanks along the interior sides of the hull with underfloor battery in between and better protection of control linkages

Number 3746 was employed in the salvage operation of the battleship Mutsu in 1943 but was nearly lost along with its crew when it was snagged by a protrusion on the wreck. With the oxygen running out, a last desperate attempt to free the submarine by rocking it from side to side by co-ordinated movements of the crew finally succeeded and the craft was able to return to the surface. As the tide of the war turned against Japan, various schemes to use a developed version of the submarine for planting listening devices

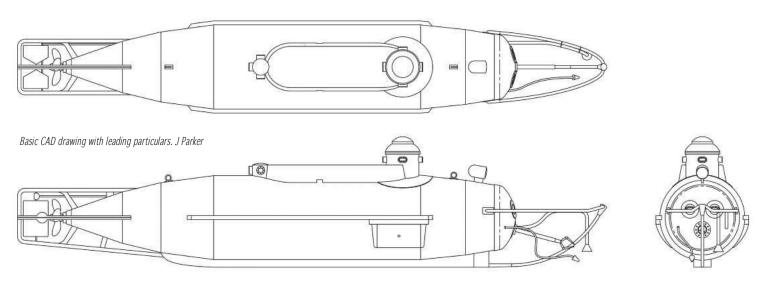
for submarines on the ocean floor or for re-supplying beleaguered garrisons were proposed, but nothing came of these. With Japan's surrender, the Nishimura submarines were wrongly identified as 'weapons of war' by the Allied Forces who ordered their destruction in December 1945.

The Mariners' Museum, Newport News, Virginia, USA

To quote from Mr Eiji Nishismura's website: 'In 1973, Mr. Motonobu Ukita of the Japanese Naval Equipment Development Association visited the Mariners' Museum in Newport News, USA and was amazed to identify an exhibit casually displayed on their patio as the Nishimura Type 2 midget submarine number 3746, saying in an interview 'I felt as if I had met a dead person!'.

It transpired that one Nishimura submarine, number 3746, had escaped destruction and been transported to the USA for study at the end of the war, where it ended up a forgotten relic in storage at the Mariners' Museum until re-identified as the long lost Nishimura submarine. It no longer has its bow fender or manipulating arms, which were cut-off to make transportation easier and presents a stark appearance in photos sitting slug-like in a field with sightless viewing ports. But it can be imagined in its intended form, at least as neat as a modern day submersible and thirty years before its time, a monument to designer Nishimura who foresaw only peaceful applications for his creation.

NISHIMURA TYPE 2 SUBMARINE 1939



LEADING PARTICULARS

Length: 12.8m Hull diameter: 1.83m Hull length: 9.8m

Displacement: 20/23 tons

Diving depth: 180-200m

Propulsion: 2 x 16 HP electric motors

(one kept in reserve) Speed: 4.4 knots Only surviving example (no. 3746) at the Mariner's Museum, USA Some details remain conjectural

Drawn by J. Parker

A Nishimura model

I think the Nishimura Type 2 would make an excellent model. At 1/10 scale it would be 1.28m long with a 183mm diameter hull that could house all your favourite working gear, including lights and cameras looking through the various ports and perhaps a working manipulator arm that can 'rescue' lost objects in a swimming pool. At an estimated 20kgs it may be a bit heavy though, so you might want to consider 1/12 scale (1067mm long, 153mm diameter and 11.75kg) or 1/15 (853mm long, 122mm diameter, 6kg). All model weight estimates assume dry hull construction and lengths are inclusive of the bow fender.

Being a research submarine, there is little above-surface superstructure and therefore only a small ballast tank is required – probably no more than 5% of the surface displacement. Separation of the hull along a vertical line with a bayonet fitting would be a natural choice. Only a low power motor is required in keeping with the slow speed of the original, but fine control of throttle, hydroplanes/rudder and ballast system is a must for accurate positioning of the model. With control surfaces in the wash of the propeller and a short, wide hull, the manoeuvrability promises to be excellent, with all vital parts well protected from damage by fenders and guards.



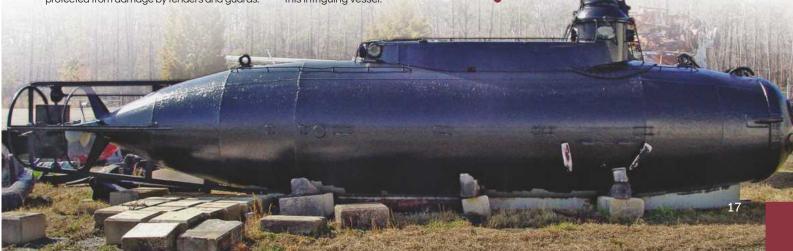
The problem is going to be drawings – there aren't any. Some good photos are available of No.3746 on the Mariners' Museum website and I have scaled off these and used what little other information is available, including the hand sketch found in Shizuo Fukui's book 'Japanese Navy Vessels at the End of World War Two' to produce the basic CAD drawing that accompanies this article, which I hope will promote further interest in this intriguing vessel.

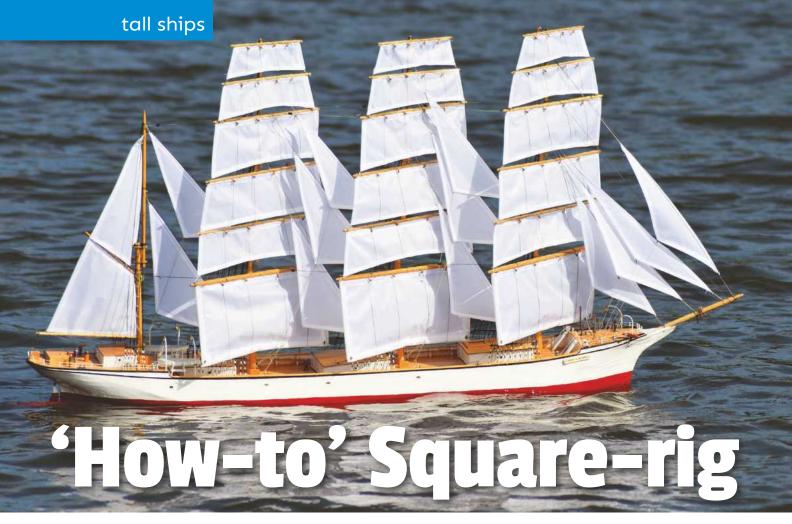


ABOVE: Stern detail showing bevel drive to rudder (the propeller appears to be a replacement). Mariners' Museum USA

LEFT: Close up of the entry turret. Mariners' Museum USA

BELOW: 3746 in storage at the Mariners' Museum, USA. Mariner's Museum USA





Following on from tail ship terminology, **Neville Wade** guides us through square-rigging

Repetition

Over the last twelve years I've made eleven sailing model square-riggers. On the way I've found some things crucial to their success. Below are some tips which will help you to avoid frustrating wild goose chases, should you try to build one. The tips are in bold type, referencing to them, and to the pictures and captions, will give you some ideas, so read on, and good luck!

Hulls

You can't buy 'ready to run', sailing squareriggers (i.e. no motor, sail alone), you can't buy a kit either. Therefore, you will have to scratch build, and that is a good thing. If you build a model of a real ship, you can be assured that it will sail. If you acquire a hull of, say, a schooner, and try to make a full rigged ship of it, you may put in a lot of time, only to find that sailing performance is not what you hoped, and that is my first tip, build the hull of a real ship. It is possible to buy Underhill plans of a wide selection of sailing ships that are excellent for their purpose and WILL produce models that sail.

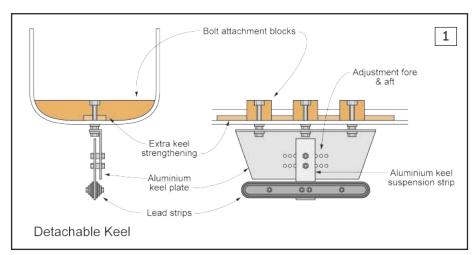
Removable sailing keels are a must if you are building in the range 1/40 to 1/116 scale models. I have meant to try putting all the weight required inside a hull, and trying to sail like that but, if you think about it, I would then be committed to that arrangement right up

ABOVE: Queen Margaret making good speed at Herrington Country Park, in near perfect conditions.

until the moment of the maiden voyage and, if it didn't work, altering it to a removable keel would be a really difficult, if not impossible job. So, I've not been brave enough to do it, as removable keels do work. I decided long ago that lead casting at home was not for me, so mine are made from aluminium plate, with lead strips attached (Photo 1, 2 & 3). Done like that, they can be adjusted for weight, and position, both fore and aft, and side to side, when the time comes to sail. They aren't pretty, but you can't see them on the water, and they come off, if you want to display. Also, and this becomes more important as you get older, with the keel in a rucksack, the hull is much lighter to carry to the pond! The plate also helps the model to 'grip' the water, which is a boon when you're trying to beat to windward. Remember, if you use a removable keel, they can weigh up to 9kgs (In my boats), so your hull needs to be sturdy, to take the stresses involved.

You'll see that my rudders are vastly oversized (**Photo 4**). They are easily 10/15 times the scale size of the real thing, and it is that way for a reason. If you are sailing a model on a very small 'sea', you do need to be able to manoeuvre as quickly as possible. Sailing ship models are like the real thing, they

LEFT: My version of a detachable sailing keel. Lead strips are bolted to an aluminium strip, which is bolted to an aluminium plate, which is bolted to the hull. Everything is adjustable (side to side is by bending the plate) until you're happy. Then it stays like that forever.



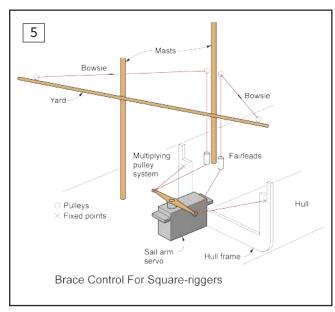
need plenty of room in which to get where you want them to go, so any help is useful. If you don't like the idea of a permanently present, oversized rudder, you can always do the trick by having a removable extension piece.

Inside the Hull

I use sail arm servos to operate my yards (**Photo 5, 6 & 7**). Lots of better modellers than I use sail winches and they are more realistic in that they move the yards around at something like scale speed, but I like the sail arms, they are simpler, require less maintenance and the yards can be 'flicked' round quickly if necessary. It is vital that you get the maximum movement at the yards for a given movement at the sail arm, so I use a multiplying pulley system (**Photo 5 & 6**) to

ABOVE: An oversized rudder, prior to painting. If you don't want this look as a permanent feature, you could make a detachable rudder extension.

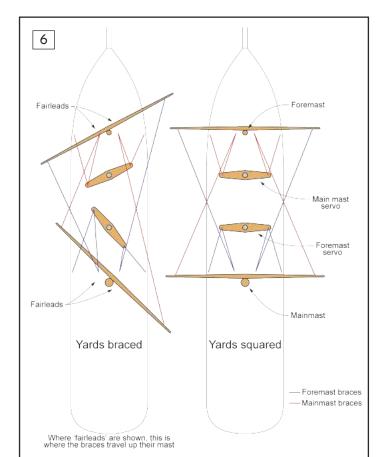
gain extra movement of the braces. Instead of attaching the braces direct to the servo arms, I attach them to a hull frame, and then lead the braces through pulleys, at the servo arms, before sending them up, through the deck en route to their yards. It does give that little extra movement (see later as to why it is important). I make the sail arm pulleys from fisherman's 'swivels' (a kind of small snap link), so that the braces are easily detachable from the sail arm, which will help with sail arm changes down the line.



ABOVE: The layout of the braces for one yard, on one mast.

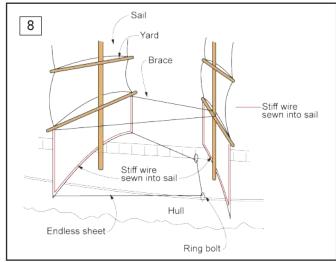
RIGHT: On this schematic of a model of a brig (two masts, square-rig on both), you can see the arrangement of two sail arms, one with braces running forward, to operate the main mast, one with braces running aft, to operate the foremast.





tall ships





ABOVE: Wired courses and an endless sheet. This method will enable you to set the course sails, rather than missing them off.

LEFT: The arrangement in use on the brig. You'll notice that the sail arms are at different levels, to allow the arms to cross without interference. Running to the course yards, you can see both sets of braces, you'll also notice the 'endless sheet', of the foresail, running through its' pulleys on deck, just forward of the main mast. Both these courses are 'wired'.

Having the foremast yards able to move independently of the rest helps when putting the vessel about, during tacking, so I always control that set of yards separately from the others. That also means that the foremast yards go around further than in situations where I must control two sets of yards from one sail arm (Photo 14), due to lack of length between the masts. It is only a little more, but I DO notice it. Therefore, where I can, I try to use one sail arm per mast. The aftermost mast of a vessel that carried square sail on all masts had its' braces run forward to the adjacent mast so, if there is enough length between the masts, it is possible to put in two sail arms, at different heights, so that the servo arms don't interfere with each other. They can then operate each of the two masts independently (Photo 7).

All the yards on a particular mast are joined by the sails on that mast, so it would be possible simply to operate the yards by attaching braces to one yard per mast, but it is perfectly feasible to run two pairs of braces from one sail arm (or four. if controlling two masts worth), so I also attach a pair of braces to a yard further up the mast, as well as to the bottom yard, so as to 'spread the bracing effort' up the mast.

Aloft

Unless you get the yards to brace round to within 30° of the centreline of the hull, you'll not get the model to beat to windward. Hence the effort put in with the sail arms, to get as much movement as possible. Also, it is necessary to facilitate plenty of movement of each yard is to use a means of pivoting the yard, so that it will swing very far 'around' its mast. Each yard must be pivoted 'out front' of its mast, so that it will so swing. I do it by using simple bent brass wire, glued into the centre of each yard, to make a pivot with the mast, by fitting the bent wire into a brass tube, fastened to the forward side of the mast. The yard is thus held about 15mm forward of its mast, which allows the vard to swing very far around it (Photo 10, 11 & 12). This method also allows the yard to be easily lifted off its mast, to reduce sail (see later).

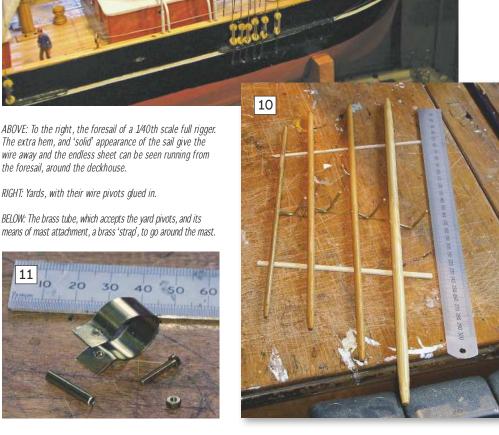


RIGHT: Yards, with their wire pivots glued in.

the foresail, around the deckhouse.

BELOW: The brass tube, which accepts the yard pivots, and its means of mast attachment, a brass 'strap', to go around the mast.

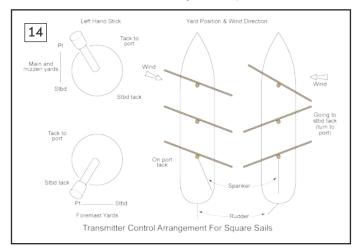






ABOVE: Mast pivots, braces, running both forward and aft, between the masts, wired courses, and endless sheets are all in view here. Just like the real thing, it looks complicated, but there is order here.





ABOVE LEFT: The on/off switch in a hatch cover and the charging points through the deck. No need to regularly 'go below'. ABOVE RIGHT: A schematic of my method of keeping yard control as intuitive as possible.

When each brace arrives at its yard, it must be attached there. When necessary. to get maximum bracing of the yard, I will attach it inboard of the end of the yardarms, to get as much movement as I need. For ease of later disconnection, I fit loops of cord to the yardarms, and attach 'swivels' to them (see earlier), so that I can loop the braces through them, and bring the ends back to a bowsie between the yard, and the adjacent mast. That allows me to adjust the length of each side of the brace, invaluable when setting up the system (Photo 9 & 12). If I ever need to disconnect the braces, I can do so by opening the 'swivel' and unhooking it from the yard's loop.

You may have noticed on some square-rigger models that the 'courses', the lowest square sails on each mast, are not set. There is usually a very good reason for that. The courses have no yard below them, to support their bottom corners, or clews. Without any support, the clews will buckle aimlessly, looking awful and, if the wind comes from in front, as during tacking, the sails will wrap themselves around their mast, so people fear to set the courses, which is a pity, as they are the main driving forces on a sailing ship. There is a solution to the problem, and it is to fit 'wired courses', and 'endless sheets' (Photo 8, 9 & 12).

The bottom corners of the courses were controlled, on the real ships, by lines, called 'tacks' and 'sheets', fastening them down fore and aft. We have no crew on our boats,

so that will not do for us. The simple solution for us is to attach one corner of the course to a line, called a sheet, which runs astern, to pulleys at either side of the deck, just in front of the next mast astern and, via them, back to the opposite corner of the course, where it is attached. Thus, the sail is held back, into the wind from astern, no matter to what angle the yard is braced. To cope with the wind from ahead, simply sew in a single piece of stiff wire (in my case 2.5mm dia. brass) down both edges and across the bottom, when making the hems of each course. It will stop the sail from wrapping around its mast, and allow you to use the wind from ahead, during manoeuvres. It will also, and this is critical, take the fore corner of each course well forward when they are braced fully round, which means they are less likely to be 'caught aback', when sailing close to the wind.

All the movements mentioned above, using braces, sheets etc., require lines that are strong, and run freely without kinking. The stuff I use is fisherman's 'braid'. It is excellent material and is in scale with the boats.

As mentioned above, the yard pivots that I use enable me to lift off a yard easily. Therefore, on the upper yards, I attach the bottom corners of their sails to the yard below, via hooks, locating into wire 'goalposts' at appropriate places on the yard. So, when the wind blows hard (25mph is perfectly usable with most of my boats) I can take off some of the higher sails (**Photo 15**).

Intuitive

Sometimes you'll be able to sail your square-rigger with the wind, 'down' the pond, but most of the time you'll be 'beating' back 'up', into the wind, on one tack or the other. Therefore, you'll need some method in the way that you use your transmitter that makes its use as 'intuitive' as possible. I take out all the return springs from the sticks, except the one for the rudder. Where possible, I also fit ratchets to the sticks, the better to hold them in place, wherever they're put. That way I don't have to hold anything in place, impossible to do properly, when you're concentrating on sailing the model.

Luse the left-hand stick to control the fore and main mast yards, fore on left/right and main on up/down. Because, if you were aboard the vessel, port would be to your left, I use the top left-hand corner of the left-hand stick to put the foreyards on to the port tack and have main yards also on the port tack in this position. I find that it makes it more intuitive, and therefore requires less thinking time, to decide where the yards are, and what they're doing. If any other masts are involved, they are controlled from up/ down on the right-hand stick, with up being port tack, as the main yards. Photo 14 will help with this. The set up operates like computer joysticks, in that the stick(s) can be put into any position, and the yards will follow, at any angle, from hard on one tack, through squared, too hard on the other tack. The whole objective is to allow you to concentrate on sailing, without having to think too much about the transmitter.





ABOVE LEFT: A 25mph gust has blown the water flat and, under much reduced sail, the brig is romping along, beating to windward. This is tremendous fun! ABOVE RIGHT: This is a model of the Grain Race barque, Penang, heeling to a light breeze. The braces are prominent, between the masts.





ABOVE LEFT: Sailing ships were beautiful things. This is the four-masted barque, Herzogin Cecilie. ABOVE RIGHT: The little full-rigger, Joseph Conrad, idling along in the sunshine.

Electrical

I like building, but I like sailing more and I hate troubleshooting faults, even when I get it right! Therefore, I do everything that I can to keep water out of my boats, even when they put

their lee rails under, just like real sailing ships did. I put my on/off switches and my charging points above deck, so that I don't have to disturb hatch taping etc. just to charge and operate a boat (**Photo 13**).

ABOVE: Full rigged ship Mount Stewart beating into a grey 'sea', on a threatening winter afternoon. RIGHT: Queen Margaret prior to her outing at Herrington; note the size of the keel and the over-sized rudder.

Gibberish

I hope it's not been. It's a complicated subject and I hope that, at the very least, these tips will set you thinking. Some may infuriate if I've been too brief and for that I apologise. What I would find rewarding, if I ever got to know, is to hear that something I said gave you a 'light bulb moment', where an answer to something that you'd long wondered about was forthcoming. I hope you have more 'light bulbs' than infuriation!





The 'non-competitive' sport of wherry building by Mike Benson

Viking origins?

The Norfolk Broads in England's East Anglia are a special place, best explored in a boat and out of season, along remote rivers where high reed banks sway in strong winds. At dawn and dusk, great flocks of geese fly in formation in the half light, calling over fields and woodlands that were once the background to the haunting black sails of the trading wherries, winding their way along hidden waterways, as if across the fields themselves.

Then the Norfolk Broads were the thoroughfares of the countryside, linking the isolated villages and farmsteads, in the days before railways and tarmac roads. Some say the wherry's origins can be traced back to Viking craft. There are similarities in the shape of the hull, particularly when compared with the Viking cargo boats, or knarrs, which would once have used these rivers and both types of craft, were clinker built.

The last trading wherry (as opposed to pleasure wherry) was built before the First World War and by then, they were already much fewer in number, as their work was taken over, firstly by the railways and then by road traffic. Trading wherries faded from the scene at much the same time as the iconic Broads windmill, although a few of both are still to be seen, often lovingly restored. Before the industrial revolution, Norwich was one of the main cities in England and in those days goods had to be transhipped at Yarmouth for the wherries to take upriver.

The handier fore and aft rigged wherry had supplanted the earlier square rigged keels by the 19th Century and carried all types of cargo

(and sometimes passengers) under sail. The craft varied in size, but typically were about 60ft long, usually handled by a crew of two, but sometimes single handed as times grew hard. Sailing a 70-ton wherry single handed was not for the inexperienced or the faint hearted, but wherrymen lived on the Broads and knew these waterways and their craft like the back of their hands.

It was a tough life; imagine quanting a fully laden wherry when the wind will not serve, but in their heyday a wherry could pay for herself in a few years. The wherrymen were strong characters, if sometimes not above a little pilfering of coal and smuggling, to help make ends meet, of course! They loved their brightly painted vessels and took a pride in keeping them smart. They occasionally went to sea; then a short cut from Yarmouth to Lowestoft and races were held for a time off Yarmouth. On one voyage, wherries were said to have reached Portsmouth!



scale sail





ABOVE LEFT: Temeraire's skipper gives his new cabin the once over. ABOVE RIGHT: Wilfs Wherry II on her maiden voyage.



ABOVE: Lovely internal detail of Temeraire.

RIGHT: The two wherries meet on the water.

I'm going to build a wherry next!

This tale of two wherries begins by Eaton Park's model yacht pond in Norwich two years ago, when one model Thames sailing barge skipper told another he had just met at the pond that he was going to build a wherry next. 'I'd better get building!' said the other. So, they agreed a completion date and two wherries were duly launched on schedule some twelve months later.

BELOW: A pair of witches dance in the autumn sun



So Wilf Burton, ex-boat builder, builder of Wilfs Wherry II, fell in with Mike Benson, exdinghy sailor, builder of the Temeraire. Both craft are fictitious, yet scratch built as closely as possible to the full-size trading wherries. The first, Wilfs Wherry is a 10ft waterline model no less, now on display at the Museum of the Broads in Stalham, which is well worth a visit.

Wilf's interest in the wherry developed after he moved to Norwich from Essex, where he had been apprenticed when he left school as a shipwright and boat builder and then worked for 15 years in the yards on the River Crouch. There he learned the beauty of a wooden craft. Building a model wherry was to be Wilf's way of learning more about these distinctive black sailed traders.

Mike has sailed a range of small craft over the years and shares Wilf's fascination with both the Thames sailing barge and the Norfolk wherry. Retirement has given him the opportunity to fulfil a lifelong ambition to build large scale sailing models as a tribute to both the craft and to the men who sailed them.



Mike lent his wherry plans to Wilf who in turn showed them to Mike Fuller, author of 'How a Norfolk Wherry was built circa 1825' and who worked on some of the last survivors. Wilf promptly came back to the ex-dinghy sailor with, 'Mike Fuller says there are things wrong with these plans and he's only spent a few minutes looking at 'em!' The old wherries were indeed built by eye, without plans. The two Mikes were to meet later at an Albion Open Day and when the ex-dinghy sailor introduced himself as knowing Wilf, the old wherryman promptly replied, 'I've heard of you!'.



Mike Fuller now helps part-time as a volunteer at the Museum of the Broads. In due course, he was to instruct Wilf to repaint Wilfs Wherry II's hatch covers, which had to be red, not yellow and no wherry skipper would have a green cuddy; it means bad luck!

Wilf obtained his own plans of the Albion through the Norfolk Wherry Trust, whose outstanding work has kept this surviving trading wherry sailing and today she still looks as smart as any wherryman would wish. The modellers duly settled on a scale of 1/16, so the models would fit on a car's back seat, yet still large enough to perform under sail. Regular boat builders' meetings were held, where the main activity became yarning about boats and drinking tea and coffee.

Laying the keel

Early on was the key issue of where to position the keel box in the hull. Mike used (copious amounts of) internal ballast in his Thames sailing barge, but agreed the model wherry would need a drop keel. Wilf prefers a drop keel but was in turn surprised to find how much reserve buoyancy there is in a wherry's hull. Both settled on the midpoint of the old wherry's slipping keel for the drop keel, which proved right, which was just as well, considering. The slipping keels on the original old wherries were designed to be unbolted and towed aft when sailing in shallow water. Both modellers elected to incorporate the slipping keel as a permanent fixture in the hull.

Framing and planking

Both builders used plank on frame construction, using moulds taken from lines plans and incorporated as frames. The planking was a challenge, even though the ex-boat builder has

MUSEUM OF THE BROADS

built full size clinker craft. Model planks were glued and fastened. Wilf pointed out, glue was never used in real life, owing to the possibility of future repairs being needed. The bending and the run of the planking were also issues, since wherries were fine at the waterline but full amidships and at deck level, both at the stem

ABOVE: The real thing; Albion on The Broads.

LEFT: Mike Fuller inspects Wilfs Wherry II on completion.

scale sail

and the stern. Neither modeller used steaming. The ex-boat builder finished up by easing his lines by adding false stem and stern posts, to help him fasten the planks at the stem and the stern. Mike accused him of building a racing wherry!

Wilf explained to Mike, several times in the end, how using a spoiler board enables a fair run in the planking. This measures the gap remaining at each frame and allows planks to be shaped to achieve a fair run, particularly in the rise at the bow and the stern. The ex-dinghy man promptly 'spoiled' it good and proper with his next, best shaped plank, by gluing it in place upside down and realising too late; no wonder the old boatbuilders avoided glue!

Both builders had an issue getting a fair line at the sheer plank (the top strake in the hull). The model needs the correct side profile and this must match, port and starboard. Both modellers had to fiddle the tops of the frames until the run was smooth and gave a fair sheer line. Each used plywood for the frames, adding deadwood to thicken the edge for a better fixing for the planks. Plywood also proved to be the most suitable and flexible timber for planking (1/8th inch for Wilf, 1/16th for Mike – one good reason why Temeraire keeps well clear of Wilfs Wherry II on the pond!) The ex-boat builder would muse over his brew, 'I build for strength!' and 'A boat must be fair to the eye!'

BELOW LEFT & RIGHT: Subtle details, subtle differences.

The Museum of the Broads

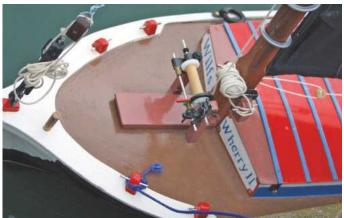
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ABOVE: The moment of truth: Wilf launching his wherry.

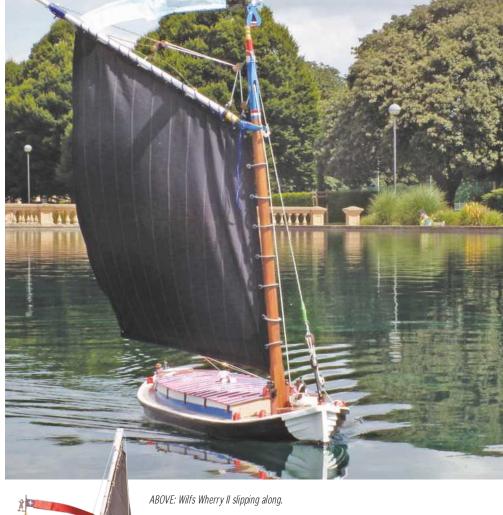
On deck

Wilf wanted a wider plankway (side deck), presumably to prevent his wherry men falling in! Even so, his ship's dog did fall overboard on the maiden voyage and had to be rescued by a passer-by! Wilf has now screwed the dog to the deck! Both builders laid their decks by firstly shaping cardboard templates, which were then used to cut a plywood deck. Most fittings were taken down through the deck and secured below, for greater strength for the rough and tumble of a sailing model.

Below decks

Both model wherries have provision for internal trimming ballast, but both floated true in their tank tests. A wherry was sailed slightly down by the head when fully laden. Wilf devised a patent system for his rudder using two wheels, linked by chain fed through the hull in aluminium tubes. Both wherries have rudder extensions to improve steering response and also separate tillers that do not move when the rudder turns.

Mike used conventional steering rods and has learned these must be level and hinged directly over the rudder's pivot point; his excuse was, trying to house his steering servo in a confined space under the sloping aft deck, since he wanted to model the interior of the cuddy. The cabin is fully furnished and includes opening hinged doors. 'They were taken off for sailing!' noted the ex-boat builder drily, adding, 'Do yours come off?'



BELOW: Temeraire's skipper gets the feel for her.

Mike's keel box is open at the top to accommodate the securing of the removable drop keel, which is borrowed from his RC Laser. The open keel box on a full-size Topper sailing dinghy can flood the cockpit when on the plane in a strong wind and Mike added what is effectively an open sink, with a removable waterproof cover for access. It works. He hardly expects to plane the Temeraire - but Wilf keeps talking about the possibility, with his own 'racer'!

Aloft

Both builders knew model sailing ships built from prototype plans will be over pressed unless sail is reduced, since scaling down cubic hulls and square sails alters their relative proportions. Wilf decided a loose footed mainsail would not set well and has sewn a boom into his sail. He has also sheeted the mainsail amidships. 'That, Wilf, is a racing ria!' said Mike.

Mike concluded that working miniature treble blocks, as on the prototype, were not practical. On Temeraire the mainsail blocks are therefore for show, on a fixed loop which leads to a single mainsheet. Fiddly, on the water; he added a sail batten pocket to the foot of the mainsail in case of need although not yet used.

Fitting out

Wilf's gaff winch is an awesome working model, which hinges sideways to allow the properly massive mast to be lowered in its huge tabernacle, all as in the prototype.

Mike chickened out and built both winch and tabernacle as dummies, taking his mast



ABOVE: Two black sailed traders in the autumn sunshine.

down to the keel and supporting the spar in a substantial housing immediately below the deck. More secure under sail, but makes it much harder to unrig for transporting.

Both modellers have faithfully modelled the wherry's gaff rigging, although Mike's more lightweight rig is supported with fishing line and both wherries are topped off with a Jenny Morgan, the wherry's distinctive wind vane, said to depict a Welsh girl once celebrated in local song.

Sail making & R/C

A good, well set mainsail was key to the wherry's performance on the water and was vital to making headway on narrow, twisting rivers, facing tidal and river currents. Wilf made a cardboard template of his sail and went to see the lady who shortens his trousers! Her good work includes the bolt rope and imitation sail yards. Mike bought a book on DIY traditional sail making and had a sewing lesson. The Eaton Park mistral has yet to stress test his workmanship and for now he says sail making was an experience not to be missed!

This put Wilf weeks ahead in the building stakes, which he put to generous use by building a trolley for Mike's wherry, the same as his own. Mike has customised Wilf's patent design to take everything needed for the pond side, bar a brew, but there is a cafe and, ever the optimist, to be flexible enough to carry any other working ship model in the future. He properly christened it the 'Wilfsvagen.'

Both builders installed two channel radio control, for rudder and mainsail, although Wilf has two spare channels and his son is organising a sound system for the ship's dog to bark; the one with the screw through its foot. 'Not all the time,' Wilf explained, 'Just when I'm passing anyone watching!' Mike has copied the Hi Tec installation in his RC Laser, but both modellers chose a powerful servo with a sail arm, rather than a winch.

The launch

Wilf described his launch as 'a joy'! Half of the fun for him is in the building and half is in the sailing. He appreciates the interest that visitors to the Norwich yacht pond show in a model Norfolk wherry, a local craft that many have heard of, but few have seen. He was glad he built his wherry, because he 'likes a challenge'! His biggest issue was the clinker build, where very unusually for him he lost his cool and he admits he was glad once there was no heavy hammer to hand!

Below decks, Wilf's professional craftsmanship is clear to see and particularly his aim to 'Build for strength'! On his wherry's maiden voyage, Mike (now official photographer as well as handling his own wherry on a busy waterway) was startled by a sudden call, 'Catch it!' He looked up and saw Wilfs Wherry II storming along, about to ram the pond wall. He managed to catch her, inches to spare, as Wilf's voice drifted across the pond, 'Is the wall all right?'

Back at the Museum, Mike (Fuller) looked at the finished wherry for a while and then he said, 'The more I look at her, the more I like her!'

Mike (Benson) is used to making static models. As for sailing models, if they look right, are a worthy tribute to the original and can sail a course around the pond, he is satisfied. He is delighted with the performance of his



ABOVE: Wilf with his wherry and the cup and rosette she has since collected.

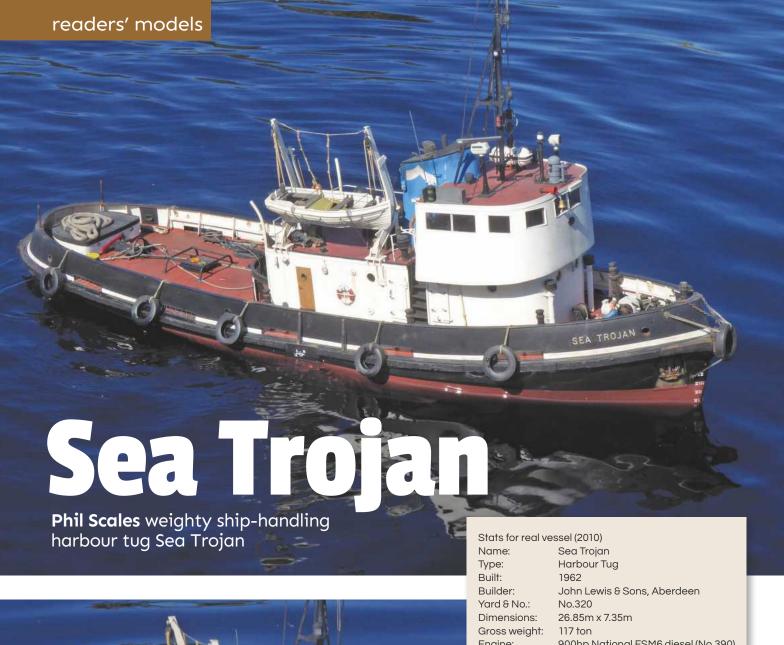
Temeraire and pleasantly surprised that an ex-professional boat builder and a selftaught modeller proved to be on the same wavelength, as they worked through their various scratch building issues.

As Wilf watched the two wherries set off after each other across the pond for the first time, he said 'They don't half go!' Mike smiled to himself, as his own wherry tried to keep up.

Nearby, a model puffer skipper paused, shading his eyes against the sun, to watch the two black sailed traders chase across the water in the freshening breeze. "Wonderful!" he whispered.

BELOW: Temeraire under way.





SEA TROJAN

Engine: 900hp National FSM6 diesel (No.390)

Engines by: National Gas & Oil Engine Co

Construction: Steel Call Sign: E5U2611

Current Owner: Heysham Marine Services (c1994)

Still active

The Sea Trojan and her sister, Sea Griffon was built in 1962 for the Aberdeen Harbour Authority and were for many years a common sight in the busy harbour. Equipped with a single rare diesel engine of 900hp built by National Gas & Oil Engine Co., they had a bollard pull of 14.5tons and initially carried a single lifeboat. After 32 years' service they were transferred to Heysham Marine Services and were based for a time in Heysham harbour where I was able to inspect and photograph them to death in order to make as accurate a model as possible. Sea Griffon has been scrapped but the Sea Trojan is still active around the coasts of UK as a workboat and dredger and is now fitted with an 'A' frame, extra winches and other equipment. Her moment of fame came in 1978 when she hosted a visit by the Queen and Prince Philip and gave them a harbour tour.

They were small tugs, only 88ft long and hence lend themselves well to 1/24 scale with much detail possible as seen in the photos.













A powerful, serious tug!

The model is built from a Martins Model Hull, plus a two part superstructure and bridge in fibreglass, the rest being scratch built. Because of the large scale, much detailing was possible including very accurate bulwarks with strengthening channel and stanchions. The deck of the original is of chequer plate and this is recreated on the model, being embossed sheet glued to a timber deck. Also modelled is all the wiring on the bridge roof. The bridge interior is fully detailed as per the original and she has two towing hooks, one a short sprung one and one a 'Seebeck' type on a long lever arm. The shelving above the hooks and the area below the hook area is full of stored items,

tools, buckets and radar reflector, just as the original. The side fendering has been chipped and distressed just as the real thing.

Internally she is powered by a geared 12v Hectaperm motor driving a large 5.5in propeller in a steerable Robbe 6in nozzle. Currently on 27mhz two channel with control of steering and power only via an Electronize speed controller. This gives enormous power and from a fully charged 12v battery she develops 7lb of bollard pull, being fitted with strong points front and rear to allow serious towing. She has taken part in numerous tug towing events but is really too large a scale for this.

The whole superstructure lifts off to give good access as does the rear grating housing to give further access to the rudder. A number of

accurate section tyres, with drain holes, are run along the sides and front and rear fenders are prominent. The mast is of brass tubing and is detachable for transport and storage, otherwise she is a very tall, 29in from keel to truck.

The colour scheme is, as seen in Heysham, and is the later Aberdeen harbour scheme with blue funnel and white logo. Although at that time she had landed the lifeboat in favour of a life raft canister, I could not resist including this feature which she did carry in Aberdeen

The same hull and superstructure is currently available from Mountfleet Models and is heartily recommended to anyone who wants a powerful realistic tug, but beware, when ballasted to waterline she is very heavy!



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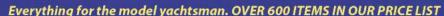


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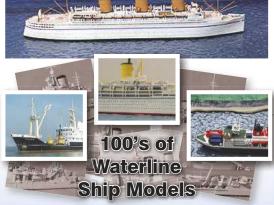
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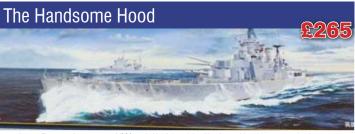


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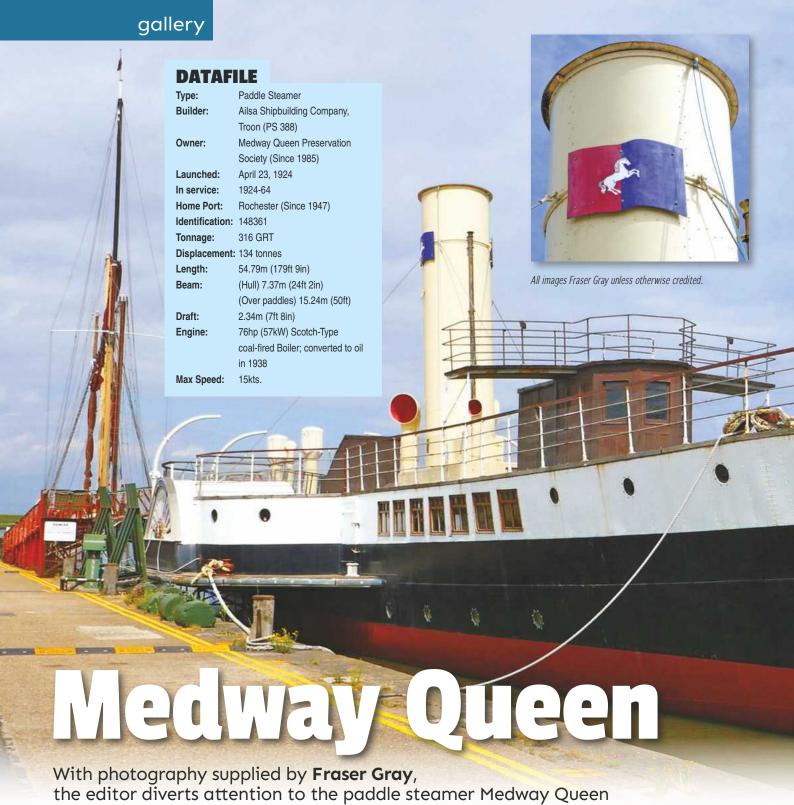
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rdered in 1923 and launched in April 1924, the paddle steamer Medway Queen began its service on the Strood-Chatham-Southend-Herne Bay route not long after. She continued the same route until the outbreak of the Second World War when she was requisitioned as HMS Medway Queen and converted into a mine sweeper. By 1940 she was part of the 10th Mine-sweeping Flotilla out of Dover and during Operation Dynamo was credited with evacuating 7,000 men and bringing down three enemy aircraft.

Returning to civilian use, she was refitted in 1946/47 and during the 1950s various modifications and upgrades were added, including the impressive Invicta motif on her funnel and brackets for navigations lights.

However, it was a period of change and the day of the paddle steamer was over as more efficient vessels took over the routes. The Medway Queen carried out her final voyage to Southend on September 9, 1963.

Many people showed an interest in her from a preservation point of view but in August 1965, three businessmen named Alan and Colin Ridett and Robert Trapp purchased her to serve as a restaurant and night club in the Isle of Wight. She was towed from Southend by the tug Dhulia and remained in this new role as the Medway Queen Club until closure came in mid-to late 1970s.

In 1978 she was sold again with the primary aim of preservation but when she was moved, the hull was damaged and she found herself

semi-submerged in the River Medina. The future looked bleak for the Medway Queen and she remained in this state until 1984 when she was salvaged and re-located to Cowes, where she was placed on a salvage barge and returned to the River Medway. The following year the Medway Queen Preservation Society was formed and this once proud paddle steamer's future was looking bright.

However, it was touch and go for many years as the society struggled to preserve her, but an injection of funds from National Lottery Heritage Memorial Fund in 2006 and later the European Regional development Fund saved the ship and secured a proper base and workshop at Gillingham Pier where she can be seen to this day.













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ABOVE: Mountford (www.mountfordmodels.com) 1/1250 scale Medway Queen, mounted on a block of timber from the original deck which is available separately. Image Martyn Chorlton





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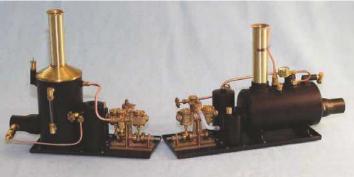
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ABOVE: A German lifeboat (DGzRS) John T. Essberger from the Rettungskreuzermodelle stand waiting to join a display with his colleagues.

RIGHT: The large and deep pool with the wind machines switched on and some large yachts navigating their away around.

The Dortmund Model Show 201

A report of the 40th Intermodellbau Messe at Westfalenhalle, Dortmund, Germany, April 19-22, 2018 by **Kim Belcher**





ABOVE LEFT: The wonderful display entrance to the Interessen Gemeinschaft Scale Navy stand – a small group of modellers from Austria and Germany. ABOVE RIGHT: The central display inside the Interessen Gemeinschaft Scale Navy stand, depicting a generic US base 'harbour scene' with working model boats, trucks and crane.

ere at the Intermodellbau there are eight very large halls containing model boats (Hall 5), trains, cars, trucks, diggers, tanks and armoured vehicles, quadcopters, planes, helicopters, figures, card models, dioramas, diecast vehicles and steam locomotives. Oh yes, there are also some 500+ traders' stands to support all of these disciplines; wonderful. Added to this, there is an average footfall of 18,000 visitors for each of the four days.

Hall 5 is dominated by a large indoor pool (Wasserbecken) that has activity and commentary (in German) all day long. They even have wind machines (fans) so that the 'yachties' can have a go too! The various MBCs are based all around this one pool, with

those traders dedicated to the hobby down along one wall. Throughout my three days attendance it was good to meet folk from back home (lan and Rob from Bryn Bach MBC; Doug, Mick and Carl from Peterborough and Area MBC; Ron Dean, my friends Derek and Lee from the LBES and the Southern Model Display Team) and also my good German friend Arno and his family. On this occasion he acted as my technical translator, where language is slightly harder to understand; generally though, everyone there speaks good English for us not to have to worry.

For me I had to head straight for the lads on the Interessen Gemeinschaft Scale Navy stand (5.E14), where every item is 1/48 scale. This is a group of like-minded modellers from Austria and Germany, headed by Thomas Matzer. They attend the show every two years. Entry is through the hangar style doorway and an immediate central display with radio-controlled models; boats, trucks and a crane of a generic US harbour area. Their models are just superb, both in construction and finish, with the best 'weathering' I have seen anywhere. Thomas had his 'in-build' project of the USS Enterprise alongside other 'dioramas' that were either in-build or complete for some of his other models. It is so good to see items like this at shows, as it allows the viewer to see how they are constructed and finally painted; a real inspiration.

Next it was to the Rettungskreuzermodelle stand (5.E04 - German lifeboats) to see my



ABOVE: More of Thomas Matzer's 'work in progress' project work.

good friend Michael Rüttel and his 1/10 fully working SAR Rettungskreuser Hermann Rudolph Meyer; my favourite model of all time. This has been totally scratch built by him and his friend Jürgen Kirchhof, who has made another 1/10 DGzRS lifeboat on display; the Eiswette. The Hermann Rudolph Marwede is powered by two brushless motors producing 1.4kw = 2hp each, with totally scratch built mounting frames and gearing, using a reduction of 1:3. All of this requires 50amp fuses to be used. The lighting is as on the real boat, red in the upper wheelhouse and white on all areas below. Another member, Reiner Zapatka had his 1/25 DGzRS lifeboat Hermann Marwede on the display and on the pool. There was a

new modern lifeboat DB4460 Notarius, being the 'tochterboot' (daughter boat) of the 44m Klasse DGzRS lifeboat Wilhelm Kaisen, it being a 'schlauchboot' (rubber boat – Rigid Inflatable Boat (RIB)) of 8.50m length and powered by two water-jets. This group had two slots a day on the pool next to their stand. It normally takes two to three men to lift these boats into the water as they run off two large car batteries each!

From here I went across to the large table display area (5.A26) between the pool and the entrance to Hall 4 to see another German friend I have got to know over the years, Willi Hoster. He is an avid cardboard model builder and sits amongst many others, displaying their models and building new ones too,



ABOVE: A German modeller's RNLI Tamar-class lifeboat out on the water during a display.



ABOVE & BELOW: Close-up views of the control tower of Thomas Matzer's USS Enterprise, showing work in progress on this mammoth project.







ABOVE LEFT: The IG Tug stand (5.F06); a modelling group from the Netherlands. ABOVE RIGHT: Schiffsmodellbau - Club Bochum 1985 eV., a large and varied stand (5.E08).



ABOVE: The SchiffsModell.net Forum stand – something from and for everyone.





ABOVE: In the foreground a model of the German Naval Auxiliary ship Y862 Helmsand on the SMC Duisberg (5.E17) stand.



ABOVE LEFT: Derek and Lee appreciate a Pilot Boat from the Rostock Seaport on the SMC Waltrop eV. stand (5.E18). ABOVE RIGHT: A beautiful shape and model. This unterseeboot (submarine) is an FGS (German Navy) U36 Type 212A – number S186. Now that should have been in the 'wasserbecken'! BELOW LEFT: An overall shot of the Rettungskreuzermodelle stand (5.E04) with Reiner Zapatka's DGzRS Hermann Marwede lifeboat in the background. BELOW RIGHT: A close-up view of the Norwegian Polar Expedition sailing ship Fram in an ice-packed diorama, at 1:70 scale, part of the Arbeitskreis Historischer Schiffbau eV. stand [5.G08].





show report

LEFT: Michael Rüttel builder and owner of this 1/10 DGzRS lifeboat adjusts the bow stay, having just shown me the inner workings.

BELOW: From Deans Marine, their latest kit offering, a 1/96 model of the Epic Gas Company's Epic Menorca LPG tanker, with GRP hull, etched brass and laser cut parts - here displayed on the Peterborough Area MBC.



ABOVE: Just one end of a wonderful large stand (5.E06) of models built by just one Dutchman, Jan van Angelen.

always willing to put down their scalpels, glue or paintbrush and talk about their cardboard (kartonmodellbau) model boats or buildings. We even had an hour or so on my last day talking about Brexit and the European Union! These models have to be seen to really appreciate their 'presence'. There are no 'sags', the cut edges are all perfectly colour matched with water colour or crayon paints and they use patterned glass, under-painted, to simulate water. If you want a cleaner, lighter side to model boats, have a go at

this side of our hobby. The website www.kartonmodellbau.org will give you oil platforms and record weight pipelines.

Finally, as space dictates, another of the wonderful WWII displays by Simon Weelmaels and his colleagues of MBV, which when translated from the Flemish is 'model boat friends'. This is of the Arromanches beach in Normandy during June 1944 and the Kunstmatige Haven Mulberry-B-West. There was plenty of action throughout the day and plenty of illustrated information around the display; always a winner with the paying public.

I shall let the photos do the rest of my job! Maybe see you next year?

a free cardboard model tug download. The really impressive model on this visit was another by modeller, Siegfried Neumärker. This was researched, CAD drawn, printed and built as a totally scratch built model of the largest vessel afloat in the world – Pioneering Spirit. Designed by the Swiss based Allseas Group (www.allseas.com), she is 382m long and has a displacement of 365,000 tonnes. She is described as a crane-ship for gas and

BELOW LEFT: Siegfried Neumärker's 1/600 scratch built cardboard model of the largest vessel afloat, the crane-ship Pioneering Spirit, designed by the Allseas Group. BELOW RIGHT: From Simon Weelmaels and his friends (MBV) a 1/96 model of the Arromanches beach in Normandy in June 1944 and the Mulberry-B-West Harbour; this is US Navy Landing Ship Tank, LST 214 of the US Navy.







Steve Whitelock's take on a model boat design from the 1980's by **Glynn Guest** called the Talisman

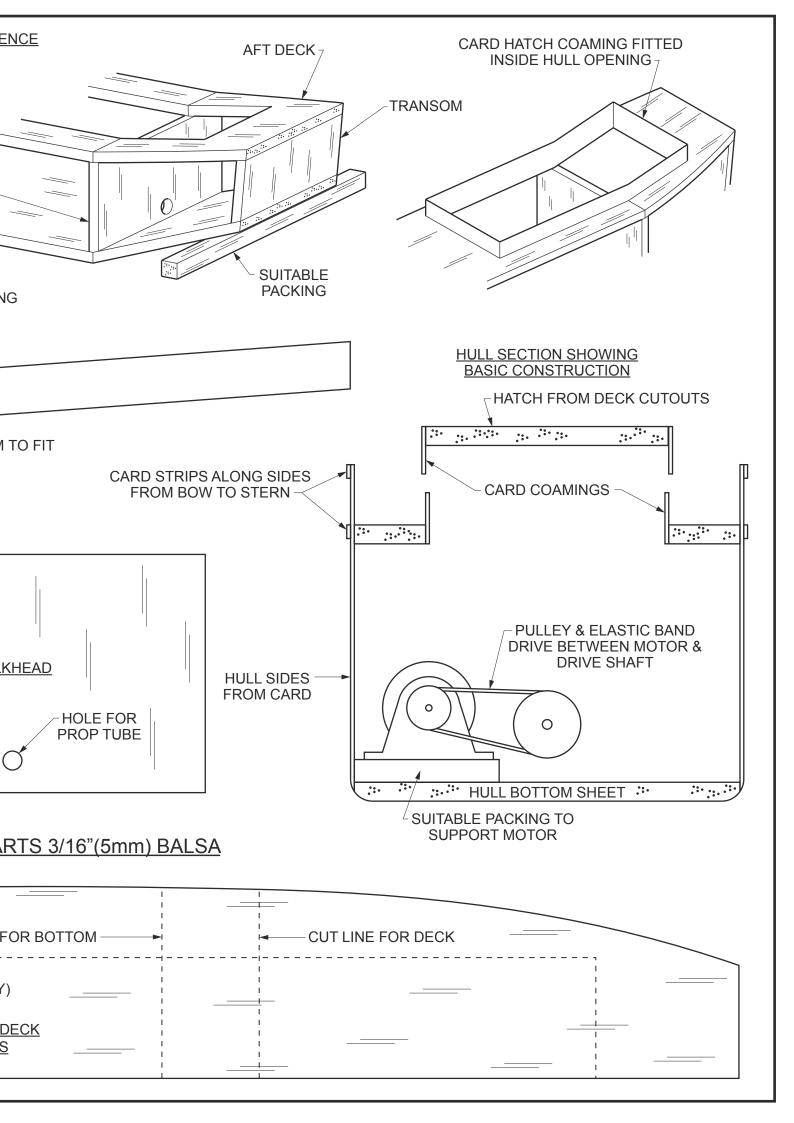
Accidental inspiration

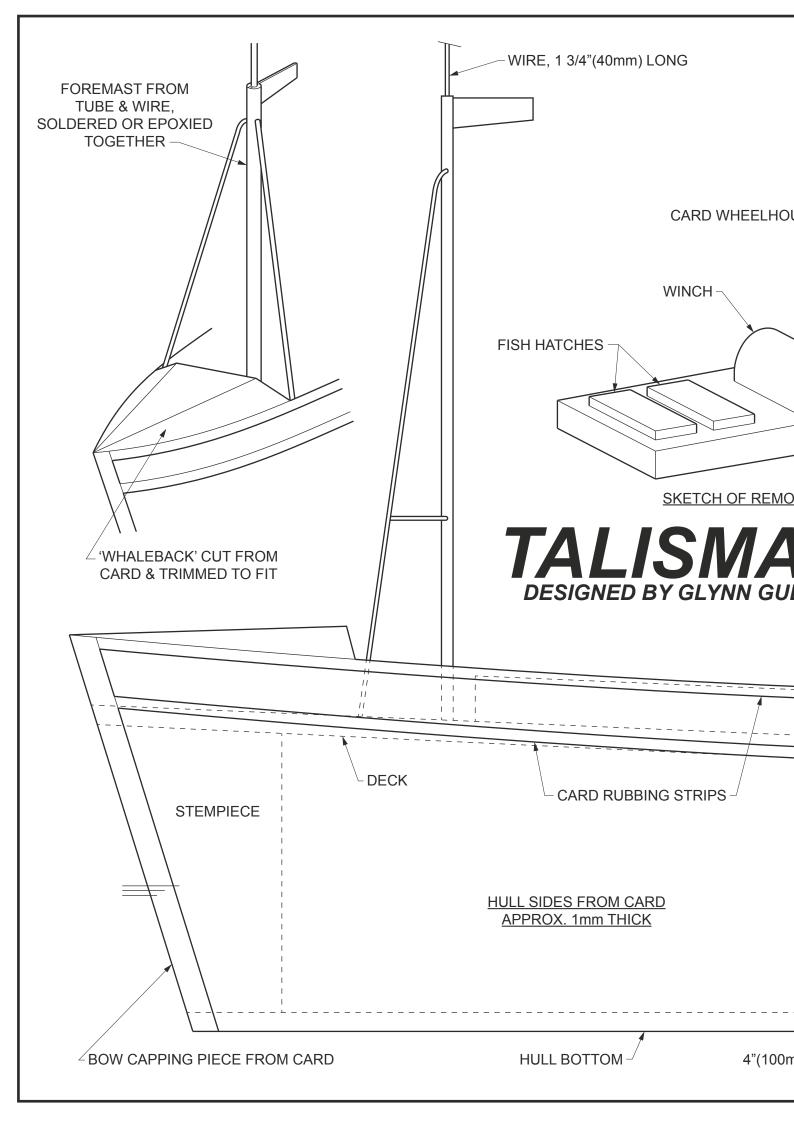
Most of my model boat projects start out by accident and this one was no different. It was Sunday regatta day at Boston Model Boat Club and I was racing my 'Wee Nip' in the up to 900mm yacht class. When race time came up, I did all the usual pre-race checks and there was no response from my transmitter sticks, the red L.E.D. on the receiver was working and so was the green L.E.D. on the transmitter. I changed the yacht battery just

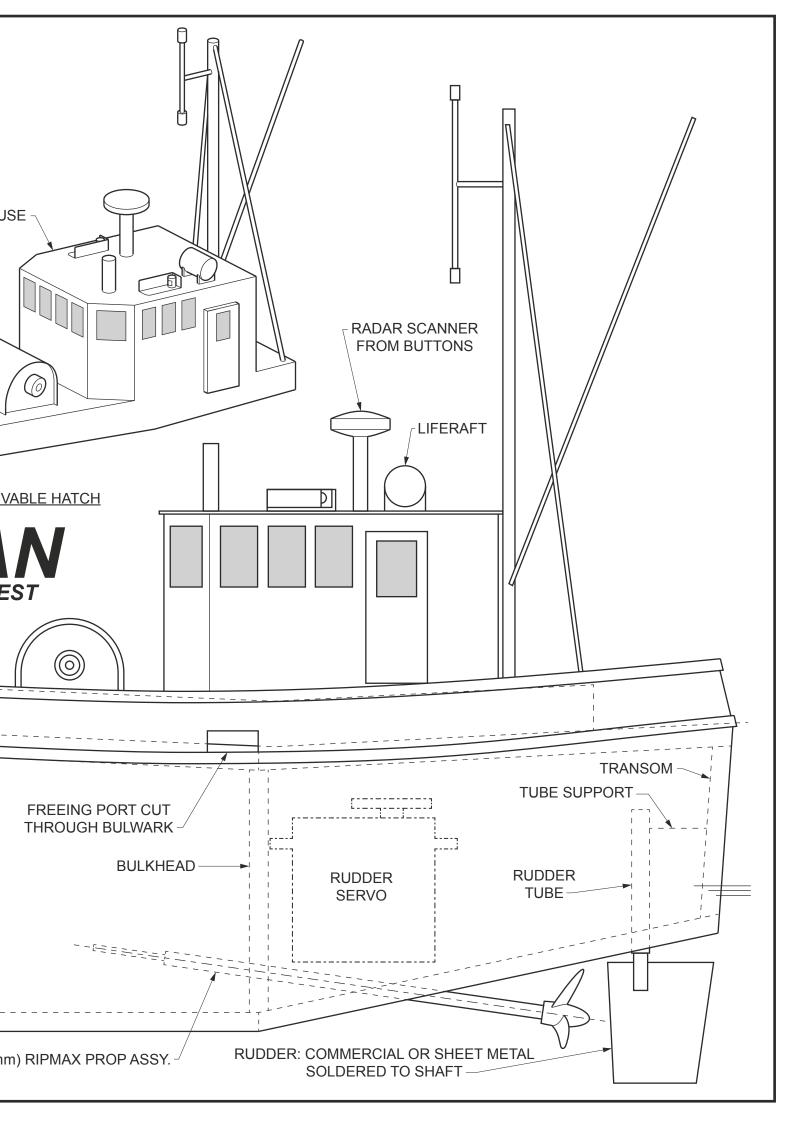
in case and still no response. The 'start in one minute' came up and it was then that I realised I had brought the wrong transmitter with me! I have two, one for yachts which has servo reverse switches and the other for scale boats which needs setting via a computer lead. Okay if I had time I could have done a rebind, but chances are the servo orientation would be wrong anyway and by now, the first race was already underway and it was

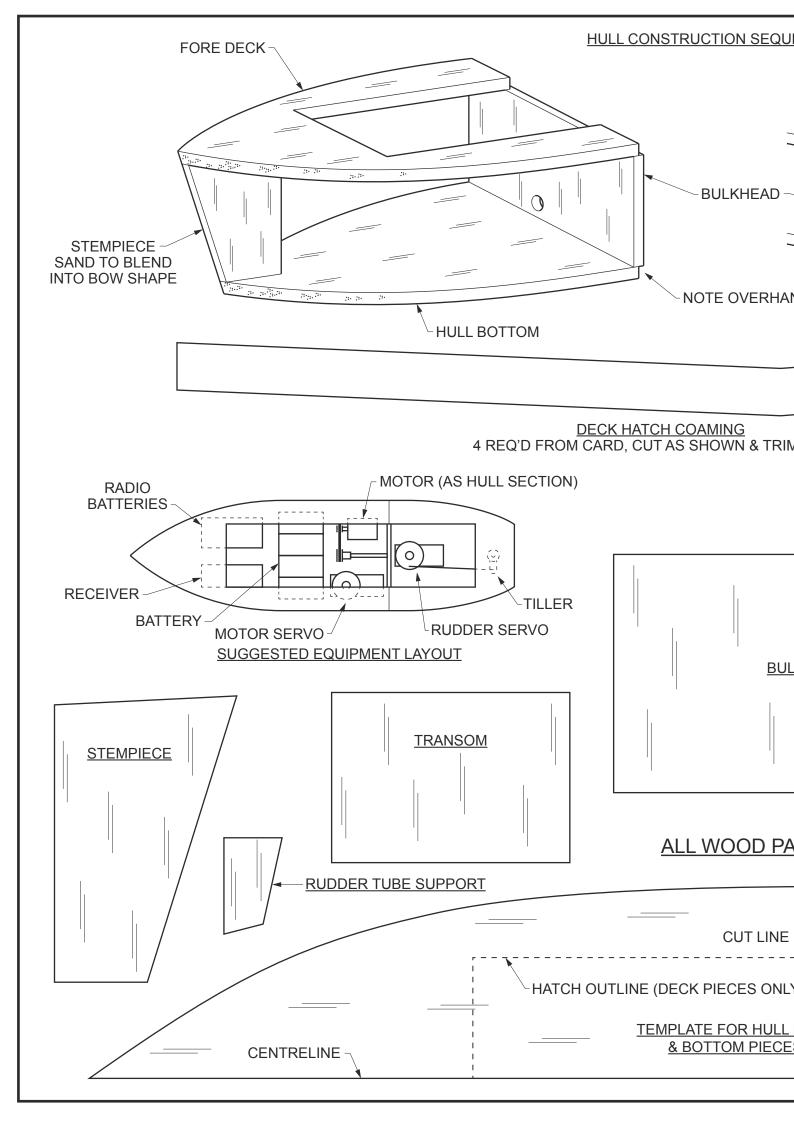
too far to go home and pick up the correct transmitter. It was time to put the kit in the car and enjoy the regatta in the sun. The moral of that story is to check your gear BEFORE you leave for the pond!

I suppose Boston MBC is no different to other clubs with a clubhouse. A cupboard with a pile of Model Boat magazines; you know the one where you open the door and loads of magazines slide out around your











scale steering event and as I did not have a boat, this looked like an ideal project for me.

Stock check

1

<u>.K</u>

()

A quick look through my material stock, yes, I had balsa wood, a small motor, a small servo and propeller. I ordered a 100mm slimline prop shaft with an M2 thread to suit the 21mm propeller. I added an oil tube to the prop shaft. It is not too difficult to do if you can soft solder and if you can't, I am sure a club member would help you. Just remember to pop out the plastic bushes before you heat it up. It really does save a lot of problems late on when the shaft goes dry and you need to strip it down to clean and oil it. I also ordered a 10amp speed controller and a battery pack. I built the hull exactly as the plan, apart from using 0.8mm ply for the hull sides. Now this is where I made a big mistake. I scribed the shape of the hull structure onto the ply and forgot to add the extra 25mm for the gunwales. I hadn't

Model Boats September 2018

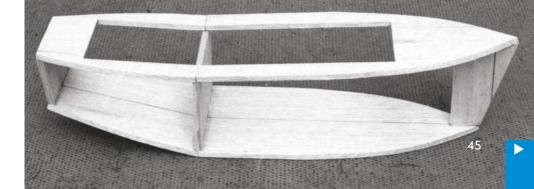
the core materials 'in stock' already!

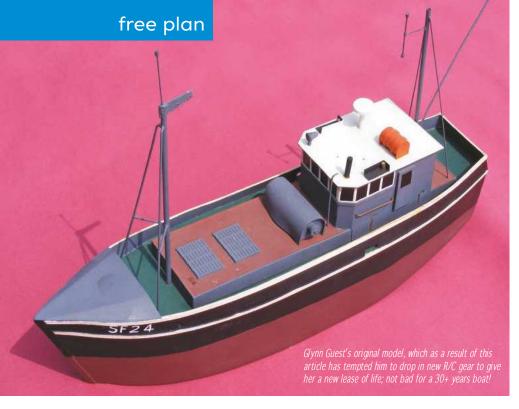
anymore ply, so I used the two pieces I had cut wrongly and then added the gunwales later using some thin card, the join line being covered by a 1.6mm square rubbing strip. I also added bilge keels to the hull to try and prevent drifting when windy and they are also handy as a stand, otherwise the hull is as designed.

Fuse the circuit

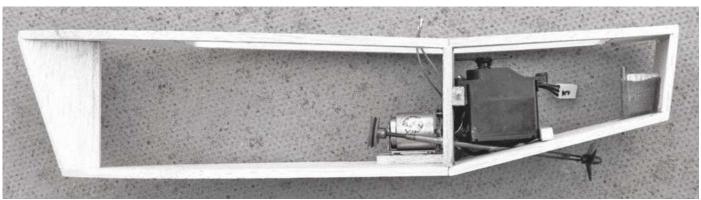
I used a direct drive motor/shaft layout, only because I already had the motor and materials to make a coupling. I also used a 9g steering servo (again that's what I had in stock). The rudder is made from 3mm brass rod and 1mm brass sheet. I make my own rudder arms from brass rod and sheet and use 4-40 unc grub

BELOW: The basic hull structure assembled. An image from the original article published in May 1986. Glynn Guest







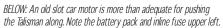


Engineering MALL ALL PLANTS Chicago, ILL ALL PLANTS Chicago, ILL ALL PLANTS CHICAGO CH

ABOVE: Side view of the original installation which involved a pulley drive system to enable the motor to lie alongside the propshaft and avoid wasting internal space. Glynn Guest

LEFT: 3mm brass rod and 1mm brass sheet, the latter by K&L Engineering would provide the necessary materials for the construction of the rudder.

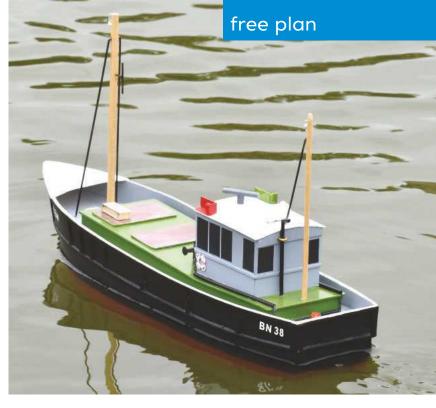
BELOW: Internal detail of the Talisman exposes a small 9g steering servo, a FS 'Fly Sky' (FS-GR3E) 3-Channel Receiver and a 10amp speed controller all neatly installed.











screws left over from my slot car racing days, mainly because I have loads of them and I've still got the taps and drills.

The motor sits on a balsa wedge strapped down with two elastic bands around two cocktail sticks. I wasn't too sure if the motor would be okay; this way it could be removed and changed easily if necessary. When wiring up, always use a fuse in the circuit, it could save some damage if weed stalls the prop.

The wheelhouse and deck are pretty much as the plan just a few bits and pieces to put my own mark on the project. I suggest not putting the wire on the mast for a flag; your eyes are more valuable than a flag! The whole job was sealed using dope rubbed down well

and painted using Wilko cans and Humbrol tinlets. I always paint the inside of the hull using some light-coloured spray paint as in the unfortunate occurrence of water entering the model it will dry out a lot quicker.

Because of the flat bottomed boxv

hull, quite a lot of lead was used to get the model to the water line, but there is plenty of room for it and it is still of a manageable weight. The boat handles well, does not drift too much in the cross wind and is stable in turns. It also responds going astern, just as the original article says.

A handy size

room in the hull. Modern R/C equipment is

I really do like Glynn Guest's designs; they are easy to build, look good on the water, cheap to make and if you do not alter the design you can add your own mark if you wish. This model is a handy size and there is plenty of

a lot more compact now, so maintenance is very easy to do.

I have changed the name of the boat. All my models are named after family members and this one uses my wife's initials. The

BN38 is my Boston MBC number. As an afterthought, don't discount the old Model Boat issues, there is some brilliant stuff in there just waiting for someone to resurrect. Happy boating!

(BELOW) Steve's 2018 version for

comparison; note the size of the

connectors and servos.

INSET: A good sized rudder which would respond well when going astern was one of the draws to this model. Note the bilge keels which were not on the original design. ABOVE: The Glynn Guest original and

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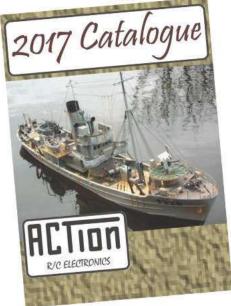
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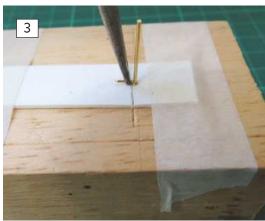
Catalogue will be

eleased towards the



LEFT: An example of the type of stanchion and rails as fitted to an OSA2.

3: Practicing on a simple jig to form the eyes that will be attached to the stanchion.



OSA 2 Fast Missile Boat

It's now time for the stanchions and turnbuckles of **Dave Wooley's** remarkable OSA 2 - 205U Missile Boat build





Stanchions

Looking at the type of stanchions fitted to the 205U variant, it shows clearly that they are in fact stand alone with no noticeable support; all the OSA 1s and most of the OSA 2s tend to have some support. Here the stanchion can be unclipped at the base and quickly dropped level with the deck. The rail is either wire or coated wire, with clips and turnbuckles at various intervals with short lengths of fine chain also used at several spaces along its length.

There is nothing special about this type of stanchion and it is quite basic with two eyes, one just below the top, and the other about midway up both facing in board. As there is no commercial alternative available, the next best recourse is to scratch each one of the 40 required. OK you know from experience the next sentence will be, 'well let's make a jig' and that's exactly our approach. Only this time, as we will see, even the jig evolves to make the process easier.

Material

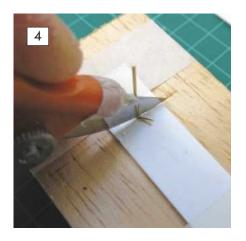
First and foremost, the materials; these consist of **A**.8mm brass rod; **B**.33 brass wire; **C**. brass tube 1mm OD and **D**. Evergreen strip 134 (**Photo 1**). The next task was to form a jig enabling the stanchions to be made, so the first one would be identical to the last. Each one of the stanchions was cut to 35mm in length and laid out in a simple jig in batches of ten with the eyes positioned and soldered at the same time, see **Photo 2**.

Once again, to maintain consistency, each eye was formed by rolling the .31 wire around a vertical length of .8 brass rod as in **Photo 3**.

1: The materials as used for each stanchion.

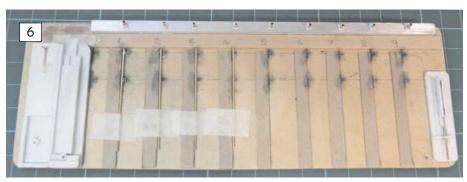
2: I call this an Mk1 Stanchion soldering jig.

warship scale - pt.18





- 4: Using the same jig to cut the eyes
- 5: A small number of stanchions with eyes from the original jig.
- 6: To make the whole process of cutting, soldering and finishing each stanchion I fashioned what I would call a combination jig where all the procedures to form the stanchion are in one single jig.
- 7: Bending the .31 brass wire and cutting to size each of the eyes.



This was followed by removing the loose ends as in **Photo 4**. The net result was a basic stanchion (**Photo 5**).

A more refined combination jig

Looking at this process I could see that I was using three separate jigs to do a simple task and there were at least two more jobs that required some form of jig. Reviewing the method, I could see this might become impractical, so why not combine all the necessary tasks into a single jig, so the material would go in at one end and come out as a completed stanchion with support and deck plate fitted ready to install (pending painting)? Complicated? Not at

all, **Photo 6** shows each specific jig in a combine's assembly jig.

The combination jig would have to work in a flow pattern so each length of stanchion is placed into the jig, the eyes formed and cut (**Photos 7 & 8**) with each prepared eye also carefully placed into a storage tray. Using the jig, each base plate is drilled, cut to size and deposited into the tray (**Photos 9 & 10**).

The eyes are then added to each stanchion, secured with tape and soldered (**Photo 11**). Each length of tube that forms the stanchion support is added to the top of the jig, along with the base plates ready for use (**Photo 12**). All the 20 eyes and ten stanchions are soldered in one session. The base plate and tube are then combined in



8: The eye is cut and ready to be soldered to the stanchion.

9: A section of evergreen strip which formed the base plate is moved through the jiq and drilled to size using a pin vice.





10: Using a curved craft blade the base plate is cut and removed from its jig. 11: Taping the eyes into place on the stanchion and soldered. 12: A length of 1 mm 0D brass tube in inserted into the base plate and stored ready to be added to the stanchion.











13: Base plate and tube is added to the prepared stanchion and into the jig. 14: Using a small amount of cyanoacrylate metal the jig ensures that the base plate and tube are fitted to the stanchion at the required height off the deck. 15: The completed stanchion can be removed from the jig. 16: At this stage each stanchion is fitted (not fixed) into place along the deck edge.

a pre-set jig which determines the height of 26mm from the top of the stanchion to the underside of the base plate (Photo 13-15). Each prepared stanchion is removed from its jig and temporarily located onto the deck edge (Photo 16). Looking at the result, it took no time at all to make the 30 stanchions (with some spares just in case) and at a net cost of approximately £5.

Turnbuckles

On the OSA boats the rail is a flexible wire of a small diameter and as mentioned above. has just two rungs. However, like most flexible rails they are connected to the stanchion via a turnbuckle or clip. On the OSA boats the positioning of that connection varies, as no two boats are the same but looking carefully at the photo images there are some 30 turnbuckles, the clear majority one standard length and a small number half the length. I'm not sure as to whether turnbuckles at 1/35 scale are commercially available but I had made the decision some time ago to make all that was required. As you may have guessed to make the process straight forward a simple jig did the trick.

First and foremost, the materials for the job are shown in Photo 17, we have just three basic materials that will form the turnbuckle regardless of length and included is the fine flexible rail.

The first task was to cut 5mm lengths from the tube. A strand of fine wire is then secured at one end of the jig. Each 8mm length of tube is then threaded along the length of wire. 16

Part

- Turnbuckle body
- Stanchion clip
- Flexible rail

Material

Brass tube .6mm OD .31 Fine copper wire (wire strands)

17

Kreinik metal coated thread

The open end is then secured and the tubes spaced evenly along its length, being mindful that the overhanging wire at each end of the tube will form the hook or clip that will connect with the stanchion eyes (Photo 18). Each tube is secured in place and a small amount of solder paste added to each end of each tube as in **Photo 19**.

With the soldering completed the tube can be removed from the jig ensuring that the cut is in the middle of the wire allowing sufficient length of wire to be folded in to a hook/clip shape as in. Each turnbuckle can be cleaned removing any unwanted solder from around the tube making the surface ready for painting (Photo 20 & 21).

Next time, preparation for air brushing.

1.0 mm o.d. x 0.8 mm i.d. 17: Materials required to form the turnbuckles.

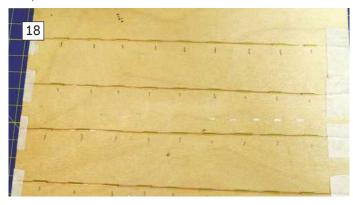
Brass Tube Code: MB110

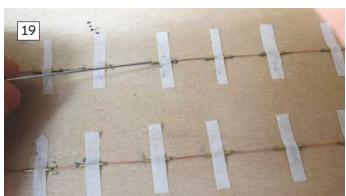
References & Acknowledgements

Fine brass tube and wire ref- Albion Alloys www.albionhobbies.com

A GRP hull of the OSA2 is available from MTB Hulls www.mtbhulls.co.uk

18: Fine copper wire is threaded through 8mm lengths of .6mm OD brass tube and fixed to a jig in preparation for soldering. 19: Tape is used to hold the tubes in place whilst small amounts of solder paste are dabbed on each end.

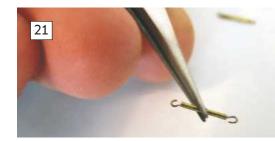






20: The copper wire is formed to the shape of a hook and trimmed to size.

21: Each turnbuckle is cleaned and ready to be painted.





Just few images supplied by Rob Fowler captured at the Bournville Model Boat Club Military Boat Day on June 24, 2018

ABOVE: Harbour Defence Motor Launch (HDML) ML1302 1/24 scratch build by Chris Walters.



ABOVE: Scratch-built BPB (British Power Boat) 71f 6in MGB (Motor Gun Boat) No.76 in 1/24 by Bryan Evan.



ABOVE: Fairmile A motor launch, ML103 in 1/24 scale, scratch built by Bryan Evan.



ABOVE: KFK (Kriegsfischkutter ('War Trawler') No43 in 1/24 scale, scratch built by Chris Walters.



ABOVE: A 1/16 scratch built DUKW (D = designed 1942; U = Utility; K = All-wheel drive & W = Dual-Tandem rear axles)

complete with 6-wheel drive by Tom Cherry.





ABOVE: Revell 1/72 USS Skipjack Submarine by Dave Hillyard.

BELOW: Type XXI U-boat by Rob Fowler.



ABOVE: Fairmile D Motor Torpedo Boat No.759, again scratch built in 1/24 scale.

BELOW: RAF HDML in 1/24 complete with impressive Dazzle Camouflage scratch built by David Hillyard.



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Designer: Richard Webb

630 mm long by 190 mm beam



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Designer: C. Halliwell

1:48, 588 mm long by 160 mm beam

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MARINER US 80' TOW BOAT

Designer: B. Thompson

1:24, 1025 mm long by 235 mm beam



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VERONICA

Designer: Richard Chesney

1:24, 42.5 in long by 9.6 in beam DVD Code: DV513

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Designer: Vic Smeed



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Rhythm (1M Class)			MM1466	17.50
Swallow (1M Class)			MM1494	13.00

Katie (Gaff Rig Pilot Cutter) 40 12.5 DAP001 15.50 Katie (Gaff Rig Pilot Cutter) Hull 40 12.5 DAH001 106.00 Lady Ma (Small Katie - Mevagissey Lugger) 20 6.5 DAP002 15.50 Lady Ma (Small Katie - Mevagissey Lugger) Hull 20 6.5 DAH002 52.50 Ibex (Brixham Trawler) 49.2 11.4 DAP004 21.00 Ibex (Brixham Trawler) Hull 49.2 11.4 DAH004 118.50 Manx Nobby 42 DAP005 21.00 Manx Nobby Hull 42 DAH005 131.50 Breeze (Bristol Channel Pilot Cutter) 40 13 DAP006 15.50	Fishing Boats	Length (in)	Beam	(in) SKU	Price (£)
Breeze (Bristol Channel Pilot Cutter) Hull 40 13 DAH006 131.50 Lindy Lou (Mevagissey Fishing Boat) DAP007 15.50 Ute 24.5 8 MM2079 13.00 Ute Wood Pack 24.5 8 WPMM2079 49.00 Tern MAR3702 13.00	Katie (Gaff Rig Pilot Cutter) Hull Lady Ma (Small Katie - Mevagissey Lugger Lady Ma (Small Katie - Mevagissey Lugger Ibex (Brixham Trawler) Ibex (Brixham Trawler) Hull Manx Nobby Manx Nobby Hull Breeze (Bristol Channel Pilot Cutter) Breeze (Bristol Channel Pilot Cutter) Hull Lindy Lou (Mevagissey Fishing Boat) Ute Ute Wood Pack	40) 20) Hull 20 49.2 49.2 42 42 40 40	12.5 6.5 6.5 11.4 11.4	DAH001 DAP002 DAH002 DAP004 DAH004 DAP005 DAH005 DAP006 DAH006 DAP007 MM2079 WPMM2079	106.00 15.50 52.50 21.00 118.50 21.00 131.50 15.50 131.50 15.50 13.00 49.00

Submarines	Length (in)	Beam (in)	SKU	Price (£)
Molch & Hecht HMS Tabbard Submersible Type XVII U Boat Undine HMS Valiant Internal Workings Nautilus USS Nautilus Type IX U Boat Sardine Sprat Resolution Class & Type XXIC U-boat Charlie Class Submarines F & B1 Hollandi	51 15 29.9 28 36 45 48 39 & 38 40 53 25.5	5 6.75 2.4 1.5 3 4 5.75	BM1392 BM1396 BM1426 MAGM2030 MAR2901 MAR3746 MM285 MM471 MM485 MM624 MM1155 MM1210 MM1248 MM1378	18.50 13.00 13.00 13.00 11.50 13.00 13.00 13.00 13.00 13.00 13.00 13.00 13.00
HMS Tabard	51	5	MM1396	13.00





Manx Nobby DA005

Lindy Lou DAP007

gth (in) Beam (in)	SKU	Price (£)
42	DAP005	21.00
42	DASET005	138.50
6.5	MM240	12.50
35 8	MM293	12.50
36	MM823	13.00
38	MM902	13.00
30	MM909	13.00
24 6	MM1024	12.50
34 9.5	MM1048	12.50
8.5	MM1203	13.00
33	MM1403	13.00
0.5 6	MM1505	13.00
3.5	MM2070	13.00
	42 42 42 6.5 335 8 336 338 30 24 6 34 9.5 8.5	42 DAP005 42 DASET005 6.5 MM240 35 8 MM293 36 MM823 38 MM902 30 MM909 24 6 MM1024 34 9.5 MM1048 8.5 MM1203 33 MM1403 0.5 6 MM1505





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Photo 3 shows the model slowly leaving the bank for the first time and the model starting to submerge (Photo 4). The propellers and their 385 geared motors moved the submarine at a good rate of scale knots and the conning tower as it was known (called a 'sail' in America and 'fin' in Britain) was virtually 100% underwater within 16 seconds from full buoyancy (Photo 5).

Once, I established that the model was diving and surfacing as I hoped, I think my nerves got to me; I did not come away from the lake without a few mini disasters. While surface running, the submarine ran close to the bank and a low hanging branch knocked of the model's canopy off, but I was lucky, because the canopy fell and lodged in the conning towers well. Second 'disaster'; the propeller guard got slightly damaged by too much enthusiasm, when going astern!

So, I was happy with the diving and surfacing of the model, but there was one problem which had to be rectified - that was the



turning circle, it was much too wide. Modern submarines these days are designed to function and stay underwater, not like the submarines of the Second World War which spent most of their time running on the surface. The result of the modern submarine, when surface running is that 50% of their rudder is out of the water and this is the same situation with the NR-1 model; it must also be appreciated that the real NR-1 has four



ABOVE: The thruster unit. Un-screwing the four screws allows removal of the thruster and the black servo unit.





ABOVE: The thruster motor and the sealed black unit which contains the micro servo and micro switch.

BELOW: The micro servo and micro switches set up allowing the supply voltage to operate the thruster unit.



The NR-1 full submerged at Bluewater.

thruster ports; therefore I decided to fit a thruster unit (**Photo 6**).

If you are only using one thruster, it is better that the thruster is housed in the bow, but as the compressed air tank is situated there, it left me with no room for additional fittings. I was left with no choice but to fit the thruster in the stern section. Because the rudder control rods run the length of this section, the thruster motor was positioned at an angle, but this proved to be unsatisfactory, the thruster not giving enough thrust to move the move the model.

At this point, I realised that the thruster had to be fitted in a vertical position (**Photo 7**); this meant modifying the position of the rudder control rods, something I really did not want to attempt, but here goes!

The control rods were cut at the appropriate position and a brass angled section was fitted, which allowed for the control rods to be parted. This worked fine, but once the thruster was secured in place by the four securing screws, on examination, it all worked satisfactory, with 0.5mm to spare when the rods moved back and forth. So, modification complete, but that was a close call?

To the rear of the thruster motor is a waterproof black box (**Photo 8**). Despite its shape, it will stand a great amount of water pressure; inside this unit is a micro servo and two micro switches. The function of this unit is to supply the 12volts to the thruster motor when required. So what happens here is when the transmitter stick is moved and the rudder follows

this movement, so the micro servo follows this same movement.

When the micro servo travels the full position, the servo arm activates the required micro switch (**Photo 9**). This is now supplying the voltage to the thruster motor, turning the model in its own length if required. If only a small amount of travel is given to the rudder, then the micro switch arm will not contact the switch; therefore the thruster motor will not be bought in to action.

Two plastic tubes extend from the thruster, one being short, one long. This is to meet the thruster inlet/outlets ports on the model. These tubes are moveable, but auto lock into place when the thruster unit is secured; but they are slightly angled in such a way, that a very slight forward thrust is given. This however, makes no seen difference when the model is in forward motion; driven by the propellers; but where this forward thrust comes in to play is when the model is next to the pools edge. When the thruster is first operated with no propeller rotation to move the model away from the edge; the model will slowly drift back, pulling the bow away from the edge, so no damage to the paint work will result and once clear, the propellers will do the rest.

Conclusion

A lengthy project and more so because of moving house, but we got there in the end. New skills were learned along the way and the resulting static diving model is truly quite unique to the best of my knowledge.





ABOVE LEFT: An amazing sight! Brad 42 and Christophe 13 already in front! ABOVE RIGHT: Reme Bree and NIOUTAINE hull.

10 Rater & Marblehead

World Championships in BIBLIS, Germany Reported by Roger Stollery

oth these IRSA World Championships were marvellous events and huge thanks have to go to the full-size sailing club Segelverein-Biblis E.V and their hardworking, welcoming members who gave up their own sailing to create this event, which was instigated by Henning Faas and assisted by many members of his family.

The 10 Rater World Championships attracted a record 54 entries from countries including Russia, Ukraine, Belarus and

even Australia for three days of racing. This was followed by five days of racing for the Marbleheads, which attracted 76 competitors from 16 nations.

The weather was superb, but the wind was patchy with times when it was not possible to race. The Race Officer's job of setting good courses was almost impossible in the constantly varying winds, but Pierre Gonnet did a great job in a very calm manner. Light winds were predicted, and so competitors

were prepared with light rigs and ballast bulbs. Sometimes waiting for the wind was frustrating, but this gave the opportunity to study the best boats in the world, chat, renew old acquaintances and make new friends.

The standard of rule observance was good, watched by buddied umpire/observer teams who broadcast contacts over the sound system. This sometimes led to confusion when the microphones went out of range and when an umpire penalty was announced and there were problems of changeover between teams at the ends of the windward leeward course early on. At the end of the events, more flexibility by teams following the racing, developed more satisfactorily.



10 Rater World Championships

Day 1 - This was not a good start as there was no wind until lunchtime when the breeze filled in and three races were sailed, a total of nine heats. In the first race it came as a shock to Dave Potter, used to sailing in small UK 10 Rater fleets, to be on the starting line with 20 of these long, sleek boats! At the end of the day, Brad Gibson GBR 42 headed the leader board with Matteo Longhi ITA 24 in second and Christophe Boisnault FRA 13 in third.

ABOVE: 20 Tens on the line was quite a sight! BELOW LEFT: World Champion TRANCE 1250mm LW L and less than 700 draft. BELOW RIGHT: Offset pivot swing rig on KAMSIN hull.







ABOVE: Chris Harris prepares for an A Heat start on Lake 'A'. BELOW: Brad Gibson GBR 42 leading Race 11 away from the leeward gate.



ABOVE: Race Officer, Pierre Gonnet always smiling despite his course setting problems. BELOW: Christophe Boisnault rigging his GRUNGE.



Day 2 - The morning dawned with fog covering the lakes. A light breeze cleared the fog by 10am and racing started quickly, finishing Races 4 & 5. The afternoon again was a game of patience while the skippers waited in the baking heat for wind to build. At 4pm a steady northerly breeze developed, and racing was extended until 7pm allowing for another two races to be completed. After seven races, Brad Gibson was still leading with five points, but Matteo Longhi and Christoph Boisnault were tied on eleven points.

Day 3 - Contrary to the forecast, the third day also started with very light wind. Nevertheless, Pierre Gonnet managed to complete another two races in perfect conditions. This racing however did not have a great impact on the final result so that Brad Gibson on twelve points is the old and the new World Champion with Christoph Boisnault second on 20 points and Matteo Longhi third with 22 points. By this time, the Marblehead sailors had arrived and shared in the dinner prepared by the club.

The 10 Raters

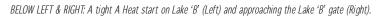
There was a great variety of these slim and elegant boats, from the 20-year-old Walicki PARTNERS to Brad Gibson's newly finished TRANCE design. The French came with several of Marc Pomarede's beautifully made NIOUTAINE designs and some had both conventional and swing rigs. Christophe Boisnault's rig on his Gerd Menges KAMSIN design was of interest, because it was an offset pivot swing rig, with the mast set back from the pivot point of the rig to allow a larger jib than is possible with the normal one third/two thirds proportion of jib to mainsail area. This is an idea that Christophe first brought to the 1987 Marblehead European Championship and which I have been using on my Marblehead lower rigs since 2012. The photograph shows that the mast is 'kinked' to achieve this offset, which obviously helped him to gain second place on the podium, although success is more about the skill in observing the wind and picking the right shifts than the type of rig.



Marblehead World Championship

The patchy light winds and hot sun continued into the second week and whilst starting early in the morning racing was extended up till 8pm to make the best use of the steadier breezes in the late afternoon. This was tough on everyone involved, but the club provided a fantastic service of food and drink throughout the day. The prevailing wind direction blowing over the control area from behind on Lake 'A', gave Pierre Gonnet a constant headache for setting a fair starting line for a 20-boat heat. As a result, many heats were abandoned when the windward leg became more of a close reach when the wind shifted after the start.

Day 1 - There was a reasonable light breeze from the north-east and this allowed the seeding race and two further races, a total of 15 heats, to be sailed on Lake 'B'. The GBR team did well and several made a good start by getting into 'A' heat. However, it was the Frenchman, Christophe Boisnault sailing a GRUNGE with an unusually light 3.2kg bulb, who set the pace by winning all











ABOVE: Henning Fass was responsible for this marvellous event.

three races. However, success was more about observing the wind and picking the right wind shifts than his boat. Christophe was leading with three points ahead of Brad Gibson with eight points with his GRUNGE and Ellio Cavallio ITA 113 sailing a QUARK with twelve points. The racing was followed by the international dinner where all sailors present specialties from their countries.

Day 2 - A good and reasonably steady breeze blew from the north allowing another 20 heats, or four races to be sailed on Lake 'A'. Brad Gibson's brilliant consistency with two first places and a second took him to the top of the leader board, three points ahead of Christophe and nine ahead of Peter Stollery GBR 39 sailing the new UP design. Only five points behind him was Chris Harris GBR 31, who was sailing well with the NIOUTRAM kindly loaned to him by assistant RO, Nigel Winkley.

Day 3 - The wind took a break and the sailors had to hold out in the shade until the afternoon when finally, a steady breeze from the north-east set in. Races 8 & 9 and part of 10 were completed. After nine races Christophe Boisnault and Brad Gibson were almost tied with two points' difference and together with the third placed Peter Stollery, they had already separated from the chasing pack by more than ten points.

Day 4 - Another day with no morning wind or afternoon wind either which caused the racing to start at 5pm, when the wind filled in from the west for racing on Lake 'B'. However, it was variable with big changes in direction giving competitors difficult decisions about which side of the course to follow. By 8pm this race was completed and won by Yannick Rossignol FRA 22 sailing a NIOUTRAM, with Chris Harris in second and Peter Stollery third. This did not make much difference to the overall championship leaders' placings.

Day 5 - For a change there was a fresh breeze from the south and several skippers went out to tune up their B rigs which had not left their sail bags all week. Unfortunately, because of the biased line there were two general recalls after which Pierre Gonnet reset the angle of the line and during this somewhat long delay the wind very gradually dropped and those in B rigs found themselves underpowered at the end of the heat against those still in A rig. Race 11 was won by Brad, with Australian Robb Kirwan AUS 94 also sailing a GRUNGE second and Peter Stollery third.

This more or less settled the final championship order, as in Race 12 Christophe Boisnault finished as he started with a win, with Martin Roberts GBR 122, who had been struggling in lower heats all week, second and Marc Pomarede FRA 44 sailing his own beautiful pink NIOUTRAM design in third. Race 13 was started, and heats E, D, and C were completed, but during heat B the racing time ran out and the race had to be abandoned.

The prize-giving for the first ten places soon followed with GBR competitors, QUARK sailor and designer, Graham Bantock in sixth, Chris Harris in fifth and two Brits on the podium; Peter Stollery in third and the master of radio sailing, Brad Gibson adding the Marblehead to his 10 Rater World Champion status. These were very well-deserved victories for someone who makes a great contribution to the sport with his design, building and sail making expertise.

After the presentation to the podium, the traditional champagne celebration was followed by the winners and a few others being thrown in followed by the race Officer, Pierre Gonnet





creating the biggest splash! The final dinner, once again prepared by the club, followed the packing up of all boats. A great time was had by all.

The Marbleheads

In these light weather conditions swing rigs were essential to be competitive and there were very few conventional rigs, which suffered badly off the wind. There were many fine examples of beautiful swing rigs, particularly those made by Frenchman Remi Bres and like many allowed adjustment to the leech tensions by using the trim on the winch transmitter whilst sailing. Sail plans were relatively standard apart from the taller and narrower jib on the Stollery's UP design, a DIY hull construction capable of competing with the best professionally made boats. All the sails looked superb and many boats had lightweight A rigs and sails specifically designed for the conditions at Biblis. There were some interesting variations on the control of the jib leech tension. Several had discarded the standard offset pivot of the jib for a boom attached at the front and held down by a spring-loaded strut fixed to the mast higher up. One third of the British team had new boats at this event and the good thing is that there are eight discarded boats looking for new homes, which must help to build up club sailor's enthusiasm for this Formula 1 class at our national level.



ABOVE: M.V. Krait en route to attack Singapore harbour, as seen by the model makers.

Target Singapore

M.V. Krait was the unlikely mother ship for an audacious commando raid. **Geoff Barnes** and **Roger Scott** build a diorama about this mission for the Australian National Maritime Museum

Top Secret Mission

The krait is a Southeast Asian snake; small, adept at concealment, but deadly when it strikes. M.V. Krait was aptly named after this reptile.

75 years ago on September 26, 1943 the docks of Singapore erupted to a chain of explosions. This rickety old fishing boat, flying a tattered Japanese flag, had ferried a small elite force of Australians and British in a top secret mission to attack ships in this Japanese-occupied harbour. They successfully sink or damage seven vessels.

In terms of loss to the Japanese, this was of little import in a world at war, but it was a model of Churchill's wish to set the enemy's world aflame with small-scale attacks. Low cost, affordable, expendable and perilously dangerous for those involved. These daring-do operations could yield high return by penetrating the heart of territory that the enemy thought secure, but all too often resulted in disaster.

The irony was that Operation Jaywick's very success, and its obvious morale-building for a beleaguered Australia, resulted in the operation being declared too secret to tell out loud.

USA to the rescue

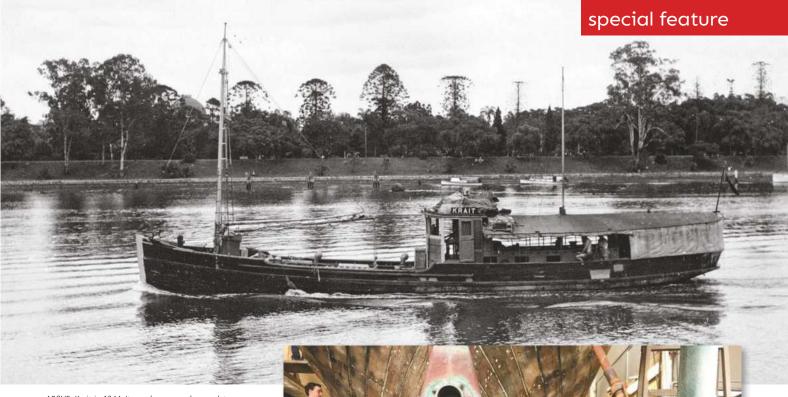
Singapore, and most of South East Asia, was in Japanese hands. Australia was the last bastion in the region. The SOA (Special Operations Australia) was a joint Allied military intelligence organisation set up in 1942. Like so many of these clandestine units, it had a

confusing and difficult genesis. It operated under the bland cover-name of the Allied Services Department. The nucleus of this covert group was some British officers who had been with Special Operations in Singapore, and escaped. But Britain had failed to protect Australia, and now the nation was very much under the shadow of the USA and the five star General Douglas MacArthur.

In placing the Australian forces under MacArthur, the Australian Federal government surrendered a large measure of sovereignty, but, considering Australia's limited strength and the magnitude of the Japanese threat, there was no real alternative.

But Australia was determined to stay in the game. In June 1942, a clandestine commando arm was organised under the name of Z Force, with volunteers mostly from the Australian Army and Royal Australian Navy. But Z Force needed a mission. In 1943 a 28-year-old British officer, Captain Ivan Lyon, a Gordon Highlander now with the Allied Intelligence Bureau in Australia, provided





ABOVE: Krait in 1944. It now has a proud nameplate on display, but her duties subsequent to Operation Jaywick have resulted in changes. (AWM 300915).

such a target - Singapore - with Krait as the mother ship.

Before World War II, Krait was called the Kofuku Maru and belonged to a Japanese company operating as a fishing trawler servicing a fleet of sampans out of Singapore. In the chaos that followed the fall of Singapore, an Australian master mariner Bill Reynolds salvaged it and used it to rescue civilians from outlying islands or from ships sunk by the Imperial Japanese Navy. The Japanese did not interfere; they assumed it was a 'friendly'. Having evacuated to India, Reynolds met up with Lyon. Given the anonymity of this humble little vessel, the two agreed that it could be an ideal Trojan Horse to stage a revenge raid.

Kofuku Maru was duly shipped deck cargo to Australia and renamed Krait but here the plans stalled. It was only after many months of trying to convince Australian military authorities of the worth of such a raid, approval was finally given. Ivan Lyon now had his mission, code-named Operation Jaywick.

Krait in miniature

Enter the model makers Geoff Barnes and Roger Scott. Geoff is a Volunteer guide at the Maritime Museum and he also builds dioramas for their exhibitions. I noted that Krait would be absent from display for quite some time and that an Australian model ship company, Modellers Central, had just created a laser-cut wooden 1/35th model to commemorate the

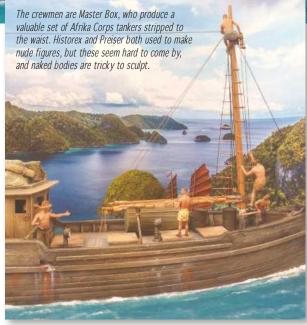
ABOVE: Krait is being extensively repaired before being refloated. A wooden hull ship needs to be in the water to prevent it collapsing under its own weight, or supported in rigid cradle.











ABOVE LEFT: The ocean was primed white, painted with aqua and marine blue, colours developed by a company that supplies the folk art world; useful and cost-effective colours. ABOVE CENTRE: The junk is scratch-built at a much smaller scale to force the diorama's perspective. BELOW LEFT: The Krait chugs along over a sea of laminated toilet

paper, soaked in PVA glue and thereby providing a surface that can be worked easily with wedge shaped bruits. RIGHT: How to turn a full hull into a waterline model? Carefully! Our modelling mate Bob Metcalfe was an industrial arts teacher, has a well-equipped workshop, and knows how to use a band saw. Bob was also the man who designed and rigged the night-time lighting.

75th anniversary of the raid, in September 2018. Roger Scott and I proposed an interim exhibit of Krait in miniature, so the Museum could have a display ready for the same anniversary date.



Operation Jaywick

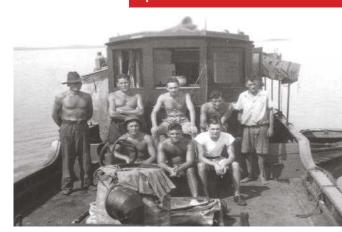
The persistent engine problems of the underpowered Krait had been a key factor in the initial shelving of the plan. Because of the tenacity of Lyon and others in the SOA persisted, the operation was resurrected in 1943 and a powerful and reliable Gardiner Diesel of about 103hp was installed. Now Z Force could get there, but the new engine did nothing to improve its sailing qualities.

Volunteers were now recruited. Motivations varied; adventure, novelty, an escape from boredom, or a genuine wish to biff the enemy. Initial training for the raid was organised, carried out by Ivan Lyon, now a major, and his deputy Captain Davidson at a remote site, an inaccessible bushland area along



special feature





ABOVE LEFT: One of the few photos of Operation Jaywick to survive; the crew change into their sarongs and apply the stage make-up in the hope that it will make them look more South East Asian. (AWM067336). ABOVE RIGHT: Some of the Z Force team en route to Singapore aboard MV.Krait. Left to right, back row are Able Seaman Walter Falls, Acting Leading Seaman Kevin Cain, Major Ivan Lyon, Lieutenant Hubert Carse and Leading Stoker James McDowell, and in the front row Andrew Huston, AB Mostyn Berryman and Leading Telegraphist Horace Young. Lyon, Falls and Huston would all be killed in a subsequent Z Force operation. (AWMP00986.01).

the Hawkesbury River, New South Wales, aptly named 'Camp X'. Training continued at Broken Bay, but they still lacked the essential 'folloats' and had to make do with sports canoes until they arrived from England, to be delivered to Krait en route.

Krait now went to sea for real and motored right up the east coast of Australia to the remote Thursday Island in the far north. The Z Force Special Unit consisted of three British and eleven Australian personnel. It was tough shake-down cruise for the men and the vessel, which proved to roll heavily and was sluggish in recovery. It was going to be a long, nauseous trip to Singapore.

On August 13, 1943, the Krait left Thursday Island for a US base in Exmouth Gulf, Western Australia, where it was refuelled and repairs were undertaken. Here the cheerful Americans fed them, wished them good luck, but things were not going smoothly. Not only did the repairs cause delays in departure, but the folboats, manufactured by Harris Lebus and designated as model MKI**, only arrived at the last minute. They were found to be faulty, lacked some important parts and were not according to the design that Captain Davidson had specified. They had to undergo many on the spot changes and this left the raiding parties little time to get accustomed to them before they set off.

Hide in plain sight

On September 6, 1943, the Krait hoisted it tattered Japanese flag and left Exmouth Gulf; destination and target, Singapore. Now the team's safety depended on maintaining the disguise. They were meticulous in what sort of rubbish they threw overboard, lest a trail of European garbage arouse suspicion. U-boats had been tracked and destroyed in the Atlantic by just such carelessness.

They donned sarongs and stained their skin brown with a dye to appear 'Asian'. Unfortunately, the Helena Rubenstein makeup was for operas and what looked fine in the stage lights soon streaked badly at sea. Streaky stage make-up could have been painted on to the figures but one of the penalties of modern museum orthodoxy is to keep captions to a minimum. Without explanation, the streaking would have looked like poor painting.

Apart from the dangers posed by Japanese patrol boats and aircraft, the strong currents of the Lombok Straits posed significant navigational problems. Progress was excruciatingly slow but it was a relatively uneventful voyage, despite some nervous moments which called them to action stations. They saw an occasional Japanese aircraft and the searchlights of the coastal observation posts but trusted that their little craft would not attract attention. They chugged along at six and a half knots.

Krait steered clear of the coastal fishing boats and occasional Chinese cargo junks. There were a lot more fishing and farming communities on the scattered islands than anticipated, and the raiders needed somewhere quiet and safe as a base camp. Not easy, but eventually north of Galang Bahru they found the island of Pulau Panjang. It had sandy coves and no sign of habitation. It was close enough to Singapore and would suffice.

Target Singapore

What did the Singapore docks at Pulau Bukum look like? There was an abundance of indistinct photos but none with the detail required. My lateral research solution went this way: Singapore was a British harbour, the British Empire created its colonies in its own image, so dock yard plans would have been similar in Bombay or Sydney or Singapore.

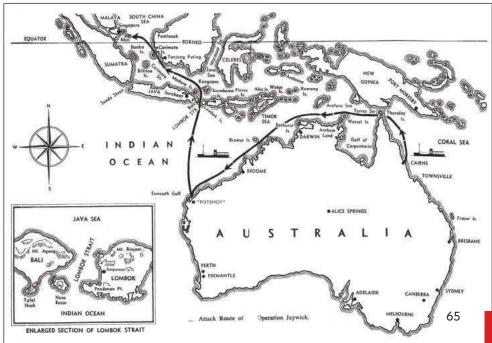
A cave in Dongas

On September 24 Krait moored in a remote bay and unloaded the raiding parties and their folboats and supplies. Then it motored off to spend the next eleven days busily avoiding enemy contact south of Borneo and listening anxiously to the radio every night for any news of the operation.

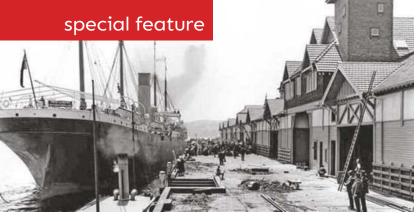
The six men in the raiding parties (two per canoe), now spent the next three nights island hopping their way through the archipelago, their fragile canoes loaded to the gunwales with food, water, and magnetic mines. By midnight September 22, they established their final base camp, in an island cave on Pulau Dongas, just eight miles south-south east of Singapore Harbour. Their black camouflage suits had proved appallingly uncomfortable, they were already tired, blistered, ulcerated, but now they were poised to attack a splendid target; a concentration of 65,000tons of shipping gathering in the Singapore sea roads just across from Dongas.

The first attempt was thwarted by unexpected tidal currents. They retreated back to Dongas and on September 26, set out again. That night, despite the currents still fighting them, they paddled into various parts of the harbour complex and placed limpet mines on suitable targets.

BELOW: The map in Don McKie's book clearly shows the long voyage for the Z Force team to their target.



Model Boats September 2018





ABOVE LEFT & RIGHT: I used these detailed photos of the cargo docks at Sydney Harbour. They date from the early 1940's and seem consistent in architecture. (ANMM Archives).

The targets

The identity of the ships successfully attacked was on record, but what about the others? This rust bucket was rejected as a target but gave shelter. The ANMM Library yielded a Japanese commemorative volume that gave details of cargo ships requisitioned by the Japanese Army and operating out of Singapore. I chose the Kamo Maru. The former director of the Cockatoo Island ship yards and colleague at the Naval Historical Society of Australia, John Jeremy, sent me rivet plans for the period. 'Don't go using those arbitrary patterns that you see in Heavy Metal artwork', he cautioned. Tank aficionados would wholeheartedly agree.

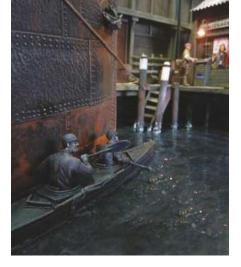
In order to place the magnetic mines successfully, the canoes needed to be hard against the hull of the target, then the raiders This was not easy, no matter how many times

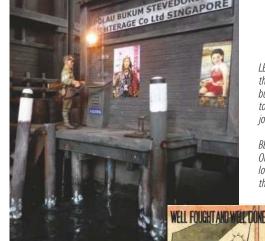
The getaway

In the resulting seven explosions, the limpet mines sank or seriously damaged seven Japanese ships, comprising over 39,000tons between them. The commandos paddled furiously back to their cave at Dongas, waited until the commotion had subsided and then set off to find Krait, 50 arduous miles away out in the ocean. Krait had spent a frustrating two weeks circling in the South China Sea. One canoe made early contact but the other two had heart-stopping trouble making the rendezvous. However, by October 3, all were back on board.

Their return to Australia was mostly uneventful, except for a tense incident in the Lombok Strait when the ship, probably an unmarked Japanese destroyer, approached to within 100yds. Knowing that they would be executed if discovered, they prepared to ram it and blow everyone to bits. But Krait was not challenged and the ship went

hazardously lower the mines on hooked broomsticks until they were hidden from view. quietly off into the darkness. they had rehearsed it. The shadows of the On October 19, having covered 4000 vessels gave them some limited cover and the miles during her 48 day absence, the ship lights of the illuminated docks helped, but it was and crew arrived safely back at Exmouth hazardous in the extreme. Gulf. There were no casualties and all those LEFT: The maritime artist Dennis Adams did this carefully researched painting of Lieutenant Bob Page, AlF, and Able Seaman Arthur Jones, RAN, in the precarious task of placing and arming the mines. (AWM Art27649). BELOW: Note the contrast of low key sheds and high key dock lights and background. KAMO MARU HTERAGE CO Ltd SINGAPORE **Model Boats September 2018** 66 www.modelboats.co.uk





ABOVE LEFT: Lieutenant Page and Able Seaman Jones in Canoe No.3 at Pulau Bukum docks, Singapore, September 26/27, 1943. Figures are from King and Country. ABOVE RIGHT: In our diorama, Page and Jones are shocked to find themselves only metres away from this Japanese sentry, but he fails to notice their stealthy approach, and continues to wonder whether life would not be more interesting if he joined the air force.

involved were either decorated or mentioned in despatches. But Australia would not know about the operation for a long time.

The repercussions of the raid

The raid took the Japanese authorities in Singapore completely by surprise. They never suspecting such an attack could be mounted from Australia. They assumed it had been carried out by local saboteurs, most likely pro-Communist Chinese guerrillas. In their efforts to uncover the perpetrators, a wave of mass arrests was initiated by the Kempeitai, the Japanese secret police. Local Chinese and Malays, as well as interned POWs and European civilians were targeted, tortured and executed. The incident became known as the Infamous Double Tenth, October 10.

The men of Z Force were undoubtedly brave, successful and lucky. However, given the misery inflicted upon the local population by the Japanese, criticism has arisen as to whether Operation Jaywick was justified, especially with its relatively limited strategic results. In the aftermath of the raid, the Allies never claimed responsibility for the attack on shipping,

most likely because they wanted to preserve the secret of the Krait for future missions and because the Allies were courting the various Chinese factions to maintain pressure on the

Imperial Japanese Army.

Therefore the Japanese did not divert significant military resources to defend against further such attacks. Operation Jaywick was followed by Operation Rimau, conducted in great secrecy. Three ships were sunk, but the raiders did not have luck on their side. The team, including Ivan Lyon, were killed or captured and beheaded and the secret was out

M.V. Krait is alive and relatively well

Just as improbable as the success of a wild scheme like Operation Jaywick, the mother ship for the raid is still in existence. It is now part of the Australian War Memorial's collection and on loan to the Australian National Maritime Museum (ANMM) where it was, until recently, one of the Heritage Vessels fleet moored at the museum's docks in Darling Harbour, Sydney. However, Krait is not

BELOW: A group portrait of the Z Force team on their return. Five of them would volunteer for the next raid, Operation Rimau and die. (AWMC43323)



special feature

LEFT: In our diorama, Page and Jones are shocked to find themselves only metres away from this Japanese sentry, but he fails to notice their stealthy approach, and continues to wonder whether life would not be more interesting if he joined the air force.

BELOW: I added signage and local advertisements for colour. One poster is a recruiting poster in English exhorting the local Malays to join with Japan in conquering the Pacific, and the other advertising the Chinese cure-all Tiger Balm.





in great condition and is currently out of the water for extensive repairs.

After Operation Jaywick, Krait had continued in service as transport for intelligence gathering missions to islands in the South West Pacific. Postwar, Krait sailed to Labuan where it was sold and handed over to the British Borneo Company. After years of routine island hopping, it was purchased by the Australian Royal Volunteer Coastal Patrol in 1964 and brought back to Australia as a training and recreational vessel.

Krait's significance was recognised and it was acquired by the Australian War Memorial (AWM). As the AWM is in landlocked Canberra, it was loaned to the ANMM, where it has been afloat on public display in Darling Harbour since 1988.

Krait was severely showing its age, so in 2015 ambitious plans were drawn up by the ANMM to take her out of the water and display it in a special pavilion dedicated to the Australian special forces of World War II and restored to how it looked in 1943. This meant some serious research based on the few photos that exist of her at the time.

But in 2018 such a pavilion is going to be very costly. Given the many other priorities of the expanding Museum, however Krait, for now, is destined to go back in the water.

References and thank you

Operation Jaywick and its tragic sequel, Operation Rimau, have become Australian folklore in post-war years, with a feature film, several documentary series and a pile of books and articles about Z force. I used as my primary source Don McKie's 'The Heroes', published in 1960 using first-hand interviews. The Naval Historical Society of Australia (www.navyhistory.org.au) showed me an actual carbon of the intelligence debrief of Operation Jaywick, in 'Special Operations Australia, Vol.II, Part V, China Sea and Malaya', Copy No. 1, 1945'. The Royal Australian Navy's Seapower Centre provided Petar Djokovic's comprehensive article 'Krait and Operation Jaywick'. The ANMM and AWM were of great assistance.



Kirklees Model Boat Club Summer Open Day 2018 An event report by Richard Simpson

think of all the events the Kirklees Model Boat Club is involved with, both 'Home' and 'Away', the one that generates the most excitement amongst the members is the annual Summer Open Day. This is usually planned for somewhere in July each year, to give us the best possible chance of good weather and is announced at the beginning of the year to give as many participating clubs and vendors the opportunity to pencil in a hole in their own calendars. As for the weather, this year was a cracker and as for attending clubs and vendors again we did better than we have done for a while. The Kirklees MBC meet at Wilton Park in Batley, West Yorkshire and are very fortunate to be able to use a superb public facility which consists of an excellent pond, two internal car parks, toilet and cafe facilities all in a beautifully kept public park. There is a foot path for launching boats for the entire perimeter of the pond and a wide grassed area on the South side where gazebos can be erected to accommodate any of the club events.

The process, as always, kicked off early with the contents of the club container being opened up at around eight o'clock to enable the process of transporting the contents over to the far side of the pond and the building of

the gazebos, the floating harbour and tea tent to commence, (**Photo 1**). Enough manpower was on hand to get things erected quickly and efficiently, tables were laid out and the ladies commenced putting together the wares in the tea tent. This year the word was put out for additional cooler boxes and ice packs so, with the club enthusiasm at its usual high level, the ladies slowly disappeared behind a wall of ice boxes!, (**Photo 2**). The floating

harbour was set up on the pond (**Photo 3**), the rescue boat tied up nearby 'Just in Case' and the completely unnecessary Public Address system was assembled in its own tent ready for any announcements that Stan Reffin may have throughout the day.

During this process, visiting clubs and vendors started to arrive and were duly guided to their own allocated slots by the ever available Stan. The visiting clubs soon made themselves



show report













welcome, put up their own gazebos and facilities, which even include complete cooking facilities to enable the production of bacon sandwiches in one case, and settled down to a day of chatting with friends, soaking up the sun and playing with model boats on the pond. This year attending clubs included:- St Helens and District MBC (Photo 4); York MBC (Photo 5); The Castaways MBC (**Photo 6**); Liverpool MBC (Photo 7); Goole MBC; The Alvaston Pirates MBC; The Mutual Model Boat Society; The Bradford Model Engineering Society; Cheddar MBC and Redcar MBC

Also very much appreciated again this year was John Dowd and his superb 'J' Class model yachts, (Photo 8). There were also many single members attending from other clubs as well as three non-club members who attended from as far afield as The Midlands, Bristol and even Scotland.

Trade support this year was provided by:-Deans Marine (**Photo 9**); Mobile Marine Models











Scale Flags and Ensigns (Photo 12) and of course the RNLI (Photo 13).

A slight departure from the normal proceedings this year was the inclusion of the Radio Controlled military vehicles. Buildings were fabricated and laid out with a few items of scenery to allow the attending vehicles somewhere to operate with a degree of freedom while still being very clearly visible to the public. The military vehicles are becoming more and more supported by various members of the club and, in an attempt to generate further interest from new members it has been decided to include them on the various shows put on by the club throughout the year, (Photo 14).

The morning then follows a fairly relaxed itinerary including playing around with a wide selection of model boats in the sunshine (Photo 15), browsing around the wares of the vendors and catching up with people. It is always good to get some model steam related enquiries and be able to assist members who have visited from other clubs as regards just how they can get their boilers tested and certificated. At the end of the day, it is all about promoting the club and what it has to offer and possibly generate new membership for the future. Even half way through the year, three new members, one of them with a couple of very interesting steam systems, were signed up on the day so we look forward to seeing a bit more of them in the future.

In the afternoon after everyone has made the most of the cakes, sandwiches and hot drinks on offer in the tea tent, the activities kick off with the presentation of trophies. This year we were particularly honoured to have the Editor of Model Boat Magazine, Martyn Chorlton, attend the event who also agreed to hand out the prizes and even received himself an extremely valuable, much sought after and highly prized Kirklees MBC Mug, (Photo 16). This year prizes were awarded to John Radford from The Liverpool MBC for his Flying Phantom model wining the





going to Terry Scarth from the Kirklees MBC this year for his model of the Northlight.

After the prize giving the next event is at two o'clock, when as many model boats as possible are invited to sail at the same time and perform a grand sail past, making this year quite a spectacle for the attending public in the park to get a bit of an idea of just what radio controlled model boating is all about. This year, between trying to avoid other boats, the harbour, the island and the occasional duck I managed to count over 25 boats, with three of them being steam powered (Photo 17-19).

Then, finally at two thirty the event we had all been waiting for, and which is becoming famous throughout the model boating world and that is Stan's Raffle! This year was no exception with a very large number of raffle prizes being on offer and a test of endurance undergone by all in the afternoon sun to see the process through to the end. After a somewhat slow and rather vocal start we believe the 'Golden Boot' this year might have gone to Simon Murphy.

After the raffle all that remains was to clear everything away again and return the park to normal. Again a good deal of work is required to dismantle everything, pack it away and put it back into the container in such a manner as it is ready for the next event. This time it was unusual to be able to put everything away bone dry and clean, making the job that bit easier.

How you measure success of such an event is always open to interpretation however a day of playing with model boats in a lovely park setting, surrounded by friendly happy faces, talking model boats and enjoying tea and cakes isn't a bad day for me. We had no sinkings, we did not require the services of the rescue boat and we made some useful club funds, promoted the club to the public in an extremely positive way. That seems pretty successful to me.

BELOW: The bulk of the wildlife at Wilton Park kept out of the way apart from Frank Cooke's stand-off scale duck, named 'Quackers'.





ABOVE: Graham Farrow's lovely Grimsby Fishing Boat 'The Girl Pat' (GY 176) which may feature in the magazine in the future thanks to the real boat's interesting history.



ABOVE: John Bradford's Tyne Models Semi-Kit, 'Fly Phantom'.



For details of the Kirklees MBC visit http:// www.kirkleesmodelboatclub.org.uk or simply turn up at Wilton Park, Bradford Road, Batley WF17 8JH on any Sunday morning, Wednesday afternoon or any of the advertised club events.

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AERONAUT VOSPER RAF Fire Tender original 46in long 1958/60 fully restored £300. MFA Spearfish Speed Launch 37in long built from original kit now unavailable £125. Both as new condition photos available collection only. Tel. 01845 501922 (North Yorks)

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MODEL BOATS magazines, issues between 2005-2017. Ready to sell as individual copies costing £1.60ea plus £1.25 postage. Gaps in collection, please enquire to see what is available. Tel. Haydn on 07542 536556 (Conwy).

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MOUNTFLEET OSPREY kit as new plus brass prop, £350. Full details of dimensions can be found on Mountfleet website. Allow up to £25 postage or collect free. Tel. Paddy on 01473 402931 or 07534 691738 (Ipswich).

0.S. MAX 20 and 30 marine engines, boxed and comes with instruction sheets, silencers, flywheels etc. - £40. Tel. 01782 723257 (Stoke-on-Trent).

MFA 919D MOTOR, single radio 2.5 to1. New unused plans changed - £12 to include p&p or £10 if buyer collects. Tel. John on 01225 315453 after 6pm (Bath).

NICHIMO 1/200 scale battleship static model - £350 buyer to collect. Tel. Bill on 01915 147173 (Tyne & Wear).

HMS VANGUARD 1/128 scale. Fleetscale hull, very detailed model 6ft 5ins long, 4 low drain motors. Ready to sail with planet T7 2.4 radio - £850. Tel. Derek on 02392 384492 (Portsmouth).

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Signature: Date:

marketplace

BULK CARRIER 8-foot model plus carrying trolley, see the movie on YouTube large scale model R/C bulk carrier ship Odyssey. Includes electronics, batteries and ballast launching kit etc - £800. Can deliver by arrangement. Tel. Jim Llyod on 01208 832373 or Peter Austin on 01208 832302. (Comwall).

WANTED

RMS EMPRESS of BRITAIN plan 1/200 scale 38.5in 1956-60 by Vic Smeed. Tel. lan on 01704 871416 or 07484 764575 (Liverpool)

TALACRE + ARRAN MAIL buy or part exchange available RAF ASR & WW2 Gun Boat. Tel. 01773 0770824 (Notts).

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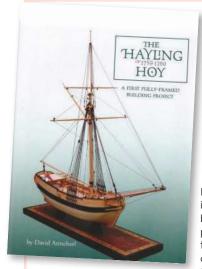
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A round-up of all the latest kits, books and blingy bits

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The Hayling Hoy of 1759-1760, A First Fully - Framed Building Project by David Antscherl

This is another fantastic model from the workshop of master model-maker David Antscherl, regular readers may remember his books on building HMN Swan Class Sloops 1767-1780 Vols I - IV*, the Fireship Comet of 1783* and the Greenwich Hospital Barge of 1832*. This time it's his 1/48 scale model of The Haying Hoy of 1759. Hoys were small craft used for many

tasks in harbours or as small passenger and light cargo carriers along England's South and East Coasts. The name Hayling comes from Hayling Island, which is located close to Portsmouth, Hampshire. With 365 black & white photographs, drawings and diagrams this step-bystep guide is aimed at the novice scratch builder or the experienced modeller who's looking for a small project in-between major builds. The book concludes with an eight page colour section showing the finished model and also comes with three sheets of 1/48 plans.

As always with SeaWatch Books, this new work is beautifully presented with superb photography, printed on high quality paper, which would make a welcome addition to any period ship modeller's or enthusiasts bookshelf.

Thanks to SeaWatch Books for supplying the review copy of this book which is available at www.seawatchbooks@ amail.com

John Deamer

*Also available from SeaWatch Books who regularly advertise in this magazine.

Please Note: This book is only available from the publisher.

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SPARMAX Zeta Air Compressor

Sparmax was one of the first companies in the world to design and manufacturer oil-less mini air compressors, specifically for the airbrush market when they were founded in 1978. Since then, they have become, or more accurately, maintained themselves as a market leader in this field and their latest compressor, named Zeta, continues to raise the bar (excuse the pun).

Compared to the last compressor I reviewed for The Airbrush Company, the Arism, this new Zeta model is still a great looking piece of kit, but the internal workings are more exposed which can only help with regard to cooling. It has a more practical, workman-like look compared to the Arism, which was verging on a work of art! That said, the Zeta is a more advanced and capable compressor with at least one key selling point; the Smart-Stop. Combined with its own bench bracket and airbrush holder, the Smart-Stop only starts the compressor when the airbrush is lifted from the holder and in turn, shuts the compressor down when replaced. This is not only an

energy saving device but it also virtually eliminates pressure fluctuations (by maintaining the working pressure in the air tank) compared to a standard auto on/off switch and on top of that, this system will extend the life of the compressor.

So as well as a 'state of the art' oil-less single piston air compressor for your money, inside the Sparmax box you will get detachable Smart-Stop hangar switch (designed to clamp on your worktop); a detachable pressure gauge; a detachable air regulator and a two metrelong braded hose. The Zeta is compatible with a large range of airbrushes including Sparmax, Neo for Iwata, Iwata, Paasche, Badger, Premi Air and Asturo. Full details of the nitty gritty specifications and further details of compatible airbrushes can be found on The Airbrush Company Ltd website.

Thanks very much to Lisa at The Airbrush Company Ltd who are the main UK stockist for this excellent Sparmax compressor and a vast range of airbrush related products; please visit

www.airbrushes.com. Owen Cooper

Product: Construction kit

Ref: C-AC-ZETA

Parts: 6

Price: £199 inc. VAT (The Airbrush Company)

Manufacturer: SPARMAX Website: www.sparmaxair.com



Artesanía Latina Belem 1896

Built by Chantiers Dubigeon in Nantes, the three-masted barque, Belem was launched on June 10, 1896 and originally operated as a cargo ship transporting sugar from the West Indies, cocoa and coffee from Brazil and French Guiana back to Nantes. From 1914 she passed through several owners including Hugh Grosvenor and Sir Arthur E Guinness who renamed her Fantôme II. Eventually Belem returned to France in 1979 and has served as a training ship ever since with her home port, once again being Nantes. The oldest threemasted sailing ship in Europe and the second largest of her kind in France, the Belem is a beautiful and impressive ship.

the Belem in 1/75 scale is no less impressive at 808mm long and 540mm high when complete. If you are not used to building a static model ship like this, then on opening the box the contents will initially look quite complex and intimidating. However, once you have gone through the supplied DVD (which contains all the instructions), everything will slow down and become more understandable. The building of the hull covers 194 stages (in both Jpeg and PDF format) and the rigging 91 stages; sounds like a lot but you do have over 1,300 parts to plough through; apparently there are over 1,500 colour images to support the build! To give you an idea where you should be by the end, an impressive A1-size full colour sheet presents a 1/1 scale image of the ship in both profile and



plan plus some very useful detail views to assist with the build.

A multi-media kit, the bulk of the hull is made of wood which is crisply laser-cut, plus birch wood slats, rods and linden veneer, not to mention a large sheet of Photo-etched parts. Two neatly contained compartmentalised boxes contain all of the chemically cut steel, brass and wooden fittings and an absolute bonus is the pre-made sails; a huge job already sorted for you! There are four reels of cotton for the rigging, which isn't as bad as it looks - honest! This version of

the Belem is 21st Century and even includes a modern RIB on the deck

I would recommended the Belem as more likely your second tail ship build but then again, if you fancy something that will keep in the workshop through autumn and beyond and is something slightly out of your comfort zone, then this could be it.

This review sample was purchased from The Hobby Company Ltd (www.hobbyco. net) who is the UK distributor for Artesanía Latina.

MC

Product: Construction kit

Ref: 22519 Scale: 1/75

Price: Approx £220 from multiple outlets

Manufacturer: Artesanía Latina Website: www.artesanialatina.net



GORILLA GLUES

Launched in the United States in 1999, Gorilla Glue has been on UK shelves since 2008 and can now be credited with five slots in the top 10 US adhesives chart. The Gorilla Glue Company is a leading manufacturer of adhesive solutions for home improvement, woodworkers and professionals and is increasingly being used by the hobbyist thanks to the diverse range of products. The first of three products we have here is Gorilla Wood Glue which dries a natural colour, can be used indoor or outdoor and is D3 water resistance making it potentially useful for model boaters. Complete with an anticlog applicator, our example is a 118ml bottle but 236ml, 532ml and even 1 litre containers are available.

Next up is Gorilla Glue Clear which is designed to bond glass, ceramics, metal, stone, wood, foam and much more. 100% waterproof, 'Clear' is foam free and contains a water activated polyurethane formula which expands into materials to form an incredibly strong bond to virtually anything.

Finally we have the original which contains the same formula as the 'Clear' and it certainly warrants the slogan 'For the Toughest Jobs on Planet Earth'. Designed to bond stone, metal, ceramics, glass, wood and foam, Gorilla Glue ticks all the boxes, so be careful how you use it, but don't forget to damp the surface first as the glue is cured by moisture.

Thanks very much to Cathy at Ice PR for our Gorilla Glue samples.

MC

Product: Adhesive

Ref: 1255 (Wood Glue); 4033 (Clear); 0103 (original)

Scale: n/a

Price: £2.50 - £7.50 (Shop around!) Manufacturer: Gorilla Glue Company Website: www.gorillaglue.com



Ocio Creativo Terror

Launched on June 29, 1813, HMS Terror was Vesuvius-Class bomb vessel armed with a pair of heavy mortars and ten cannon. She saw action against the United States between 1812 and 1815 but by the mid-1830s she was refitted as a Polar Exploration Vessel. It is in the guise of the latter that Ocio Creativo (OcCre) presents this 1/65 scale static model of the Terror which infamously disappeared during the Franklin Expedition of 1845, the remains of her only being recently discovered in 2016.

Neatly packed within a box that is a mere two-thirds of the

lenath of the finished model (676mm long, 504mm high), this inviting subject by OcCre whets the appetite from the images on the outside of the box to the myriad of parts contained within it. As always with a kit of this nature, there is plenty of guidance and advice that is worth looking over before you start and this is supplied by eight A3 sheets, stapled together covered everything from a thorough parts list to 1/1 scale drawings of the rigging, masts and sails. A second A3 three bundle of nine sheets guides you through the build with a combination of annotated line drawings and colour images to keep you on track. The internal

construction of the hull is very similar to a model designed for the water, an impression that quickly disappears as the build progresses with multiple fittings in metal and brass.

Contents include three main wood bundles, ten laser cut sheets of hull sections, a plastic box filled to the gunnels with details parts made of wood and metal, a complete set of pre-made sails, eleven rolls of cotton backed up by multiple brass tacks. As the real vessel was a mere 102ft long, once you have got past the hull construction you will find that you still have a large number of parts to find a home for which will bring this interesting ship to life.

A great Autumn/Winter project, HOBBIES also provide a Model Makers Glue Pack and a useful Rigging Tool Set for this kit; both, as well as the kit itself, I would highly recommend!

This review sample was purchased from HOBBIES (www.alwayshobbies.com) who is the UK distributor for Ocio Creativo.

MC

Product: Construction kit

Ref: 12004 Scale: 1/65

Price: £99 (HOBBIES) Manufacturer: Ocio Creativo Website: www.occre.com

BRITISH BATTLESHIPS of the Victorian Era

British Battleships of the Victorian Era by Norman Friedman

When Queen Victoria came to the throne in 1837, the British battle fleet comprised ships that were only marginally different from those that had won the Battle of Trafalgar a generation earlier; at the end of the queen's long reign in 1901 their successors would have been unrecognisable to Nelson's sailors – gone were towering sail plans, the 'wooden walls' and large numbers of relatively small muzzle-loading guns, to be replaced by black-painted steel hulls, driven independently of the wind by steam machinery, protected by sophisticated armour, and mounting a few very large breech-loading guns firing explosive shells. The only thing unchanged was the Royal Navy's dominance of the world's oceans, seized at Trafalgar and never relinquished.

How the naval administration coped with this unprecedented revolution in technology without losing maritime ascendancy is the theme of this latest book by one of America's best known naval historians, Norman Friedman. In his inimitable style, he analyses the broader factors of politics, economics and international rivalry that bore down on the decisionmaking and explains how these influences worked through into the ships that were actually built. The result is a much deeper and more sympathetic understanding of the nineteenth-century Royal Navy and its warship designs.

Heavily illustrated with many rare photographs, the book is further enhanced by the reproduction of a large number of original Admiralty plans, including a section in full colour with a double gatefold.

This book is worthy addition to Friedman's acclaimed series of warship studies.

Thanks go to Charlie Simpson at Seaforth Publishing for the review copy of the book which is available at www.seaforthpublishing.com

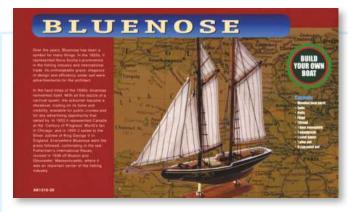
John Deamer

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Format: Hardback - 296 x 257mm Publisher: Seaforth Publishing Ltd. Website: www.seaforthpublishing.com



TASMA Bluenose

Completely new to the hobby or not sure if model boat building is for you? Well, one approach would be to try a starter kit of which there are an increasing number on the market these days. They will not hurt your wallet and if nothing else, they will give you a taster of more complex and potentially more expensive builds. On the other side of the coin, these starter kits make great stocking fillers or fill the gap when you've got stuck on the 'what do I get them for their birthday for this year' question!

The Tasma range of starter kits tick all of the previous boxes

and when complete, present a reasonably accurate model of the subject, which in this case is the graceful 1920s Schooner, Bluenose. Contained with a sturdy box, the entire contents of the kit can be pulled out in one go and inside you find a surprisingly large amount of bits and bobs. The single piece hull (24cm long) is the dominant component, backed up by at least 28 further wooden parts, six sails, a reel of cotton, a pair of supports for the stand, a bag of chain, two plastic lifeboats, decals, six paints, one pot of glue, one piece of sandpaper, a paintbrush, flags and an instruction sheet all for less



than £20! There is nothing extra to buy; it's all presented in one hit, ready to go! I can virtually guarantee once you've built one of these, you'll want to build another. This review sample was purchased from HOBBIES (www.alwayshobbies.com) who stock the entire Tasma range of starter boat kits.

David H. Smith

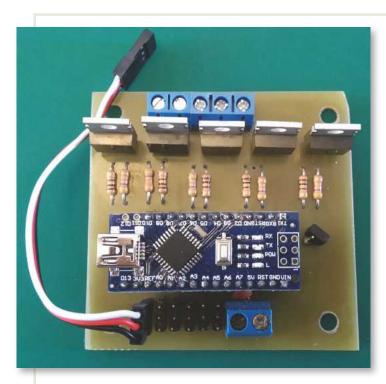
Product: Construction kit

Ref: TAS080905

Scale: n/a

Price: £18.99 (HOBBIES)
Manufacturer: TASMA

Website: www.alwayshobbies.com



RC Smoke & Light Controller Mk.1

This board will control the speed of any model smoke generator which uses a fan to replicate engine exhaust and control lights/motors of the model remotely. To switch between Steam and Diesel Mode, connect up the jumper on the right side of the board; the fan speed will either increase to match the throttle position (for steam) or increase briefly and then decrease (for diesel). The board can be powered by 7.2 to 14v.

Connecting Up The Board - Connect the board to the receiver ESC channel (From Receiver) and the plua the speed controller to the board (ESC Connection). The servo lead needs to been connected with the signal at the top (towards the middle of the board) and the negative to the bottom of the board. Next, connect up the Smoker power switch to a channel that has a two position switch. This will allow you to turn power off to your Smoke unit to save power if not used.

Switching Output - You only need to connect up the negative of the output to the board and then the positive to the battery. This board has two channel inputs but can turn three circuits with just two switches. The first input is designed for a two position switch. It can turn on external lights and internal light separately or light and

radar. Due to the design, it can handle over 20 amp or higher (will require heat sinks fitting). Position one - everything off; Position two (middle) - Turn on Circuit one (marked LED 1 and 2 on the board) Position three -turns circuit one and two on (marked LED 1 & 2/2 and3 on the board). If you only have on/off switches on your transmitter it will just turn on both circuits at the same time.

Input 2 - This channel on/off and outputs to Circuit 3 (LED 3 on the board). It can also be used for a water pump/radars etc. (if it's a high load, please fit a heat sink). If the outputs turn on with the switches in the incorrect position, reverse the channel on the transmitter.

IMPORTANT - Before powering up the board, check all the cabling and polarity of power inputs. Please contact Tim at Tim_garrod@msn.com for more details and questions. Contact the editor for a copy of the 'connecting up the board' as we only have so much room in Test Bench.

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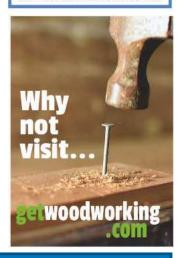


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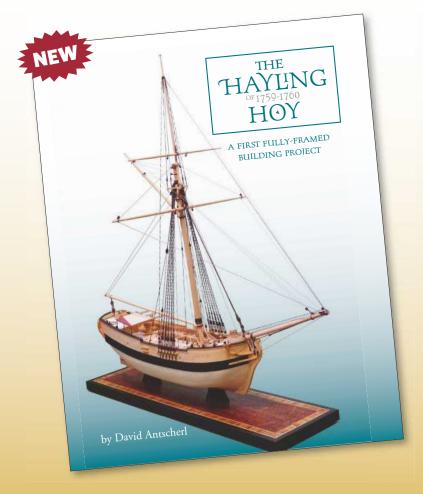
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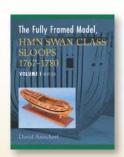
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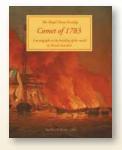
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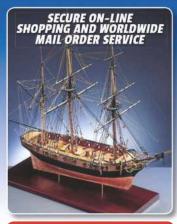




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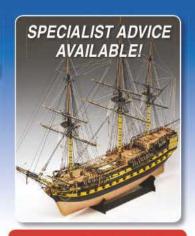
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