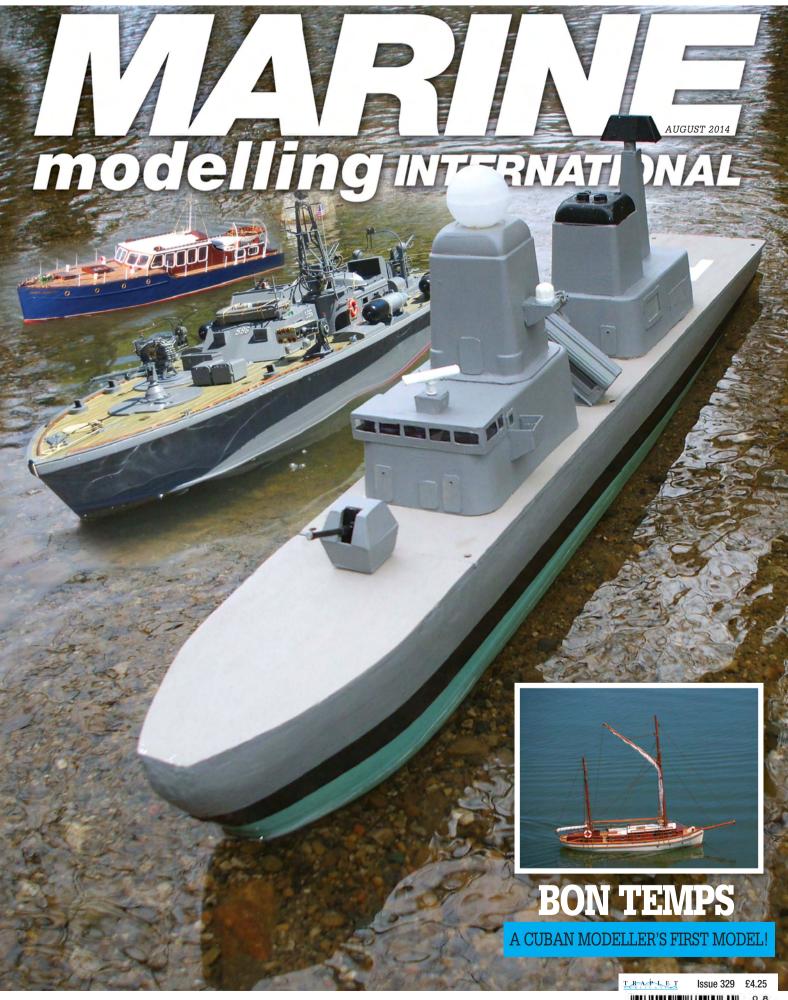
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AUGUST 2014 - ISSUE 329



The cover this month includes four models that are all very diverse. The first model, Brenda Anne is a superb detailed example of a 1930s cruiser, the second is PT596, a WW2 motor torpedo boat which is very fitting as 2014 is the 50th anniversary since the D-Day invasion, and the third model is a detailed build of a Spanish fishing boat which is a first time build by one of our fellow model makers in Cuba. Following readers' requests for some very easy build models, our fourth model and centrefold full size plans is of a modern simple to build warship – a Stealth Corvette – and is designed as a starter to maritime model making which can be free sailing or radio controlled.

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MESSAGE

FROM THE ENGINE ROOM

EDITORIALCONTACT

MMI generally publishes commissioned articles, but will consider other contributions including news items and factual articles. It is important that contact is made with the editor before any material is written, as duplication of items may result in articles being rejected. Prospective contributors can email or write for a copy of the MMI Notes for Contributors via Traplet Publications Ltd.

HI EVERYONE,

Those of you who pay regular visits to the MMI website may have noticed the rather late cancellation of the 'Boats in the Bay' event in early June. The circumstances behind this should be of interest to any club attempting to organise a new event or extend the duration of an existing event.

The 'Boats in the Bay' event was planned to take place in Cardiff Bay following the inaugural event last year. Like many other people I have often thought that the bay area, by the yacht school, would make an excellent place to run and display model boats, particularly as there are usually crowds of people walking the barrage on a fine day.

Undeterred by the bad weather problems encountered in 2013 the organisers decided to extend 'Boats in the Bay' to a two-day event in 2014 with display tents and caravans. Everything was going as planned when two weeks before the event the authorities sent a six-page 'Health and Safety' form requesting information about the wind tolerances of the tents and caravans together with an environmental impact study. As most of the information needed was not available at such short notice the organisers had no option but to cancel.

It is very easy to say 'here we go again' with Health and Safety calling the tune, however, any new event should be thoroughly checked out before it takes place. The location of the proposed camp/tent site is very exposed and there are often high winds in the bay. There is also the problem of the restricted access, particularly at night, which needs careful consideration. Thus the

request was not unreasonable, however, this sort of consideration should have been thoroughly discussed at the earliest stage of the project. It is vital that Health and Safety considerations are kept at the forefront in preparations for any public event and not treated as a nuisance form to fill to keep 'them' quiet.

Kelvin Holmes has been writing for Traplet for an amazing 29 years now and this magazine contains his 200th edition of Waterlines. We are very grateful to Kelvin for his long service and the vast store of knowledge he has passed on in his very readable articles.

The free plan this month is of a simple to build Stealth Corvette that can be either free running or radio controlled. A second warship feature is about the building of PT596, a WW2 Motor Torpedo Boat in 1/25th scale. If you like cabin cruisers then the building of the Brenda Anne, a scratch-built 1930's Classic Motor Cruiser will be of interest. Similarly for those interested in fishing boats there is the Bon Temps, which describes how a young friend of 'Wildy' built his first radio controlled craft, a Spanish fishing boat.

In the second part of the three-part article on building the Veronica, Richard explains how he completed the hull and deck and then started work on the masts. This, together with the regular articles of Sail Free, Scale Scene, Powerplug, Vintage Chatter and Plastic Kit Scene, makes this magazine a very varied read.

Both Barrie and I hope to meet up with many of our readers at the Bristol Model Engineering Exhibition, at the Thornbury Leisure Centre on 15th to 17th August.

Chris Saunders MMI



A view across Cardiff Bay from the Penarth side towards the area where 'Boats in the Bay' was to run

MARINE modelling INTERNATIONAL

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MASTHEAD

MARITIME RELATED NEWS

THAMES HERITAGE BOAT MUSEUM PLANNING APPROVAL!

After initially being refused planning permission this ambitious project of building a boat heritage museum on the River Thames at Beale Park has finally been approved after appeal. The aim is to create a museum explaining the development of powered craft on the Thames during the 19th century and will house full size vessels like the Consuta and the Cygnet plus visiting heritage vessels will also be on display.

For further details of the plans and location of the yet to be built museum visit: www.consuta.org.uk/Future/heritagemuseum.htm



Model truck crosses the Bristol Suspension Bridge

BRISTOL MODEL ENGINEERING AND HOBBIES EXHIBITION – 15TH TO 17TH AUGUST

The Bristol Model Engineering and Hobbies Exhibition is the next major exhibition for our hobby that as usual, is being held at

Thornbury near Bristol on 15th to 17th August. This year the event will again be filling four halls of the Thornbury Leisure Centre with a wide range of trade stands for tools, materials and machines for our workshops; also lots of new models from individual model engineers plus many clubs and societies.

The outside exhibit area is being extended this year and they have planned to include some full size examples of prototypes for us to consider modelling including the National Trust's ex Penrhyn Quarries Hunslet Hugh Napier from the Ffestiniog Railway, which will be IN STEAM! Also there will be a local Aveling and Porter steamroller in steam and a Fairground Organ for entertainment.

This year is the 150th anniversary of the opening of Brunel's Clifton Suspension Bridge and they will be celebrating the event inside the halls with a 16 ft long model of the bridge on loan from the Bristol Museum's collection

This year there are several new clubs exhibiting their members' models and more new traders supplying the things we need for the models we are building. The radio controlled model aircraft, trucks, hovercraft and boats will also be in action.

An online ticket sales operation is now available for advance purchase of the 'Queue Hopper Tickets' – visit

www.bristolmodelengineers.co.uk/Exhibition/tickets.html for all the information.

For more general information please visit the exhibition website at: www.bristolmodelengineers.co.uk/Exhibition/exhib.htm



Tall Ship Stavros S Niarchos planned to participate in the Tall Ships Race

FALMOUTH TALL SHIPS REGATTA 2014 – 28TH TO 31ST AUGUST

Over 40 Sail Training vessels from around the world, including a number of magnificent Tall Ships, will arrive in Falmouth for four days of festivities and the National Maritime Museum Cornwall will be right at

the heart of the event. The Maritime Museum is best located for views, news and action from the water. Its 100 ft lookout tower offers a stunning aerial view of the ships moored just feet away, the Museum's corporate facilities are the media hub for the event

and its galleries will be adorned in Tall Ships artwork. There will be a parade of sail on 31st August between 11 am and 2 pm when this section of the race will start to Royal Greenwich, hoping to arrive on 3rd September. It is planned for a web cam to be operational during the stay of the Tall Ships in Falmouth when they are berthed in Queens Wharf.

For details of the tall ships visit www.falmouthtallships.co.uk or for further details on the museum: General Enquiries, National Maritime Museum Cornwall, Discovery Quay, Falmouth, Cornwall, TR11 3QY. Tel: 01326 313388 or Email: enquiries@nmmc.co.uk

VINTAGE MODEL YACHT GROUP

After 27 years of dedicated service as founder chairman of the VMYG, Russell Potts is standing down at the ripe young age of 80! Russell has been the font of knowledge of vintage yachts for many years but has agreed to be the president of the VMYG and to continue his 'boat identification service'. The new chairman is Martin Bandey.

For further details of the VMYG visit: www.vmyg.org.uk



Card model of Mary Rose built by David Semper

MARY ROSE MUSEUM – BUILD A MODEL!

On Tuesday 26th August a Make a Model Mary Rose Workshop will take place between 2 pm and 4 pm and is free when you purchase a ticket to the museum, suitable for anyone over 5 years of age (most of MMI's readers!!!).

Earlier in the year this multi award-winning museum celebrated its first birthday and has been shortlisted for the Art

Fund Museum of the year for 2014. With over 470,000 visitors in the first year the full story of this Tudor warship that spent 400 years at the bottom of the Solent was recovered and now on display at this purpose built museum as part of the Portsmouth Historic Dockyard.

For further details visit www.historicdockyard.co.uk



Part numbers: P-FBC30D/4 and P-FBC35D/4

As part of the follow-up procedure to the recall of the P-FBC32D/4 charger, the above two chargers have been identified as using the same external case and therefore deemed by Trading Standards to be unsafe and pose serious risk of electric shock and/or fire. Because of this risk, Ripmax has decided to immediately recall all of these chargers from the market and from consumer use. Full details of the recall can be found on the Ripmax website www.ripmax.com or at your local dealer.

This product has also been included in some radio systems as well as sold on its own.

Issued: 27th June 2014 MMI





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DIARY DATESEVENT DATES FOR YOUR DIARY

Event Dates for your Diary

If you know of any confirmed Maritime related events and you would like us to include them please let us know either by e-mail *mmi@traplet.com* or post to MMI Editor, Traplet Publications Ltd, Traplet House, Pendragon Close, Malvern. Worcestershire. WR14 1GA. We need the Date, Venue, Organiser/who to contact and crucially an Email/Website address and/or a telephone number, a post code would be useful for Sat Nav's. A full listing of events for the year can be found on *www.marinemodelmagazine.com* – we do need at least 8 weeks' notice to include in the printed magazine.

AUGUST 2014

MMI **DIARY** DATES

AUGUST 10

Dolphin Model Boat Club

All meetings are at Orpington Pond just off of Kent Road by the A224 Cray Avenue BR5 4. 10 am start. There will be a £2 charge per boat for any non-club members. Sorry no I/C or petrol boats. There is off road parking on club days but no food or toilet facilities. Web: www.dolphinmodelboatclub.com Email: dolphinmodelboatclub@live.co.uk or Margaret, Tel: 01689 834896

AUGUST 10

Edinburgh Model Boat Club

Fast electric and I/C. Inverleith Pond. All are welcome, start time 12 pm. Contact *david.jack5@btopenworld.com*

AUGUST 15 to 17

The 13th Bristol Model Engineering & Hobbies Exhibition

The Leisure Centre, Thornbury, Nr Bristol. BS35 3JB. Contact: 0117 9675878. Website: www.bristolmodelengineers.co.uk

AUGUST 16

Social Afternoon and Evening Sail

All welcome from 1.30 pm till late. Balne Moor MBC, Kingfisher Pond. Refreshments available. Contact Peter Newton (Sec.), Tel: 01977 791825

AUGUST 17

Roses Regatta. Scale and Towing Combined

Balne Moor MBC, Kingfisher Pond. Start 10.30 am. Refreshments available. Contact John Pollitt, Tel: 01977 645696

AUGUST 17

Edinburgh Model Boat Club

Annual scale regatta. Inverleith Pond. All are welcome, start time 12 pm. Contact *david.jack5@btopenworld.com*

AUGUST 17

Chantry Model Boat Club

Tug fun day. Lake 7, Bluewater Shopping Centre, Greenhithe, Kent, DA9 9SE (on Town Square Crescent). All models sailed except IC. Good parking nearby. Club house. Toilets. All shopping centre facilities nearby. Contact Club Secretary Martin Oliver, Email: martin.999@hotmail.co.uk

AUGUST 23/24

The Model Boat Convention (Theme Navel Vessels & Submersibles)

The show by modellers for modellers. Haydock Park Racecourse, Newton-le-Willows. WA12 0HQ. Club and trade stands. Opening times 10 am – 5 pm both days. Contact Jean Barlow, Tel: 01492 583433, Mob: 07789 348817. Email: barlow777@btinternet.com Website: www.modelboatconvention.co.uk

AUGUST 29 to SEPTEMBER 5

Unity Model & Hobby Break, Brean Sands, Somerset

Catering for Planes, Scale Boats, Yachts, Helicopters. For further information/booking contact: www.hru.co.uk Tel: 01278 751235. Modellers' activities contact Barrie Stevens, Tel: 01749 343017

AUGUST 30

Solent RCMBC Annual Model Boat Show

All Saints Church Hall, Greenbanks Close, Milford On Sea, Hampshire, SO41 0SQ. 10 am until 4 pm. Entry by charity donation, Refreshments available. Further info available from Club Captain David McNair-Taylor, Mobile: 07887967887 or Email: david.mcnairtaylor@sky.com

AUGUST 32

Dolphin Model Boat Club

All meetings are at Orpington Pond just off of Kent Road by the A224 Cray Avenue BR5 4. 10 am start. There will be a £2 charge per boat for any non-club members. Sorry no I/C or petrol boats. There is off road parking on club days but no food or toilet facilities. Web: www.dolphinmodelboatclub@live.co.uk or Margaret, Tel: 01689 834896

AUGUST 31

Paddleducks Day

Paddleducks Day will possibly see the largest collection of model paddleboats, to be seen in one day, on one pond, in the World. This year it will be hosted by Knightswood Model Boat Club, on Knightswood Pond, Glasgow, G13 3LS. For full details contact David at 2014dayidh@tesco.net

SEPTEMBER 2014 MMI **DIARY** DATE

SEPTEMBER 6

Dolphin Model Boat Club

All meetings are at Orpington Pond just off of Kent Road by the A224 Cray Avenue BR5 4. 7 pm start. There will be a £2 charge per boat for any non-club members. Sorry no I/C or petrol boats. There is off road parking on club days but no food or toilet facilities. Web: www.dolphinmodelboatclub.com Email: dolphinmodelboatclub@live.co.uk or Margaret, Tel: 01689 834896

SEPTEMBER 6

Moorhen Model Boat Club

Model Show at St Mary's Church, Church Road, Stansted Mountfitchet, Essex, CM24 8UB. 11 am to 5 pm. There will be boats, trucks, aeroplanes, dolls houses and more. Entry is free but donations to the Friends of St Mary's Church will be gratefully received. There will be a small charge for light refreshments. For more information please telephone the Secretary Alan Argent on 01279 812418 or Email: secretary.moorhen@hotmail.co.uk

SEPTEMBER 7

Ramsgate Vikings Model Ships Rally

To be held at The Boating Pool, Westcliffe Leisure Park, Royal Esplanade, Ramsgate. CT11 0HE. This an open event with cafe and toilet facilities. Starting at 10.30 am until 4.30 pm. Contact Phil Allen, Tel: 01843 223230

SEPTEMBER 7

The Fireboat Funday/Vintage Model Boat Day

King Lear Model Boat Club will be hosting an All Vintage Model Boaters informal and fun event at Watermead Country Park, Leicestershire, LE7 1PD. There is ample parking and picnic facilities. There is a £2.50 entrance fee payable to an unmanned machine, so having the correct change is required. We hope to have a BBQ and provide hot drinks on the day. Further information can be obtained from Graham Taylor, Tel: 0116 2613959 or by Email:

kinglearmbc@ntlworld.com or visit: www.kinglearmodelboatclub.co.uk

MMI





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WATERLINES

KELVIN REFLECTS ON 29 YEARS AND 200 ARTICLES

AUTHOR: KELVIN HOLMES GREAT BRITAIN

khwaterlines@btinternet.com

ack in November 2000 rather than the usual 'Waterlines'. the author indulged himself with a reflective look at 100 waterlines articles published over 164 issues and fifteen years of MMI. Well here we are after a further 100 articles and for MMI just a year short of thirty. On the bold assumption that we have new readers or indeed some forgetful old readers I have revised and updated that original article. Hopefully all have found useful the free 'Waterlines Revisited' pdfs available via the Marine Modelling website, the most recent of which (#14) includes the full list of Admiralty Floating Drydocks promised in the original article.

Waterline ship collecting is one of my two main hobbies and has been going, albeit with occasional breaks, since 1960. Then aged 12 and with my long-time friend, Dave Willcocks (he of Dreadnought Models and key member of the Waterline Ship Enthusiasts group), I became interested in Eaglewall 1/1200 plastic kits. My first purchase was their set of five U-Boats, which I still have, and over the next few years Dave and I bought all the Eagles we could afford, scratch-built the ships that Eagle did not make and developed our own simplistic naval war gaming rules.



Early 1980s and a visit to L. Wiedling's shop in Munich



The most northerly sighting of MMI - Honningsvag near North Cape on the occasion of my 65th birthday



Dunera at Malta

In the cadet force at school I managed trips to sea on HMS Undaunted and HMS Leander, plus in 1964 an educational school's voyage on BI's Dunera. My father, who was in the Royal Navy from 1943 to 1977, always took an interest in the models and even convinced me that his HMS Tiger with her quick firing 6" guns could have taken on any old battleship - I do remember a family's day in 1960 when she opened fire with the 6" then the 3" - that was impressive.

Late teenage years and then work, which meant moving away from home, brought an interruption to the hobby but by the mid-1970s life had settled down and there was plenty going on with Superior 1/1200s coming in from the USA and the increasing emergence of German made models (in 1/1250 but close enough) covering a vast range of ships, albeit at higher prices than UK kits. The latter now included metal models from Fleetline, Ensign and Clydeside, plus from Airfix a small range of 1/1200 plastic kits. I carried out some simple conversions with the Airfix Suffolk and Prinz Eugen models, writing these up as articles for Scale Models in 1979/80. This coincided in June 1980 with my first mail order purchase from L. Wiedling in Germany, the most recent being last month.



On board HMS Nottingham; with the Type 42's retiring I went too



Mountford's 1940s HMS Forth modified by the addition of bridge wing stanchions and life rafts plus some extra deckhouses between the funnels depicts the ship in Malta's M'sida Creek in the late 1950s



In the continued absence of CM-KR69 Royal Princess this is my scratch-built Artemis, which has replaced the picture in the P&O lounge collection



Hansa model of HMS Tiger; the ship has also been produced by Albatros and Mountford



Scratch-built Alexandr Brykin with missile reloads for Mountford's Typhoon class SSBN; first law of scratch-building in evidence yet again when Remo's model of this ship seen in Hamburg last March

In mid-1985 I was contacted by Traplet Publications and asked if I could contribute an article on Naval Wargaming and associated miniatures for the first issue of their new magazine Marine Modelling which was due in October. More articles followed and under the name Broadside became a column. In October 1988, Marine Modelling turned monthly and most of 1990 was consumed by an eight-part guide to as many 'overseas' manufacturers for whom information could be found - an amazing 70 even if some were only a few lines. This series eventually became a selfpublished booklet, a CD-R, a pdf download and in 2010 courtesy of Traplet a proper book – A Guide to Waterline Model Ships.

In October 1988 Martin Brown, Vic Harman, Roy 'resin' Measday and I organised the first waterlines swapmeet, which was held

near Hemel Hempstead. Everything was in place and the only question was would anyone turn up? Fortunately, 96 likeminded souls, plus two who thought it was a jumble sale, took the trouble and at times you could hardly get through the door. Since then swapmeets have become a mainstay of the collecting scene with Theale perhaps the most popular venue with meetings there first organised by the late Len Jordan and more recently by the Waterline Ships Enthusiasts. Further north we must thank Tim Hudson for his meetings at Welton in Lincolnshire and also for running the excellent Dockside website at www. members7.boardhost.com/

Dockside.

In September 1991 Broadside became Waterlines with the first article under the new name looking at British merchant ships in 1/1200 - 1250. These days I try to alternate between military and civilian themes. Perhaps the best story of my years with Traplet was the occasion when a work colleague responded to a call from the then editor Chris Jackson saying that I was away on classified defence business and couldn't be contacted. At the time I was in fact in Malvern witnessing software acceptance trials but staying at the White Lion Hotel in Upton-upon-Severn, which was actually next door to Traplet's offices. On another such trip I called in and very much enjoyed my guided tour. Having worked on Royal Navy datalink communication systems for my final 12 years I retired in December 2011.

I have always been an occasional scratch-builder and in taking my attempt at the 1924 Southampton floating drydock to Theale in 2011, I was prompted to offer it for casting to Mountford Models. This has led

to a further 11 masters including the Trafalgar drydock and six ships, the latest of which – HMS Forth – was inspired by my father's time on the ship at Malta in the late 1950s. In scratch-building a point is reached when a decision must be made: for a one-off the model can be completed with masts and cranes etc. or if it is to go for casting a halt is called when the hull and superstructure are complete as all the extras will be cast separately. So for the Mountfords Dave Love adds masts and whatever detail is deemed appropriate including on occasions, some wonderful etched brass.

So there you have it; I'm now 66 and still scratch-building and collecting. With a thinning out of warships, the collection has reduced by 300 since last time and numbers 3300. I wish I had space to display rather than just store them, although having said that, cruise ships are allowed in the lounge provided that they have been experienced in 1/1 scale. The vast majority are still warships with about 400 from the era 1880 to 1925, 1100 from 1925 to 1945, 1200 post-war and some 600 mainly British merchants, the latter an increase of 150 since last time which doesn't seem too excessive.

Incidentally, the 'other' hobby mentioned above is 1960s era music - that started at about the same time as the ships and following various articles in fanzines such as Zabadak and The Beat Goes On! resulted in another proper book entitled, My Generation which was published in 1998. Please check it out on Amazon or indeed ask me about the 2014 edition.

Meanwhile the collecting goes on too and I would like to thank our current editor, Barrie Stevens for the continuing privilege of writing for MMI long may we all thrive. MMI



P&O Cruises in the lounge with Ventura, Arcadia (2003), Aurora and Adonia prior to the adoption of their awful (in my opinion) new livery due in 2014, preceded by the venerable Dunera



Inspired by my own article (!) this is the Indian carrier Vikramaditya built using a Kiev hull, Kuznetsov bridge and new plasticard flight deck



A wonderful display idea from collector Robert Knibbs with his imaginative use of a table from Ikea

Adhesives, ARTR Boats, Cable, Chargers & accessories, Connectors, Hardware, Hulls (65), Kits, Lipo cells, Motors (80), Props (122), Speed controllers (18), Scale Accessories, Tools and more



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Motor tug yacht "RIVER STAR"

AVAILABLE AGAIN

Sc: 1:12. 27"lg x 9"b.

MOTOR TUG AVENGER

Model Scale 3/8" to 1ft. (1:32nd) Model Length 45" Model Beam 12"

Displacement +/- 41lbs. She is one of a pair of 1962 sister Thames tugs

Haven in Thames estuary. Significant feature is the large fire-monitor platform over the wheelhouse. They had a bollard pull of 20tons and a top speed of over 11knots.



OUR OTHER KITS:

Replica 1913 Pond Yacht MOONBEAM. 52"o/a.lg. x 11"bm. x 18lbs. @ £270.00 Tugs LADY LAURA/LADY MARINA.

Sc. 1:32nd. 31.3/8"lg x 9"bm @ £220.00 Orkney ferry TSDV. GRAEMSEY.

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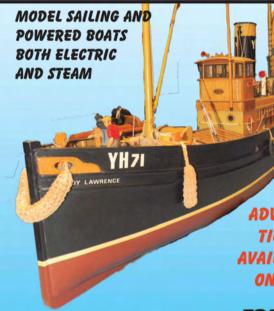
See you at Haydock 23/24 Aug. See us at the International Model Boat show The Fosse. 8th. 9th & 10th. November.

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PLASTIC KIT SCENE

DETAILS ON SOME NEW PLASTIC KIT RELEASES

AUTHOR: ROBIN TROTT REAT BRITAIN robin.trott@yahoo.co.uk

You might think there is a bit of a theme to some of this month's kits!

REVELL



This 1/144 scale landing ship is a great addition to Revell's range of models (courtesy Revell)

During World War 2 many different types of landing craft were developed for many various roles. This variant was used for landing vehicles and troops between 1944 and 1945. Over 550 of these medium landing ships were built. They were the mainstay to many landings including D-Day, the invasion of Europe and the island landings in the Pacific against the Japanese forces.

This is a completely new model from Revell and it comes complete with tanks and trucks of different types. At the time of going to press I have only seen the accompanying photo of the completed model but it does look pretty fantastic with excellent detail. A great addition for many collectors especially as this year is the 70th anniversary of the D-Day landings.

Revell models are available from all good toy and model retailers. For further details visit www.revell.de/en, @RevellGermany or facebook.com/revell



A lovely action diorama can be built using this set (courtesy Airfix)

AIRFIX

D-Day Sea Assault Gift Set

Model No.: A50156 Scale: 1/72 Length: 34.0 cm Width: 24.0 cm Parts: 179

This set comes with a scenic display base, to which are added two Higgins LCVP landing craft, a Willy's jeep complete

with trailer and 6pdr gun and a pack of 46 US Marine figures. This allows for a diorama of the beach landings on D-Day to be created all in one set.



This is the Airfix LCVP that is available as a separate kit (courtesy Airfix)

Higgins LCVP Landing Craft

Model No.: A02340 Scale: 1/72 Length: 17.2 cm Parts: 47

This is a model of the LCVP that is in the D-Day set, but is also available as a separate kit,

ideal for those who want to model this landing craft on its own or for those who want to build an even bigger diorama.

Full details of this set and all Airfix models can be found in their latest 2014 catalogue together with details of the complete Humbrol range of modelling products. Details can also be found by visiting: www.airfix.com and www.humbrol.com

DAN TAYLOR MODELWORKS

Landing Craft Infantry (LCI) Large (RN)

Model No.: MI-LCIL Scale: 1/72 Length: 67 cm

Parts: 287 resin plus 79 etched brass fittings



Dan Taylor's Landing Craft Infantry (large) shown with British Assault Infantry set which is sold separately (courtesy Dan Taylor)

In early 1942 the USA were asked to produce this type of much needed landing craft that was capable of carrying 200 troops at a time. The first ones were launched in November of that year, a total of 350 were to be produced by the end of the war. The Royal Navy version differed slightly to the US Navy version. The first use of these craft were the landings in Sicily in July 1943, they went on to be used in all the major landings in all theatres of war during World War 2 including the D-Day landings.

This is a really well detailed resin model that comes with lots of brass etched fittings for added detail. The kit comes complete with full colour instructions and decals for four different vessels.

Landing Craft Assault (LCA)

Model No.: MI-LCAUK

Scale: 1/72 Length: 16.5 cm Width: 4.4 cm

The LCA were first produced in 1940 and capable of carrying a platoon of infantry or commandos. They were used in many raids



Landing craft assault LCA (courtesy Dan Taylor)

and landings from Dieppe, North Africa, and Anzio and of course in Normandy at the D-Day landings.

This is a waterline resin kit which includes all deck fittings and a choice of features.

Landing Craft Tank Mk.IV (LCT)

Model No.: AA-S13 Scale: 1/72 Lenath: 76.0 cm Width: 16.0 cm

Parts: 242 resin, 199 etched brass plus plastic rod and thread



A huge model of LCT Mk.IV (courtesy Dan Taylor)



Detail of these models is well reproduced. This is the loading ramp of LCT Mk.IV (courtesy Dan Taylor)

This was one of the ultimate landing craft used for carrying tanks and other heavy vehicles straight to the beach, seeing action at the landings in many places including Salerno, Anzio and Normandy to name a few.

This is a huge multi-media kit comprising of resin, etched brass, plastic rod, decals and thread. Decals come with the kit giving the option to build one of five different landing craft. For those modellers who enjoy building models of all types including military vehicles, tanks, and warships and figures this is the one.



Oerlikon crew at their posts with figure brushing up from the other set (courtesy Dan Taylor)

Oerlikon Crew Scale: 1/72 Figures: 6

This set includes six unpainted resin gun crew figures sufficient for two guns. They come in a variety of uniforms from duffel coats to jumpers and a choice of heads. Ideal for any of the landing craft carrying AA guns and for any other models of 1/72 scale, such as the Revell Snowberry Corvette.

LC/Coastal Forces Crew

Scale: 1/72 Figures: 6

This set contains six unpainted resin figures of officers and able seamen. These come in a variety of poses and uniforms with alternative heads. Again these are great for crew figures of any of the landing craft and ships of this scale.



Some of the figures from LC/Coastal Forces Crew set (courtesy Dan Taylor)

Apart from the kits and figures I have mentioned, Dan Taylor Modelworks produce many other types of landing craft and many tanks, figures, vehicles from different countries involved in World War 2. Looking at the photographs on the website these resin models are some of the finest landing craft models I have seen and the same can be said for the quality of all their products.

For more information of all the items produced please visit: www.dantaylormodelworks.com - the site is very comprehensive.

TRUMPETER MODELS

Here are details of another new release from this company's everincreasing range of warship kits.

US Navy Battleship USS Iowa BB-61

Model No.: 03706 Scale: 1/200 **Length:** 135.2 cm Beam: 16.5 cm Parts: 1520+



Box image of the new Trumpeter 1/200 scale USS Iowa (courtesy Pocketbond)

The battleship USS lowa was the lead ship in the lowa class of four battleships, there should have been six but two were never completed. The lowa was commissioned in February 1943

and first saw service in the Atlantic, one of her roles was to ferry President Roosevelt to North Africa for the historic meeting with Winston Churchill and the Russian President Stalin. In 1944 she was transferred to the Pacific Fleet to be used in many of the actions against Japan. Action was also seen in Korea, Vietnam and Iraq; she has now been decommissioned and is used as a museum ship moored on the Los Angeles waterfront. A very powerful warship during World War 2 she carried nine 16" main guns and 20 5" guns as a secondary armament.

This is yet another huge model, ideal for conversion to R/C.

More details can be found at: www.pocketbond.co.uk or www.trumpeter-china.com MMI

SCALE SCENE

IAN OFFERS SOME HINTS AND TIPS

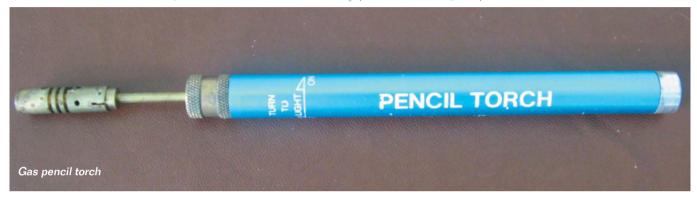
AUTHOR: IAN WILLIAMS REAT BRITAIN electro-marine@talktalk.net

av back in the 1990s I wrote the Workshop column and included guite a few simple hints and tips. At the Editor's suggestion, I went back to have a look at the articles to see if any were still relevant. To my surprise some of them still stand up today, especially if you like doing things yourself or are trying to save some money. So over the next two months I will be revisiting the '90s and I hope that at least one of the tips may be useful to a newcomer to the hobby.

BENDING BRASS TUBES

Most modellers who are used to working with metal will be familiar with the following, but newer modellers may not be familiar with the following technique. Brass tube can often be difficult to bend more than a slight amount without kinking. You may well have the need to bend tube if you are making masts, rails, lifeboat davits etc., or even the outer tube of a prop shaft if you need to use a flexi drive! The trick is to first soften the tube by heating and although I'm talking about brass tube here, the technique will also work with brass sheet or rod.

To soften the brass tube, heat it with a small gas torch. The miniature pencil type as shown in the photo is guite suitable for small jobs. Heat the tube or rod until it is cherry red and then allow it to cool naturally (no water). Watch your fingers and put the work piece on something heatproof with a suitable tool until it cools. If



PUMPING THE BILGES

Every model boat gets some water in the hull at some time or another! I admit that it is more likely with a racing boat than a scale boat (what about scale racing boats?), but it does happen. Quite often a syringe with a tube attached is used to suck the water out, but this can require three hands to use if you have to tilt the hull. I use the pump unit from a bottle of liquid soap and attach a piece of tubing to it to extend its reach. This makes extracting water from the hull a one-handed job. A large syringe will probably move the water faster, but it's surprising just how quickly one of these pump units will shift water from a hull.

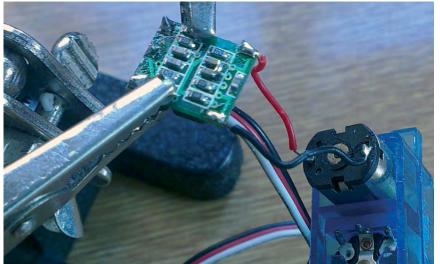
you are using pliers or similar be careful not to crush the tube as it will be quite soft at this point. When it is completely cooled you will find it much easier to work with. To re-harden the finished item (re-temper), simply reheat until it is cherry red again and, using a suitable tool immediately plunge it into cold water. This is known as auenchina.

CHEAP RUDDER ARMS

One easy way to make cheap, very strong and usually slip proof rudder arms is to make them from the pins in 13 amp mains plugs. Some modern plugs come with pins that have a black insulator fitted leaving only a small section of metal showing at the tip. Avoid these and use only the all metal type. Thin down the part of the pin that fits into the wall socket by filing or grinding. Then drill holes for the pushrod, fit over the rudderpost, tighten the screw that normally holds the wire and you're sorted (see photo).







Interior of mini servo showing motor on leads

REVERSING SERVOS

I had a Mr. Hutchinson email me recently about a problem he had with servo reversing. Before you say "Just flick the switch on the tranny", I should tell you that this was a quite particular problem. He had a requirement to be able to operate two servos with one channel on a Y-lead, but the servos had to rotate in opposite directions. After a little thought I realised that this was actually quite easy to do, but you do have to be able to handle a soldering iron properly, especially if you are using miniature servos as was the case here.

Before telling you how to do it, here's how not to do it! DO NOT reverse the positive and negative wires in the servo lead! You need to carefully take off the bottom of the servo case. If the servo motor is connected to the circuit board by wires, just reverse the wires to the motor terminals (see photo). If the motor is soldered directly to the circuit board things are a little more difficult (see photo). You will have to carefully disassemble the servo, de-solder the motor from the board, rotate it 180 degrees and

NOTE: With some types of servo it will be necessary to also reverse the two outside wires of the feedback potentiometer. Please note that any rewiring may invalidate any guarantee.

Well that's it for now, more next month. MMI



Underside of a servo board with motor soldered directly to the board

GREAT BRITAIN

CAUTIONARY TALE

THE EDITOR OFFERS ADVICE ON CHARGING BATTERIES

AUTHOR: BARRIE STEVENS

ithin the columns of MMI we have mentioned many times of the caution to be taken when charging batteries. With the general rules of don't leave a battery unattended when charging. Some readers have shared experiences of near fires and some with fires in their workshops. Your scribe had a near miss recently and it was nothing directly involved with model battery charging but to do with the charging of a touring caravan 110 Ah 12 V lead acid leisure battery!

Basically, as the battery was a few years old the terminal voltage had reduced by I assume deposits/sediment shorting out a cell internally, this resulted in overcharging and a funny smell, from a warm/hot battery! In my past life one of my weekly routine jobs I had was to scrape the cells of a very high capacity telephone exchange lead acid battery with full protective clothing i.e. thick rubber gloves, eye-shield and apron. Sorry I am rambling... As the caravan battery charger was a modern micro processor device (as used in most chargers) it supplies a high charging current and momentary ceases charging and measures the terminal voltage of the battery under charge every few minutes. When the battery voltage reaches a set level the charger will reduce the charge to a trickle. Unfortunately, if the battery is ageing and the trigger voltage is not reached the charger will continue to charge at a high rate when damage can occur. My lorry mechanic son has confirmed that this is not unusual when drivers report a funny smell coming from their engine when the battery is in a very warm/hot state! Hence this can occur with model changing so beware, monitor charging and be alert for any strange smells from overheated batteries. MMI



VINTAGE CHATTER! PART 12

THREE-PART REVIEW OF SOME OF THE GREATEST RADIO CONTROL **OUTFITS EVER DESIGNED**

AUTHOR: DAVID WIGGINS GREAT BRITAIN

STARS FROM THE USA - THE LOGICTROL

Hello once again readers. This month we are travelling from Germany to the USA as I begin a three-part review of, what are in my opinion, some of the greatest radio control outfits ever designed.

The very first 'digital proportional' radio outfits emerged in the USA alongside the first wave of 'full house' analogues (Zel Richies 'Solidtronics' and 'Space Control'/Bob Dunhams Orbit-3+1 and 4/ the Quadraplex & Sampey 404 etc.), as early as the 1960s when the rest of us (now old) guys were still using vibrating reeds or sequential escapement gear. Following on from these very first attempts at perfecting a true 'feedback proportional' R/C set - all of them analogue - one or two gifted engineers stateside - especially in California - began to look for more accurate and precise control ideas using digital methods. It was recognised that the first man to place a successful and reliable digital proportional radio onto the World market would reap great rewards so the competition to be 'first' was considerable. Some today call the accurate proportional control outfit the '3rd dream' of radio control, the first two dreams being working single channel and reliable multi.

So who was the winner of the race? Before writing what follows I consulted with several 'tech' and collector friends in the States and we all think that it is guite impossible to name one 'winner', although the undoubted long term winner was the late Philip Kraft as he possessed both the backing and financial acumen to set up a substantial mass production facility once his first KP (for Kraft-Pullen, Mr Jerry Pullen being the lead design engineer on the first Kraft KP4) 4-channel digital radio was perfected and in serial manufacture.

That said, the first truly 'digital' radio to be offered for sale, though one that enjoyed only a very limited production run, was undoubtedly the late Doug Spreng's handmade and 'to order' only 1962 Digicon which employed feedback adapted versions of Howard Bonner's famous Transmite reed actuator as its servos. The first serial production full house digitals to hit hobby shop shelves for anyone with the money to afford one of them were Howard Bonner's Digimite 8 and Frank Hoover's F&M Digital-5 both of which were imported into the UK one way or another and in dribs and drabs and both used Bonner's early dual axis control column. All of the first few digitals were housed in positively huge boxes, were overly complex and rather lacking in the rock solid reliability and accuracy that R/C modellers still sought, but they were a massive step forward all the

EARLY INTO DIGITAL - KRAFT AND LOGICTROL

Alongside the first Kraft factory set up at South El Monte, California, one of the first new companies formed specifically to exploit this new 'space age' (and some of the designers had indeed worked for NASA or the JPL) digital electronic technology was EK (for Elliot and Krause) Inc of Texas.

EK's first attempt was, like the Bonner and F&M just described, rather large as well as complex but their second attempt was set to become an instant winner. This month's first 'Star from the USA' is one of these very early digital radios, a fully restored Series: Il Logictrol-5 in a smaller, smarter, red vinyl case with white silk screened lettering - imported into the UK exclusively, and at very high cost then, by Henry J. Nicholls Ltd of 308, Holloway Road, London. EK Inc., and its electronic design engineer Bob Elliot, had learned some lessons from their first 7-channel effort and the 5-channel Logictrol: Il was a much-simplified design of consequently improved reliability. The all metal, decently engineered, control columns with top quality A-B control potentiometers and 'all electric' trims on the three principle flight controls were retained from the first



Overhauled, tested and ready to go again after 40 odd years -Bob Elliot's Logictrol II transmitter c1969-70



I added dual crystals to mine. This is NOT an original feature, all American radios of that era being single frequency

set and the circuit boards were all neatly hand assembled and 100% tested before dispatch. Like all the others this Logictrol was available only on the 27 MHz (CB in the USA) band as the 'new' American VHF frequency bands (72/75 MHz) were then still in the future.

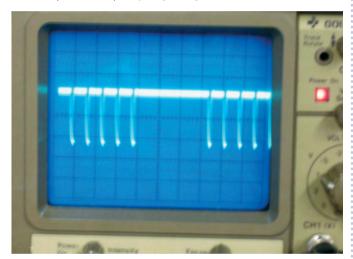
One of the first British users of the new set were the joint Editors of a much respected magazine - Radio Modeller - and they were not slow to inform readers of their new radio's total reliability and quality. The 'power of the press' did indeed do wonders for importer HJ Nicholls' sales.

The matching 5-channel series: Il receiver (illustrated) was, by the standards of the era, very small indeed and the Logictrol MM3 dual linear output servos were an outstanding design for the time. They were the first in the World with '3 wire bridge' electronics (i.e. no battery tappings were required – a huge step forward in reliability), ceramic (aka 'cermet'), resistive feedback pots and tiny, gold plated, crimped (solderless) connectors all being major improvements

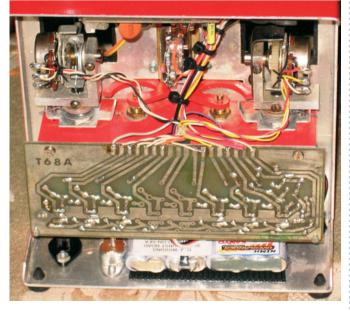
introduced some time ahead of their competitors. Indeed, the Logictrol MM3 was such an outstanding mechanical item that other manufacturers purchased sets of MM3 mechanics from EK and thereby offered Logictrol servos as choices fitted with their own amplifiers and connectors.

I'll be showing readers examples of restored Kraft sets later in this trilogy. Kraft was the biggest manufacturer in the World at one time and their golden cased radios, of truly lovely quality, sold in the most enormous numbers Worldwide. Both Kraft and Logictrol competed for the title of 'the biggest' back then both making less expensive 'badged' versions of their sets for the large US hobby shop chains in order to expand sales still further. A good example of Logictrol's later efforts in this regard would be the blue Hobby Lobby 5 radio sold in the USA only. Readers should not imagine that such badged American sets were of poorer quality either. Sure, they were stripped of a few features maybe but never poor. For the ordinary 'sports' flyer or boat man they were a first class buy being supported, as they usually were, by full factory service and spares support.

The Logictrol factory, located in Texas, attempted to match Kraft model for model as the years rolled on but, in order to accomplish this at competitive prices, they found themselves obliged to move manufacture of the later Super-Pro, Champion and LRB (for 'little red brick') models (all of which were imported into the UK by an Essex based distributor) down to Mexico (RC de Mexico), where labour was cheaper. Consequently, Logictrol gear, at first seen as a brand



The 5-channel signal 'frame' produced by the all-discrete encoder



A technician's eye view inside a Logictrol II transmitter; the all discrete encoder is at the bottom



A matching receiver. It's a discrete, single conversion Superhet' with an early SCS (silicone controlled switch) decoder. Note how tightly wedged in the components had to be before I/C's came along

and high technology leader, came to have a slightly less 'desirable' image than Kraft Systems' products which continued to enjoy a 'made in the USA' status and they lost out a little as a result. The series: Il EK radio pictured, totally rebuilt by the author last year, was, of course, entirely designed and built in the USA and is sought by collectors on that account alone.

Over the next two months I'll be sticking with the USA theme in order to detail Orbit, Micro-Avionics and Kraft radios all being top quality products coming out of 1970s California. It will be something of a picture feature I hope, so see you then. MMI



A brace of Logictrol servos from the 1970s; the linear device to the rear is an, as yet unrestored MM3



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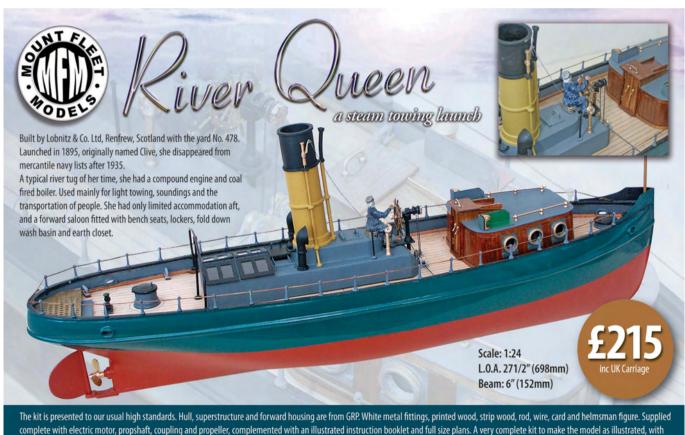
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uilding on last month's theme of covering a series of seemingly lesser points, regarding the upkeep and/or modification of your I/C power craft, we'll now be detailing ways you can ensure that no unwanted gremlins appear when you're running your boat. A novice I/C modeller will benefit the most from many of these tips, but even a very experienced power boater may also find a couple of tips in this article as well.

Widening your base of nitro/petrol boat knowledge is always a good thing, as I still enjoy discovering new titbits that will make it easier (and more fun) to make my marine craft run smoothly at all times.

BELT SLIPPAGE

As the bulk of today's nitro-engined boats have glow power plants that feature a belt groove cut into the motor's flywheel weight, it's not unusual to sometimes end up having a starter/belt slippage problem when you're at the lake. As no two engine manufacturers

On higher-output nitro marine motors, you'll generally find that they all come equipped with a grooved flywheel assembly that requires a separate belt and hand held starter unit to crank up the glow power plant

design the exact same flywheel groove on their marine nitro motors, the boater will have to match up the right starter belt that will fit well enough to ensure the separate electric starter motor spins-up the engine quickly.

The belt itself can be purchased from a host of companies and they are also available in different lengths to help ensure the hand held starter safely clears the engine/hull space, so you'll have to closely match up your belt to your nitro boat's layout. Yet even with the correct shape/length starter belt installed on your hull, it's still possible to have a slippage glitch as you're trying to crank the mounted power plant in your hull.

Allowing excess fuel or water to coat the flywheel and belt will definitely cause a certain amount of slip and if the belt itself gets soaked with fuel (especially from the oil in the mixture), you'll have to replace the starter belt once you begin to notice that it's not engaging the engine properly.



Usually smooth to almost a polished state the flywheel's starter belt groove and/or your hand held starter groove might demand some additional texture to ensure that the starter belt doesn't slip when spinning-up the engine



ABOVE: Using nothing more than some emery cloth or a regular kitchen pot scrubber you can add some bite to your engine's flywheel groove that will eliminate belt slip during a start-up of a high horsepower nitro power plant

Now if the belt is free of any contamination the hand held starter is supplying plenty of spin up speed and you're still not able to belt-start your boat's nitro engine, some work on the new flywheel's exterior may be needed to add grip to the groove. A well-polished flywheel straight from the factory can be sanded and cleaned to provide a better starter belt connection; but, you'll have to fully sand/rough up its belt groove to achieve your goal.

On a steel flywheel, some fine emery or cloth will normally rough up the narrow groove enough, or, in extreme cases, a 200-grit wet/dry garnet paper can also handle this chore. On an aluminium flywheel, a regular kitchen pot scrubbing pad (the green-coloured ones) will add some bite to the belt groove area as will some 400 grit wet/dry paper.

Your goal will be to only slightly remove the flywheel's smooth outer surface without adding any visible/deep scratches to the groove itself. Any raised cuts in the steel/aluminium groove could wear/cut into your starter belt; so, keep your texturing of the new flywheel to just a roughening to prevent problems.

I've found that as the boat's nitro motor gains in displacement, compression and stated horsepower output, it may be necessary to occasionally re-do the groove as starter belts will actually re-polish the area, especially if you use a high-torque/amp hand held starter

Finally, if the starter itself has a hard metal belt groove it too can be sanded if you notice any slippage when cranking your boat's onboard power source.

BARE VS. LINED

Depending on the boater, it's not unusual tofind that some folks tend to use a 'bare' stuffing tube while others always add some type of liner to their hull's drive tube. Teflon-based stuffing box lining material has been around for many years and almost all ready-to-run I/C marine craft come with lined stuffing tubes as standard equipment, however, even though the liner is a lowfriction material, it must be regularly cleaned and lubricated just like a bare drive tube.

Secured in place with cyano, epoxy, etc., the liner and drive shaft

should be routinely cleaned after a day at the lake and regreased as water can run up the stuffing tube and cause corrosion of the components. Allowed to sit unserviced for even a few days a lined or unlined stuffing tube/ cable can be damaged beyond repair and require the replacement of the whole assembly.

Now in the case of a modeller building a new nitro/ petrol hull, choosing a lined stuffing tube layout will need a larger diameter, to fit your drive cable or shaft, than an unlined tube. Once you have the required shaft/cable liner material to hand, a trip to your local hobby dealer will be needed to match up the right brass tubing to fit your liner.



Put out by several companies, a Teflon-like stuffing tube liner material is commonly used on a majority of I/C boats; but, when building a new hull you'll need to pre-determine if you want to use a lined or unlined stuffing tube on your hull



Fitting the right liner material with a length of suitable brass tubing will prevent any binding of the prop shaft and you'll need to regularly clean/grease the cable shaft and the inner tube liner that runs from your engine to the propeller

The material should pass through the tubing without any noticeable looseness between the two components; yet, the liner should be snug inside the brass tubing as well. The liner material and shaft will have to smoothly bend with the stuffing tube, as the combination is bent to suit your hull/engine arrangement; plus, the liner material itself must be glued in place once everything is properly mounted inside the boat.

Slow-set epoxy, with some micro-balloon filler added will do an excellent job securing the brass tube in the hull and it can also be used to lock the liner to the inner part of the stuffing tube assembly.

NOTE: If you decide to go with a 'bare' stuffing tube many boaters add a grounding wire that runs from the tube to the engine's crankcase. Soldered to the stuffing tube, this grounding lead is supposed to prevent radio interference that can be caused by the drive shaft rubbing on the brass stuffing tube – just a thought.

FUEL WARNING STORY

Although water is the first thing many I/C boaters attempt to keep out of their hulls, it should be noted that both nitro and petrol fuel, if left for any period of time inside the bottom of your vessel, can do a lot of damage to its make up.

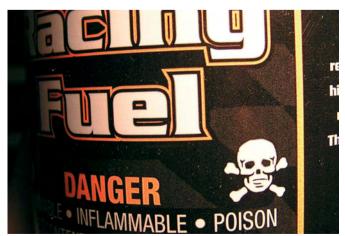
A few years ago I was testing a new nitro monohull for this fine publication and during the boat's required engine break-in runs I had to regularly clean some old fuel residue out of the inner hull areas. Denatured alcohol and an old cloth rag was my 'tool' for this important job and I managed to remove almost all the oily residue without any problems. Once the mono's power plant was brokenin, hardly any leftover fuel was seen inside the boat and once my testing runs were complete the deep-vee was fully cleaned, serviced and stored in a cool/dry area of my home.

Due to other articles, work and household duties, it was several weeks before I was able to take the monohull to the lake and it was during my pre-run checks that I discovered a major problem in the vessel's outer keel area. Outwardly, the hull's gel coat finish looked fine; but, I noticed one small section of the keel edge looked a bit out of shape

Upon closer inspection, I was able to easily push-in the area with my finger, so I knew that I'd not be going to the lake any time soon with this boat.

Moving to the hull's inner section I judged that the effected keel area was located directly underneath the fuel tank/radio box zone which meant that I'd have to first remove these pieces to access the damaged keel spot. With the tank/box assemblies out of the way the keel's fiberglass layup outwardly still appeared to be in good condition, yet running my finger across the area I felt a very slight crack in the hull bottom.

Pushing harder against the surface, a tiny yet long split was evident in the glass and the opening was surely letting water and



When combined with even a tiny level of water, a regular nitro boat fuel can quickly cause damage to your I/C hull's keel/bottom areas with the result being a lot of workbench time to repair the damaged spot

fuel residue to get between the glass/resin and the outer gel coat finish. Soaking for only a few weeks, this slight residue had almost dissolved the cloth completely and almost eaten a hole through the thin gel coat as well.

Breaking-out my trusty Dremel tool fitted with a small grinding bit, I slowly removed the weakened cloth/gel coat material on the boat's keel structure until no sign of damaged material was visible. Luckily only about an inch-square section had to be filled/repaired with some layers of lightweight fibre cloth and resin and the spot was sanded, primed and painted to restore the boat to running shape.

The lesson here is that even when you think you've completely removed any leftover fuel/water from your boat, double-checking the hull bottom is always a good idea!

CLUTCH NOTES

When dealing with a petrol-engined marine craft that's equipped with a centrifugal clutch set up on its driveline, some required maintenance and maybe a bit of modification can be done to this small clutch drive layout. Made up of two pivoting clutch 'shoes' and a tension spring, a gas boat's centrifugal clutch is affixed directly to the engine's crankshaft and the shoes engage a separate drum that's connected to the prop shaft.

Depending on the clutch/boat manufacturer you're dealing with the dual clutch shoes can be mounted in either spin rotation or in the 'reverse' position. Many boaters use the latter as the shoes grip the drum more quickly and securely at high rpm. As the shoes use a fibre contact pad they can wear and/or be contaminated by fuel residue, plus, the drum can get dirty/corroded if left with moisture/fuel around its inner area.



Made up of two cast metal shoes with glued-on fibre contact pads the average gas boat clutch set up will demand a regular cleaning (as will the drum) to keep the energy from the engine connected to the shaft and propeller



Available from a series of outfits, clutch springs that would normally be used on a yard tool clutch will also help you pinpoint your boat's idle/engagement speed via its clutch set up

Another oxidation glitch can be found around the clutch shoe's mounting bolts which may need a clean-up with emery cloth and a bit of fresh grease on the pivot holes. Brand-new clutch shoes can also be scuffed-up with fine-grit sandpaper as this will prevent any sudden glazing of the pads when they are first spun up on the drum.

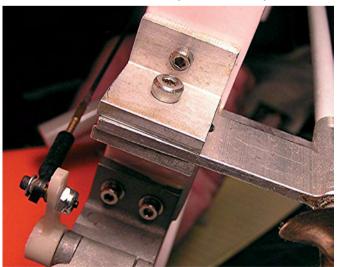
On those petrol hulls running high-output engines the use of double-bearing-equipped clutch drum housing will help strengthen the drive as this set up will support the drum better under heavy power/ torque loads. Although heavier than a single-bearing drum housing, the dual-race housing is just insurance when dealing with stouter gas marine engines. Finally, you change your clutch's engagement speed by changing-out the shoe's tension spring. Available from both I/C boat companies and many small engine/yard tool shops these coil springs can provide a difference in the engine idle/shaft engagement speeds on any clutch-type petrol craft.

MODIFIED-TO-RUN

Since the first ready-to-run I/C boat was produced many novice boaters have believed that since the power craft they'd purchased was built by a known manufacturer, the vessel should work/run right from its shipping box. Overall, it is possible to do this with today's line-up of RTR I/C hulls however, in many instances the smart boater will always want to go over his/her RTR marine craft before running it for the first time.



Adding these tools to your boat box can greatly improve your chances of avoiding first time gremlins on a RTR I/C hull, as there can be a mistake made occasionally on the assembly line



Small Allen head grub screws like those found on a RTR hull's prop shaft/strut assemblies can be prone to looseness from the factory; so checking them before any runtime is put on the boat is always a good idea

A loose fastener, a miss-aligned shaft or linkage or a pinched servo lead can happen on the assembly line and any of these gremlins can occur on your pre-built hull. I have seen RTR boats that had their brass stuffing tubes secured with only a small dab of regular silicone sealant holding them, propeller drive dogs with no clearance on their strut supports and engine mounts loose and/or with no thread lock compound, and again all of these situations can ruin vour lake time.

Allen head grub screws can also be a major source of looseness on a RTR boat; so investing in a set of hardened-tip Allen wrenches will benefit your ability to avoid a loose prop, rudder or exhaust manifold on your brand-new powerboat.

A small bottle of medium-grade thread lock compound, a set of small screwdrivers and some cyano/epoxy adhesive will generally also be handy while pre-checking a RTR boat and/or its support cradle. I prefer to use epoxy to assemble a wooden hull cradle and will add some micro-balloon filler to the adhesive to create a lighter, more rigid joint between the stand sections.

When in doubt on something on any I/C boat I follow the idea "If it doesn't look right, fix it" and usually this technique keeps me free of stalled boats or headaches on the workbench. Common sense, plus a past history of setting-up any I/C boat will help you know when to do a bit of tinkering on a nitro/petrol marine craft, which, as is the case with anything you buy today, is a mass-produced piece of machinery - talk to you next time! MMI

UPDATE/TIP OF THE MONTH

Looking back to the recent Powerplug column that dealt with the use of an ultrasonic cleaner for removing debris from I/C boat parts, I've been doing some additional experiments with this unique cleaning tool.

Over time, most nitro/petrol engine exhaust headers tend to end up with a hard coating of burnt fuel and the header pipes are usually small enough to fit inside an average ultrasonic cleaner. Using a mixture of water and white vinegar will normally remove most of the caked-on exhaust gunk on an aluminium header pipe; plus you can also clean the separate cooling manifolds used on many engines using this technique.

Usually made up of a clamp or bolt-on water jacket that has 2-4 water fittings, the manifold can get gummed-up when a gasket or O-ring fails and after disassembling and placed in the cleaning unit you run the same solution over the components. A really coated header or cooling manifold may demand a second pass through the cleaner followed by a scrubbing with a brass bristle brush; but this will produce a clean set of parts that may help prevent any further exhaust leaks inside your hull.



Using a mixture of water and white vinegar you can remove a fair amount of baked-on exhaust residue from these header pipes that will fit inside an average ultrasonic cleaning unit



SAILFREE

CHRIS JACKSON REPORTS ON THE WORLD OF RADIO CONTROLLED RACING SAILBOATS

AUTHOR: CHRIS JACKSON 🧩 GREAT BRITAIN chris.jackson43@btinternet.com

ack in my last report, June issue, I outlined the forthcoming IRSA General Assembly and the somewhat unprecedented election situation where every post was to be contested. We can now report on the outcome! Following on from that, we have reports from two home national championships for classes which seem to be on the up in terms of both numbers and quality of

entries.

IRSA GENERAL ASSEMBLY

The regular business of this online meeting was processed by the incumbent committee and was dealt with efficiently by their General Secretary Richard Rowan, a top level IT expert, as well as a top level skipper, an ideal combination for the post. Having sorted out the relatively straightforward agenda the member countries then voted on their preferred choice of candidate for the future. The outcome was:

Chairman Vice Chairman Sec/Treasurer Racing Rules Committee Chair Technical Committee Chair Org and Policy Committee Chair **Publicity Officer** Regional Officer Americas Regional Officer Oceania

Lester Gilbert (GBR) Federico Breuer Moreno (ARG) Richard Rowan (IRL) Rov Granich (NZL) Graham Bantock (GBR) Terry Rensch (GBR) Robert Hobbs (GBR) Matteo Longhi (ITA) Selwyn Holland (AUS)

Prior to the running of the General Assembly a group of potential members of the organisation put out several documents setting out their ideas and proposals for the future direction of IRSA and one key point was to move away from regional representation and move towards a direct link to Class Associations representing the four existing International Classes.

At the same time the agenda included a proposal to limit voting for the existing Regional Officers to countries within these regions and also to allow candidates only from one or other related country. The voting for these officers seems to have held to this pattern, as all three of the successful candidates are clearly members of national fleets from a country in the relevant zone.

MARBLEHEAD NATIONALS AT KEIGHLEY

Gibson retains title for third year... The UK Marblehead class championship was held over the 17th – 18th of May on the picturesque Weecher Reservoir site near Keighley. Thirty-three competitors arrived for Day 1 where an oscillating S-SW wind gusting to 12 knots made rig selection of B or C most important for the duration. Racing throughout the fleet was intense with no less than six past and present radio yachting world champions in attendance, along with international competitors from France and



Close action at the Marblehead nationals at Keighley, Dave Potter's Cream Cracker (20) chasing Graham Bantock (95) sailing his latest design Quark

At the completion of Day 1, after eight full rounds of A and B heats, it was current World Champion Brad Gibson leading by the narrowest of margins on 9 points from Peter Stollery on 10.7pts, with recently crowned French National champion Graham Bantock in 3rd on 19 points. The top five places showed five differing designs reflecting skipper ability of holding a clear lane out of the start with the freedom to tack on the first shift as the most important factor in the day's results.

Skippers found the conditions challenging throughout the day with upwind crossings at speed and distance difficult at times to judge on the windward leeward course sailed directly away from the control area. Protest chairman David Hollom was called into action on several occasions but in general the quality of racing and rule



Brad Gibson extended his excellent series of top-level results with a further win at the Marblehead nationals sailing his Grunge design



Two modern Marbleheads running downwind, their speed being quite a surprise if you are used to seeing only IOM class boats. Tony Guerrier's Quark (50) with Robert Walsh's Starkers Cubed

adherence in the conditions was of a high standard and skippers took penalty turns accordingly.

Skippers retired to the Ilkley Moor Vaults for a fantastic meal orchestrated by our Keighley hosts, where GBR skippers travelling to the upcoming Worlds in Gouda were presented with their racing hoodies

Day 2 dawned with the prospect of freshening winds from the south providing PRO John Tushingham with the opportunity of setting a course allowing skippers to walk its length. Once again B or C rigs were the choice amongst skippers and racing got under way at 9.30 am, with a long first beat to a windward mark with a spreader where skippers could more easily see their machines.

Boat speed and an ability to work the left-right oscillations became the key to success. To that end it was Gibson and $\ensuremath{\mathsf{IOM}}$ World Champion Robert Walsh who laid down a marker in Race 9 with a tight 1-2 finish. As the day progressed there was movement up and down the fleet where skippers enjoyed the fast racing on flat water, pushing their boats to the limit.

Gibson continued his winning form over the day, only dropping one race to Stollery from 8 races sailed, to go on and take the championship in fine form. Stollery, after a couple of earlier hiccups by his own standards, settled down to push Gibson hard for his

win with improved speed, benefiting from a recent fin upgrade and some fast downwind sailing. Robert Walsh also had a consistent day to get through ahead of Graham Bantock and took a welldeserved 3rd place.

Throughout the fleet there were some big movers on day 2, none more so than Tony Guerrier who came through to take 5th place and GBR Finn skipper David Potter who jumped from 13th overnight up to 7th place, clearly enjoying the open course

Of the visitors German skipper Nigel Winkley had a solid event once again to take 6th place and French skipper Nicholas Selves did well with some very good races to finish in 8th place. Competitors thanked the Keighley race and catering team led by PRO John Tushingham for hosting an event in warm sunshine and good winds, which showed off Marblehead class racing at its best. Attention now moves on to GBR skipper final preparations for the Magic Marine July Worlds in Gouda, Netherlands. For all UK Marblehead news go to the class website at:

http://marbleheadsailing.wordpress.com/ or follow them on Twitter at: @Marbleheaduk

TOP TEN RESULTS

1st Brad Gibson 14pts, Grunge 2nd Peter Stollery 31.7, Crazy Tube Free 3rd Robert Walsh 44, Starkers Squared 4th Graham Bantock, 48 Quark 5th Tony Guerrier 93, Quark 6th Nigel Winkley 101, Skalpel GER 7th David Potter 104, Crème Cracker 8th Nicholas Selves 120, Quark FRA 9th Derek Priestley 130, Starkers Cubed 10th Darin Ballington 137.4, Rok

RG65 NATIONALS AT KEIGHLEY

Only a few weeks after the Marblehead championships the same venue saw the third annual RG65 class championships sailed, a quite interesting coincidence because the RG65 is in effect a half size Marblehead. The club had an entry of just under 30 boats, for the most part standard Dragonforce designs but with 25% of the boats of individual designs to the open rules of the RG65 class.

The first day saw horrible weather conditions which included not only strong wind and rain but a very low mist (which could have been rain cloud at this altitude!), that made it very difficult to see the course over the water. The wind also swung around which caused a lot of delay whilst the Race Committee made major adjustments. The second day, by contrast, dawned bright and sunny with a good but not impossible breeze for the fleet to enjoy.



A top-level Dragonforce boat with Catsails upgrade sails, skipper Nigel Brown, aka the sailmaker!



The heats were split into two fleets with the usual four promotions from B fleet to A, which meant that a number of skippers were kept pretty busy during the day. Racing was competitive throughout the two fleets with some well-known names having acquired a Dragonforce along with a welcome set of new faces.

The overall winner was Agustin Moreno sailing his immaculate Argon but he did not have it all his own way, John Tushingham taking a close second place only two points behind and Mark Dicks sailing a new design named Silver chasing him strongly. The Dragonforce top boat was closely contested between Ken Binks, Buzz Coleman, and Phillip Playle and went down to the last race of the event.

Phil Playle ended up just one point ahead of Buzz Coleman but found himself in front of the scrutineers who checked out all the Dragonforce boats against their very tightly controlled set of restrictions in modifications. Phil's boat was failed as it had a sticky patch over the ballast bolthole in contravention of the rules, which meant that Buzz Coleman took the newly created Dragon trophy home. Three other Dragonforces were found to have mods not in accordance with the DF regulations but all were allowed to keep their finishing places in the overall RG65 event.

This was the third UK Nationals of the RG65 Class, and there have been great pressures on the class as the result of the huge impact of the Joysway Dragonforce, the prototype of which sailed in the first Nationals at Kingsbury Park in October 2011. The fluid situation is now close to resolution so I will try to summarise the changes afoot.



Glen Meekcom downloaded this Esterel 65 design off the Internet and built it from scratch, including the moulded carbon fin

RG65 NATIONAL CLASS ASSOCIATION

This is the UK national link to the already established International CA, which was put together in 2007 by several South American countries led by Argentina. When the ICA was formed it adopted the same constitution and configuration as the existing IOM class and governance by the World Council comprised of representatives from each country in which there were boats sailing. I was asked to represent the UK and remained as the official link right up to the first AGM in October 2011, when I handed over to Mark Dicks.

The original committee were mostly members of the Kingsbury Park club where a fleet had developed, and included Tom Brooke, Mark Beesley, Matt Riley and Don Smith. Over time there have been some changes and at the present time the class is led by Mark Dicks, with Matt Riley (Webmaster), Barry Norman (Technical) and Joanne Sharpe (Membership) as officers. Tim Long is acting as Racing Secretary until a permanent replacement for Graham Allen can be found.

JOYSWAY DRAGONFORCE

The phenomenal commercial success of the Dragonforce 65, to give it its full name, has led to pressure to form a separate CA to run events for solely Dragonforce boats compliant with the set of rules laid out on what will be internationally available websites.

It should come as no surprise that a commercially driven design and manufacture company should want to see its success clearly identified with the brand name, and it would come as no great revelation if their marketing people have suggested to their



John Tushingham holds the new Dragon trophy ready for the winner to take home for the first place in the Dragonforce fleet



BELOW: Mark Dicks, Class Secretary and Chairman of the RG65 Class Association for GBR, and member of the ICA World Council, thus the link to all other countries sailing the RG65 class, with his latest design, Silver



designers that other R/C sailing projects might be produced under the same brand, now well established as a quality

There is now a dedicated DF website at www.df65racing. co.uk which has their class rules and other data in an easily accessible format. The prime mover and Chairman of the GBR CA is John Tushingham, with Joanne Sharpe as Membership Officer and Tim Long, Class Publicity Officer and also acting as Racing Secretary until a permanent replacement for Graham Allen can be found.

MYA COMBINED STRENGTH INITIATIVE

For some years the MYA has been looking at trying to tie in a number of special interest classes with which it had no formal link, and these include the Footy, Micro Magic, Multihull, RC Laser, RG65 Class and the nascent Dragonforce CA. To this end it produced a Memorandum of Association which it circulated to ALL these classes in January this year, with a request that they respond by the time of the June MYA Council Meeting. Some classes would be able to comply with the requirements laid down by the MYA without much of a problem, i.e. having a committee, class rules, constitution and racing programme, and finally a reliable figure for active owners/boat registrations but others may not have this sort of data readily to hand.

CONFUSED? YOU SOON WILL BE!!

As already indicated the GBR RG65 CA was formed in early 2012 and was set up with the possibility of the MYA offering some form of recognition in mind. The Class Secretary/Chairman is Mark Dicks, a skipper with many years of top-level experience of vane and R/C racing and also design. Unfortunately, in some respects, it was his design Ice which was used to form the basis for the Dragonforce, leading to the idea in some quarters that Mark was in some way compromised when the MYA started to push the idea of a separate DF class association. In fact he has recognised the logic of the situation and made a valuable contribution to the debate.

The idea of having officers taking a dual role on both RG65 and DF committees is quite original and this is how Joanne Sharpe has come into the forefront. She is making up completely new listings of the members/owners so as to identify which designs they are sailing. In this matter the interim idea of allowing personal sail numbers and not boat numbers which was set at the outset of the RG65 CA has proved something of a problem as owners might have one of several designs.

The Racing Officer for both CA's at the start of the year was Graham Allen but he has been obliged to step down for personal LEFT: Joanne Sharpe, Membership Secretary for both RG65 and Dragonforce classes, would like to hear from anyone with a boat in either class who wants to be registered. Go to the RG65 or DF website and click on the link

reasons, leaving a vacancy at the time of writing. Input from the MYA has been in the hands of Tim Long, MYA Publicity Officer, who has been very active in trying to push forward the formation of the Dragonforce CA because the MYA sees it as a fantastic opportunity to have a 'starter' boat of quality, price and availability on which to base a programme of sailing to attract new and hopefully younger blood.

It was Tim Long (MYA Publicity Officer and Council Member) who decided to write to selected members of the RG65 CA to persuade them to switch to the DF CA at the same time the MYA was negotiating with the RG65 committee to sign up to the new recognition deal, possibly not the best idea in the circumstances. There are about 400 listed owners on file at the moment and if the majority are DF owners then the net strength of the RG65 CA could be lowered beyond that which the MYA is prepared to accept as a valid class.

THE WAY FORWARD?

At the time of completing this text, mid June 2014, I understand that the MYA has recognised the RG65 Class, the Dragonforce65 Class and the Footy as MYA affiliated classes, which means that all three of these classes can plan for 2015 on that basis. No doubt the Dragonforce65 Class will be looking to organise DF only regattas on a national and regional basis during future years, as well as having the direct backing of the MYA to promote the class and by this means the overall image of radio controlled model yachting in the UK.

The idea of sharing officers across the two related CA's should work but care will be needed to ensure that the open class does not become neglected. The fairly slimly written Class Rules will undoubtedly come under pressure and a strong NCA will be needed if the UK is to have any say in work on this, as well as possible international events across both north and southern hemispheres.

CONCLUSIONS

My thanks to Brad Gibson and Damian Ackroyd for their report on the Marblehead Nationals and to Sue Brown for permission to use her photos from the RG65 nationals. The one of the A Fleet start will, I hope, give readers a flavour of the very competitive racing which has taken place at Keighley in recent weeks! MMI

MEETING POIN

REPORTS FROM SOME RECENT **EVENTS**

FALMOUTH MARITIME MUSEUM. 1ST MODEL **BOAT EXHIBITION. 22ND MARCH 2014. BY DAVID WELLINGTON**

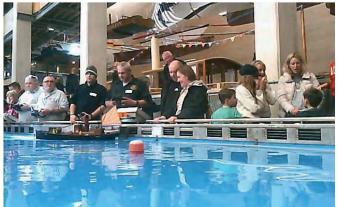
This event, held in the world famous National Maritime Museum in Falmouth, was arranged at short notice hence we did not have the time to give any pre publicity in MMI. After contacting many of the local clubs in Cornwall they eagerly supported this event. Hopefully it may become an annual show.



The Learning Room was the venue for the static models



The indoor pool was an ideal venue for the operational models



On the water picture taken by David Wellington from his model Norquest



Liskeard Model Club demonstrated rope making

The location of this relatively new museum on the waterfront at Falmouth houses many excellent exhibits of small full size boats and MMI regularly list the events and lectures taking place. One of the major attractions for R/C modellers is the purpose built indoor pool with the facility to turn on the wind when you want it. which the museum uses for the public to sail model yachts. During the show the models were allocated time slots when the visiting club members could demonstrate their models on the water. A large viewing area for the static models was allocated in the Reading Room, with two modelling traders selling their wares on the Quarter Deck. The show attracted many visitors

and from the organiser's point of view it looks very favourable to hold another event next year, perhaps over two days! We will keep you posted with the dates.

SOUTH WEST MODEL & HOBBY SHOW, 3RD **& 4TH MAY 2014, BY CHRIS SAUNDERS AND BARRIE STEVENS**

I arrived at the Royal Bath and West Showground at 10.30 am to find the car park quite full, the sun shining and a long queue of people waiting to buy tickets indicating that things were off to a good start despite not having a show last year. On entry to the enclosure there seemed to be less stalls outside than in previous years, however, on entering the first display hall there was a very lively buzz of activity. This first area was mainly occupied by lorry modellers and indoor flyers, but there were also a number of trade stands.



The Traplet stand manned by Viv and Angela



A Club 500 Ghost Boat controlled by Wi-Fi using a Raspberry-Pi system designed by Matthew Beaman and Rodney Houlford of North Devon Marine Modellers Association



George Langford, a member of the recently formed Trenchford Model Boat Club, displayed his stand-off scale model of a Turkish fishing boat. Using a plank on frame hull the model has fixed sails and electric motor



U66, a Sloop Corvette fully rebuilt by Colin Fisher of the City of Plymouth Model Boat Club after purchasing it from a fellow club member

Leaving through the rear door I emerged into the open where there were a number of traders and a hovercraft compound. Near the next hall was a fairly small boating pond on which a number of modellers were sailing their craft. This second display building was for the model boaters. Again there was a real buzz of activity with the first part full of club displays. An impressive number of clubs had stands displaying every type of marine craft imaginable. This area was where I spent most of Saturday selecting models that would be of interest to readers.

Beyond the Model Boat room was a third hall displaying model railways, model engineering (including hot air engines), military vehicles, and a wide variety of traders. The Traplet stand was located in this hall and attracted a good deal of attention. There was even a stand demonstrating 3-D printers. Just to one side of



This scratch-built model of MTB 681 by Roy Skeates of the Surface Warship Association took six years to complete and is based on plans by John Lambert and information from the Admiralty



Model of the Griffon 470 SAR Hovercraft H006 (one of seven commissioned by the RNLI) built mainly from 1/64 plywood with GRP ducts by Tony Middleton of the Air, Water, Land Model Group (AWL)



Scratch-built D-Day diorama by Tony Skraga of Portsmouth & District Model Boat Club featuring the kitchen boat which prepared over 1000 meals per day to feed the crews of visiting craft

this hall was the café, which served tea and coffee all day together with pasties, baked potatoes and other snacks. There were other food stalls outside the buildings so there was plenty of choice when

At the rear of the second display building was the path to the flying area. As usual this path was lined with a number of traders and displays of model cars and hot air balloons. The flying field at the top of the site was well attended and there was a constant display of aircraft flown with amazing skill.

I spent only the Saturday at this show, as I was also interested in visiting the Model Boat Show at Appledore the following day, however, I left with the feeling that I would have liked more time to look around. Clearly this made it a successful exhibition. I shall now leave it to Barrie to complete the picture of the weekend.



Stuart Matthews of Yeovil Model Warship Association with his model of Resolve, based on a Caldercraft kit with redesigned decking



The Association of Model Barge Owners' display showing Veronica, the designer Richard Chesney, and the builder Peter Simmonds are standing behind the model



Only small craft could navigate the inside boating pond

Thanks, Chris. The Sunday was as busy as the Saturday and I was kept busy talking to readers on the Traplet stand. I did take time out with a couple of excursions to visit the excellent flying display and to participate in a bit of model lorry driving on the South West Model Truckers stand, at least we were using a model Sprinter tug as a load! From speaking to exhibitors and traders most people were very pleased with the show. The orgainsiers have picked up some valuable learning points from this year's event, which should make an even better show in 2015 which has been confirmed as being held on 2nd and 3rd May.

APPLEDORE MODEL BOAT SHOW, 4TH MAY 2014, BY CHRIS SAUNDERS

Having lived for some years in the neighbouring town of Bideford it was a great pleasure to revisit an area I thought I knew well. Unfortunately I left before the new high-level bridge was completed across the Torridge and so I had very few places I recognised as I arrived at the hotel on Saturday night. The next morning I was up and breakfasted in time to help ring the church bells at Appledore, a place I have spent many hours practising in the past. This was now very familiar territory as almost nothing had changed in this quaint and beautiful town except for perhaps the larger number of coffee shops and restaurants along the front.

The Lifeboat Station was exactly as I remembered it with the usual activities of boat launching and retrieval taking place. The view of the estuary is quite breathtaking on a pleasant sunny day. The dirigible lifeboat had been launched in order to vacate the main hall of the Lifeboat Station for the model boat exhibition. On entry the whole hall was filled with boat models and there was animated chatter between exhibitors and visitors. I could only describe the atmosphere as welcoming and friendly.

The exhibition takes place on two floors with the majority of clubs on the ground floor. On the first floor there was a group of ladies who supplied tea, coffee and cakes throughout the day. Jack Snary with his Spithead Review display was also situated in this upper room. It was great to sit with a nice cup of tea and watch the



What a beautiful and interesting setting for a model boat exhibition



Ivor John of Camborne Pond Hoppers (CPH) with his collection of scratch-built fishing boats all named after members of his



RNLB Maurice & Joyce Hardy (Fowey Lifeboat) a Trent Class boat based upon a Speed Line kit with significant adjustment to the superstructure. This was built by Barry Faithfull of the City of Plymouth Model Boat Club

activity on the water outside, particularly when the lifeboat crew returned the dirigible craft to the slipway, or just chat to Jack about his incredible display of models.

Although a number of the models on display had been at the Liskeard show a few weeks earlier I had no difficulty in finding plenty of new and interesting craft to examine. As usual I can only give a taste of the quality and variety of boats on display. I must, however, mention Ann and George Wells as they demonstrated the art of making rope mats throughout the day. Acquiring natural hemp rope from Chatham Dockyard, often many years old, they unwound the fibres and used them to make very attractive place mats and table coverings.

I spent the whole day at the show and the time went very quickly. All the exhibitors were so enthusiastic about their models that I fear I can never do them justice in this report. Overall, everyone involved in the organisation of this display should be very proud of their achievements.

When it comes to large models this 6 ft 6 inch model of RNLB Edgar George Orlando and Eva Child takes some beating. This beautifully prepared model of the St Ives Liverpool Class boat of 1948 to 1968 was made by Godfrey Copeland of CPH



Paul Dowler with Kenwith Castle Model Boat Club secretary David Hunter holding a fully working model of a narrow boat built from a Riverside Models hull



Millbrook Model Mariners' Richie Richmond holding his model of Elizabeth Jane. A traditional Scottish drifter based on the Mountfleet GRP hull, it has a higher bridge and a bigger gaff boom than the original design



All these 1.48 scale models are of boats that traded out of the Torridge. Scratch-built by Richard Bowden of the Torridge Side Model Boat Club who was also instrumental in organising the exhibition

2014 FOOTY CHAMPIONSHIP & JUNIOR CHAMPIONSHIP, 14TH MAY 2014, BY ROGER **STOLLERY**

This event was held at the Two Islands RYC sailing water at Furzton Lake at Milton Keynes and despite very strong and variable winds a total of 16 races were sailed during the day. The strong winds did play havoc with the schedule at times when emergency repairs had to be made to the boats from wind damage! This is by far the smallest class of racing sailing craft and was primarily designed to sail in small portable ponds at events but due to the popularity this class has proved to be very popular and VERY economical to build and participate in.

The winner of the Junior Championship Trophy was Lochie V and 2nd place juniors went to David W. The results of the Footy 2014 Championship were: 1st Rob Vice sailing an Ice design, 2nd Peter Shepherd from Abington sailing a Slim and 3rd place was Peter Jackson from Abington also sailing a Slim design.

The Footy Gold Cup will be run on Furzton Lake on 26th/27th July and there are already many entries including some from Italy, France and Switzerland.



The fleet preparing to start



PRO Roger Stollery presenting Champion, Rob Vice with the Lost Rock Trophy



Junior Champion, Lochie Vice



The three leading boats who dominated the championship

DEAL CLASSIC MOTOR SHOW, 25TH MAY 2014, BY PATRICK BONIFACE

Deal in Kent played host to one of the best classic car shows on Sunday 25th May. The show raised much-needed funds for the Royal National Lifeboat Institute, which has a station at Deal. This was thrown open for public inspection throughout the classic car show; many hundreds taking the chance to see the latest lifeboat and lifesaving equipment bought by the charity purely from donations by the public.

Amongst the attractions on show at the RNLI station was a display of model lifeboats collected by Paul Parfitt. Most of the boats are in 1/12 scale, with one exception, that of the Dover Lifeboat which at 1/16 scale was considerably larger than the other boats. Paul's latest addition to his collection was also on show. Friend and model boat builder, Neil Pitcher built Paul a 1/12 scale model of the 1920 North Deal Lifeboat complete with brown canvas sails as a treat for Paul's 65th birthday which he celebrated in mid-May.



Atlantic 21



Tenby Lifeboat



RNLB The Hampshire Rose



RNLB City of London



Montrose Lifeboat





RNLB Haydn Miller

MODEL BOAT MAYHEM, WICKSTEED PARK, 24TH & 25TH MAY 2014, BY STEVE DEAN

What is it with Bank Holiday weather? As Ron Dean of Dean's Marine stated repeatedly on the Saturday of the Model Boat Mayhem gathering at Wicksteed Park, Kettering, "OK, remind me why we do this.'

The Saturday started wet, rained until midday, delivered showers in the afternoon and was hit by a monster freak storm late in the day. The wind gusts were so strong that one gazebo was reduced to a tangled spider's web of aluminium origami! Despite the conditions, Mayhemers are made of stronger stuff than their frail temporary structures and loads of boats took to the water.

Mr Mayhem, Martin Davis, and his family, the gang from Wicksteed and loads of helpers had laid out the site on Friday and despite a not very promising weather forecast the place was literally awash with model boaters. Why you may ask? Well the answer is very simple - the location is perfect with a boating pool to be very envious of and Mayhem has a very special atmosphere. No stress, no hassle, just turn up, shake hands with friends old and new and play with model boats. Wonderful!

Sunday was the complete opposite to Saturday with no rain all day, sunshine and white fluffy clouds prevailed and loads of people turned up. The yachting boys made the most of the breeze across the pool and their boats looked truly majestic with the sun in their sails. A flotilla of warships was a truly spectacular sight and mingled with a high-speed surfer and hovercraft. Your writer's Alien in his floating space ship had an encounter with a radio controlled duck, squirted it with his plasma weapon and to everyone's amazement the duck sank! It was pure theatre and just part of a weekend of Mayhem madness.

Wicksteed Park is a popular venue and the sunshine on the Sunday brought out loads of day trip visitors most of whom walked round the boating pool and enjoyed the free show. Many youngsters and their parents were amazed to see the variety of vessels on display and on the water. If gave them plenty of opportunity to ask questions and study all the models at close quarters.

Within hours of the event ending the Model Boat Mayhem forum was full of photographs and videos were uploaded to YouTube. Model boaters from around the world were quick to express their desire to have been part of the fun. If you want to join in next year it really is very simple. There are no entry forms to fill in, you can come for a day or stay the whole weekend. Bring a tent, bring a caravan or just bring yourself. You can arrive with a single boat or a whole truckload. In fact you can bring anything that floats. Mayhem participants are rather partial to the weird and wacky. You can do a bit of straight running, try the steering course or just sit back and cruise around. The weather will always do what it wants to do but we will always have fun. That's it then... see you next year! MMI



A happy Ron Dean displays the new St Olaf, a US Army hospital ship in 1/96th scale



Bill Warder of Stevenage MBC with his 1/12th Atlantic 85 Rib



They have strange pets north of the border. David Morrison and Brian Cowell of Glasgow Richmond MBC in relaxed mood



Pete 'Klunk' Carman of Luton & District MBC wades in with a Vic Smeed Vivacity design hull



Magnificent! Ian Gerrard with his 1/5th scale Edwardian Steam Launch based on a Selway Fisher design



Man from Nottingham refuses to smile! Action man Milbourn has a play with his Boothbay Lobster Boat from a MidWest kit



Very fine warships indeed. Geoff Dixon with Lord Nelson and Canopus in 1/96th scale



The result of the freak storm. Martin Kinghoward now owns an aluminium origami kit



A very fine display of lifeboats presented by Martin Kinghoward of King Lear MBC

MMI VISITS

THE MUSEUM OF THE BROADS AND THE VICTORIAN STEAM LAUNCH FALCON

AUTHOR: ROBIN TROTT GREAT BRITAIN

n September of 2013 while on holiday with my wife in Norfolk we came across a wonderful museum called The Museum of the Broads in a lovely little place called The Staithe, near Stalham. The entry fee was a modest £5 per person for adults with other rates for concessions, children and groups.

Entry to the museum is through a small shop that sells gifts, postcards, local history books and DVD's, memorabilia and also has a tearoom. You are then straight into the museum, the collection is housed in four buildings; the Wherry Building, the Marshman's Building, the Discovery Building and the Boat Shed. It begins with a look inside a reconstruction of the accommodation and living area of a Wherry boat; a long flat bottomed sail boat that was used extensively on the Broads and the surrounding area and along the east coast. They were used to transport coal, timber and farm produce, and families used to live on board these vessels. Many models of the Wherry boats are also on display along with items associated with them.

Moving outside, most of this area is actually covered, between the buildings there are displayed many boats that had seen service on the waterways of all different types and sizes. One vessel in particular is a Howard & Dennis Weed Cutter that was built in the 1960s to keep the waterways clear, it must have been fascinating



watching the cutters in action working like scissors! A build of an R/C model of this one would be very interesting.

Other vessels include one that worked along the Broads selling and delivering everything from groceries, provisions, milk to newspapers, and The Commissioner's Launch that was used by the river inspector.

Going inside another building are more boats and models together with artefacts, tools and photographs; many items going back hundreds of years. All this gives you a visual look at the local history and life as it was on the Broads, all very fascinating. You can even climb the steps to a gallery along the side of one of the boats to view the interior and the deck planking to see how it was constructed; boats are even hung from the roof, every inch of space is put to great use to show the public as much as possible.



THE FALCON

The Falcon is a lovingly restored Victorian steam launch that was built in 1895 by the Dartmouth ship building firm Simpson, Strickland and Co Ltd. It is 27 ft in length with a beam of 6 ft, and powered by a Kingdon two crank quadruple expansion engine and a Kingdon coal fired boiler. It has been restored to full working order by the staff and friends of the museum, all are volunteers who give their time to help keep the museum and its displays in good order.

The Falcon has had a fascinating career in which in its early history the engine and boiler were removed and replaced by a four-cylinder petrol engine, and then a Parson's Petrol engine. During World War 2 she was used to tow Motor Launches and Motor Torpedo Boats that were built in the Northern Broads to Reedham where they were fitted out as naval vessels, they could not be finished in the Northern Broads as once they were completed they could not get under the Acle Bridge. She was also used to troll the river for unexploded bombs after the bombing of Horning Ferry.



The fascinating Weed Cutter



The living area inside a Wherry



Model boats are displayed in every building



The Commissioner's Launch



A photograph from the 2013 model show (courtesy Museum of the Broads)

In the 1970s her owner, Mr Rupert Latham began a search to find a steam plant and engine to be fitted in her once again, after more than four years a set was found which was identical to the one that was removed and it is believed to be the same original steam engine and boiler. So they were reunited after all those years and she was restored to full working order, and was used for many private cruises and public events.

In 1997 the Falcon was transferred to The Museum of the Broads by way of a generous donation. Work to restore her again began in 2002 but she needed a new boiler as the old one had now failed a boiler inspection due to its age and condition. Funded by donations and a grant enough money was raised and a new identical boiler arrived in late 2004 (the old boiler is on display in the museum). The coming year saw the new boiler fitted and in May 2005 it passed its boiler test. That month saw her set off on her first voyage for 18 years, and so began her new life as a working steam launch for the museum

We had the great pleasure to be able to take a trip on the Falcon when we were there, there is an extra charge for these trips but it is well worth it. It was the first trip of the day and there was only one other visitor for that trip. Before we embarked we had to go through a two-minute safety instruction and were issued with life belts, which is a health and safety regulation. We boarded and it was out with the camera taking pictures of the engine and boiler, and of course, the wonderfully restored woodwork.

I was surprised at the speed for a launch that was over 100 years old. We passed many boats and house boats that were moored along the river all very interesting as well, out on to the open river with its banks full of reeds, trees and bushes reaching down to the edge. Everywhere there were birds including Kingfishers, ducks, swans and many others that inhabit the area.

As there were only three passengers the gentleman steering the launch asked me if I would like to take the helm and steer the launch for a while. What an experience to be able to steer this Victorian Steam Launch, it steered so easily. After a while I handed the helm back to the guide, I think my smile was from ear to ear and I thanked him very much. I was lucky that there were not more passengers onboard, as this would probably not have happened. The trip took about 50 minutes and when we returned to the museum there was another chance to take some more photographs before the visitors waiting for the next trip boarded, this time there were a lot more people.

We continued to have a further look around the museum and then made some purchases at the shop and had a drink before leaving. We had arrived when the museum opened at 10.30 am and it was now 1.30 pm – what a great time we had had, something \ensuremath{I} personally will not forget.

The opening times for the museum are daily from 6th April to the end of October 2014, 10.30 am - 5 pm. The river trips on the Falcon are run on Tuesdays, Wednesdays and Thursdays all season. The museum is staffed by volunteers who are only too

The well-preserved Victorian engine

happy to aid visitors with any help and information and I would like to thank all the staff for making our visit so enjoyable. The only funding for the museum is from the entrance fee and donations, which are all gratefully received.

During the course of the year the museum hosts many events, which includes a model show in which local clubs bring their model boats and display them amongst the exhibits. By the time you read this the 2014 show will have passed, having taken place on 13th July. They were expecting several clubs to join them for the day, including Great Yarmouth, Norwich, Lowestoft and possibly the Gorleston club, as well as being open to any individuals that wished to bring their model boats along to display.

For more details visit www.museumofthebroads.org or contact The Museum of the Broads, The Staithe. Stalham, Norfolk, NR12 9DA. Tel: 01692 581681. Email: info@museumofthebroads.org MMI



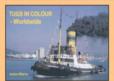
A view of the boiler, note where the coal is stored



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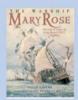
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A SIMPLE TO BUILD, FREE RUNNING MODEL

his model is aimed at the younger generation as an easy build introduction to the hobby; but of course, more senior newcomers are welcome aboard! The design is totally freelance but based on the more modern 'stealth' designs (more later), with the superstructure, mast and exhaust casing (funnel) built up from easily obtained household items and with the option to add more detail later if required.

For some time it had struck me that certain types of food packaging, yoghurt pots, margarine tubs etc. bore a passing resemblance to the modern stealth superstructure blocks, if inverted.

Note: the centrefold plan is drawn at 1/192nd scale but the model is built at 1/96th, i.e. double the size of the plan. All measurements given are for the full size model.



THE HULL

The parallel sides and square transom of modern warships helps to make this relatively easy for the novice builder. The hull bottom is the 'backbone' of the hull, supporting the stempiece, bulkheads and transom and, eventually, the hull sides.

Balsa shopping list:

2 off: 3 x 1/2 inch (75 x 12 mm) hull bottom, stempiece, bulkheads, transom and inwhales

2 off: 3 x 1/8th inch (75 x 3 mm) hull sides 1 off: 4 x 1/8th inch (100 x 3 mm) main deck

A 720 mm (28 inches for our more senior members), length is cut from the 75×12 mm ($3 \times 1/2$) sheet (the off-cut can be used for the stempiece, see below). Mark off the centreline and transfer the shape of the bow, from the plan, to the hull bottom on one side only. Once cut out the off-cut is held against the opposite side and used as a template to mark and cut away the other side (see relevant photo). Hopefully producing some uniformity!

A very narrow 'V' is cut across the hull as indicated on the plan. (I try not to cut right through, leaving just enough balsa to form a 'hinge', but it is not essential.) Apply adhesive across the cut and wedge to the required shape, with scrap wood, books, or similar, weighing down the front section to keep flat. Whilst the glue sets, cut out the stempiece, bulkheads and transom (cut out opening for prop shaft before fitting bulkhead 2).

Once the hull bottom is sorted, the bulkheads, stempiece and transom can be added. They could be dry fitted first, just to check things out and make any adjustments, especially the transom. When happy, glue in place.

Please Note: when cutting out the two bulkheads, the width across the top must be equal to, or slightly less, than the deck



The first cut off bow section being used as a template for the other side



Hull bottom being made up (note the hi-tech weights in use!). Stempiece, bulkheads and transom in foreground



width after the two hull sides have been added (i.e. deck width -100 mm, two hull sides at 3 mm = 6 mm, transom width across top 94 mm)

I hope that makes sense! It is easier to sand down the deck edges if it is too wide, than stretch the deck if it is not wide enough.

HARDWARE

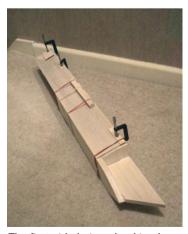
It is generally accepted that fitting the prop shaft assembly at this stage is easier, whilst there is still plenty of access. Drill or cut a slot in the hull bottom as indicated on the plan. The width of the slot is determined by the diameter of your particular shaft tube, try and make it a tight fit, i.e. so that it will stay in position as you line it up. Always have the prop fitted and make sure it spins as you adjust it and is clear of the rudder; when satisfied, use some filler to seal everything in place.



This is a relatively small, lightweight hull, and so a small motor and prop, and low voltage power source is all that is really necessary. Something like a 385 or 480 motor running on no more than 6 V. I fitted a 25 mm plastic prop assembly (Radio Active) with 6 V from standard dry cells.

THE RUDDER

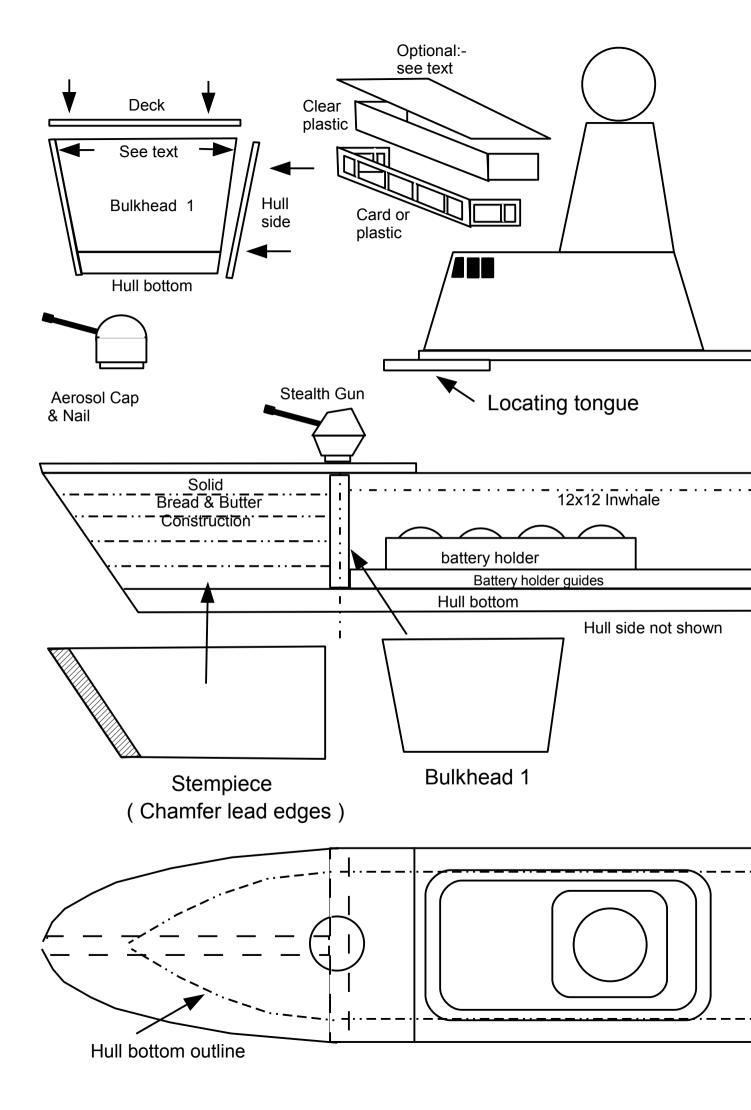
I used a small commercial rudder but had to dispense with the rudder tube and locking nut as it was too cumbersome. Instead I fixed a scrap balsa block in position and fixed a short length of plastic tube to act as the rudder tube. The double tiller arm supplied was used, with foam pads glued to the hull bottom and jammed under the tiller so that the rudder position can be changed at the pond side without removing the deck. There will be other solutions, but I am trying to keep it simple!

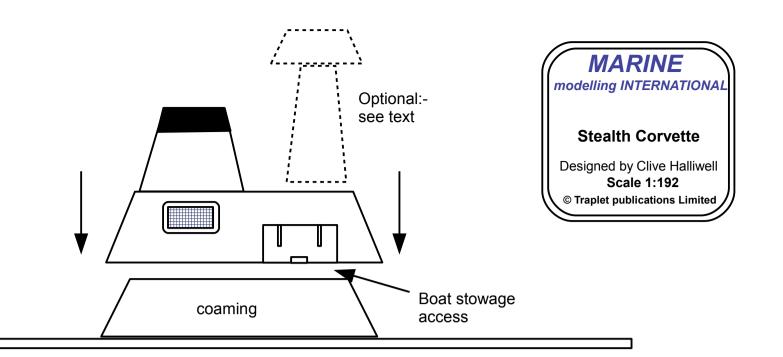


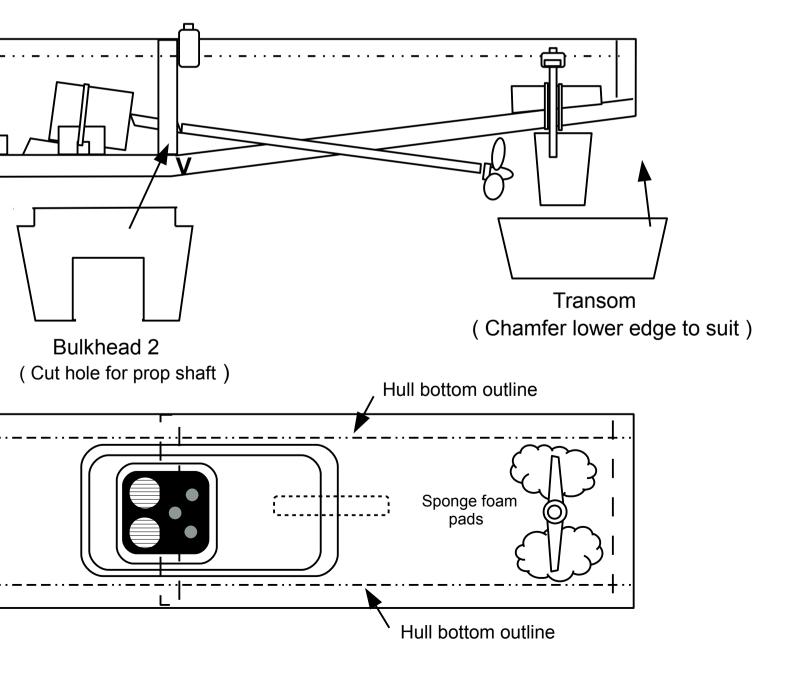
The first side being glued in place from transom to halfway point of bulkhead 1

HULL SIDES

Before adding the sides, inwhales of 12 x12 mm were produced from the spare length of 75 x 12 mm. These were cut to fit between bulkhead 1. across the cutouts in bulkhead 2. and aft to the transom. Turn the hull bottom/bulkhead assembly upside down on a flat surface (maybe a kitchen worktop. but get permission!). Offer up one of the 75 x 3 mm sheets to it to check for a fit. There are different ways of affixing the sides; stout card could even be used, if eventually waterproofed adequately.







Two lengths were cut to fit between the transom and the vertical centreline of bulkhead 1. Using clamps and/or rubber bands etc. the sides were glued in place. Any excess should be trimmed away when your adhesive is fully set. The bottom edges can be rounded a little if you wish. I also glued a small rectangle of scrap balsa across the transom, to hide the joint between it and the hull bottom.

THE BOW

The bow section can be completed by fixing small pieces of balsa, with the grain vertical, around the curve of the hull bottom to finish at the chamfered edge of the stempiece. You should only need two pieces per side, and the joint between them can be reinforced with some spare balsa. The other alternative is a solid 'bread & butter' bow section, made up with horizontal layers of 1/2 inch (12 mm) either side of the stempiece; these being carved, sanded and filled to get the right shape, after being fixed in place. I chose this second option.



Note: if you intend to complete the bow by the 'bread & butter' method, the hull sides should finish level with the front edge of bulkhead 1, not at the centreline. This solution is perhaps more time-consuming, but does produce a much stronger bow section (in the event of a possible collision!).

MAIN DECK

The deck is split into two sections, the fo'c'sle, which is permanently fixed down, and the after part that is removable for access. Cut the fo'c'sle deck from your 100 x 3 mm sheet, glue in place and trim or sand to a final finish (you could fill the bow section with bubble-wrap, but this is optional). The main deck should now be cut to length and a locating 'tongue' fitted under the front edge. Small countersunk screws can be used to hold the deck down whilst on patrol!



SUPERSTRUCTURE

My main block is a 500 gram margarine tub, with the second block, aft, of the same size, but cut down a little to lower the height. There are inexpensive food storage boxes that are of a similar size and shape. But bear in mind top weight is critical on these small 'tender' models, try and keep everything as light as possible. The foremast and exhaust casing (funnel) are chocolate mousse pots: of course it does not have to be chocolate, you could use strawberry mousse pots instead. Only joking! Any of the many pots with a square section and sloping sides will do.



Mini projects: doors, hatches and intake grilles being added to the superstructure blocks

The plan and photos should help, not that the plan needs to be followed strictly; this article is aimed at encouraging people to have a go. By all means do your own thing. The prominent radome, atop the fore mast, is a widget from a beer can. If you are too young to drink beer you could perhaps release the roller-ball from a redundant deodorant stick; or get an adult to drink the beer and give you the widget!

POND SIDE ACCESS

With the intention of having the main deck screwed down when sailing, access was needed for the on/off switch. Utilising a third margarine tub a coaming was made so that the after superstructure would fit snugly over it. There are other solutions, maybe discreetly fitting a switch between the missile launchers.

BRIDGE WINDOWS

The easiest way would be to paint or draw them (maybe a fine tipped marker pen) onto the front of the main superstructure block. But the plan does show an alternative and that is how I completed mine. Thin card was cut to shape and trial fitted. The windows were carefully cut out and the card painted off the model. Clear plastic was cut from food packaging, the 'windows' then backed with a single piece and the frame glued in place. The small roof section can be card or cut from the lid of one of the margarine tubs. You could add doors and small bridge wings; it is up to you (see: Adding Details).

THE GUN

Generally known as the 'junk basher', its usual role is to put 'a shot across the bow' of a smuggler or illegal fisherman to get them to heave to. There are many small aerosols that have a suitable cap that will suffice with a nail or thin tube for the barrel. Or you could have a go at building up a more modern stealth version with their sloping sides (see plan).

BOAT STOWAGE

The ships boat's are stowed inside the superstructure, concealed by large hydraulically operated doors, to aid the stealth concept (see plan).



Hull being plated over with aluminium foil (optional); note also the more complicated bridge windows (see plan and text)

BACK TO THE HULL

I decided to cover most of the hull with aluminium tape before painting; it gives a better surface and strengthens the balsa a little, but as usual, it is optional. I had visualised this model as one of those 'concept' designs, built by the likes of the old Vosper Thornycroft, (not sure what they are called these days), not particularly for the Royal Navy, but

offered to smaller navies with the option of various weapons fits and power trains. So you can finish it in any format you wish, different weapons, light grey for warmer summer climes, darker grey for northern winter climates etc., and name it whatever you wish.



I built this model as a simple, free running project but there is room for 2-channel radio control for anyone wishing to install it and would allow a slightly more powerful motor to be installed, i.e. with a speed controller in place.

WEAPONS DECK

This is my name for the gap between the two superstructure blocks. Any platform could be installed, a SSM (surface to surface



The '4-Pack' SSM's (felt tip pen tops, safety razor guards and card)

missile battery), a SAM silo (surface to air missiles), or a set of triple anti-submarine torpedo tubes on either beam. I chose a SSM set up. Four tops from suitably sized felt tip pens, four of the removable guards from safety razors fixed to two card bases to give the angled launch pads.

The balsa hull needs waterproofing of course. The more coats of paint and effort you put in, the better the end result; but the temptation is to get sailing, especially if it is your first model; do as much as you can! Once the paint is dry, a couple of coats of clear varnish will help. My 'boot topping' is good quality electrician's black tape (before varnishing). It is cheap and easy to fit, but there are commercial alternatives available, or miss it off altogether!

ADDING DETAILS

Although one of the basic ideas of stealth design is to reduce the 'clutter' aboard a vessel in order to reduce its reflected signature,



Extra details can be added during the build, or after some successful

or image, a certain balance has to be struck to allow the ship to perform effectively. A quick glance at the new Type 45 stealth destroyers shows a profusion of sat nav and communication domes and conventional radar scanners

There are fresh air inlet arilles and outlets for the various exhausts. Gas turbines require large

quantities of air with correspondingly large intakes. Although much of this is beyond the remit of this very-easy-build project, a lot of detail could be added, even after the initial outings on the water. BUT, keep it light and keep it low!

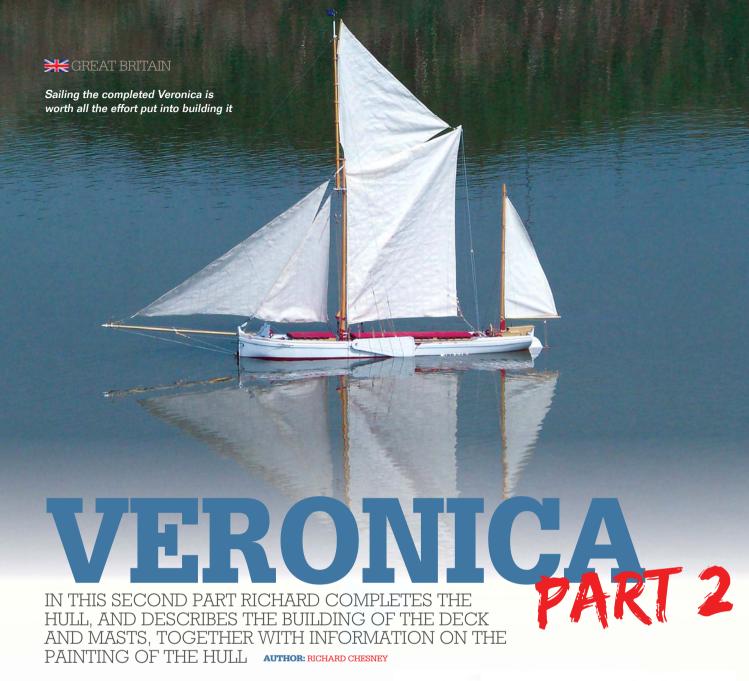
FINALLY

So as a first model, maybe a grandparent/grandchild bonding session, a school project or even a light-hearted 'one design' competition amongst club members, it is a simple, inexpensive model to build. Neither do you need to stick strictly to the plan, the whole idea is to get people interested and the plan and article is a gentle push in that direction. Have fun! MMI



SUPPLIERS:

Balsa from www.blackburnmodels.com (see Balsa Mart) Hardware from www.howesmodels.co.uk Inexpensive motors, prop assemblies (Radio Active) rudders etc. (see add in this mag)



COMPLETION OF THE HULL

Diagram 1 relates to the chines lamination and decking if using a GRP hull, but the techniques are similar to building in wood. Inside the hull, underneath the laminated gunwale, should be positioned ply doublers 3/8" or 1/4" thick to take the holding bolts/pins of the chain plates for the shrouds. From just forward of the mast pillar to approximately 6" behind the pillar should be sufficient length and 2" - 3" deep.

Between the rear of the fore hatch and the front of the main hatch there should be a plate to take the down load of the main mast, and if considered necessary, a pillar under the plate resting on the keel spine for the same purpose (see Diagram 2). Between the deck beams should now go the hatch carlings, (longitudinal beams along the hatch sides onto which the coamings are fitted), and hatch coamings sufficiently high enough to take the hatch cover and keep the hull reasonably watertight. These can be made out of spruce, bass or some similar moderately hard wood of your choice.

Remember here to make the hatch side beams with the same curve as the hull sheer along their length. The hatch sides (coamings) can either be curved to match the sheer or straight along their top edge and the ends are straight on the top edge (see Diagram 3). The hatch cover itself is made to fit outside the coamings and is either curved $% \left(1\right) =\left(1\right) \left(1$ along its length to match the sheer or straight. The hatch cover end on Veronica is not curved across its top edge but is a peaked roof shape with the hatch covers being half the hatch width resting on a hatch beam along the centre line 'Domino' hatches.

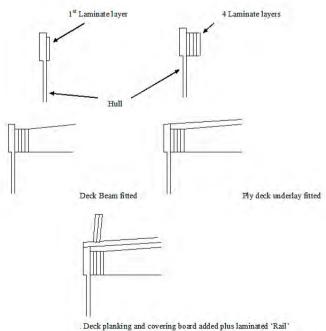


Diagram 1: chines lamination and decking

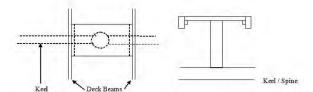


Diagram 2: main mast support

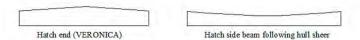
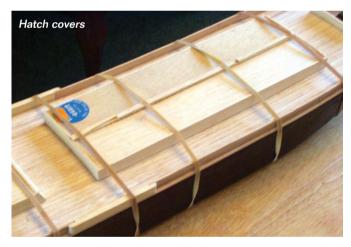


Diagram 3: hatch sides and ends



The keel tube support clearly visible with the crosstrees and leeboard rollers on deck prior to fitting



Once the hatch sides (coamings) are fitted then the deck can be laid. 1/32" or 1/64" ply is used as a sub deck, covering everything outside the hatches and then trimmed to the hull inside edge. The hull should be lightly sanded to the ply deck ready for the deck planking.

All sailing barges had an oak covering board around the deck edge which overlaid the side 'wale and up to which the planking was butted. 1/16" bass was used on my models as the covering board. The bass was taped to the deck overhanging the edge and the edge drawn around. The bass was removed and a line parallel to and inside

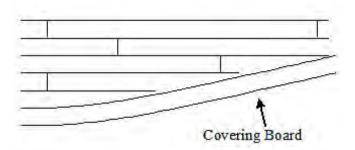


Diagram 4: deck planking

the drawn line marked 1/2" away (12" in full size). This is cut out and the curved strip glued to the deck along the hull edge.

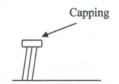
It also looks neater if the rear cabin and fore hatch/companionway sit into the planking and not on top of it, therefore making these items now and lightly tacking them to the ply sub deck will allow them to be planked around and then removed for any finishing, sanding or painting.

The rear cabin was made with bass wood sides and a 1/32" ply roof planked in 1/16" balsa. The flat fore hatch is bass sides and a ply top with imitation hinges and handle. A curved fore hatch is bass sides and a planked balsa top with imitation panelled doors.

The planking is 3/32" or 1/16" balsa in 1/4" strips starting alongside the hatch coaming and working outwards (on full size barges, the planking of 6" x 3" pine would – if possible – be one piece the whole length of the deck, starting from the centre line and working outwards). When the planking reaches the covering board it is simply shaped in a curve to butt up against the covering board. Remember that the ends of the planks - if shorter - must have a shift between the rows and not all in a line across the deck (see Diagram 4).

The next thing to do is to add the rail (bulwarks) and for this some lengths of stiffish card are required. The rails lean in at an angle of about 10° and are shaped to follow the deck sheer and curve to follow the plan view of the bow, giving an interesting threedimensional fitting problem (and possibly a fourth or fifth dimension - time and swearing!) to overcome.

To save on wood, the card was cut and trial fitted to get the three dimensions of fit to marry up. One suggestion is to tape the card around the hull and draw around the deck edge thus giving at least the sheer around the curve. Also draw the top shape of the rail to cut down on the amount of card waving around as you trial fit. Cut this out and try for fit on the deck and then make small adjustments to the shape of the curve. When happy with the result (some considerable time and lots of slivers of card later) the pattern is transferred to the 1/16" bass and two pieces cut for each rail as it is easier to laminate the 1/16" bass than to attempt to curve one piece 1/8" thick around the curve at the bow. The resultant laminate was held together around the outside of the bow to dry using pegs,



On top of the capping where the leeboard chain runs over it, is a half round metal protective rubbing strip. (1/16" half round brass strip)



In the area of the chain plates (for the shrouds) the rail is widened to the hull edge and known as the Rigging Chock.

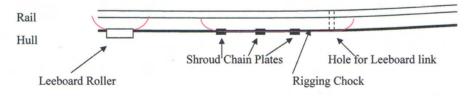


Diagram 5: rail joins, capping, rigging chock and chainplates



Rail laminations





Rail forming

Rail pinning

mini sash cramps and rubber bands, and when dry was released from its bonds and fitted to the deck approximately 4 mm in from the hull edge. A small amount of sanding was required to get it to fit even after all this pre-shaping etc. Locating pins (brass wire) were fitted through holes drilled vertically through the rail into the deck edge as a bit of extra security over and above the gluing in place.

In fact the rail was made in four sections each side – bow to rigging chock, the rigging chock itself, rigging chock to main horse and main horse to transom. The joins between the sections overlapped by about 1/4" for strength – see Diagram 5.

The final tasks at this time are to add the cheeks to the foreside of the main anchor winch, add the sections of the rigging chock outside of the rails to line up with the hull edge and to add the wider rail section where the leeboard roller will be positioned.

The chain plates can also be made and fitted. These are lengths of 3 mm x 1 mm brass strip (if you can find any slightly thinner -0.75 mm - so much the better), cut to length, drilled for the fixing of (countersunk) 12 BA bolts and either curled for the shroud shackles to be bolted on to or drilled at the top for a hook under the deadeye. I did find something commercially available when I



Chainplates (lying on deck), main brail winch and mast tabernacle

built Will Everard, sized about 3 x 0.75 mm which I think was a flat stanchion used upside down - possibly a Billings part - but have been unable to find any more since then.

There are a number of eyebolts etc. to be added for the backstays and vangs (the wire ropes that control the movement of the sprit), as well as the wooden cleats bolted to the inside of the rails. The eyebolts are 1/16" (1.5 mm) inside diameter commercial screw eves (Squires or Hobbies) or even smaller from 'Mastman' and the cleats are fabricated from two laminations, grain at right angles, of bass, cut out with a vibro-saw and fretsaw then lightly filed to a rounded profile. For strength the cleats are bolted to the rail with 12 BA or 14 BA nuts and bolts.

CLEATS

This is probably teaching grandmothers to suck eggs but so what! To make wooden cleats I use 1/16" (1.5 mm) bass, a fretsaw (electric but have used a hand version), needle files and a very fine drill (plus of course some gluey substance).

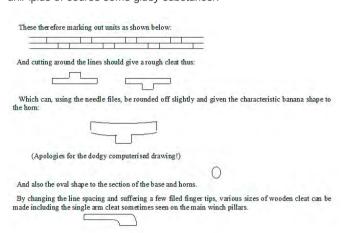


Diagram 6

The bass is cut into a convenient size - usually 3" square and two squares stuck to each other with the grain of one piece at right angles to the grain of the other. One edge of the bass sheet is squared up and sanded flat and this is used as the base line for drawing the cleats. Two lines are drawn about 1/8" apart along the wood and then further lines 3/4" and 1/4" apart at right angles to these (see Diagram 6).

PAINTING THE HULL

The paints used were mainly Humbrol enamel and Halfords car spray.

The hull itself was painted using a Halfords spray can of white primer. The deck area and underwater section was masked off using the local free newspaper held on with masking tape and the hull sprayed several times with thin coats. Then the masking



Painting the hull - bow view



Painting the hull - stern view

reversed and the underwater hull red spray-painted. When the hull was finished the masking was taken off and the deck painted Primrose Yellow (Humbrol enamel). The inside of the rails are Humbrol White and a narrow section of the covering board approx 4 mm wide on the deck and the main winch posts and cheeks are Yellow Ochre. The hatch sides, cabins and companionways are red and the outsides of the rails are also white.

The scrollwork on the rails is gold. Various bits of decorative work can be in colours of your choice (with reference to any of the books listed later). These colours refer, of course, only to Veronica. Other colours are seen on other barges. Black, blue or grey (light or dark) hulls, red antifouling or green under the water line, scrubbed wood, blue or grey decks, blue, ivory or light green inside of the rail, blue outside of the rail - in fact reference to the many sources will give a variety of colour combinations.

MASTS AND SPARS

The masts and spars are all made from dowel, (the purists will now have kittens), purchased from the mouldings etc. rack at my local Homebase. If you really wish to do so they can be rounded up from the square in the time-honoured mast-making fashion. I did this for a mainmast but wasn't happy with it so scrapped it and used dowel. Beware though - some of the dowel now available is not necessarily one piece in length. If you look carefully you will see it is scarfed together with a multi-toothed joint just like linking your fingers - make sure that the distance between the joints is longer than the mast length you require and that it is straight (unless you want a curved piece for the topmast or horses).

The foot of the mainmast, mizzen and bowsprit (if fitted) have

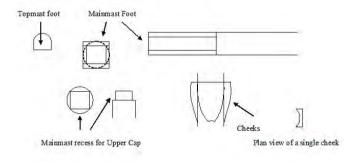


Diagram 7

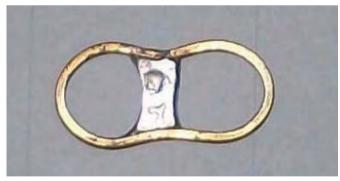


Diagram 8

square sections and this is my construction method. The end of the spar is squared down by about 1/16" to form a rebate for a short length of 1/16" bass on each flat. This will leave a shoulder, which is faired into the round section. The topmast has a 'D' section foot but the process is the same, only using three sides to make the 'square D' section and rounding off the sides into the 'D' and the top of the 'D' into the circular mast (see Diagram 7).

The mainmast head is squared for about 3/16" to take the mainmast (upper) cap and cheeks fitted to take the lower cap and crosstrees. The topmast should actually have a forward leaning bow or 'spring' in it and this was achieved by soaking it and leaving it (overnight) to dry suspended between two blocks with a VERY heavy weight in the middle to bow it. When you take the weight off its natural spring will try to straighten it but it should retain sufficient curve for your purposes.

All the masts and spars have slight tapers (in the case of the sprit – a double taper) and these are just about incorporated. The main 'thinning down' is where the mast bands are fitted for the evebolts etc.

The mast bands are cut from suitable diameters of brass tubing from the aforementioned K&S display at your local model shop and the eyes are the smallest available brass screw eyes – usually 1/16" (1.5 mm) id x 7 mm long. The mast band is pushed into place. drilled and the eye soldered in position. Don't do what I did on JLW - fit all the bands, eyes, etc., to the topmast and then have to take them off again to thread on the sail hoops!

The masthead (upper cap) was made from 3 mm x 1.5 mm brass strip heated and bent into a figure 8 shape and filled with solder in the centre - leaving two circles. The eyes were carefully soldered in place and a hole drilled in the back to pin it to the mast - just a safety measure as it was also Araldited on (see Diagram 8).

The lower cap and crosstrees are also 3 mm x 1.5 mm brass strip for the loop around the mast and 'U', 'L' and tube for the rest. The crosstree itself is hinged in the 'U' channel so that it will fold out of the way in prototypical fashion. It is surprising how many times it attempts to poke you in the eye when rigging or carrying the model (see Diagram 9).

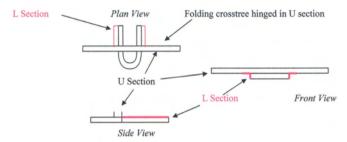


Diagram 9

The later 'Big Rig' version of Veronica has a solid rod cross tree part way up the mast doubling and this is a brass rod in a tube soldered to a mast band (see the rig drawings sheet).

The jackstay on the aft side of the main and mizzenmasts are 1 mm approx brass wire threaded through the appropriate number of brass eyes pushed and Araldited into the mast. The bottom ends sit on a shaped rest glued to the mast. (For a considerable time – when guestioned – I stated that the mizzen sail was held to the mast with shackles onto the jackstay, until a visit to Port Solent near Portsmouth revealed Kitty which has the mizzen sail lashed to the mast with rope loops.)

Also required in brass are the muzzles and collars for the main and mizzen sprits and the gooseneck for the mizzen boom. A suitable gooseneck, I found, was available as a part in the Billings range but unfortunately I didn't record the part number, so you will have to search the accessories rack or order via their catalogue.

The masts are painted in a medium brown, which is wiped off with a cloth soaked in white spirit soon after painting to give a lighter look and to show a bit of wood grain. They are then varnished with yacht varnish.

The sprit is painted ivory/yellow and also varnished.

On occasion a barge is fitted with a bowsprit and this is shown on the mast and spar plan and the small scale sail plans. (The fitting of a bowsprit will require extra eyebolts and cleats to be added, as well as support for the heel to allow it to be 'steeved' or raised up and a pulley near the lower edge of the stem for the bobstay chain).

Next month Richard will describe how he completed the build and sailed the model. MMI

YE AGE-ED

HOW TO CONSTRUCT A FOUR-WHEELED FOLDING TRUCK TO HELP WITH THE TRANSPORT OF MODELS



Is it a mousetrap or a designer handbag?

nome years back I got hold of a folding sack truck to assist in transfer of kit and models from van to site at shows. Fairly recently I got kind of sloppy and didn't tie things on as well as I should have. Result? Calamity, my Mk.II SBS canoe got some nasty bruises. When things got stabilised and retied it became necessary, during the rest of the transfer, to hold the truck handle down at a lower angle. So a germ of an idea began to take shape. If I had two of these trucks it should be possible to cobble (make) together a four-wheeled truck. Why not? I just needed some brain exercise.

Now many moons ago, at Beale Park in fact, a chap called Phil had told me he'd come across a four-wheeled truck where the handle and wheels all folded down to produce a flat-pack unit. No identifying marks, he'd said. Over the years since I've often come back to the idea and agitated the grey-matter (brain) some to come up with a practical design. Many ideas have been chewed upon and then discarded, mostly because they would have been far too heavy. During which time I'd even bought some 25x25 thin wall, steel box sections with some solid tyre warehouse style truck wheels. Weight, however, had always remained a serious problem and for some years now the project had been relegated to the backburner, as they say.

Commercial folding trucks, although made from steel tube are fairly light in weight. The wheels are made from moulded plastic and the load platforms are from cast alloy. I totally changed my design strategy and went from steel construction to wood. Yes, wood. Wood is lighter in weight and, let's face it, the finished unit is never



Belly up for a tummy tickle

going into a warehouse or stores complex to be abused by every Tom, Dick or Harry, nor Jill or Jane. See I'm not sexist.

Now was the time to buy another sack truck and it needed to be of the same pattern. Some time was spent trawling across the Internet, not something I freely admit I'm particularly comfortable doing. Here I will offer some advice to anyone considering making a unit themselves. You need to exercise considerable care in the selection of the units you choose. Screwfix are able to supply a modestly priced folding sack truck. At £24.00 they are about the best price I've come across. Great. However, they and all the other trucks I looked at have a common and basic problem in design that is relevant to this project, as I shall explain later.

My existing truck was made by Wolfcraft, model TS800. They are incidentally the most expensive I've seen. On these when the load platform and wheels are folded out for use, there is a bar that folds down between the wheels to become a sort of spreader/axle. This facility, as far as I'm aware, is exclusive to this particular design. So what does that matter? Load capacity for the TS800 is 90 kg. This is far higher than any other design. Now I well accept we modellers are never likely to load anywhere near to that weight.

You need to understand a little regarding the design structure of these folding trucks. When the load platform is extended, integral gear teeth extend the wheels and weight on the load platform keeps the wheels deployed. On the TS800 that spreader bar keeps the wheels open regardless of any other factor (like hitting a pothole, stone or the kerb). This would not be the case with most



Good load - three tables, chair and three models



Just load testing

of the other trolleys mentioned above. Sorry I've rather dwelt on this aspect but for you, forewarned is forearmed.

If you could devise a safe system to lock the wheels in the open/ deployed position when the load platforms have been cut off, you are on to a winner. The load platforms have to be cut off to make a four-wheel truck. Mine were removed with a jigsaw fitted with a metal cutting blade and with a fairly liberal sprinkling of oil to cut down friction and heat. Each took about nine minutes.

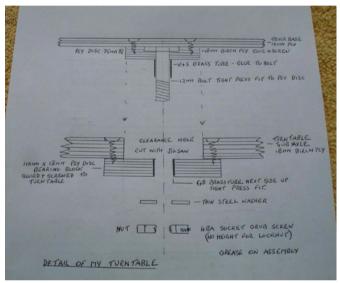
For the baseboard of my truck I used a piece of 10 mm thick ply, 1 m long by 56 cm wide. In hindsight it could have been very slightly longer. The width was decided by the width of the piece of ply available that had once been the back of a bench seat in a pub (recycling). Now putting a hacksaw to what is really a fairly pricey piece-of-kit (the folding truck) took some real bottle, believe me, and not just once, but twice: but needs must, as they say.

THE STEERABLE END

The turntable/axle was formed (see sketch) from a piece of 18 mm birch ply, (you know that old stuff, proper-job stuff, plenty of layers), whilst the rear axle assembly was packed-up with shaped sections of the same thickness material with some extra pieces about 4 mm thick. You can see these in the photo under the bolts. These packing pieces were needed to allow the piece of load platform left to rotate into place without fouling the baseboard. Common 6 mm coach bolts from Screwfix with the rounded heads turned flat in the lathe were used to bolt metal tube to ply. These



The steerable end



My steering system

can be seen in the photos, recessed into the top and going through the tubes underneath. Stiffnuts were used. I needed about 20 but had to buy 100, the type with plastic washer inserts.

Lastly the handle needs a mention. It was recycled from a section of Zimmer frame. No, not mine. And note the generous number of tie-down hooks on the underside of the baseboard. These were formed from pieces of 3 mm alloy formed and bolted to the board.

Wonder if Wolfcraft would like to adopt this idea? I'm sure there is plenty of scope in the market for something like it.

A FEW DAYS LATER

I've been cogitating a bit about ways of securing the wheels in the open/extended position if using the cheaper folding trucks, such as Screwfix. It is far easier than I'd previously thought. I'll try and explain

Use large sort of turnbuckles, flat pieces of wood, say 40 mm wide and 100 mm or so long. Bolt these through the baseboard for the rear fixed set of wheels so as to butt tight up against the cut-off load plate in the extended position to stop it rotating closed. You will need to modify the turntable piece to have the thinner piece of ply the other side of the turntable. Then bolt the turnbuckles to that. If the hinge bolt through these turnbuckle pieces is on the tight side no other system would be necessary to stop them working loose. Two turnbuckles I think would do the biz for each set of wheels.

Do so hope that makes enough sense. Happy boating. MMI



FGS BRAUNSCHWEIG

FGS BRAUNSCHWEIG. THE LEAD SHIP OF GERMANY'S NEW K130 KORVETTE CLASS VISITED THE UNITED KINGDOM TO ATTEND THE DSEI DEFENCE EXHIBITION. PATRICK BONIFACE WENT ONBOARD TO FIND OUT MORE ABOUT THIS VERSATILE SHIP

he K130 class blurs the distinction between frigate and corvette. At 1,840 tonnes and only 89 metres in length, the ship is substantially smaller than a comparable frigate or destroyer. The ship also has a much smaller crew of only 65 men and women, but still packs a considerable punch with a weapons system inventory comparable to a frontline frigate.

Each of the five ships in the class has a beam of 13.28 metres, a draft of 3.4 metres and is powered by the versatile MTU 20V 1163 TB 93 diesels through two controllable pitch propellers. Top

speed is a modest 26 knots and range at economical cruising speed is around 4,000 nautical miles.

These small ships have a flight deck suitable for most helicopters, although the small hangar provided is too small for any current in-service model. It is expected that Camcopter S-100 UAV's (Unmanned Aerial Vehicles) will use the hangar space,

The egg-shaped side of the hull

which was, at the time of the visit, being used as a bar for an official reception.

The design of the Braunschweig class has been dictated by the needs of stealth technology and there are very few straight lines onboard the vessel, indeed the shape of the hull is intentionally egg shaped to bounce radar reflections harmlessly away.

The weapons fit onboard is most impressive for a ship of this size, a single Otobreda 76 mm gun is mounted right forward, behind which is one of two 21 cell launchers for the RAM Close In Weapon

> System missile, the second launcher is mounted on the aft superstructure. Two MLG 27 mm autocannons are mounted amidships, where the ship's main anti ship weaponry, four RBS-15 Mk.3 anti ship missiles are mounted, two facing starboard and the other pair to port. Originally the K130s were to have been fitted with the Polyphem anti-ship missile but with the



Rear portside superstructure looking forward Rear RAM launcher



cancellation of that programme in 2003 the RBS system was substituted. It is expected that the Mk.4 of this missile will be fitted to later ships of the class and retrofitted back to the earliest vessels. FGS Braunshweig also has a mine laying capability with a door opening in the stern of the ship.

The K130 class also has extensive built-in technology including the TRS-3D radar systems, a MSSR 2000 I IFF (Identify Friend or Foe) system, MIRADOR electro optical sensors, UL 5000K ESM suite and two TKWA/MASS (Multi Ammunition Softkill System) decoy launchers.

Construction of the five ships, Braunschweig, Magdeburg, Erfurt,

Oldenburg and Ludwigshaften am Rhein has been shared between Bloom and Voss, Lurssen-Werft and Nordseewerke. Each yard building various component blocks and these were later brought together at the chosen yard.

Entry into service of these ships has been much delayed by problems with the lightweight machinery fitted. The machinery was constructed by the Swiss firm of MAAG of Winterthur. The deficiencies in the gearing meant that the construction of the last three ships has been delayed whilst the first two K130s were unable to join the operational fleet until a solution was found, which thankfully was, in the summer of 2010. MMI



Fire hydrant under rear RAM launcher



Rear mast



Life rafts on port side



Ship's boat and forward mast - looking forward



Ship's boat looking aft



RBS launcher



Amidships section detail



Ship's inflatable mounted starboard side



Starboard midships looking aft



Starboard midships with ladders and MLG 27 mm cannon



MLG 27 mm cannon



Main mast



Forecastle layout



Chaff launcher



RAM launcher



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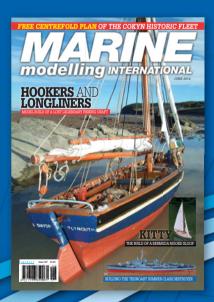
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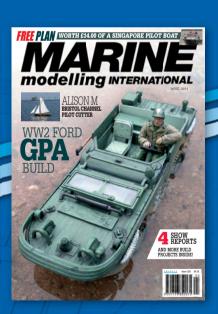
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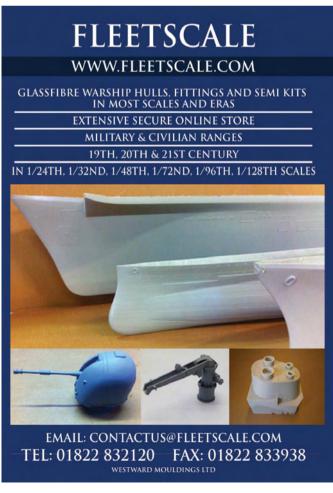
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WILDY DESCRIBES HOW HIS YOUNG FRIEND LÁZARO TOOK ON THE CHALLENGE OF BUILDING HIS FIRST RADIO CONTROLLED MODEL

ince he was a child, Lázaro Falcon Romero – born in Havana on 1st February 1992 - felt a great attraction towards ships. Occasionally he had tried to build some very simple boats using poly-foam and wood without really knowing how. Later on, he left aside his attempts to make ships, which to him amounted to making a toy. Eventually he realised his real interest was in building scale models, a passion he never gave up in spite of the passing years.

One day we met at the home of my cousin Anay's husband, Alejandro Gómez, who is a friend and also a photographer. As usual, the topic of ship modelling soon came up in the course of our conversation. Lazarito remarked how much he liked ships and spoke of his dream of making one with a remote-controlled electric motor. He said he had never had the opportunity to get down to some serious work and build one, nor did he know how to. I was very pleased to see his interest, so I asked him: "Would you dare to make your own ship?"

He replied, "Of course, it has been one of my fondest dreams!" Early in 2010 I gave him the blueprints of the Spanish motorized sailing boat Bon Temps, published in the Spanish magazine 'Más Navíos' together with a step-by-step guide to building it. He began by collecting scraps of wood, specifically cedar (I advised him), because it's light and easy to work with.

He relied on his knowledge about carpentry to gather some tools, including a jigsaw, a coping saw, some files, a brush, a chuck with an aluminium handle that he could use to drill by hand, etc., many of which had been made by his father. He added several pieces of sandpaper and the tool that he appreciates the most: a Vernier calliper, another present his father gave him.

CONSTRUCTION BEGAN

After using the blueprints to make the cardboard templates, he started to work on the keel and cut the ribs for the hull. He would always ask me when in doubt, but to be honest I didn't have to correct what he did. All I had to do was make suggestions and give some advice, for he did a good job from the start and worked with great dedication, although progress was slow.



Great concentration was needed while planking the hull



The completed planking clearly showing the frames together with the motor, prop shaft and coupling

Once the hull was finished, he gave it several coats of a kind of putty made up of a mixture of talc and paint, as used in Cuban body shops. He had a small electric 6 V motor recovered from a toy car. As a welder and a mechanic, who can operate lathes and milling machines, his father made him a stainless steel threaded shaft, the brass horn and its Teflon housing, and I helped with the coupling and the propeller, both kindly provided by foreign friends of mine, since they are not for sale in Cuba.



The deck in place and the steering servo installed



Pegs and clamps used to hold the deck in place while the glue dried



Painting begins



The primed hull clearly showing the hatches for accessing the drive and steering systems

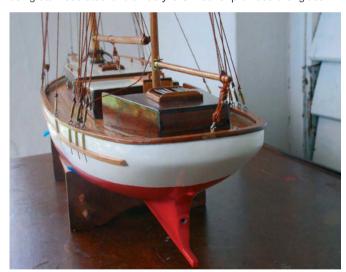


The completed stern section



The main cabin showing the round portholes rather than the square frames on the full size boat

Next he made the masts and the sails. The small 2 mm brass pipes for the turnbuckles were made by his father, as were the turnstile and all the parts of his model that needed to be lathed (including the brass bell). The windows are not exactly as shown in the blueprints, plastic square ones, since he chose the framing used in MMI's editorial page, thinking that round, riveted glass windows were more sea-like. His father made them on the lathe using stainless steel and an acrylic CD cover provided the 'glass'.



The stern view without the propeller or rudder

fix the wires in order to keep them away from the coupling joint and prevent any entanglement.

rudder, and I also lent him my two-channel radio receiver. I advised

him that the switch should be concealed under the wiring but easily

accessible, and told him to use the same wooden eyebolts I use to

The completed model

COMPLETING THE MODEL

Despite the slow progress, quality was noticeable as Lazarito's model ship gradually took shape. On one hand, he was busy studying and working on his dissertation for an intermediate level technician degree in Computer Science; and on the other, he had to deal with the difficulties of finding the materials he needed to build his model. Furthermore, during my visits to his home his father had offered to help with the making of the pipes, housing and threaded axles for my radio-controlled submarine.

Lazarito had planned to use the small transmitter from a toy car and its mechanism, but instead I gave him a Viper Marine 15 speed controller that I took from one of my boats and a small servo for the

LÁZARO'S COMMENTS ON THE BON TEMPS

All things considered, it took him three years and some months to finish his ship model, and I feel as proud of my pupil's result as he is of his effort. I will let him describe in his own words what he felt when he first put his model to sail:

"When the time came to sail my ship I felt great happiness and emotion. Imagine, I was putting to the test the first radio-controlled model ship that I had built with my own hands! On the first day of sailing I used four flashlight batteries (6 V), but the motor consumed so much power that the receiver did not get enough electricity, as it shared the same battery with the motor, and the ship stopped. However, it floated very well, with the surface exactly on the water line. On the second day I added two larger batteries (3 V), which made my ship sink further down in the water but



The first launch

without affecting its seaworthiness. I enjoyed myself to the max watching my ship gliding along the water surface and the wake it was leaving behind...

The fact that building this model was possible is something that I am grateful to Wildy for. He was a teacher and a friend, and thanks to him I now have a basic knowledge of ship modelling and radio control. As a result of his help I could see my model cutting a path through the water surface for the first time, and I will always be grateful to him.

I also want to thank my dad as well because I had his support, ideas and hints. These came in quite handy for the mechanical and construction work that my model needed. He was also invaluable doing the lathe work, which he performed like clockwork.

I also want to thank my mother who supported me and helped as much as she could. My mother made the sails using her sewing machine and allowed me to work on the dining-room table in spite of the mess I made and the dust I scattered all over the floor (not without scolding me a few times).

My thanks to my carpenter friends and my uncles from the Zapata Swamp, in the province of Matanzas, who provided me with the wood and scraps that I needed.

In short, I thank all my friends and family who one way or another offered their help and support, and all the friends from abroad whose comments brought me strength and encouragement.

Now, in addition to enjoying the sight of my model sailing on water, I am looking forward to new challenges. I am starting to build a wooden hull that will house an electric motor for the British yacht Phoebe, and my father is helping me with some hand tools, such as a sander and a jigsaw, that I will need for my new project. I would also like to build a speedboat fitted with a combustion engine and, in the not so distant future, a radio-controlled model plane.'

IN CONCLUSION

I have accompanied both father and son every time they have put their Bon Temps model on the water, and they have in turn helped me with the final preparations with my radio-controlled submarine. However, while Lázaro has received the praise he deserves, I have been the object of some criticism. My good friend and colleague Alejandro is now complaining that I am paying more attention to my new friends than to him, although I am sure he will change his mind as soon as he joins us on our next sailing sessions.

Lázaro's model has brought additional satisfaction. After I posted an article in my blog 'Modelismo Cubano y RC', the current Spanish owners of the original ship got in touch with Lázaro. They were pleasantly surprised to find that a young man, in Havana, had made a small replica of their ship. The Bon Temps belongs to the Villas del Cantábrico Foundation, whose goal, since it was established, has been to promote, transmit, maintain and implement through Sail Training the values of the nautical community and culture.

The Bon Temps, my pupil's first model, has also been for me an opportunity to share a very pleasant experience. MMI



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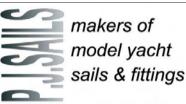
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BUILDING A WWII MODEL PT BOAT

AUTHOR: JOHN DE BROSKE

WWII MOTOR TORPEDO BOAT HISTORICAL NOTES

On June 8, 1939, exactly one year before my birth, the US Navy awarded competitive design contracts to several American boat and ship building companies to design and construct prototype PT boats. Henry R. Sutphen of Electric Launch Company (better known as ELCO) and his designers Chase, Fleming and Tremaine started by visiting the United Kingdom to see British motor torpedo boat designs of that time.

They acquired a 70 footer (PV70, later to be known as PT9 in the competition), designed by Englishman Hubert Scott-Pine. None of the designs in the competition met stringent performance specifications as laid down by the US Navy. However, the process did result in the production of PT boats by several companies including Higgins, Huckins Yacht Corporation and ELCO.

The ELCO was by far the largest of the PT boats produced by these three contract holders. They were 80' long with a beam of 20'. ELCO also produced the greatest number of this type of craft - 326 in all. The ELCO's were also fast with a top speed of 40+ knots. They were called 'boats' rather than 'ships' because of their smaller size and wood planing hulls. Other, larger warships were made of steel displacement type hulls.

Although most people think PT's were constructed of plywood, they were not. In reality they were built of two, diagonally layered, 1" thick mahogany planks, with a glue and canvas membrane between layers. Thousands of bronze screws and brass rivets kept the structure together in a lightweight, very durable and easy to repair configuration. These craft operated in combat even when damaged and could be repaired while underway. They never seemed out of service.

The quantity and quality of PT boat armament changed from when they were first deployed early in the war through to 1945. In the beginning standard weapons included torpedoes, .50cal machine guns, 20 mm Oerlikon cannons, and twin .30cal Lewis machine guns.

During the subsequent course of WWII, the value of this craft in specific type situations became evident but armament upgrades were needed. In the Pacific Theatre, for example, some PT's had ad hoc up-fits including 37 mm aircraft cannons and rocket launchers.

Early in the war, torpedoes were launched with an explosive charge from tubes. Unfortunately the tube type of launch caused a bright flash, which gave the boat's location away to the enemy. Thus the hunting PT boat became the hunted target. In some instances the torpedoes would get jammed during launch and explode, annihilating the PT itself. Later a more successful, mechanical gravity drop off system was introduced.

In regards to power, all US PT boats were powered by three V-12 cylinder gasoline fuelled engines. They were built by the Packard Motor Car Company and were a modified design of the 3A-2500 V-12, liquid cooled aircraft engines. These engines were, in effect, every bit as powerful as the engines that powered Boeing B-17 bombers.

As a rapid, stealthily deployed instrument of war, PT's generally stalked at night. They engaged enemy destroyers and numerous other surface craft, ranging from small boats to large supply ships. PT boats also operated as shallow water gunboats against enemy small craft such as armoured barges used by the Japanese forces for inter-island transport in the Philippines.

Because of their effectiveness, PT's were sought after by the Japanese as prime targets. Japanese gunners probably learned to annihilate PT boats by aiming at the mid ship location where 3,000 gallons of high-octane aircraft fuel were stored in three rubber bladders

One of most famous non-combat adventures of PT's was that of PT41. Commanded by Lieutenant John D. Bulkeley, PT41 carried General Douglas MacArthur in his escape from Corregidor Island, Philippines. Bulkeley was awarded the Medal of Honor for his operations in the Philippines before rescuing MacArthur. Bulkeley's story inspired the book 'They Were Expendable' and the movie of the same name.

Sadly, at the end of WWII, most surviving US PT boats were disposed of shortly after V-J Day. They were stripped of useful

equipment, dragged to beaches (mostly at Samar, Philippines, near Bobon Point) and burned. The Navy decided maintenance to preserve these craft was not worth the cost or effort.

Nonetheless, PT boat legends are safely guarded in numerous ways. There are 10-12 crafts remaining in the US, several are in the process of being restored (or have been restored) to varying levels of authenticity. Two are in service as tourist and fishing boats.

Their history is also preserved and dramatized by such books and movies that include, 'PT 109' (about President John F. Kennedy's experience), 'McHale's Navy' (TV series), 'They Were Expendable' (book and movie), 'Devil Boat' (DVD about restoration of PT658), and various other publications written by retired naval personnel and others. Check them all out via Google and/or Amazon.com

PROTOTYPE SPECIFICATIONS OF PT596

Keel laid: 6 December, 1944 by Electric Boat Company (ELCO)

Launched: 21 April, 1945 Completed: 10 May, 1945

Placed in service and assigned to Motor Torpedo Boat Squadron FORTY (PTRon40) under the command of Lt. Comdr. George E.

Cox, Jr., USNR

PTRon40, assigned to the Pacific Fleet, arrives at Samar, Philippine Islands, in the summer of 1945, but had no action with the enemy prior to the cessation of hostilities

Out of service: PT596 (AKA: 'Hell Razor') was placed out of service 21 December, 1945 and was sold in May, 1946. Fate

unknown

Displacement: 56 tons Length: 80 feet Beam: 20 feet 8 inches

Draft: 5 feet Speed: 41 knots

Complement: 18 sailors (7 to 18 depending on armament) Armament: One 37 mm mount, one 40 mm mount, one 20 mm mount, two Mk.50 rocket launchers, four 21" torpedoes and two twin .50cal machine guns

Propulsion: Three 1,500 shp Packard W-14 M2500 gasoline

engines powering 3 shafts



The semi-kit arrival - ready for build out



Component parts were grouped together to develop building strategies



Various ammunition storage units being detailed for realism

MODEL SPECIFICATIONS OF PT596

Keel laid: 21 May, 2012 Boat completed: 24 April, 2013

Build hours and time frame: 345 hours over 11 months

Launched: 29 April, 2013 Displacement: 20 pounds Length: 48 inches Beam: 12 inches Speed: 12-14 knots

Armament: One 37 mm mount, one 40 mm mount, one 20 mm mount, two Mk.50 rocket launchers, four 21" torpedoes and two

twin .50cal machine guns

Propulsion: Two, high torque, 12 V electric motors w/12 V wet

cell battery (2 lb)

Operational controls & features: 2-channel surface R/C, 9 V

sound module & 3 V LED running light system

Scale: 1/25th

With the general history of PT boats now established, I'll now move on to the intended purpose of this writing... 'Building a WWII Model PT Boat'.

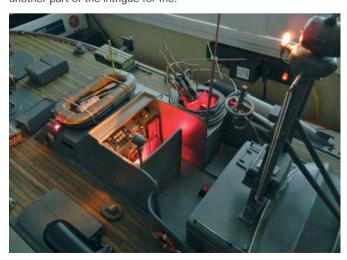
RESEARCHING THE MODEL

As noted at the beginning of this script, I was born just about the time WWII began. I was only a toddler when Pearl Harbor was attacked. As I grow older my curiosity about the WWII era continues to deepen. Way back then, I was simply too young to comprehend the enormity of the circumstances. The exploits of Germany in Europe, and Japan's entry into the war by attacking Pearl Harbor brought us into a conflagration that continues to affect the United States and our role in the world until this very day.

To satisfy my curiosity I became an avid reader of WWII era history and relevant presidential biographies. Books written by Jeff Shaara, Doris Kerns Goodwin, Tom Brokaw and others gave me a sense of what life was like for my parents raising a family in the 1940s. I vaguely remember ration coupons, tokens, shortages of staples, collecting scrap metal, etc.

So, combining my appreciation for the history of the WWII era with my model boat-building hobby, I embarked on a plan to build a warship model that exemplified the American strength of spirit and dedication during that time. I could have chosen from many kinds of ships including destroyers, battleships, aircraft carriers, etc. I decided to focus on the PT boat phenomena because of its uniqueness.

PT boats were relatively small compared to most other warships. In addition, PT boats carried a smaller complement of sailors some 7 to 18, while large ships had crews of 100's and 1,000's! PT boats were truly a 'David and Goliath' story and maybe that's another part of the intrigue for me.



Evidence of how customised details add life to this model



This Oldsmobile, M9 37 mm automatic cannon was super detailed with only paint and glue

I researched model PT boats from the few kit manufacturers that produce them and settled on Frank's Mosquito Boat Hobbies PT596 - a late war configuration of a PT boat design. Since late war PT's were more heavily armed, this kit offered a lot of challenge and the potential for an impressive model upon completion.

Challenge also came from the fact that such kits are of very limited production. They are not much more than a rudimentary collection of crudely cast parts. This is because these few 'Mom and Pop' kit producers cannot afford very expensive, slick mould designs and castings. Low volume sales prohibit such investment. This is why model craftsmen should support these vendors and their buildable challenges as I do. I call these kits semi-kits without complaint.

Upon receipt of the semi-kit from Frank's Mosquito Boat Hobbies, I proceeded to unpack and familiarise myself with all parts and viewed all plans/diagrams/instructions. Next I grouped all parts into building sequence piles (which would come first, the chicken or the egg?). Most modellers understand the importance of this process. Some assemblies must be built, finished and installed before their intended location becomes inaccessible.

This is also when I contemplated how I might customise my model to enhance the overall effect to the viewer. Will I hand plank the deck? Will I alter construction to accommodate operational equipment? What propulsion system and electronics will work best? How will they be placed in the hull before the decking is put in place? Should I incorporate a lighting and sound system? What super details will be considered? What will be the weight, balance and buoyancy restrictions?

In my mind these deliberations correlated to the respectable level of authenticity I hoped to achieve. I tend to lean toward applying 'impressionistic' details to enhance the models I build. I call this modeller's creative license. This concept will always be discussed and challenged among those who believe as I do, and those who are purist modellers.

I justify my approach by drawing a parallel with non-fiction and historical fiction literature. As long as documentation is honest, so be it. The liberties I actually took building this model include exposed plank decking, location of certain items such as the life boat, use of naval grey rather than a camouflage paint scheme, life line locations, cockpit layout, gun placement measurements and radar details to name a few.

Finally, I'm ready to start building PT596. The time has come to glue my fingers together with cyanoacrylate glue (here after referred to as CY glue or crazy glue).

I divided construction into several phases (remember my 'strategic piles of parts' discussion earlier):

Hull and interior of propulsion, R/C control and misc. electronics, lighting/sound.

Crew quarters, chart-house, cockpit/helm, day cabin.

All secondary gun kits and deck fittings.

Custom fabricated and miscellaneous details - creative use of ordinary materials such as brass zippers, screen door screening, toothpicks, etc.

CONSTRUCTION OF THE HULL AND INTERIOR WITH PROPULSION SYSTEM, R/C CONTROL, LIGHTING AND SOUND

I cleaned the fibreglass hull of mould release agents and wet sanded it using 300+ grit. Then alignment measurements were made to locate engine mounts, stuffing boxes and rudder tubes. The prototype had three engines which would be somewhat impractical for this model. Therefore, I chose to power it with two 12 V electric motors. However, I did plan for and install three functioning rudders, which helped to simulate prototype

authenticity.

Here the drive train is ready to be secured in place with epoxy glue and fibreglass cloth



Aligned motor mounts, drive shafts, stuffing boxes and rudder posts shown secured from the inside

All hull penetrations were made for respective components using electric drill bits smaller than stated diameters to curtail gel coat chipping. Final diameters were hand filed to necessary specifications. The lighting and sound units found their way into the hull and superstructure respectively. They were consciously located based on balance needs and nonconflicting location with other components.

Motor mounts, shaft stuffing boxes (for drive shafts), rudder stuffing boxes and other component platforms were carefully positioned and aligned. Then, 2-part, 30 minute epoxy with 1/2 oz fibreglass cloth was used to secure all of these components in place. Careful attention was given to positioning each item so it

was functional and accessible for servicing after deck installation. When I was satisfied, all internal components were installed, tolerances verified and operation tested. Then they were removed and stored for future, permanent placement.

CONSTRUCTION OF DECK AND HABITAT SUPERSTRUCTURES - CREW QUARTERS. CHARTHOUSE, HELM STATION, ETC.

The centre of the one-piece, fibreglass deck was removed after careful measurement for size and location of deck structures crew quarters, etc. The deck piece was longitudinally reinforced to support the deck structures. Careful attention was also given to be sure there would be no physical conflict between the deck structures and in hull propulsion components.



The deck component ready to be joined with the hull



The epoxy glue is setting to precisely hold the deck and hull together



Deck structures shown here in various stages of construction before being mated together

The entire reinforced fibreglass deck piece was then mated to the fibreglass hull. This was accomplished employing 2-part, 30 minute epoxy adhesive. These two substructures were held together with model aeroplane rubber bands while the glue cured. The slow curing epoxy afforded me the time to carefully fit, centre and refit these components. This ensured the accuracy of their precisely assigned locations.

The underside of the gunwale (where deck meets hull) were filled with more 2-part, 30 minute epoxy mixed with micro balloons into thick putty. This safeguarded a water tight, aesthetic seam. The hull was then measured for respective rub and spray rails. They were made of clear pine,

sanded, sealed and applied with yet more 2-part, 30 minute epoxy. I found this adhesive very forgiving because of its long cure time. I never got into the situation where total adhesion took place before components were in place precisely. The hull was then painted naval grey and top coated with a clear satin. All paints I use are of the 'rattle can' variety.

I decided to make another departure from authenticity by hand planking the deck. I wanted the deck to appear as though it was made of teak. In reality PT decking was probably mahogany covered with canvas and/or plywood. However, I could not confirm this from my research. There is also thin evidence that exposed planking was observed on some PT's, but probably not on PT596.

My decking was constructed of 1/32 by 3/16 basswood strips stained transparent grey and edged with permanent dark brown magic marker. They were fastened to the lightly sanded (for adhesion) fibreglass deck with medium crazy glue starting from the centre. Several coats of 2-part, 30 minute epoxy was applied and sanded between coats. The final finish was accomplished by sanding the epoxy surface with wet 300 grit sandpaper.

Individual deck structures were fabricated separately from light plywood, basswood, plastic sheet, and then glued together and trimmed out with plastic strip mouldings. Sanding sealer was used on raw wood. Bondo filler was employed to create seamless joints. The now combined, one-piece structure was also painted naval grey. This was another of my departures from authenticity in that PT596 was most probably painted in a camouflage colour scheme (see photo).

BUILDING THE SECONDARY GUN KITS AND **DECK FITTINGS**



Here are a few of the Bofors 40 mm gun parts. Note the quality of castings

I considered this segment of building the PT596 the most challenging and rewarding. Guns, torpedoes, lifeboat, radar masts, the cockpit, etc. were actually kits in themselves. Many had 30 or more parts cast of very soft Britannia metal or resin from crude moulds. The moulds being crude for reasons explained above.

The most difficult and



The Bofors 40 mm gun after completion. Note how simple painting details add realism



All torpedo segments are ready for paint, fabrication and super



Historical references shown here were used to provide information related to detailing the rocket launchers

gratifying set of parts was that of the stern 40 mm Bofors gun. It consisted of more than 50 poorly made individual pieces. There was mould flashing to be removed, items to be reconfigured, brass wire reinforcements to be positioned, Bondo filler to be applied to hide and/or enhance details, plastic screening to be inserted for decking and oodles of 2-part, 6 minute epoxy consumed to hold and strengthen all joints. This process added 30+ hours of construction time. The other guns required similar techniques and patience but not to the extent of the Bofors gun.

The torpedoes were constructed from PVC pipe, resin castings and Bondo filler. There is a humorous highlight associated with the



Rocket launchers ready to fire!



The resin life raft in the kit just didn't 'cut it'. It cried out for more life!

construction of the torpedo propellers. The ones that came with the kit were simply useless. So, off I went to a local craft shop where I found small cast metal daisy flower charms. I bent the petals to simulate propeller blades and filled them out with miracle Bondo in the spaces between the petal blades. These daisy props were then painted bronze. I think they turned out convincingly.

The Mk.50, 5", rocket

launchers went under the scalpel next. As delivered in the kit they also lacked adequate detail to be convincing. During construction I added rockets, rivet details (glue dots), deck mounts, hand cranks and electrical cables

The life raft and lifeboat dingy were likewise simplistic products which needed accessorising in order for them to appear convincing. The lifeboat acquired a keel and rub rail. The life raft gained a mahogany floor grate, drinking water vessel, oars, straps and rope lifeline around the exterior. They both obtained rope tie downs. Many other minute details were painted on – as the observer will take notice of around the entirety of this model.



The life raft with added 'more life' features became more convincing



The steel tube 'cages' around the .50 calibre machine gun, depicted here, illustrates how this gun and others cannot be trained on the hoat or its sailors



Operational details such as mooring lines, triple rudders, deck cleats/chocks, coiled mooring lines and muffler assemblies all add convincing realism



The bow tow hook was detailed with glue dot bolts/rivets

BUILDING THE **DETAILS AND** CUSTOMISED **TOUCHES**

The details and customized touches described here reflect the operational activities of the prototype and its crew bringing the model to life. The list includes but is not limited to cleats, chocks, radio/radar antennae, anchors, lines. flags, lighting, gauges, tow hooks, reinforced deck gun mounts and more. Some of these items are included in the kit as castings while others are scratch-built from wood, metal and plastic sheet and strip.

The most thought-provoking items in this category are the protective pipe 'caging' mounted around major gun installations. They are fabricated from scratch using silver solder and brass wire. The prototype function of these structures was to prevent gunners, in the heat of battle, from training the gun muzzles in directions which would shoot up their own sailors or the boat itself!

Well. I'm near the end here. Let me close by saying that my goal was to build a reasonably convincing model of a WWII warship. I chose a PT boat because of its unique design among warships and

its tailored role in the war. Finally, I chose PT596 because of its plethora of detail and armament. I employed 'creative license'. Even though authenticity was somewhat compromised I feel my overall representation does not delude the observer in any significant way.

Happy boat modelling to all. I can be reached at azjohnde@yahoo.com for further information about this model building experience. (Photos by Author & Bob Walsh)



Finalised, super detailed torpedoes with tie downs and launch mechanisms all in place and ready for mounting on the deck

MATERIALS LIST (IN ADDITION TO SEMI-KIT CONTENTS)

Basswood, balsa, birch ply, pine and mahogany sheet wood and strips

Sheet and strip styrene

Crazy glue (medium)

2-part epoxy glue (6 and 30 minute)

Wood glue

Bondo type filler

Cardboard

Brass, steel and copper wire

Nylon screening

Brass zippers

Soft metal jewellery charms

Cotton string of varying diameters

Britannia metal castings

Felt tipped magic markers

Resin castings

Acrylic paints

Spray paint (rattle can type)

Polyurethane clear coat (rattle can type)

Fibreglass cloth - 1/2 ounce

Paint and epoxy application brushes

Silver and regular soldering supplies, torch and iron

Rechargeable batteries - wet cell type

Radio control components/transmitter/receiver/standard batteries

Electronic sound module

LED lighting

Powered Dremel type tools, scroll saw and vibrating sander Sandpaper – wet and dry (100-300 grit)

Hand tools including tweezers, Xacto type knives/blades, fabric pins, razor blades, hand saws, drill bits, clamps, rubber bands, digital callipers

REFERENCES SUPPORTING HISTORICAL NOTES IN THIS MANUSCRIPT

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Wikipedia.org: 'PT Boat'

Gordon L.Rottman, 'US Patrol Torpedo Boats, World War II',

Osprey Publishing, Long Island City, NY, 2008

David Doyle, 'ELCO 80-Foot PT Boat', Squadron Signal

Publications, Carrollton, TX PT Boats, Inc.: Germantown, TN

Timeless Media Group, 'Devil Boat the Saga of PT 658',

Eugene, Oregon, 2009 Google, 'PT Boat' MMI



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MARGARET ROSE

Designed by Jim Pottinger
Two sheet drawings at 1:48th
scale for a large model 1000mm
length and 160mm beam of a
steam powered trawler. No

model construction data.

MAR3075



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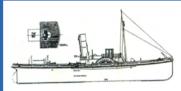
CRACKERBOX

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Designed by Paul Williams

A simple to build 'scale' fast electric 500mm loa by 185mm beam for six cells and sports or racing as a one design Based on an American class boat.

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A Clyde paddle tug built in 1898 at 1:48th scale hull length 750mm and weight 2.7kg. This model can

use small electric motors and fixed paddles making it an ideal small working paddle model for less experienced modellers

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AN STRADAG

Designed by Andrew Stout

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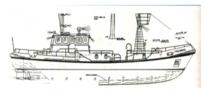
RRP **£17.50/ \$23.00** +p&p/s&h Difficulty Rating • • • •

DUBURG

Designed by Jim Pottinger Extensively detailed drawings at 1:96th scale length 1190mm and

1:96th scale length 1:90mm and 165mm beam for a modern general cargo ship. Built in 1960's and fitted with Hallen masts. No model construction.

MAR3043



FRASINUL

Designed by Mircea Kiritescu

A Romanian pilot and harbour boat at 1:25th scale model 810mm lengthby 210mm beam and

3.5kg weight. Full hull sections for planked hullshown and some building detail. A very attractive and portable model

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- • Three ratings mean that the plan involves methods that require a lot of knowledge and several previous models should have been completed before tackling this one.
 • Four ratings mean that the plans are for the most experienced modellers only and that advanced techniques will be required to complete the model.

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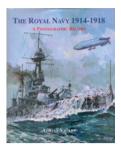
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CHANDLERY

A REVIEW OF SOME RECENTLY RELEASED MARITIME RELATED BOOKS



THE ROYAL NAVY 1914-1918 A PHOTOGRAPHIC RECORD

This book gives extensive coverage of battleships and battle cruisers like the magnificent Oueen Elizabeth and the ill-fated Invincible. Together with cruisers, destroyers and submarines, this chronological pictorial collection goes on to show many of the smaller types and auxiliaries that formed the fleet which went to war in 1914. The

majority of photographs were taken during the war and have not been seen in print before. The light cruiser Caroline is the only ship still in existence that took part in the Battle of Jutland and featured in last month's MMI WW1 Commemoration Special Issue.

Authors: Adrian Vicary Re Pub Date: 2014

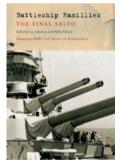
RRP: £25

EAN/ISBN: 978 1 904459 56 9 Format/Pages: Hardback/168 pages Illustrations: Black & white pictures **Dimensions:** 20.5 cm x 24.8 cm x 1.5 cm

Publishers: Maritime Books, Lodge Hill, Liskeard, PL14 4EL.

Tel: 01579 343663.

Website: www.navybooks.com



BATTLESHIP RAMILLIES: THE FINAL SALVO

The first-hand accounts of life aboard HMS Ramillies encompassing the long and distinguished career of a battleship that was the last to join the Grand Fleet in 1917 and then survived to fight in the Second World War. Although the ship did not make headlines, she was actively employed from start to finish, and like any large ship, to her crew she was unique; she was certainly the only ship in British naval

history whose captain wore a grass skirt into battle, honouring a Maori belief that the ship would come to no harm while he did so. Indeed, Ramillies survived the war, despite being torpedoed by a Japanese submarine.

Produced with the full cooperation of the HMS Ramillies Association, this tribute to the ship is deftly assembled from a combination of interviews with surviving crewmembers, along with carefully researched diaries and written accounts by those connected with the ship, including HRH the Duke of Edinburgh for whom Ramillies was his first ship. Many personal photo albums were unearthed to provide previously unpublished illustrations, which add a further dimension to a vivid picture of naval life in an almost-forgotten era.

Author: Ian Johnston with Mike French

Pub Date: 2014

RRP: £25

EAN/ISBN: 9781848322073

Format/Pages: Hardback/256 pages

Illustrations: Black & white and colour pictures and illustrations

Dimensions: 16 cm x 24.1 cm x 24 mm

Publishers: Pen & Sword Books, 47 Church Street, Barnsley,

South Yorkshire, S70 2BR. Tel: 01226 734222

Website: www.pen-and-sword.co.uk



BRITISH WARSHIPS IN THE **AGE OF SAIL 1817-1863:** DESIGN. CONSTRUCTION. CAREERS AND FATES

The fourth and final volume of a monumental work listing the technical details and career histories of every significant British warship between 1603 and 1863. Following three earlier volumes, this one carries forward the story from

the post-Napoleonic War reorganisation of the Royal Navy's rating system to the end of sail as the principal mode of propulsion.

This was a period of great complexity in the procurement and naval architecture of ships; the introduction of steam radically altered the design of vessels under construction and was later retrofitted to others. Like its companion volumes, the book is organised by Rate, classification and class, with significant technical and building data, followed by a concise summary of the careers of each ship in every class.

With its unique depth of information, this is a work of the utmost importance to every naval historian and general reader interested in the navy of the sailing era.

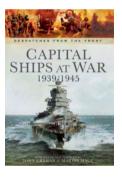
Author: Rif Winfield Pub Date: 2014 RRP: £50

EAN/ISBN: 9781848321694 Format/Pages: Hardback/414 pages Illustrations: Black & white illustrations **Dimensions:** 25.2 cm x 29.7 cm x 32 mm

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South Yorkshire, S70 2BR. Tel: 01226 734222

Website: www.pen-and-sword.co.uk



CAPITAL SHIPS AT WAR 1939-1945

The first of the two latest titles from the 'Despatches from the Front' series (see The War at Sea in the Mediterranean 1940-1944 for the second book), Capital Ships at War includes official reports on the Battles of the River Plate and Denmark Straight; the despatch from Admiral Tovey on the loss of HMS Hood; the reports on the sinking of HMS Prince of Wales and HMS Repulse from the senior surviving

officer; full despatches on the midget submarine attack upon the Tirpitz, as well as a full account of the British Pacific Fleet in 1945. The War at Sea in the Mediterranean (see page 69) comprises of a detailed summary of the Malta convoys, the official account of the Taranto raid; reports of the Battles of Matapan, Sirte, Calabria and Cape Spartivento and despatches on Coastal Forces and actions in the Agean.

Altogether, both titles provide some of the most exciting stories of the Second World War.

Author: John Grehan & Martin Mace

Pub Date: 2014 RRP: £19 99

EAN/ISBN: 9781783462049 Format/Pages: Hardback/191 pages

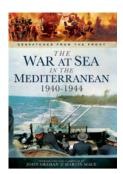
Illustrations: Black & white pictures and illustrations

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THE WAR AT SEA IN THE **MEDITERRANEAN 1940-1944**

Despatches in this volume include those covering the Battle of Matapan in 1941, Fleet Air Arm operations in 1940, the Battle of Sirte in 1942, the action with the Italian Fleet off Calabria (Central Mediterranean) in 1940, and the engagement between British and Italian forces off Cape Spartivento (Central Mediterranean) in 1940. The book also

includes the Mediterranean convovs between January 1941 and August 1942 – which includes the famous Operation Pedestal, operations in the Aegean in 1943, the engagement with an Italian convoy in 1941, and the despatch covering Coastal Force actions, including those in the Mediterranean.

This unique collection of original documents will prove to be an invaluable resource for historians, students and all those interested in what was one of the most significant periods in British military history.

The Coastal Forces despatch also includes those vessels assigned to the Levant, Dover and Nore stations, i.e. outside of the Mediterranean theatre.

Authors: John Grehan & Martin Mace

Pub Date: 2014 RRP: £25

EAN/ISBN: 9781783462223 Format/Pages: Hardback/272 pages

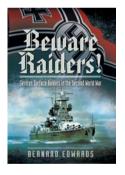
Illustrations: Black & white pictures and illustrations

Dimensions: 16 cm x 24.1 cm x 22 mm

Publishers: Pen & Sword Books. 47 Church Street. Barnslev.

South Yorkshire, S70 2BR. Tel: 01226 734222

Website: www.pen-and-sword.co.uk



BEWARE RAIDERS! GERMAN SURFACE RAIDERS IN THE SECOND WORLD WAR

This is the fascinating story of two German surface raiders and the havoc they caused amongst Allied shipping in World War 2. One was the 8-inch gun cruiser Admiral Hipper, fast, powerful and Navy-manned: the other a converted merchantman, Hansa Line's Kandelfels armed with a few old 5.9s manned largely by reservists, and sailing under the nom de

guerre of Pinguin. Contrary to all expectations, the amateur manof-war reaped a rich harvest and went out in a blaze of glory. Her purpose-built sister, on the other hand, was hard-pressed even to make her mark on the war and ended her days in ignominy.

Captain Edwards describes in detail Kruder's most audacious coup, the capture, rather than the sinking, of the entire Norwegian Antarctic whaling fleet, which he calls "a disaster of major proportions". Equally disastrous was the havoc wreaked upon convoys HG53 and SLS 64 by the Admiral Hipper in the North Atlantic in February 1941.

Author: Bernard Edwards

Pub Date: 2014 RRP: £12 99

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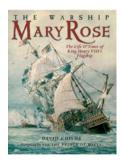
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FRIGATE USS CLARIC



BUILDING A 1930s AUTHOR: GRAHAME PERN CLASSIC MOTOR CRUIS

GRAHAME PENN DESCRIBES HOW HE SCRATCH-BUILT HIS WORKING MODEL OF A 48 FOOT, TWIN SCREW, PRE-WAR FAST MOTOR CRUISER, BRENDA ANNE

INTRODUCTION

In the early 1960s. I lived at Marlow and became fascinated by the classic pre-war river cruisers gliding up and down the Thames. I vowed that one day I would make a model of one of them and two years ago I began to fulfil that ambition. I found drawings by John B. Langford, of a 1/12 scale model of a fast motor cruiser, Margaret, amongst the Harold Underhill collection. The 4 ft long model was to be of all wood construction with scope for some attractive mahogany features on the deck and the cabins.

THE BUILDING BOARD

This was prepared from a sheet of white melamine chipboard with two battens screwed beneath to provide rigidity. Photocopies of the plan were pasted on the top surface to show the position of the various frames. Small blocks were screwed to the board to enable the frames to be secured during construction.

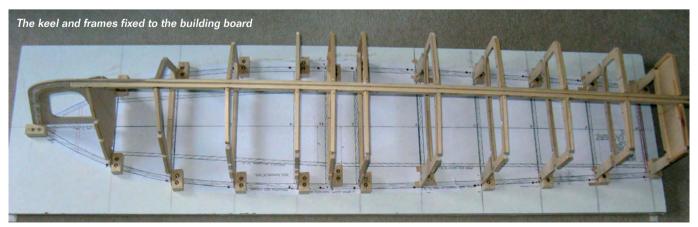
CONSTRUCTION OF THE KEEL AND RIB FRAMES

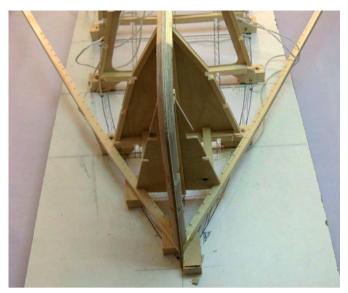
The keel was constructed from a length of 18 x 4 mm spruce sandwiched between two lengths of 12 x 6 mm. The stem piece was cut from 4 mm birch plywood and scarf jointed onto the keel. The frames were traced from the plan onto a sheet of 1/16th inch birch plywood and cut out. Slots were cut for the keel, the chine and deck stringers and the deck girders. They were stiffened around the edges with 6 x 6 mm and 10 x 10 mm spruce strips.

Each frame had extensions on either side, relating to a datum line on the plan, so that the model could be built upside down. They were cut off to deck level after the hull was built. The frames were screwed to their respective blocks on the building board and the keel assembly was glued in place using external grade PVA woodworking glue.

FITTING THE STRINGERS

I found it difficult to bend the 10 mm square, chine and deck stringers around curves at the bows. To assist I made a series of saw cuts, approximately half way through along the inside edges where they were to be bent. Also prior to bending, the front ends of the stringers were screwed and glued to the stem and left to dry. The stringers were then bent round to fit into the slots in the frames. This resulted in very little stress to the framework, so

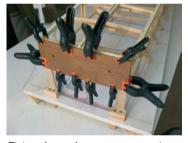




Stringers glued and screwed to the stem piece before bending



Stringers all glued into place



Fixing the mahogany transom in place

avoiding possible distortion in the hull. Glue was painted into the cuts for extra strenath

The transom was cut from a 6 mm mahogany sheet and glued to the rear frame. This completed the hull framework. It was then chamfered and sanded to provide a smooth surface for fitting the plywood skin panels.

PLATING THE HULL

Cardboard templates were prepared and adjusted until they fitted the two sides and bottom sections perfectly. These were applied to 1/16th birch plywood sheet, marked round and the panels cut out. When attempting to fit the bottom panels, I found that the plywood was too stiff

to mould into the chine curves at the bows. To resolve this I glued two thirds of the panel at the rear of each side. These were held in place by blocks and strings fed through holes in the building board and secured to screw eyes beneath.

The bow section was completed with 1 inch wide strips shaped, glued and pinned into place. Before fitting the side panels, the four



The bottom panels are glued to the frame



The fully plated hull, with fibreglass coating, ready to paint

portholes were cut out by drilling a series of small holes around the circle, joining them up with a craft knife and finishing with a small drum sander. These panels were glued into place in one section. After the glue had set, any irregularities in the bottom bow section were made good with car body filler before sanding to give a smooth contour.

To strengthen and waterproof the hull, two layers of 25/30 g per m², fibreglass surface tissue from CFS Fibreglass Supplies were applied, using general-purpose polyester resin brushed well into the tissue. Any wrinkles were smoothed out. The hull was left to harden for 48 hrs before being sanded using various grades of wet and dry sandpaper. Any blemishes were made good with car body filler, aiming for a perfect finish ready for painting. The hull was then unscrewed from the blocks on the building board and turned over. The extension pieces on the frames were cut off level with the deck.

The hull was further strengthened by lining it with chopped 300 g/m² fibreglass strand mat and resin, brushed well into all corners, angles and joints. 6 mm square spruce deck girders were then glued into the slots in the tops of the frames. When the glue had set, the mid-section of the frames, in the after area of the hull, was cut away to allow access to the inside for fitting the running gear, the motors and the electrical fittings.

FITTING THE RUNNING GEAR

Two propeller shafts and tubes, couplings, rudders and propellers were purchased from SHG Model Supplies. Since the hull has a shallow draft, it was necessary to fit the 555 motors, from 'Model Motors Direct, around the midships area, requiring 20 inch long propeller shafts with P frame supports. The holes for the rudder tubes, the P frames and the shaft tubes were marked out on the bottom of the hull and then drilled and filed to shape. Reinforcing pieces of wood were fitted on the inside, where the P frames and the rudder tubes were to be fitted.



The steering gear

The motors on their mounts, the couplings, the propeller shafts, the P frames and the two 50 mm propellers were all assembled in a trial run to establish the position for the motor mounting board and the angle of the shafts to allow clearance for the propellers. Two plywood templates were drilled with holes of the correct spacing and fitted over each end of the shaft tubes to keep everything parallel and at the correct angle, whilst they and the P frames were glued in place with Araldite.

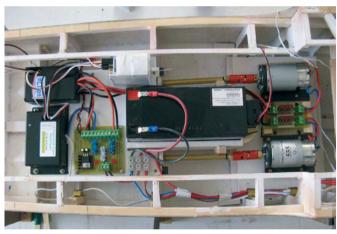
After 48hrs, when the glue had hardened, the templates were removed. The long forward ends of the shaft tubes were supported with plywood brackets glued to one of the frames. The area where the tubes passed through the hull was strengthened with car body filler. The motor mounting board was fixed into position and the motors bolted into place.

The rudders, as supplied, had thin brass sheet blades. These were modified by gluing pieces of thin styrene sheet on either side, then filing and sanding to the required shape. The rudder tubes were fixed into position making sure that the top of the tube was above the waterline inside the hull. The servo was fixed in position and connected to the rudder tiller arms by a double push pull system of connecting rods.

ELECTRICAL INSTALLATION

I decided to use a 12 V 7.5 Ahr lead acid battery to provide some ballast and plenty of power. A battery box was constructed and fixed amidships between the shaft tubes. The main power switch, together with a charging socket and switches for the lights were fitted to a panel located under a forward removable hatch for easy access.

The electronic equipment was purchased from Action Electronics and consisted of a P92 Power Distribution Board, two P95/2 Twin Indicator Fuse Boards and a P94 Dual ESC/Mixer Multi Controller. I



View of the engine room



Loudspeaker and switchgear installed

also fitted a Programmable Engine Sound System from Technobots together with an 8 ohm loudspeaker. This, in conjunction with the receiver and the ESC, provided an auto start up, tickover and running sound of a six cylinder engine. Radio control is provided by a Planet T5 2.4 GHz transmitter and receiver.

PAINTING OF THE HULL

The top half of the hull was masked down to the waterline and the bottom section sprayed with two coats of Halfords red oxide primer. When thoroughly dry, the bottom half was masked off and the top half sprayed with grey primer followed by finishing coats of Halfords Vauxhall Atlantis Blue spray paint. When dry, the waterline was established using Model Technics' red and white self-adhesive vinyl coach line, together with a gold line just below deck level. Gold lettering for the name, from BECC model accessories, were then applied. The hull was then sealed with two coats of acrylic satin varnish to the bottom of the hull. Ronseal external grade polyurethane gloss varnish was applied above the waterline and to the mahogany transom. When dry, brass portholes were fitted on either side of the bows.



The fully painted hull with brass portholes

FITTING THE DECK

Sheets of 1/32nd inch birch plywood were glued to the top of the frames and deck stringers to form the base. A coaming, made from 6 mm square spruce, was glued around the deck opening where the removable cabin top was to be fitted. Ornamental marginal planks. 1/2 inch wide, were cut from 1/16th inch mahogany sheet and glued around the edges of the deck with a 1/16th inch overlap beyond the hull sides. An additional strip was also glued down the midline of the foredeck. When dry the strips were given a coat of gloss varnish.

The planks were made from 1/4 inch x 1/16th inch tulip wood, supplied by Dennis Nixon of Twigfolly. To represent the caulking, 1/16th inch wide strips were cut from a 0.5 mm black polystyrene sheet and tacked to one edge of the plank with polystyrene cement. A centre line was drawn down the hull from the stem to stern and planking carried out from the centre outwards. Each plank



Plywood deck ready for planking



Starting to apply the planks

was glued to the plywood base with PVA woodworking

When dry the plain edge of the next plank was butted up against the caulked edge of the previous one and glued in place. Planks were 12 inches long with staggered butt joints at 3 inch intervals. I decided not to joggle the planks into the marginal planks, but simply trimmed them to make a neat fit. After completion, the surface was smoothed with fine sandpaper and then sealed with two coats of matt acrylic varnish, resulting in the appearance of scrubbed teak.

BUILDING THE CABINS

The whole cabin superstructure was constructed so that it could be lifted off in one piece, to allow access to the inside of the hull, for easy maintenance.

The central cockpit area with the steering position, engine controls and instruments was made first. The two bulkheads were traced from the plan and cut from 4 mm birch plywood. They were given an added extension to the bottom edge designed to locate between the coaming on the access area of the main deck.

Cabin doorways were cut out and doors made and fitted. The bulkheads were then painted with a mahogany wood stain, to obtain the desired colour. When dry, gloss varnish was applied and brass fittings added.



The central steering cockpit unit completed



The three layers of the cabin side panel ready to glue together



Inserting the glazing sheets



The framework completed for the forward cabin roof

The steering and controls console was made as a separate unit from 1/16th inch plywood and stained and varnished. The compass, various engine dials and brass bezels, obtained from BECC model accessories, were added together with the ship's wheel and throttle controls. The console was then glued in position on the forward bulkhead. The cockpit deck was made to form a bridge over the cut out area in the main deck. It was then placed into its correct location and the bulkheads glued to it, making sure that they were vertical in relation to the waterline.

A grating for the skipper to stand on was made and glued into position. The rear bulkhead of the after cabin was cut out, stained and varnished as before. Two brass portholes were fitted.

The cabin side panels, each containing seven window openings, were made from two sheets of 1/32nd inch mahogany, with a 1/32nd



The cabin roof is glued in place

inch sheet of birch plywood sandwiched in between. The three sheets were held together with masking tape. the outline shape and window openings were drawn on from the plan and then cut out. The sheets were then separated and the window

openings in the plywood sheet were enlarged so that clear window glazing could be slotted into place from the top without the need for

The three sheets for each side were glued together with PVA glue and placed between two melamine boards, with heavy weights on top, to prevent any warping while the glue dried. The panels were then sanded smooth and two coats of gloss polyurethane varnish applied.

The two window frames for the front of the cabin were made in a similar way. White 0.8 x 0.5 mm Plastruct strip was glued in place to mask the cut edges of the window frames in the outer mahogany sheet. Then surface window frames cut from 0.5 mm white styrene sheet were glued in place with contact adhesive. The windowpanes, made from 0.75 mm super clear PETG sheet, were then inserted.

The central cockpit assembly and the rear bulkhead were located into position on the deck and the two side panels were glued to the bulkheads. The joints were reinforced with pieces of 6 mm square spruce strips. The two front window frames were glued into position. When thoroughly dry the cabin assembly was lifted away from the deck

The cabin roofs were made from 1.5 mm white styrene sheet. The forward cabin has a compound curvature, both from side to side and fore to aft, so I made a supporting framework of ribs and stringers, cut from 1.0, 1.5 and 2.0 mm styrene sheet, which was glued to the panel sides and bulkheads with contact adhesive. The rear cabin roof was more straightforward having only a shallow camber. The roof panels were glued into position using epoxy resin glue and Plastic Weld solvent, held in place with clamps and adhesive tape until thoroughly dry.

FITTINGS

A sliding hatch cover, mahogany grab rails, a spotlight, brass navigation lights with red and green LEDs, and a horn were installed on the forward cabin roof. Also added was a mast with signal halyards, made from sections of brass tube to enable wires to the LED masthead light to be fed up inside. On the rear cabin roof, grab rails, a sliding hatch cover and crutches for the dinghy were added.



View of the fore deck showing the various fittings installed

On the forward deck the following fittings were installed; two cowl vents, two mushroom vents, an electric anchor winch with anchor and chain, a glazed mahogany hatch cover over the switchgear panel, another mahogany hatch, brass bollards and fairleads. Midships a pair of mahogany steps from the after deck to the foredeck were installed.

On the rear deck, I fitted brass fairleads, bollards and a mast for the ensign. Davits for the dinghy were also added. These were made out of brass rod and tubing and spring loaded, in order that $\ensuremath{\mathsf{I}}$



could depress them into their sockets to unhook the falls from the dingly when removing the cabin top.

Two ball stanchions were fitted around the deck and laced with stranded wire fishing line, held taut with turnbuckles.

THE DINGHY

I found a plan for a clinker built dinghy and scaled it up to the appropriate size. To construct the hull I made a framework former on a board and slotted in the keel, stem and transom. I then planked it using strips of 1/32nd inch plywood, which bent easily round the former without breaking. Once the glue had set I removed the hull from the former and fitted ribs and stringers made from 1/16th inch square spruce. Thwarts, bottom boards, rowlocks, oars, a boathook and brass boat hangers completed the fitting out. The hull was sprayed white and the interior and the transom painted with mahogany stain and varnished.



The dinghy installed on the rear cabin roof

ON THE WATER

The maiden voyage took place on the Yeovil Model Warship Association's lake. The model sat well on the water and did not need any adjustments to the ballasting. She cruised well at both slow speed and at full throttle. With the contra rotating propellers and the excellent mixing of the motor speeds by the Action speed controllers, she had a remarkably pleasing small turning circle for such a long hull. When going astern, she kept in a straight line with no bias to one side or the other. Altogether it was a very satisfactory first sailing.

CONCLUSIONS

This was a very enjoyable model to build, taking just over two years, with lots of interesting challenges along the way. In hindsight, my only reservation would be that the model is rather large and heavy for transportation, launching and recovery at the lake. MMI



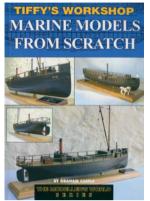
Travelling at speed



On the water, stern view



On the water, bow view

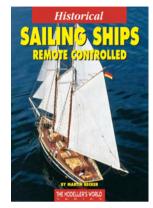


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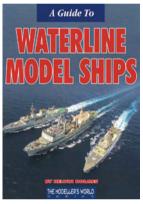


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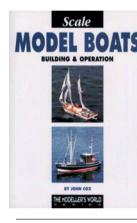


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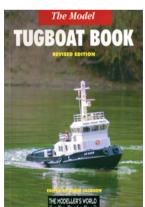


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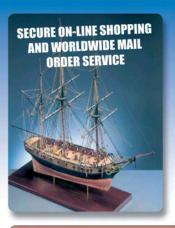
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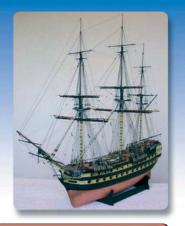


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