



SS BEAVERFORD

A MODEL OF REMEMBRANCE
LEST WE FORGET

**No.1 For
Sail & Scale**

March 2018
Vol.68 No.808

model Boats

GET ON BOARD
www.modelboats.co.uk

FARMAN FANBOAT

THE AIR-PROPELLED
CAMPER VAN



KEIL KRAFT

THE RISE AND FALL OF A
HOUSEHOLD NAME



MEX 2018

PHOTO REPORT FROM THE
PEOPLES' PALACE

BISMARCK

IN THE MAKING – SPOTLIGHT
ON A SHOWPIECE

The Model Dockyard



This is just a selection from the huge range available

POBOX 104, Redruth
TR159BJ

Mail order Only.

Phone line open Mon-Fri 9am- 1pm

Tel UK: 01209 861733

Tel Int: +44 1209 861733

www.model-dockyard.com

U.K Delivery

Kit, Boat Models orders Add £10.00

Timber orders £11.02

Other orders Add £5.25

Over £190 Free Delivery

Free delivery does not apply to shipments weighing over 2 kilos, being sent to the Channel Islands, Isle of Man, Scottish Highland & Islands or Northern Ireland. Delivery here will be charged at cost.

Orders are sent by 1st class post or UPS carrier. Large parcel deliveries to Scottish Highland and Islands, the Isle of Man, Isles of Scilly and Northern Ireland will be shipped by 3 days UPS carrier. Deliveries to Channel Islands will be shipped by Euro 48 service

We ship Worldwide too

All prices correct at time of going to press but we reserve the right to supply at the prices ruling at the time of order despatch. E&OE

Amati Kits

Dutch Royal Yacht in Bottle 1:300 95mm	£46.95
Egyptian Ship Sphure Dynasty 350mm	£74.95
Greek Bireme 480 SC 560mm	£74.95
Venetian cargo ship, 1750 450mm	£119.95
Santa Maria 1409 540mm	£120.95
Pinta 1409 450mm 1:65 scale	£89.95
Nina 370mm 1:65 scale	£89.95
Mayflower 1620 1:60 scale 650mm	£164.95
Chinese Junk Scale 1:100 400mm	£84.95
Xebec 1753 720mm 1:50 scale	£149.95
H.M.A.V Bounty 1:90 scale 750mm	£222.95
Robert E Lee Paddle Steamer 1:150 600mm	£244.95
New Bedford Whalerboat 1860 1:16 scale 550mm	£117.95
Bluenose. Fishing Schooner 1:160 scale 540mm	£87.95
Titanic. White Star Liner 1912. 1:250 1070mm	£378.95
Endeavour J Class. Wooden Hull 1:80 480mm	£79.95
Endeavour J Class 1:35 scale 1130mm	£258.95
Riva Aquarama. Italian runabout 1:10 860mm	£279.95

Victory Models Kits

Lady Nelson Cutter. 1:84 scale 530mm	£101.95
Granado. Bomb Ketch 1741 1:64 scale 800mm	£246.95
Fly. Swan Class Sloop. 1776 1:64 800mm	£246.95
Vanguard. 74 gun 3rd rate 1782 1:72 1171mm	£620.95
Pegasus Swan class sloop 1:64 800mm	£337.95
Mercury. 20 gun Brig 1820. 1:64 860mm	£350.95
Revenge 1577 1:64 scale 885mm	£369.95

Caldercraft Display Kits

Bounty. 1789. 1:64 scale 660mm	£242.19
Gunboat William. 1795 1:32 scale 760mm	£237.46
Granado. Bomb Ketch 1741 1:64 scale 800mm	£283.91
Victory 1781. Nelson's flagship 1:72 1365mm	£892.96
Schooner Ballahoo. 1804 1:64 scale 520mm	£75.01
Yacht Chatham 1741 1:64 scale 530mm	£106.88
Jalousie Captured French brig 1794 1:64 815mm	£269.33
Brig Badger 1778 1:64 scale 600mm	£211.81
Sherbourne. 8 Gun cutter 1763. 1:64 500mm	£90.23
Mortar Vessel Convulsion. 1804 1:64 530mm	£115.43
Endeavour. Bark 1768. 1:64 scale 725mm	£289.73
Agamemnon 1781. 64 gun ship 1:64 1300mm	£793.21
Brig Supply 1759. 47 yard transport 1:64 675mm	£176.73
Many Rose. Tudor warship 735mm 1:80 scale	£312.53
Slake 1797 18 Gun Sloop 1:67 scale 910mm	£247.67
Cruiser 1797 18 Gun 1:67 scale 910mm	£247.67
Diana 38 Gun Heavy Frigate 1:64 1180mm	£565.73
Mars: Captured Dutch 18 gun brig 1:64 790mm	£242.19
Schooner Pickle 1778 1:64 scale 565mm	£155.78

Caldercraft R/C Kits

Joffre. 1916 Type Tug.	£332.00
Imara. Twin Screw Berthing Tug.	£612.00
Millard. Star. Post war East Coast side trawler	£307.00
North Light. Steam Clyde Puffer	£332.00
Resolute. Twin Screw Admiralty Tug	£699.00
Amanat. Motor Frigate. 1:40 scale 600mm	£156.00
SS Talacre. Single hatch Steam Tug	£334.00
H.M.T Sir Kay Rowing Table Class Minesweeper	£393.00

Deans Marine Kits

Compass Rose. Corvette 1:96 673mm	£181.95
H.M.S. Soleybay Destroyer 1945 1210mm	£315.73
MG877. 71.6ft BBP 1:24 920mm	£249.74
73ft Vosper Plan 1:24 scale 965mm	£269.46
Bronington. minesweeper 1:100 465mm	£105.51
Steam Yacht Medea. 1904. 1:48 870mm	£176.14
Tramont. Seine net trawler 870mm 1:24	£317.75
H.M.S. Cossack Destroyer 1908 1200mm	£290.13
Response. Steam Picket Boat 1:36 460mm	£91.66
Royal Marine. Minesweeper 1:100 619mm	£112.25

Plan & Material Packs

HMS Tenacity CNC Pack 890mm	£54.95
Riva Aquarama - CNC Cut Wood Pack 730mm	£59.00

Hull and Plan Sets

Shirley Ann Inshore Trawler 1:16 scale 685mm	£49.45
Victoria Steam Launch 1:12 scale 762mm	£42.50
Pilot 40. Pilot boat 698mm	£50.95
Bluebird Of Chelsea. 1:24 scale 654mm	£44.95
Forrester Puddle Tug. 1:48 1003mm	£54.00
Guardsman Customs launch 1:32 scale 571mm	£37.45
Smt Nederland Hull 558mm	£42.95
St Louis Belle Mississippi Steamer 838mm	£84.50
Liverpool Lifeboat 1:905mm 1:12 scale	£111.50
Cervia. Thames Tug 1:48 scale 711mm	£97.00
Type Life Boat 1:19 scale 787mm	£48.95

Plastic Kits

Trumpeter HMS Hood 1:200 scale	£314.95
Trumpeter HMS Nelson 1:200 scale	£242.99
Trumpeter HMS Rodney 1:200 scale	£242.99
Trumpeter USS Missouri 1:200 scale 1352mm	£314.99
Merit USS Hornet 1:200 scale	£287.99
Trumpeter Bismark 1941 1:200 scale 1265mm	£269.99
Trumpeter USS Arizona BB-39 1941 1:200	£179.99
Linberg PT 109 MTB 1:32 scale 749mm	£149.95
Heller HMS Victory 1:100 scale	£149.95
Heller Le Soleil Royal 1:100 scale	£149.95
Linberg Sea Witch. Clipper 1:96 scale 838mm	£149.95
Italeri Schnellboot S-100 1:35	£161.95
Italeri MTB77 1:35 scale 632mm	£161.95
Italeri PT 109 Torpedo Boat 1:35 scale	£89.95
MTB Vosper St Nazaire Road MTB 74	£89.95
Trumpeter HMS Repulse 1941 1:350	£96.29
Trumpeter HMS Hood 1941 1:350	£96.29
Trumpeter Prinz Eugen 1945 1:350	£64.96
Trumpeter HMS Belfast 1942 563mm 1:350	£62.29
Trumpeter Admiral Hipper 1941 1:350	£62.26
Tamiya Bismark 1:350 717mm	£81.99
Merit HMS Ark Royal 696mm 1:350 scale	£109.99

Plastic Kit Upgrades

HMS Dreadnought 1907 Railing Set 1:350	£14.99
DX Wooden deck detail sheet 1:350 scale	£35.80
Bismark etched detail Tamiya Bismark 1:350	£25.99
Prince of Wales cranes & railing 1:350	£19.50
S-100 Schnellboot gun detailing etch 1:350	£22.60
Jeremiah O'Brien Liberty Ship etch 1:350	£22.60
Prinz Eugen etched set. 1:350 scale	£24.70
Vosper MTB 1:72 scale	£19.40
Prince of Wales etched sheet 1:350	£23.99
Admiral Hipper etched sheet set 1:350 scale	£22.60
U-boat V1C/41 for 1:72 scale Revell kit	£23.30
Gato class submarine for 1:72 revell kit	£16.99
Oto YT586 1:35 scale	£16.30
Tirpitz (designed to be used with Tamiya kits)	£38.80
Wooden deck & Etch set or Bismark 1:200	£111.20
DX Wooden deck & Etch for Bismark 1:200	£199.20
Wooden deck for HMS Hood 1:350 scale	£36.50
DX Wooden deck and etch Nelson 1:200 scale	£199.99
Wooden deck for KG5 1:350 scale	£31.99
Wooden deck for Bismark 1:350 scale	£33.60
Wooden deck for Prinz Eugen 1:350 scale	£34.80
DX Wooden deck and etch for Hornet 1:200	£223.20
DX Wooden deck and etch for Hornet 1:200	£238.40
DX Wooden deck and Railing for Warspite 1:350	£53.80
DX 2W Wooden deck & Etch for Arizona 1:200	£269.99
DX Wooden deck and etch set for Hood 1:200	£238.99
RE500 Motor 12.0 Volt with mount	£161.99
Wooden deck for HMS Hood 1:200	£33.30
Wooden deck for Graf Spee 1:350 scale	£34.80
Wooden deck for HMS Repulse 1:350 scale	£34.80
DX Wooden deck and Railing for Bismark 1:350	£37.99
Flower Class Corvette Deck & Fittings Set 1:72	£59.99
Flower Class Corvette Type 'C' Bridge Set 1:72	£38.40
This is just a selection from the Gold Medal, MK1 Design, Master, Great Little Ships and Edward.	

Harold Underhill Plans

Cutty Sark Clipper Ship 698mm	£29.54
Marie Sophie of Falmouth 1033mm	£44.41
Lady of Avenel. Wood. 850mm	£33.30
74-Gun Two-Decker (Circa 1813 1422mm	£77.71
Lady Daphne Thames Sailing Barge 812mm	£29.54
12-Gun Gunboat of War. Lines. 1187mm	£55.51
Cunard Liner Servia. 1:192 scale 850mm	£36.30
40-Gun Frigate (Circa 1790 831mm	£33.60
Valerian. Brigantine Trawler 1069mm.	£49.23
Diesel Ring Liner Fishing Boat 615mm	£29.54
Three Brothers. Rye Fishing Smack. 797mm	£29.54
Muirneag. Scottish Zulu. 1612mm	£66.61
Clyde Puffer Sealight. 588mm	£19.68
Leon. Wood Brigantine 543mm	£59.07
Iron Paddle Tug 1:48 scale 863mm	£44.40

This is just a selection of the range available.

R/C Boat Plans

MM1348 Miranda Steam Launch 42in	£13.00
MM1040 Enterprise. 1:12 Northumbrian Coble	£13.00
MM1350 Tyne Lifeboat. 740mm 1:19 scale	£13.00
MM1412 Range Safety Launch. 1:12 scale 43in	£17.50
MM1275 Resolute British sailing trawler 1:80	£17.50
MM1256 H.M.S. Exeter cruiser 1:192	£12.50
MM1368 Victoria:Thames steam launch 1:12	£13.00
MM737 Eileen: motor fishing boat 1:24	£12.50
MM1444 Pilot 40 police/pilot launch 27½	£13.00
MM500 Cossack: 38in/18ft class destroyer	£12.50
MM1335 Vosper 73ft rescue launch 1:24 scale	£22.50
MM1407 Smit Nederland: 1:28 scale tug.	£29.00

This is just a selection of the huge range available.

Static Display Kit Plans

1004 Greek Bireme plan 560mm	£8.70
1006 Vikingskip, Osberg plan 1:50 440mm	£9.70
1009 Santa Maria plan 1:85 scale 540mm	£16.82
1013 Mayflower plan. Scale 1:60.	£13.80
1016 HMS Prince plan 750mm	£24.50
1019 Greek Galleys plan. Length 560mm.	£9.33
1021 Chinese Junk. plan 1:100 400mm	£8.58
1028 HMS Victory plan. 1:100 950mm	£23.00
1032 HMS Bountyplan 1:80 720mm	£16.41
1400 New Bedford Whaler plans 1:16 scale	£15.54
120003 Riva Aquarama plan 1:10 scale 850mm	£28.23
120010 Endeavour Plan 1:10 480mm	£10.82
120022 Endeavour J Class Plan 1:35 1130mm	£27.36
120083 Titanic Plan 1:250 1070mm	£59.69
110008 Revenge plan 1577 1:64 scale 885mm	£36.06
110001 Lady Nelson Cutter Plan 1:64 530mm	£10.82
110003 HMS Fly Plan 1:64 800mm	£26.11

110004 HMS Vanguard Plan 1:72 1171	£49.49
110005 HMS Pegasus plan 1:64 800mm	£26.11
110006 Mercury plan. 1:64 860mm	£30.71
HMS Victory plans. Scale 1:78.	£29.95
971 Open Whaler. plans. Scale 1:16.	£19.50
975 Victory Bow section. plans. Scale 1:78.	£27.95
977 Armed Pinnace. plans. Scale 1:16.	£19.95
979 Royal Caroline. plans. Scale 1:47.	£28.50
990 Victory Long Boat. plans. Scale 1:16.	£19.95

This is just a selection of over 1000 plans available

R/C Equipment

Hitec Optic 6 (2.4 GHz) combo	£119.99
Hitec Optic 5 channel (2.4 GHz) combo	£89.99
Ikonik 6 channel Transmitter and Receiver Set	£59.95
Viper Marine 40 amp speed controller	£54.99
FR30HX 30amp speed controller	£49.95
15HVR 15amp speed controller	£37.49
Viper Marine 25 amp speed controller	£37.99
FR12VR 12amp speed controller BEC	£33.86
Hi Tech Mega Arm Sail Winch 19.8kg/cm	£30.99
Proportional Drum Sail Winch	£20.63
Viper Marine 20amp speed controller	£29.99
Viper Marine 6 amp speed controller	£24.99
Viper Micro Marine 10amp speed controller	£24.99
Viper Marine 15 Plug Play speed controller	£24.99
Programmable mixing module	£21.99
Waterproof mixing module (w-ail)	£16.99
Waterproof mixing module	£16.99

Full range of R/C installation equipment available

Sound Modules

Petrol/Diesel Engine with Horn	£45.72
Blige Warning siren, light and pump	£30.66
Prinze of Wales Engine Sound	£45.72
Destroyer Whoop Whoop	£37.62
Fog Horn	£37.62
Sub Dive Alarm	£37.62
Air Horns	£37.62
Large Ship Horn	£37.62
Old Steam Whistle	£37.62
16inch Gun Salvo	£37.62
Tug Boat Air Horn	£37.62

Motors

Schottel drive unit 40mm dia prop	£72.12
Schottel drive unit 50mm dia prop	£90.72
Schottel drive unit 70mm dia prop	£110.34
Matbuchi 540	£7.43
Motor mount for MFA 800/850 Motors	£4.50
385 Motor 6 to 15.0 Volt with mount	£5.56
540 Motor 6 to 12.0 Volt with mount	£10.36
RE800 Motor 12.0 Volt with mount	£27.49
RE850 Motor 12.0 Volt with mount	£27.49
Motor mount for 540/500.550 and 600 Motors	£2.75
MFA 540 Motor and 2.5:1 Gearbox 4.5-15v	£19.33
MFA 540 Motor and 6:1 Gearbox 4.5-15v	£19.36
MFA 385 Motor and 2.5:1 Gearbox 4.5-15v	£17.56
950 series 385 Motor and 6:1 Gearbox 4.5-15v	£17.56
951 series 951 Motor and Gearbox 298:1 6volt.	£90.00
800/850 Belt Drive Reduction Unit 2:1 1	£40.80

Rudder Assemblies

33 x 22mm Rudder Assembly	£4.56
50 x 41mm Rudder Assembly	£4.56
45mm x 30mm Rudder	£5.34
53mm x 34mm Rudder	£5.53
67mm x 40mm Rudder	£6.43

Coupling Assemblies

Single Universal Joint Coupling	£8.53
Double Universal Joint Coupling	£14.04
Coupling set includes 2 inserts of your choice and an allen key. Inserts sizes 2, 3, 2.0, 3.0, 4.0, 5.0, 6.0, 6.0mm pin	
M3, M4, M5 thread	

Standard M4 Propshafts

4in long tube 4mm threaded Propshaft	£7.55
5in long tube 4mm threaded Propshaft	£7.96
6in long tube 4mm threaded Propshaft	£8.10
7in long tube 4mm threaded Propshaft	£8.70
8in long tube 4mm threaded Propshaft	£8.95
9in long tube 4mm threaded Propshaft	£9.30
10in long tube 4mm threaded Propshaft	£9.70
11in long tube 4mm threaded Propshaft	£10.25
12in long tube 4mm threaded Propshaft	£11.00
13in long tube 4mm threaded Propshaft	£11.45

This is just a selection from our huge range

Raboesch Propshafts

Waterproof Propeller Shaft M4 290mm	£25.32
Waterproof Propeller Shaft M4 186mm	£23.52
Waterproof Propeller Shaft M4 211mm	£23.52
Waterproof Propeller Shaft M4 236mm	£23.52
Waterproof Propeller Shaft M4 261mm	£25.74

Raboesch Brass Propellers

Brass Propeller (A Type) 20mm -3 Blade-M4	£11.46
Brass Propeller (A Type) 25mm -3 Blade-M4	£11.46
Brass Propeller (A Type) 25mm -3 Blade-M4	£11.46
Brass Propeller (A Type) 30mm -3 Blade-M4	£12.48
Brass Propeller (A Type) 35mm -3 Blade-M4	£12.48
Brass Propeller (A Type) 40mm -3 Blade-M4	£12.48
Brass Propeller (A Type) 45mm -3 Blade-M4	£14.58
Brass Propeller (A Type) 50mm -3 Blade-M4	£14.58
Brass Propeller (A Type) 55mm -3 Blade-M4	£14.58
Brass Propeller (A Type) 60mm -3 Blade-M4	£17.64
Brass Propeller (A Type) 65mm -3 Blade-M4	£17.64
Brass Propeller (A Type) 65mm -3 Blade-M4	£17.64
Brass Propeller (A Type) 70mm -3 Blade-M5	£20.28
Brass Propeller (A Type) 75mm -3 Blade-M5	£20.28

This is just a selection of a huge range of 3, 4 and 5 blades props in stock

Raboesch Bow Thrusters

Bow thruster unit with motor 14mm I/D	£39.00
Bow thruster unit with motor 19mm I/D	£39.00
Bow thruster unit with motor 22mm I/D	£44.16
Bow thruster unit with motor 25mm I/D	£44.16
Mini Bow thruster unit with motor 10mm I/D	£31.20
Bow thruster unit with motor 30mm I/D	£93.48

Asst CAP Maquette Fittings

CAPR113 Modern boat fender, 48mm long	£5.73
CAPR112 Modern boat fender, 39mm long	£5.73

23rd & 24th
JUNE 2018
9.30am – 5.30pm

Book your tickets now at www.wingsnwheels.net

PRE-ORDER
YOUR TICKETS
TODAY
AND SAVE
£££'s!



WINGS & WHEELS
MODEL SPECTACULAR

**"A Modellers'
Paradise!"**



Save £££'s and book your day/camping tickets now or pay on the day

www.wingsnwheels.net

- Spectacular Model Flying Displays
- Modellers Bring & Buy
- Boat Pool And Indoor Model Boat Displays
- Massive Model Trade Support
- Licenced Catering
- Camp Site For Weekend Stays

Adult from £10
Child from £5
Camping from £43

**The longest running
RC Model Show in the UK!**

North Weald Airfield, Rayley Lane,
Nr Epping, Essex, CM16 6AR

@WNWMODSPEC

Wings-Wheels-Model-Spectacular

admin@wingsnwheels.net Telephone: 07543 872 005

www.mobilemarinemodels.com

Now... Don't forget ..

Sat. April 28th

Bonanza Market Day

the British Manufacturers Trade Show
Trade Stands
Club Stands **Burger Bar**

FREE Entry FREE Parking

here.. at the **Boat Shed**

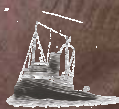
for more details... & to view our Full Range..

Phone - Visit our Website

Tugging Ahead..... with

MOBILE MARINE MODELS

Model Tugology..... the driving force



Full Colour Catalogue £5

Factory Visitors Welcome

The Boat Shed, Highcliffe Park, Ingham Cliff, Lincoln LN1 2YQ tel: **01522 730731 / 689209**

Published by **MyTimeMedia Ltd.**,
Suite 25, Eden House, Enterprise Way,
Edenbridge, Kent, TN8 6HF.
UK and Overseas:
Tel: +44 (0) 1689 869 840
www.modelboats.co.uk

SUBSCRIPTIONS

My Time Media Ltd., 3 Queensbridge, The Lakes,
Northampton, NN4 7BF.

UK – New, Renewals & Enquiries

Tel: 0344 243 9023

Email: help@mb.secureorder.co.uk

USA & CANADA – New, Renewals & Enquiries

Tel: (001)-866-647-9191

REST OF WORLD – New, Renewals & Enquiries

Tel: +44 1604 828 748

Email: help@mb.secureorder.co.uk

CURRENT AND BACK ISSUES

Visit: www.mags-uk.com

Telephone: 01733 688964

EDITORIAL

Editor: Graham Ashby

Suite 25, Eden House, Enterprise Way,
Edenbridge, Kent, TN8 6HF.

Email: editor@modelboats.co.uk

PRODUCTION

Designer: Steve Stoner

Illustrator: Grahame Chambers

Retouching Manager: Brian Vickers

Ad Production: Steve Stoner

BUSINESS DEVELOPMENT MANAGER

David Holden: 07718 648689

Email: davidholden@mytimemedia.com

SUBSCRIPTIONS MANAGER

Kate Hall

MANAGEMENT

Commercial Sales Manager: Rhona Bolger

Email: rhona.bolger@mytimemedia.com

Tel: 01689 869891

Chief Executive: Owen Davies

Chairman: Peter Harkness



Follow us on Facebook and Twitter



www.facebook.com/modelboatsmag
twitter.com/modelboatsmag

© MyTimeMedia Ltd. 2017

All rights reserved ISSN 0140-2910

The Publisher's written consent must be obtained before any part of this publication may be reproduced in any form whatsoever, including photocopies, and information retrieval systems. All reasonable care is taken in the preparation of the magazine contents, but the publishers cannot be held legally responsible for errors in the contents of this magazine or for any loss however arising from such errors, including loss resulting from negligence of our staff. Reliance placed upon the contents of this magazine is at reader's own risk.

Model Boats, ISSN 0140-2910, is published monthly with an additional issue in January by MYTIMEMEDIA Ltd, Enterprise House, Enterprise Way, Edenbridge, Kent, TN8 6HF, UK. The US annual subscription price is approximately 53.40GBP (equivalent to approximately 89USD). Airfreight and mailing in the USA by agent named Air Business Ltd, c/o Worldnet Shipping Inc., 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA. Periodicals postage paid at Jamaica NY 11431. US Postmaster: Send address changes to Model Boats, Worldnet Shipping Inc., 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA. Subscription records are maintained at dsb.net Ltd, 3 Queensbridge, The Lakes, Northampton, NN4 7BF.



When you have finished with this magazine please recycle it.

Paper supplied from wood grown in forests managed in a sustainable way.

contents

Regular Features

6 COMPASS 360

News from the model boating world, the result of our latest poll and more from the Marblehead fleet

8 TEST BENCH

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



30 GALLERY

Fraser Gray steps aboard the last seagoing passenger-carrying paddle steamer in the world



38 RANGE FINDER

If you thought you had it hard working with ABS and Evergreen's range of extruded profiles, then maybe it's time to reassess. Dave Wooley finds a metal masterpiece

44 BOILER ROOM

Looking for a bespoke pressure-tested boiler to which you can add your own fixtures and fittings? What you need is a bare boiler! Richard Simpson investigates

48 OSA 2 MISSILE BOAT

What's in a watertight door? More than you might imagine, as Dave Wooley explains

63 OUR MONTH

An occasional peek into the dusty back rooms and darkened corridors of Model Boats magazine

64 MAILBAG

Readers' letters – get it off your chest and tell the world!

66 FLOTSAM & JETSAM

John Parker traces the rise and the sad fall of, arguably, the UK's most successful balsa model kit manufacturing business

75 MARKETPLACE

Looking for a new model or making room for another? This is the place to buy and sell

76 MOORING POST

From worryingly poor websites to a trick you can play with spoons, Glynn Guest is back with more model musings

78 NEXT ISSUE

To be honest, we're not sure how we're going to fit it all in, but we'll manage!

82 PARTING SHOT

Scale 'n' sail, through the lens





25 NR-1

With bow and stern plugs suitably fettled Roger Suitters turns his attention to mould-making, but it's not all plain sailing!

Special Features



13 MEX 2018

Graham Ashby visits the Peoples' Palace, gets high on coffee and cake, then lets rip with Canon's finest

18 FARMAN FANBOAT

Architect of the obscure and the unusual, Ashley Needham takes a shine to Monsieur Farman's air-propelled camper van



32 SS BEAVERFORD

In memory of a ship and heroic crew that history has largely forgotten, Roy Cheers builds a model of remembrance

42 SUBSCRIBE...

...and save 30% off the cover price. Come on, you know it makes sense



52 PERSEVERANCE

Phil Scales mirrors the life and times of the harbour tug Imara by giving his 15-year-old Caldercraft kit an Admiralty facelift

54 RACING SAILS

John Goodyear returns to talk us through making a 'main' and to tidy away a few loose ends

58 SS MULLOCH

Steam and sail may well be the best of both worlds but as far as radio installation is concerned it can mean only one thing – complexity!

70 HMS ABDIEL

Francis Macnaughton turns a long-term ambition into two foot working replica

So... how DO we encourage youngsters into the hobby? It's a question that gets asked from time-to-time yet I'm not sure it's one that's given the attention it truly deserves. You don't have to look much further than the rising list of club obits to realise that we aren't getting any younger and if we're not careful we'll be taking the hobby with us when we scuttle off to the great lakeside in the sky. On the whole, I think it's fair to say that we're pretty bad at encouraging youngsters into boating. Certainly, as a keen 15-year-old, my own experiences of joining a model boat club were none too great. To say that my arrival and general reception was, how shall we say, 'cool', would be something of an understatement. Alas, I'm afraid that the club I joined was so busy going about its important business that it didn't really seem to find time to be friendly, which is a pity. Mind you, the silver lining was the fact that I've never forgotten the experience. Fifteen is an impressionable age and, as a result, in all the clubs with which I've since been associated, I've always gone out of my way to make time for new members.

In a good club, new people aren't easy to spot, and there's a good reason for this. The regulars will have noticed them, approached them, and will already be chatting, making them feel welcome, finding out what their interests are and encouraging their return. It costs nothing. In a club that needs to pull its blessed socks up, however, new members will stand out a mile. They'll be the people standing alone wondering whether model boating is really for them. Please don't let that club be yours for there's every likelihood that those new members will never set foot on your lakeside again. And worse, they may go and find a hobby that welcomes them, for there are plenty that will.

At the recent London Model Engineering Exhibition I stumbled upon the Eastleigh 8 District MBC, significant for the fact that a number of its members have been going the extra mile to encourage youngsters into the hobby. In a move that can only be described as heroic, they've been running R/C boat building workshops for the local scout group, and with considerable success. Over a period of weeks, scouts are guided through the construction of an R/C sport boat and taught all the practical hands-on skills that such a venture requires. They clearly love it, and why wouldn't they, for where else are such craft skills taught? Most will probably never build another R/C boat again but one or two surely will and all, without exception, will leave having experienced a unique form of satisfaction and gained skills that no amount of money can buy.

It is, perhaps, an extreme example of how we might encourage new blood into the hobby but if nothing else it puts into perspective what little effort it takes to sidele up to new club members (or even passers-by) and engage in five or ten minutes of friendly banter. It could (will) make all the difference.

Graham Ashby

Compass 360

Our news round-up from the model boating world

Editorial Contact: You can reach the Editor, Graham Ashby, via email to editor@modelboats.co.uk. The editorial postal address is: Graham Ashby, Model Boats, MyTimeMedia Ltd., Suite 25, Eden House, Enterprise Way, Edenbridge, Kent. TN8 6HF. Tel. 01689 869840.

MEDWAY QUEEN

The Medway Queen Preservation Society has informed us that artist Mick Dean has recently donated two oil paintings to raise funds for the ongoing restoration of the paddle steamer. The paintings are mounted in substantial aluminium frames measuring around 46 inches across and show the ship in Bristol when she was being rebuilt as part of the project financed by the Heritage Lottery Fund. Each painting will be accompanied by signed copies of the Preservation Society's book; "Medway Queen – Rebuilding the Hull", which describes the rebuild in Bristol in great detail with many photographs taken at all stages of the project.

One painting depicts a paddle wheel prior to dismantling and rebuilding. The paddle wheels were badly corroded and distorted and had to be rebuilt around the original hubs and shafts in the workshops at the Albion Dockyard. An atmospheric image that captures the dirt and corrosion accumulated over

many years. The other shows an early stage of the hull assembly in the Albion Dry Dock. An optimistic period from that stage of the hull rebuild. The structure of the ship is evident with keel and ribs clearly visible, hull plating is in progress midships and an 'iron hand' riveting machine can be seen at work just forward of the engine room.

The auction will take place at Bristol Auction Rooms on 26th April 2018, details of the lots being posted on the Auction Rooms' website www.bristolauctionrooms.co.uk

shortly beforehand. The fitting out of the Medway Queen will cost almost as much as the hull rebuild so please dig deep and support the project while acquiring a unique souvenir of this milestone in ship restoration. Incidentally, if you can't attend in person the Auction Rooms will accept telephone, commission and online bids as well. For further details email info@bristolauctionrooms.co.uk.

The Medway Queen will be open to visitors for her 2018 season on Saturdays from 17th February. Admission to the Visitor



Centre is free to all from 11am to 4pm (last admissions are at 3pm). There is a small charge for guided tours of the ship which run as required from 11am to 3pm. Tel. 01634 575717 or visit www.medwayqueen.co.uk.



DIARY DATES 2018

Sunday 4th March

Balne Moor Model Boat Club – Season's First Sail. Informal scale sailing, everyone welcome, all boats equal, no sailing fee. 10:30 start, bacon / sausage butties will be available as well as hot and cold drinks and home-made cakes... until they're gone! Satnav: DN14 0ER. More information can be found at: <http://balne-moor-model-boat-club.myfreesites.net/> or by contacting: mikebutler1949@gmail.com.

Sunday 25th March

The Mutual Model Boat Society Grand Modellers' Bring & Buy Sale, Crimble Croft Community Centre, Aspinall Street, Heywood, Manchester, OL10 4HL. Come along and enjoy this famous event, either to sell or purchase your supplies. Always lots of unusual bargains. Opening time for traders: 08:30am. Opening

time for buyers: 09:30am. Food available from 09:00am. Closing time 1:00pm. The whole site is wheelchair friendly. Admission £1.50 (includes a raffle ticket). Price to reserve a seller's table (6ft x 2ft) is £10.00. Please contact Kevan Winward on tel. 07803 975089.

Sunday 22nd April

Steam & Mountfleet Models Open Day. 9:30am until 4:00pm at Wilton Park, Bradford Road, Batley, W17 8JH. Open to any steam models and any Mountfleet models. Up-to-date paperwork regarding boiler testing will need to be shown on the day. Paperwork for gas tank tests may need to be seen if applicable to your club's insurance. Testing of boilers can be arranged on the day but prior notice must be given. Static and on / off the water displays throughout the day, with a steamboat sail down the lake at around 2pm. Free car parking and

refreshments available. Anyone who wishes to attend with any type of model will be most welcome. We hope to have some traders on site. Email Stan at kmbc2015info@gmail.com.

Saturday 12th May

Model Lifeboat Rally 2018. Knightcote Model Boat Club. Free car parking, club house, plus hot food and drinks. Large sailing water, model railway displays, local RNLI Guild stand and two excellent guest speakers, booked through the Lifeboat Enthusiast's Society, in the onsite conference centre. Gazebos and tables can be provided, however if these are required visitors must contact Adrian or Chris before the event. New House Farm, Knightcote, Southam, Warwickshire, CV47 2EQ. Further details from Adrian Clutterbuck – tel. 01604 846461, Chris Moir – tel. 01926 612827 or visit: kmbcmmodelboatclub.com.

GAME ON

The Marblehead radio sailing members visited Chipstead Sailing Club for the first Games event on the 20th January 2018. There were 20 entries but, due to flu, 16 came to the start line.

Although it was a cold, damp, drizzly day, Chipstead Lake provided a long course with light, consistent, north-easterly winds. This gave some excellent conditions for racing with enough variation in direction to make the beats interesting. Race officer Dave Allinson and his team handled things very well and were able to run 11 races consisting of two laps of a 150 metre windward beat course that was close to the control area along its whole length. The wide start line helped to prevent



incidents and there was only one general recall.

Throughout the day the racing was very close with five different race winners, culminating in only three points between the first three overall and only 15 points difference covering the middle of the fleet. A win in the first race by Roger Stollery using his new Up design was followed by wins for Peter Stollery sailing an Uproar, Tony Edwards and Colin Goodman sailing Grunges and Hugh McAdoo sailing a Prime Number. The lunch break was welcomed, giving an opportunity to get warm and enjoy sausages, chips and beans and a hot drink,

laid on specifically for the event by the Chipstead SC Radio Sailing members.

With Assistant Race Officer, Garven McKie, ensuring back-to-back races, the afternoon period produced similar results, but no one skipper managed to dominate. Overall it was an enjoyable and good-natured day's racing for all those who attended. Special thanks were given by the prize-winners to Dave Allinson, who managed the racing well and organised a team from Chipstead SC Radio Sailing for scoring, observing, catering etc. as well as making a good photographic record of the event.

RESULTS (TOP TEN)

1.	Peter Stollery	Uproar	19
2.	Tony Edwards	Grunge	21
3.	Colin Goodman	Grunge	22
4.	Hugh McAdoo	Prime Number	38
5.	Roger Stollery	Up	52
6.	Martin Crysell	Prime Number	58
7.	Trevor Binks	Prime Number	64
8.	Phil Holliday	Nioutram	70
9.	John Shorrock	Quark	73
10.	Nick Ennion	Quark	84

There's no doubt that this radio sailing club has fantastic facilities, very well suited to running big events, with a large lake, good access on the banks, a clubhouse and excellent launching facilities right in the centre of the activity.

After the prize giving for this event, Roger Stollery presented the Midgley Mug for the overall winner of the 2017 Games series to Peter Stollery – **Peter Crisp**



www.modelboats.co.uk

There are many advantages to being a registered member of our website, not least the access it gives you to our friendly forum, exclusive competitions, and quick links to key advertisers. However, one particular advantage is the availability of repeat articles from previous issues of the magazine that you may have missed. By way of example we've recently posted a short feature on a very special, classic, Lesro Sportsman along with John Parker's account

of the late Phil Smith's part in the Veron model boat range. Both are awaiting your attention and all you need do to access them (free of charge) is register with the website, a process that takes but a minute or two. More articles, more competitions, more chat, more polls and more great offers are coming your way on the website this year, but only if you register! Zip over there now and join the club –

www.modelboats.co.uk

POLL UP

Our latest poll hosted by the forum at www.modelboats.co.uk asked the question: "Of all the model boat disciplines that you've not yet tried, which would you most like to have a go at?" With options ranging from scale (non military) through powerboats and yacht racing to plastic kit conversions, the leader (so far) with 28% of the vote is steam powered models, closely followed by submarines, with 24%. Anyway, it's not too late to cast your vote and leave a comment, in fact we'd love to hear from you. Notable remarks on the adjoining thread, thus far, have been numerous not least:

"I was given a Mantua Models plank-on-frame Victory by the chaps when I left work. I'm summoning up the wherewithal to tackle it"

"I fancy building a Gin Palace out of foam, If I can't have a real one then a nice big-ish model will have to do. Loads of deck lighting, jet skis, opening sides, a rear ramp, and maybe a helicopter, all working. Like a real one I would probably moor it up somewhere sunny and just look at it!"

"Having just found that doing planking on frames isn't as tricky as I feared, I've started researching a Viking Longboat along the lines of the 30m replica 'Sea Stallion of Glendalough' at the Roskilde Viking Boat Museum. What scale and whether for R/C is yet to be decided."

"I'm still trying to convince myself that building the HMS Queen Elizabeth (aircraft carrier) is a good idea."

To which the droll reply came:

"So are the Government..."



GOOD HOME FOUND

Following last month's appeal for a willing volunteer to take on and complete the half-built Sergal HMS Victory that Donna Paterson's late father started, we're pleased to report that the model has now found a home. Don McGetrick arranged a mid-January collection and is aiming to make an immediate start. Thanks to all who contacted us, each and every one of you appeared more than qualified to finish the project and we're delighted that all the hard work Donna's dad put in won't go to waste.

Test Bench

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

FREE LUNCH!

Test Bench is a service that we provide free of charge to manufacturers, distributors and retailers of model boat-related product. Covering all disciplines, anything from books to balsa is accepted for these pages. To submit material,

email the editor via editor@modelboats.co.uk and make sure to include all relevant text and pricing information along with high resolution images. That's all there is to it. Don't let anyone tell you there's no such thing as a free lunch.

12" pool racer

If you're on the look-out for a boat that might appeal to the younger members of your family – something to keep the kids amused when they accompany you to the lake, perhaps? – then Pro-Boat's Jet Jam 12" Pool Racer could be just the thing. Capable of running in water as shallow as 3" (a large puddle,

then) its jet pump propulsion system is not only child friendly (no propeller), it offers an impressive turn of speed. Self-righting, ready-to-run, stickered-up and supplied with steer wheel transmitter, battery and USB charger, expect to pay around £90 – £95 on the street. See more at www.horizonhobby.co.uk.



UTE wood pack

New from Sarik Hobbies' laser-cut plan and wood pack range is this cute, easy to build model of a typical work / utility boat. Measuring 24.5 inches (620mm) long with an 8" (200mm) beam, UTE was designed by Glynn Guest and first appeared as a free plan in the February 2013 issue of this very magazine.

Of course, not everyone likes cutting wood so if you fancy cheating a little and starting with a semi-kit, the two-sheet plan plus pre-cut frames and side skins could be well worth the £49 asking price. Visit www.sarikhobbies.com, type in the product reference MM2079 and 'add to basket'. It's as easy as that.

Victory Tug

Following a few enquiries about the availability of the Dumas Lord Nelson Victory Tug here's confirmation that the kit continues to be supplied by J. Perkins Distribution, along with the lion's share of the remaining trad' built Dumas boat kits. Measuring 28" in length with a comfortable 10" beam this model of the evergreen recreational trawler (read pleasure cruiser) is popular and, to be honest, it's not difficult to see why. To cut a long story short, if you fancy one the kit is available from your local model shop via J. Perkins Distribution Ltd. The price? £337.99. www.jperkins.com



Spray-out Pot

If you're serious about airbrushing, which many of us are, here's a handy item to add to your kit list. Iwata's glass Spray-out Pot eliminates overspray when cleaning your airbrush and is itself dishwasher safe and, therefore, easy to clean. Key features include:

- A removable, non-skid pot sleeve to guard against breakage.
- A universal airbrush hanger that fits all gravity-feed, side-feed, bottom-feed and trigger-style airbrushes.
- A raised lip around the filter cap that serves as a holder to stop parts from rolling away.
- A design that allows it to be connected to the Iwata Universal Airbrush Holder.



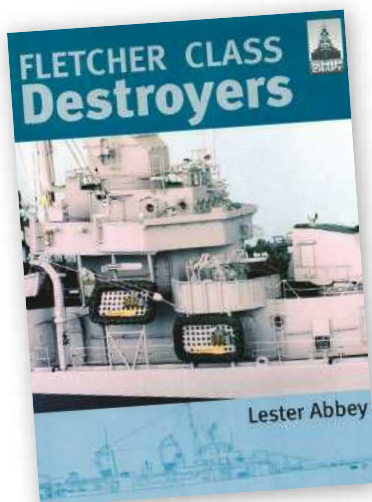
Supplied with two spare filters the Spray-out pot is priced at £29.95 and is, without doubt, one of those items you'll wonder how you ever lived without. Available from your local model shop or direct from www.airbrushes.com

ShipCraft 8

Fletcher Class Destroyers

This new release is a reprint of a popular book that was first published in 2007 and is the eighth in the ShipCraft series which aims to provide modellers with all they need to know about a famous class of warship and associated model kits.

The subject of this volume is the largest class of destroyer ever constructed, the US Navy's Fletcher Class. No less than 175 were built between 1942 and 1946, the first design that was free from treaty restrictions. The first ships of the class, came into service at the beginning of the Pacific War, where they fought



with distinction through all of the most ferocious campaigns against the Japanese.

With its large number of highly detailed line drawings, scale plans, photographs of ships, fittings, weapons and equipment, together with details of all class variations – including the few vessels equipped

with aircraft and catapults – this book offers the modeller an unparalleled level of information, including paint schemes and camouflage schemes, featured in colour profiles.

The modelling section reviews the strengths and weaknesses of available kits, lists commercial accessory sets for super detailing and provides hints on modifying and improving the aforementioned basic kits. This is followed by an extensive, full colour, photographic gallery of selected high-quality models in a variety of scales. The book concludes with a section on 'Selected References', including: books, large scale plans and relevant websites. In short, this

is, without a doubt, the essential reference source for any model maker setting out to build one of these famous warships.

Written by Lester Abbey, with colour artwork by George Richardson. Softback, 64 pages, 297 x 212mm, over 140 photographs, line drawings, ship profiles and plans in both colour and mono. ISBN: 978-1-84415-697-9, price (RRP) £14.99. Published by Seaforth Publishing, an imprint of Pen & Sword Books Limited, 47 Church Street, Barnsley, South Yorkshire, S70 2AS. Tel. 01226 734222 / 734555, website: www.seaforthpublishing.com. Available direct from the publisher or through the usual retail outlets – **John Deamer**.

World Naval Review – 2018

Now firmly established as an authoritative but affordable summary of all that has happened in the naval world during the previous twelve months, this annual combines regional surveys with one-off major articles on noteworthy new ships and other important developments. Besides the latest warships projects, it also looks at wider issues of importance to navies, such as aviation and weaponry, and calls on expertise from around the globe to give a balanced picture of what is going on and to interpret its significance.

Features of this edition include an analysis of the Republic of Korea Navy and

its response to its aggressive northern neighbour. Richard Beedall's biennial review of the Royal Navy assesses whether 2017 lived up to the political spin as the 'Year of the Navy'.

Significant Ships covers the US Navy's Arleigh Burke class destroyer design, German F125 class frigates, and the Royal New Zealand Navy's Otago class offshore patrol vessels. There are also technological reviews dealing with naval aviation by David Hobbs, RN missile programmes

by Richard Scott, while Norman Friedman turns his attention to new generation weapons technology. The concluding chapter looks at the important, but little-assessed, area of warship accommodation. For anyone interested in

contemporary naval affairs, whether you're a defence professional, enthusiast or warship modeller, this illustrated annual is required reading.

Edited by Conrad Waters. Hardback, 192 pages, landscape format, 247 x 264mm, over 240 mono and colour photographs, line drawings, diagrams, maps, plans and tables. ISBN: 978-1-5267-2009-2, price (RRP) £35.00. Published by Seaforth Publishing, an imprint of Pen & Sword Books Limited, 47 Church Street, Barnsley, South Yorkshire, S70 2AS. Tel. 01226 734222 / 734555, website: www.seaforthpublishing.com. Available direct from the publisher or through the usual retail outlets – **John Deamer**.



Ocean Liners

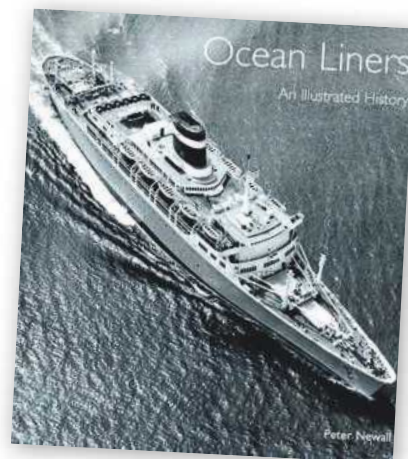
An Illustrated History

Most liner books focus on the transatlantic routes, however in this new book, author Peter Newall, one of the world's leading passenger shipping experts, tells the story of the liner over all the world's oceans, from the humble paddle steamers to the beautiful streamlined passenger ships of the latter half of the twentieth century. Not only are the well-known liners featured, so too are many of the lesser known ships and routes, often surviving only as a memory but brought back to life here with more than 250 evocative photographs, some never seen before.

The story starts in the Nineteen Century with the greatest migration ever seen. Communications around the world were also improving with the introduction of the Suez Canal, a universal postal system and the laying of undersea telegraph cables. Tourism as we know it took off in the 1870s and 1880s, and it was also an era of colonial expansion which would see Britain and other countries establishing empires around the world. To meet the demand, passenger ships became increasingly significant with great advances being made not only in ship design but also in marine engineering. These technological innovations soon

included the introduction of the steam turbine and diesel engines. Ocean liners also became statements of national pride and artistic achievement. The story concludes in the 1960s when, despite increasing numbers of travellers choosing to fly rather than travel by sea, a final flurry of liners was built, but their lives were sadly short lived.

Written by Peter Newall. Hardback, 192 pages, 267 x 247mm, over 250 mono photographs. ISBN: 978-1-5267-2316-1, price (RRP) £30.00. Published by Seaforth Publishing, an imprint of Pen & Sword Books Limited, 47 Church Street, Barnsley, South Yorkshire, S70 2AS. Tel. 01226 734222 / 734555,



website: www.seaforthpublishing.com. Available direct from the publisher or through the usual retail outlets – **John Deamer**.

SUPER DEAL!
GRAUPNER SPEED 600
 4.8-9.6V OPERATING RANGE
 NO LOAD RPM - 15500 MIN
 RRP £14.99

ONLY £6.99
Graupner



**NEW 2 CHANNEL 2.4GHZ
 STICK RADIO!**



OUR PRICE ONLY
£34.99!

Additional Receivers £17.99

BACK IN!

PEAK PLUS

Easy to Use Li-PO Charger
 1/3/5A LI-PO & NiMH
 Just Plug in & Charge!
 No Setting Up Required

Our Price Only £24.00!

BRUSHLESS MOTORS



NOW £10.00!

PLEASE CHECK WEBSITE FOR MORE
 SPECIFICATIONS OR CALL US ON
 01865 848000

2.4GHz & 27MHz Receivers

Planet 6CH Receivers still available
PLEASE CALL FOR PRICE

Radio Link 8CH Receiver £15.99

Futaba R3106GF 6CH £28.99

Futaba R2006 4CH 2.4GHz £39.99

Futaba 617FS 7Ch 2.4GHz RX £69.99

Futaba 2 Ch Am 27mhz £21.99

Futaba 2ch Am 40mhz £21.99

Futaba R202GF 2 Ch 2.4GHz £23.50

TAMCO 6CH 2.4GHz RX £16.99

Saturn 6CH 2.4GHz RX £23.50

METAL GEARED 17KG

Hi-Torque Servo
 Standard Size
 Fits All Brands
 Was £29.99

ONLY £9.99!



**SPECIAL OFFER 7.2 VOLT
 4500MAH ONLY £19.99**



HOWES MODELS

01865 848000

Unit 16B Cherwell Business Centre

(Part of Station Field Industrial Estate)

Rowles Way, Kidlington, OX5 1JD

www.howesmodels.co.uk

Fast mail order - Overseas postage at cost



Futaba T2HR
 2 Channel 2.4GHz Radio
 Complete with 2 Channel
 2.4GHz Receiver.
ONLY £49.99

NEW IN!

Radio Link T8FB

8 Channel 2.4GHz
 Replacing the popular
 T4EU transmitter and
 receiver set at a great price
Only £44.99



Futaba 4YF
 FHSS 2.4GHz Combo
 Includes transmitter,
 receiver & switch harness
 Excellent Quality
Only £99.99

FUTABA/ROBBE NAVY F14

4 Channel 40MHz FM Set

(Up to 14 Channels)

Includes Receiver & Servo

Single Stick Set £151.99

Dual Stick Set £199.99



Saturn XR4/XR6

BACK IN! 4 Channel 2.4GHz
 INCLUDES 6CH XR RECEIVER
 VERY EASY TO USE
 FULL RANGE - TOP QUALITY

Saturn XR4 £44.50

Saturn XR6 £54.99



Futaba 6KV2 Combo Set

EXPANDABLE TO 8 CHANNELS



Ideal step up from a
 standard 6 channel system.
 30 Model memory,
 Digital trims + More!
 Futaba Quality
**OUR PRICE
 £189.99!**

Futaba

Sigma EQ Touch II

NEW IN!

High Performance Multi Charger
 With Touch Screen LCD

Perfect for charging and
 discharging Li-Po, Li-Ion,
 Li-Fe, Ni-MH, Nicad and
 Lead Acid batteries.
 Voltage: 2-20v
 Charge Output: 0.1-10A
 Li-XX Cells - 1-6 Series
 Nicad/NiMH Cells - 1-16 Cells
Our Price Only £58.99



TOP PRICES ON HIGH QUALITY

7.2 VOLT BATTERY PACKS

2000MAH ONLY £9.99

3000MAH ONLY £13.50

3300MAH ONLY £13.99

3800MAH ONLY £18.50

4000MAH ONLY £19.99

4500MAH ONLY £19.99

5000MAH ONLY £26.99

Lead Acid Batteries

6 VOLT 1.0 AMP - £4.99

6 VOLT 1.3AMP - £4.99

6 VOLT 3.4 AMP - £5.99

6 VOLT 4.5 AMP - £5.50

6 VOLT 7 AMP - £8.45

6 VOLT 12 AMP - £13.99

12 VOLT 2.1 AMP - £6.99

12 VOLT 3.4 AMP - £11.50

12 VOLT 4.5 AMP - £12.99

12 VOLT 7 AMP - £9.99

6V JELLY CHARGER - £8.99

12V JELLY CHARGER - £9.99

2-6-12V JELLY CHARGER - £14.99

Waterproof

Marine Speed Controllers

NEW RANGE WITH LOW PRICES!

10A 4.8-12v ONLY £19.99 **NEW PRICE!**

15A 6-12 V ONLY £19.99 **NEW PRICE!**

15A PLUG N PLAY 6-12v - £19.99

15A 12-24 V ONLY £29.99

20A 6-12 V ONLY £23.99

20A PLUG N PLAY 6-12v - £23.99

25A 6-12 V ONLY £29.99

25A PLUG N PLAY 12v - £29.99

40A 6-12 V ONLY £42.99

RV11 4.8-9.6V RRP £57.99

OUR PRICE ONLY £24.99!!

FUSION AQUAPOWER 280A ONLY £34.99

BRUSHLESS SPEED CONTROLS

MTRONIKS G2 HYDRA 15A BRUSHLESS

RRP £49.99 - NOW £36.99

MTRONIKS G2 HYDRA 30A BRUSHLESS

RRP £69.99 - NOW £44.99

MTRONIKS G2 HYDRA 50A BRUSHLESS

RRP £84.99 - NOW £62.99

Mains Chargers

Fusion NX36 - 4-8 Cells Ni-CD/Ni-MH,
 Variable charge rate, 0.5-6amps. Mains
 operated, Peak detection

Fusion NX87 - 6-8 Cells Ni-CD/Ni-MH, TWIN
 5amp output charger. Peak detection on both
 outputs

FAST CHARGERS FOR ONLY £24.99!

RCS60 NEW!

Overlander Multi
 Charger & Discharge
 Li-PO/LiFe 2-4 Cells
 NiMH/NiMH - 6-8 Cells
 PB 6-12v
 Supplied with Deans
 connector and mains lead.
**Our Price Only
 £39.99!**



TAMCO 2.4GHz COMBO

FULL RANGE 6 CHANNEL SET

Superb Quality

Our Most Popular Set!

Only £45.00

Additional RX £16.99



NEW! Kingmax Sail

Winch Servo's

Dimensions 40x19x38mm

1.5 Turn Standard Size Servo Speed:

0.9/360 Torque: 6.1 kg - **Only £9.99**

2.0 Turn Standard Size Servo Speed:

0.9/360 Torque: 6.1 kg - **Only £9.99**

4.0 Turn Standard Size Servo Speed:

0.9/360 Torque: 6.1 kg - **Only £9.99**

6.0 Turn Standard Size Servo Speed:

0.9/360 Torque: 6.1 kg - **Only £9.99**



**Standard
 Size**

**OVERLANDER
 BATTERIES**

**Li-Po Batteries
 at Great Prices**

7.4v 1000mah - £9.50

7.4v 1300mah - £10.99

7.4v 1600mah - £13.49

7.4v 2200mah - £15.99

7.4v 3900mah - £26.99

11.1v 1350mah - £17.99

11.1v 1000mah - £14.99

11.1v 1300mah - £15.99

11.1v 1600mah - £18.99

11.1v 2200mah - £15.99

11.1v 3900mah £38.99

SERVO'S

POWER 3KG STANDARD - £5.99

AAS-700STD WATERPROOF STD - £7.50

FUTABA 3003 STANDARD - £8.99

RADIANT 3.5KG BB WATER RES - £6.50

FUTABA 3010 6.5 TORQUE - £24.99

FUT 3014 WATERPROOF - £24.99

HITEC 325 BALLRACE - £12.50

FUTABA 3004 BALLRACE - £11.65

BUY 4 x 3004 FOR ONLY £46.00

HOWES MIDI MG Servo £6.50

POWER HD 9g Micro £3.50

OR 4 For £13.50

MICRO METAL GEARED £4.99

MINI SERVO ONLY £4.00 (4 for £15.00)

HIGH POWERED BALLRACE £7.99

High Powered Waterproof Servo £6.99

SAIL ARM, WINCH &

SPECIALIST SERVOS

HITEC 785 HB SAIL WINCH

WITH FULL ROTATION DRUM

OUR SPECIAL PRICE £28.99

HITEC 705BB SAIL ARM

WITH 12 CM LONG ARM

OUR SPECIAL PRICE £28.99

FUTABA 33802 SAIL ARM

WITH 12CM LONG ARM £56.25

HITEC HS 805BB SAIL ARM HUGE

WITH 20KG TRQ £28.99



Aura 650 RTR Yacht

Complete with 2.4GHz Radio
Length: 650mm Height: 1025mm

RRP £129.99

Only £119.99

TIGER SHARK SPEED BOAT
RTR Speed boat includes 2.4G radio
mains battery & charger! Very Fast!
17 INCHES LONG!



ONLY £39.99!

Electric Motors

385 5-POLE £3.50 each
400 3-POLE £5.99
540 3-POLE £3.99
545 5-POLE £2.99
550 3-POLE £6.25
MFA RE 140 (3-6v) £2.75
MFA RE 170 (1.5-3v) £3.75
MFA RE 360 (6-15v) £4.99
MFA 380 (3-7.2v) £5.75
MFA 385 (4.5-15v) £5.75
MFA RE 540 (4.5-15v) 3 POLE £7.50
MFA TORPEDO 800 £22.50
MFA TORPEDO 850 £22.50

NEW VERSION 6

Joyway Dragon Force
RTR 65 Yacht V6

Superb Racing Yacht which is
easy to transport!
Includes 2.4GHz Radio
RRP £249.99

Our Price £225.00!

Available without TX-RX
Only £179.99



Length: 650mm
Height: 1338mm

NEW RANGE OF MODEL BOAT KITS AT SUPERB PRICES ON THE NEXT PAGE!

01865 848000 WWW.HOWESMODELS.CO.UK



**Fantastic Range of
Brushless Motors &
Speed Controllers. Now
in Stock from Mtroniks,
a name you can trust.
Call us for details and
super low prices!**

MTRONIKS Hydra 15A, 30A, 50A Brushless Motor and Speed Controller Combo

Auto set up - Forwards and reverse - 6.0 to 12.0V Operation
Motor Specification

KV (rpm/v) - 1100 - Power - 120W

Diameter: 28mm - Length: 38mm

Hydra 15A Combo - Only £48.99

Hydra 30A Combo - Only £56.99

Ideal Replacement for 380 - 400 Motor

Hydra 50A Combo - Only £99.99



NEW!



MTRONIKS T10 LI-PO SAFE ESCS

For use in RC boats that allows for the use of
Lipo battery packs as well as the usual NICAD/
NiMH/Lead Acid batteries

15A - RRP £29.99 OUR PRICE £23.99

30A - RRP £43.99 OUR PRICE £33.99

50A - RRP £65.99 OUR PRICE £51.99

4.8v-6v Receiver Batteries
& 9.6V Transmitter Batteries

4.8 VOLT PACKS

1300MAH FLAT OR SQUARE - £6.99

2600MAH FLAT OR SQUARE - £8.99

6 VOLT PACKS

1300MAH FLAT OR TRI - £8.99

1600MAH FLAT OR TRI AE CELLS - £9.50

2600MAH FLAT OR TRI - £12.50

9.6 VOLT TRANSMITTER PACKS.

1300 MAH FLAT - £15.00

1300 MAH SQUARE - £15.00

2600MAH FLAT £19.99



BACK IN STOCK!

ALTUM AAS-700STD

3.6KG Water Resistant

Standard Twin Ball Bearing Servo

Only £7.50!



SUPER DEAL!

**GRAUPNER
MICRO MAGIC CARBON
EDITION SAILING BOAT**

Length: 535mm

Beam: 180mm

Overall height: 980mm

RRP £149.99

Our Price Only

£99.99



PROPS, SHAFTS ETC

LARGE RANGE OF THE
FOLLOWING
BRASS PROPS M4 2/3 BLADE
M4 NYLON PROPS 2/3 BLADE
STAINLESS STEEL SHAFTS M4
BRASS RUDDERS 6 SIZES IN STOCK
NEW LOWER PRICES!



Extension Leads

All For Futaba/Hitec

SERVO LEAD 200mm £1.00

EXTN LEAD 270mm £0.60 each

EXTN LEAD 500mm £0.80 each

EXTN LEAD 1000mm £1.00 each

Y LEAD £1.75 each

BEC RED BOTH ENDS £0.90

SWITCH HARNESS £2.99



NEW IN! GRAUPNER MZ-12 6 CHANNEL 2.4GHz RADIO

COMPUTER SET WITH TELEMTRY

ONLY £114.99!

Graupner



NEW! Aeronaut MÖWE 2

New Fishing Trawler Kit from Aeronaut
Length 549mm - Width 168mm

Kit Only £53.00

Starter bundle including KIT, 2.4GHz
Radio, battery & charger, ESC + more

Only £124.99!



NEW FUTABA T6L

2.4GHz 6 CHANNEL

RADIO INCLUDES

R3106GF RECEIVER

OUR PRICE

£75.99!



**WE BUY SECOND HAND
RADIO CONTROL
MODELS**

**FROM SMALL ITEMS TO
COMPLETE
COLLECTIONS**

CAN BE COLLECTED

**PLEASE CALL US
ON 01865 848000
AND ASK FOR NICK**



Southampton Tug

Popular ready to run model includes
2.4GHz Radio, Battery & Charger

Includes Smoke Generator

Length - 560mm Height - 420mm

RRP £189.99

JUST £149.99!

FINALLY BACK IN STOCK!

Ready to run Aircraft Carrier
and Destroyer. Complete with
handset, battery and mains
charger & display stand.

Destroyer Length - 780mm

Aircraft Carrier

Length - 760mm

ONLY £44.99

EACH



**FAST UK
DELIVERY!**

HOWES MODELS

01865 848000

**OVER 75 YEARS
IN THE MODEL
TRADE!**

Now Stocking a New Range of Model Boats & Kits!

www.howesmodels.co.uk

FREE UK SHIPPING ON ORDERS OVER £150!

PLUS 10% OFF ALL EQUIPMENT WHEN PURCHASED WITH A KIT

Aeronaut Kits

AN3031/00 Torben Tug (includes fittings) - £259.99
AN3032/00 Kalle - £166.99
AN3046/00 Pilot Boat - £165.00
AN3048/00 Ramborator - £85.00
AN3052/00 Spitfire - £110.00
AN3055/00 Jenny - £125.00
AN3056/00 Delphin - £119.99
AN3057/00 Caribic - £49.99
AN3075/00 Anna 2 Fishing Boat inc Fittings £235.00
AN3080/00 Queen - £175.00
AN3081/00 Princess - £155.00
AN3082/00 Victoria - £147.99
AN3091/00 MOWE2 - £53.00 **NEW!**
AN3092/00 Classic Sport Boat - £64.99
AN3093/00 Diva Cabin Cruiser - £69.95
AN3254/00 Mora Viking Longboat with sail set - £76.99
AN3255/00 La Capitana Di Venetia Complete - £185.00
AN3270/00 Santa Elena inc Fittings & Sails - £220.00
AN3600/00 Graf Spee Complete - £370.00
AN3619/00 Tirpitz with Fittings - £500.00
AN3620/00 Bismark includes Fittings - £470.00
AN3625/00 Scharnhorst includes Fittings - £437.00
C2001 AEROKITS SEA COMMANDER - £169.99



AN3046/00 Pilot Boat



AN3091/00 MOWE2



AN3081/00 Princess



B498 HMS Bounty



C7019 Milford Star



C7024 Resolve

Billings Boats

B100 Us Coast Guard 1/40th Scale - £43.50
B101 Rnli Wavely Lifeboat 1/40th Scale - £43.50
B201 Rainbow Fishing Cutter 1/40th Scale - £43.50
B478C Smit Rotterdam Inc's Fittings - £315.00
B492C HMS Bounty 1/50th Scale - £175.00
B498 1:75 HMS Victory - £315.00
B512 HMS Warrior 1/100 Kit Complete With Fittings - £475.00
B606 Collin Archer 1/40th Scale - £87.50
B801 Mayflower - £164.99

More Billings kits available. Please check our website for full range!

Caldercraft Kits

C7000 Joffre - £330.00
C7001 Northlight - £330.00
C7003 Marie Felling - £520.00
C7005 Talacre - £335.00
C7009 Cumbræ - £350.00
C7010 Fife Amaranth - £156.00
C7011 Sir Kay - £390.00
C7012 Imara (Single Screw) - £610.00
C7012/1 Imara (Twin Screw) £610.00
C7015 Branneran - £395.00
C7019 Milford Star - £305.00
C7020 Alte Liebe - £340.00
C7021 Schaarhorn - £440.00
C7024 Resolve - £670.00
C9000 HMS Diana - £565.00
C9001 HMS Cruiser - £245.00
C9002 HMS Snake - £245.00
C9003 HMS Agamemnon - £790.00
C9004 Mary Rose - £310.00
C9005 HMBig Supply - £175.00
C9006 HMBark Endeavour - £290.00
C9007 HMS Jalouse - £270.00
C9008 HMAV Bounty - £240.00
C9009 HMS Mars - £240.00
C9010 HM Cutter Sherbourne - £90.00
C9011 HM Yacht Chatham - £105.00
C9012 HM Mortar Vessel Convulsion - £115.00
C9013 HM Schooner Ballahoo - £75.00
C9014 HMS Victory - £890.00
C9015 HM Bomb Vessel Granada - £260.00
C9016 HM Gunboat William - £240.00
C9017 HM Brig Badger - £210.00
C9018 HM Schooner Pickle - £155.00

Dumas RC Kits

American Beauty Mississippi - £240.00
Big Swamp Buggy Airboat Kit - £140.00
Carol Moran Tug - £99.99
Creole Queen Mississippi Riverboat - £420.00
Dauntless Commuter Boat - £215.00
George W Washburn - £199.99
Huson 24 Sailboat - £135.00
Jersey City Tugboat - £340.00
Jolly Jay Gulf Fishing Trawler - £165.00
Myrtle Corey Memphis River Tow Boat - £299.99
U.S.S Whitehall - £99.99



George W Washburn



Graupner Models

G-2011 Cap San Diego - £1070.00
G-2013 Theodor Heuss Seenotrettungskreuzer - £804.99
G-2059 U-Boot Type VII Premium Line - £699.99
G-2072 Divers O. Wulff 6 RC Boat - £175.00
G-2089 Bismarck Battleship - £994.99
G-2089/G Bismarck Battleship (without Camouflage) £994.99
G-2096 Schlachtkreuzer H.M.S Hood - £1064.99
G-21011 Schlepper Pollux II - £198.50
G-21013 USS Missouri - £895.00
G-21018 WP Yamato M1/150 Battleship Premium - £1245.00
G-2104 Titanic Premium Line - £1090.00
G-2159 H.M.S Prince of Wales Premium Line - £794.99
G-2200 H.M.S Blue Bell Premium Line - £989.99
G-2201 Yacht 72 Ft. Child Design Premium - £615.00
G-2205 H.M.S Belfast 1:150 - £789.99
G-2212 USS Nimitz - £994.99
G-2217 Queen Mary II - £1510.00
G-2704 WP Surfer Girl RTR - £154.99



Graupner Bismarck

Krick Kits

K20200 Karl & Marie - £170.00
K20212 Anna - £115.00
K20240 Alert - £215.00
K20250 Gulnara - £315.00
K20261 Victoria with Fittings - £410.00
K20281 Alexandra inc Fittings £350.00
K20291 Borkum inc Fittings - £380.00
K20300 Felix Hamburg Harbour Launch - £105.00
K20310C U-Boot Type VIIb Submarine (inc running gear) - £395.00
K20320 Lisa M - £125.00
K20340 Hanse Cog - £160.00
K20360 Police Launch - £145.00
K21430 Nordstrand Trawler Yacht - £190.00
K21440 Grimmershorn Motor Vessel - £290.00



K20320 Lisa M



K20360 Police

NOW STOCKING A RANGE OF AERONAUT FITTINGS!

LARGER STOCK-LOWER PRICES
Open Mon-Fri 09.00-17.00 / Sat 09.00-16.00

Unit 16B Cherwell Business Centre
(Part of Station Field Industrial Estate)
Rowles Way, Kidlington, OX5 1JD

Graham Ashby visits the Peoples' Palace, downs a bit of dirty food, then lets rip with Canon's finest

MEX 2018



It seems somehow fitting that the Model Engineering Exhibition should take place in the Great Hall of this iconic London landmark. Back in 1873 when 'The People's Palace' first opened its doors its brief, as North London's answer to Crystal Palace, was to serve as a public centre of recreation, education and entertainment. Two major fires have since threatened to wipe it from the map yet, like the proverbial Phoenix, back from the brink it comes, offering unique architecture, a refined, palatial ambience and a tea / bacon buttie combo for the price of a small family saloon... Okay, not quite, but you know where I'm coming from. For my part, however, the snack fees are a small price to

pay, for when I enter that Great Hall to the sight, sound, and smell, of a buzzing steam fair, excitement is ever-present. And buzzing it was. It's a while since I've been to a model show where walking in a straight line from one end to the other is a challenge but that was very much the case here. Sure, the weekend brought families and kids by the busload and thank goodness it did for if it were left to us hardened modellers this, surely, would be the last year of the show.

Liners to lifeboats

Model Engineering fascinates and enthralled me on a number of levels from the sheer

wonderment of the skill involved in crafting a steam locomotive (any steam locomotive), to the joy seeing an 8ft model of the Eiffel Tower, which, incidentally, was just one of the many painstakingly created Meccano attractions. Mind you, it was the boats I went for and I'm delighted to say there was a plentiful supply. For this, of course, we should thank the many clubs and societies who get themselves into gear and organise displays, from the lads and lasses of the Moorhen MBC (Essex), to the Eastleigh & District MBC, the Surface Warship Association and many others. As you'd expect, the result was an eclectic mix of craft covering everything from liners to lifeboats. In most cases the skill and



ABOVE: No pool, casino or gym for passengers on this one!

RIGHT: Commemorating the 175th anniversary (1843) of its launch and 15 years in the building, this 8ft long model of the SS Great Britain was a fine example of the former passenger steamship which offered a transatlantic service between Bristol and New York.



craftsmanship displayed was outstanding but for me it was the people that helped make the show. Take, for example, the good folk of the Eastleigh & District MBC who, for the last few years, have been running boat building workshops for the local scout troop, and with considerable success. Filling that hands-on educational gap that schools have long forgotten (teaching craftsmanship) the scouts are afforded time, patience and tutorage in the building a simple R/C balsa cruiser, after which they're guided and nurtured in any field of modelling that they might choose to follow. It is, to put mildly, a bold commitment that deserves recognition yet undoubtedly delivers satisfaction in

spades, as any initiative involving young people tends to do.

If I had to pick my 'model of the show' then it would have been Keith Henley's understated yet masterful recreation (to 1:50 scale) of the multi-function Trinity House tender, Patricia. From the working picture lights above the paintings in the corridors to the overall patina of the finish, this 25-year build is exemplary. Mind you, talking of 25 year builds it would have been hard not to be impressed by David Fortey's 12.5ft (read massive) model of HMS Ark Royal that, at 1:72nd scale, constitutes an outstanding achievement, not only in terms of the technical expertise and unquestioned

modelling skill required to see it through, but also of the dogged determination that must be found to complete such a colossal undertaking. Respect.

From the beautifully recreated 8ft long SS Great Britain (commemorating the 175th anniversary of its launch) to the small, neatly-built stand-off model of the steam tug Goliath – fashioned from a Model Boats free plan – there was much to admire. In truth, by the time I'd enjoyed the exhibits, taken photos, plied myself with dirty food, met some pals, made some new ones, and bought a handful of tools, I found myself in fear of being forcibly removed for outstaying my welcome. A great show.



LEFT: A real labour of love, this 51" (1:36) model by Mick Nicholson is a meticulously recreated example of the 1912 cargo vessel that began its life as Hartford and was renamed Seaborne Alpha when ownership changed hands to the Seaborne Aggregate Co. Ltd. It was eventually broken up in 1966.



RIGHT: The ship is very special for Mick, not least because he served on it as an apprentice working in the engine room.



LEFT: To put it mildly, Peter Stern's model of a 1941 twin 0.5" Vickers Machine Gun (as fitted to minesweepers, trawlers and motor launches) was sublime. Accurate to the smallest detail this was a true example of model-making excellence.



RIGHT: Centrepiece of the Surface Warship Association stand was this impressively detailed 1925 Nelson-Class battleship HMS Rodney.



Another from the Mick Nicholson fleet, Thornycroft's 1916 Coastal Motor Boat.



The craft carried a single 18" torpedo which was fired out the back shortly before the boat made a sharp turn to avoid impact and, undoubtedly, certain death! The model is scratch-built to 1:16 scale and features a plank on frame construction.

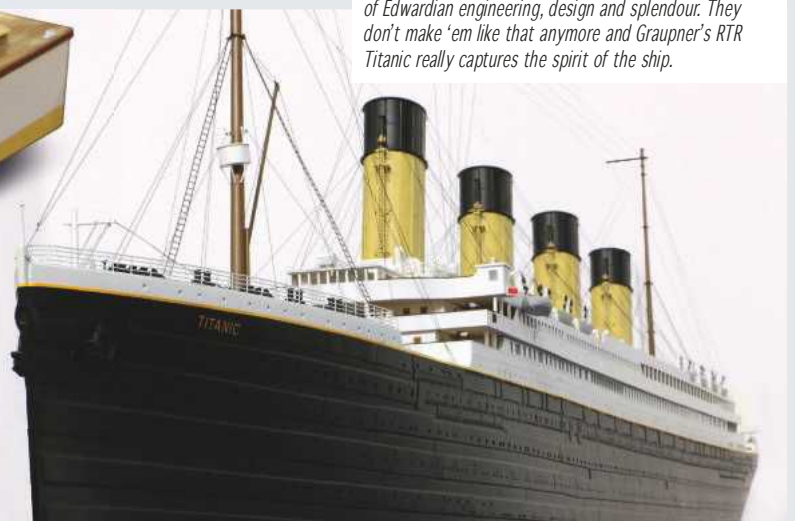
As you can see, getting from A to B in a straight line was, well, impossible. I love a busy show.





LEFT: Built by Bill Cocking, and displayed in his memory, was this lovely example of the 1954 Trinity House pilot tender, Pathfinder. Bill was clearly a fastidious builder.

Another all-time favourite. My fascination with the Olympic Class liners runs far deeper than the newspaper headlines of the time. They're classic, evocative examples of Edwardian engineering, design and splendour. They don't make 'em like that anymore and Graupner's RTR Titanic really captures the spirit of the ship.



ABOVE: A model of the police launch Bobby, from the Lou Jeffries plan published in the July 1977 issue. It's a significant boat for me in that Lou was one of my many inspirational modelling uncles who, on giving me his prototype, kick-started my love of R/C model boating.



ABOVE: The busy flight deck of David Fortey's massive and impressive HMS Ark Royal. Shows need something to draw the crowds and this certainly did the job, appearing, shortly after, in the Telegraph newspaper and in media sources various.

BELOW: It's built at 1:72nd scale for a very good reason – the ready supply of suitable plastic aircraft kits!



ABOVE: Designed for log and scow towing on inland waters around Vancouver, Len Lewinton's Sea Imp XII caught my eye for its workmanlike appearance and the realism of its weathering. 1/16 scale; 27" long; 14" beam.

Very convincing detail on the Sea Imp, including a fully-equipped wheelhouse.



RIGHT: My 'model of the show'. Keith Henley's THV Patricia. 69" long and constructed from the builder's plans (obtained from the Scottish Records Office) it's an outstanding model on so many levels. We're relentlessly hassling Keith for a proper photo shoot, so stay tuned.



ABOVE: With authentic lighting and a perfect patina to the hull and superstructure, Keith has created a real sense of being aboard.



ABOVE: There's an ambience here that, if you could bottle, you'd sell by the magnum. Just lovely.



ABOVE: Passengers passing the time of day by the helipad.

LEFT: I snapped this two mast schooner while I stopped to let people pass; love its everyday weather-worn look.



BELOW: You've gotta love a model that's built from the contents of the scrap box and that's exactly where this example is from. Goliath, from the Model Boats free plan, uses a 280 motor and runs for hours on its 74V LiPo.



LEFT: From the original Frog plastic kit moulds (circa 1960) – now supplied by Eastern Express (Moscow) – Peter Le Sueur's MV Shell Welder measures a diminutive 400mm at 1/130 scale. A tidy build quality and some impressive fine detailing make this 2-channel costal tanker something of an eye-catcher.

RIGHT: Built by Swan Hunter in 1969, Blue Rover is a Small Fleet Tanker that was active with the Royal Fleet Auxiliary from 1970 to 2017.

BELOW: The busy flight deck of the Blue Rover, complete with Wessex chopper for vertical replenishment operations.



anticsonline.co.uk

MASSIVE RANGE OF SHIP MODELS

01453 825381
enquiries@anticsonline.co.uk

Stroud Gloucester
Bristol Plymouth
Cardiff Coventry



Albatros 1/1250th waterline



100's of
Waterline
Ship Models

Our waterline model ship centre is now open at
Unit 1, Springfield Business Centre, Brunel Way,
Stonehouse, Glos GL10 3SX.
Normal business hours!

antics
model shops and online stores

The Handsome Hood



£265

In stock now, Trumpeter's enormous 1/200 scale kit of the mighty Hood, considered by many to be the most beautiful warship ever built. Constructed in WW1, Hood's armour wasn't up to WW2 standard and the ship succumbed to the Bismark in the Denmark Strait. This kit can produce a most stunning model, over a metre long, of the RN's finest! The best ever! Carriage Paid! (03710)

Eyes of the Fleet!



£82.00

Mantua's wooden kit is of HMS President, typical of the British early 18th century frigates that helped achieve supremacy and were often employed on roving or scouting for the fleet. Great value!

Support for the Fleet!



£54.50

Atlantic's latest, 1/700 resin kit of RFA Black Rover A273, the small tanker that has helped extend the offshore missions of the modern Royal Navy (ATL12K)



River Queen

a steam towing launch

Built by Lobnitz & Co. Ltd, Renfrew, Scotland with the yard No. 478. Launched in 1895, originally named Clive, she disappeared from mercantile navy lists after 1935.

A typical river tug of her time, she had a compound engine and coal fired boiler. Used mainly for light towing, soundings and the transportation of people. She had only limited accommodation aft, and a forward saloon fitted with bench seats, lockers, fold down wash basin and earth closet.

Scale: 1:24
L.O.A. 27 1/2" (698mm)
Beam: 6" (152mm)



The kit is presented to our usual high standards. Hull, superstructure and forward housing are from GRP. White metal fittings, printed wood, strip wood, rod, wire, card and helmsman figure. Supplied complete with electric motor, propshaft, coupling and propeller, complemented with an illustrated instruction booklet and full size plans. A very complete kit to make the model as illustrated, with the exception of paints and adhesives.



For current
price see our
price list
All major
debit & credit
cards taken

Mount Fleet Models • Adam Slater • Rock House • Bankwood Road • Womersley • Doncaster • DN6 9AX
Tel: 01977 620386 • E-mail: sales@mountfleetmodels.co.uk • www.mountfleetmodels.co.uk



Farman Hydroglisseur

Architect of the obscure and the unusual, **Ashley Needham** takes a shine to Monsieur Farman's air-propelled camper van

Hot on the heels of the last vintage special comes this intriguing craft built in 1924 by Monsieur Farman, the French aircraft manufacturer. A hydroglisseur (hydro glider) called Ricocheur, only two black and white pictures appear to have survived for this boat, one having been colourised which, in part, is what attracted my attention. Not only is the craft a suitably unusual subject but to my mind the American chap who colourised the picture got the colours spot on, a beautiful blend of cream and dark red, a nice art deco period mix which I quickly decided to replicate.

Fortunately the aforementioned pictures are from the rear quarter and front quarter,

giving us information regarding what the boat looked like at both ends! It was propelled by a Hispano-Suiza water cooled aero engine driving quite a massive looking 4-blade propeller capable, apparently, of pushing the hydroglisseur to 125km/h, or almost 80mph! I'm not sure it would pass H&S regulations nowadays and in any case the noise in the cabin, with that big engine and propeller, would have been deafening. Apart from this there's no other information to be found on the craft, the only writing seems to be a small newspaper article containing absolutely nothing specific as to size or construction. Having mentioned the large prop, the model

has, of course, got an unguarded propeller so extra care has to be taken when on the pond, and indeed in the workshop to avoid accidents!

Anyway, as usual, the intention was to make a representation of this machine, rather than a replica.

Planning for the unusual

It all started with my customary corrugated card prototype to determine the basic model dimensions. After much scissor-work a card model was produced of an acceptable size, with sufficient cabin room for the R/C gear and the capacity to accept props of up to



DATAFILE

Length:	530mm
Width:	190mm
Height:	175mm
Weight:	825gm (minus battery)
Motor:	Turnigy 2822/14 1450kV
Propeller:	7 x 4" four-blade
Battery:	2S 7.4V LiPo
ESC:	20A brushless

8 inches in diameter. These card models are always important as I almost never use plans for such projects, perhaps a sketch at best. Instead, the models are used to provide measurements taken directly from them in the workshop. I tried to base the proportions on the photographs however my model looks a bit wide against what I imagined the boat to look like in 3D from the photo. That said, the superstructure is supposed to be a cabin and would need to accommodate at least two seats abreast with an aisle in-between, and then there's the overall width to be considered for stability. With only ¾ views to look at you can't actually see how wide the thing should

be, so we must conclude that I've estimated correctly! As usual with craft of this vintage, there's not a shred of information available to base any measurements or calculations on, so I opted for the usual best-guess approach.

Camper van or coach?

Since I needed the hull to be a good fit around the cabin, the superstructure was the first thing to be constructed. Weight for an airboat is an issue; a little bit is needed for stability, but not too much or performance suffers. So, in order to keep both the weight low (and the weight literally low, top-weight needs to

be kept to a minimum) and the construction simple, I decided to use a vac-form moulding for the cabin. This is a method of manufacture that uses thin sheet plastic, normally styrene, heated until soft and then formed over a mould by the use of a vacuum chamber. For items such as the coach-shape body of the Farman it is ideal, producing a strong but very light structure, waterproof and, of course, having no ribs and so on inside to impede equipping the boat. Can you imagine making a hollow body like this using ply and balsa?

To start, a wooden tool (for this is what the former is known as in the trade) was constructed from layers of MDF. Here, then, two sandwiched blocks were screwed together to form one solid lump of the correct cabin thickness, not forgetting that the finished product will be a touch wider due to the thickness of the moulded plastic. I used black acrylic paint to colour the inner sides of the halves, so that during the sanding process there was a clear black line marking the centreline to assist in keeping things symmetrical. This block was roughly cut to shape with the bandsaw and then sculpted (H&S notice – MDF dust is not good for the lungs and this work was done outside using a face mask and vacuum cleaner) using a plane and sanding block, until I was satisfied with the shape. Note that I didn't spread glue right up to the edges when making the laminated block, but instead only applied it to the centre. This meant that at the outer edges there was no glue line to sand out, resulting in a nice smooth surface. Ribbing, in the form of 2mm strip wood, and thin ply window shapes were added to this tool, their purpose to provide the raised line around the red stripe and similarly detailed window shapes in the final vac-form. I hoped that all this detail would come out well on the final moulding as the styrene sheet that I planned to use would be thin (1.5mm), making the ribbing and so on fairly crisp. Having finally polished the tool with fine glass-paper (you can't use sealers on it as they can melt and stick to the plastic – only wood filler can be used), the halves were separated, screw holes filled, and the two sides packed off to the man for moulding. Talking of window frames, the windows are large, and have curtains behind them in the pictures of the boat. As a result I did consider having the cabin moulded in clear plastic so it would be ready-glazed but I was advised that there are some technical issues with moulding clear styrene so white was used instead.

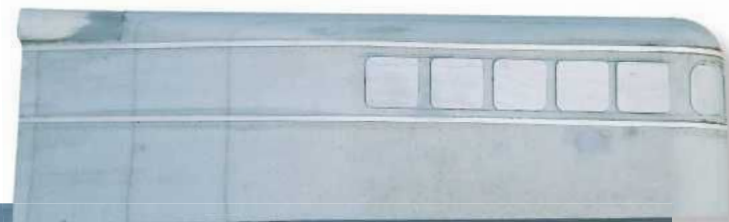
Trimming and painting

Once back from the moulding process, my two superstructure halves were glued together with polystyrene cement and strips of styrene applied at the inside joints. After this had cured the excess flange material was trimmed off, some knifing filler applied where necessary, and everything sanded to a matt finish with fine wet 'n' dry paper as a key for the paint.



LEFT: The MDF tool, sculpted and ready for the fitting of external details such as ribbing and raised window shapes.

RIGHT: Finished and ready to be packed off to the friendly man who looks after my moulding.



Having polished the tool with fine glass-paper the halves were separated and screw holes duly filled.

With only ¾ views to look at you can't actually see how wide the thing should be. As a result we must conclude that I've estimated correctly!

This method of construction means the cabin weighs in at a fairly light 210gm and is 100% water resistant! Filling the joint was a bit catch 22: The body flexes somewhat when sanding as it's fairly thin. When you put filler on, the pressure of the sanding action flexes the body causing hairline cracks so... you apply more filler, and so on. Oddly enough the joint was invisible when sprayed with matt white primer, but the final gloss paint shows up any undulations with horrible efficiency. Lastly some fake louvres were added at the rear end and for this I used corrugated styrene sheet.

Good old car spray paint has been used to colour the body; white plastic primer followed by the pale cream colour (Audi Almagi white) and then the maroon (Nissan red 465). To be honest I would have liked a slightly creamier cream colour but it's one of those things, all the actual cream colours at the car store were too brown and I didn't want to get a custom colour made. Still, when viewed against something pure white, it is definitely cream in colour. Incidentally, if using spray cans, it's important to stick with the same manufacturer, as there doesn't seem to be much compatibility between makes, and peeling or even stripping of a previous coat of

paint can be disastrous. My preferred brand (Halfords) manufactures a special plastic primer spray and this was used as a first coat over the bare plastic, in white. Unfortunately the windows are too close together to mask properly, so I have had to hand-paint the frames using Humbrol enamel silver and then mark the window inners using a template and fine black marker pen before filling in the centres with black polyurethane gloss paint. At normal viewing distances they look fine.

Two engine air intakes were attached to the body, at the top, and for this a jig was constructed in order to get the pair square and at the right height. Centres were marked, small holes drilled and then these were opened up using a tapered reamer to prevent tearing of the thin plastic. With this, ordinary cast-resin ship vents were epoxy-glued in place and painted silver; they do the job just nicely. Finally, on inspection it appears that there was a hatch in the roof section, for passenger entry or, perhaps, pilotage. Anyway, I didn't want to cut a large hole and weaken the roof so a circle was drawn on top and painted matt black to represent the hatch position. There was just too much 'stuff' inside the body to hide, scuppering my initial thoughts of glazing the windows, however a

clear body 'was' moulded (upon inspection my tool was deemed to be suitable for clear moulding) and at some stage in the future I may well fiddle with this to see what can be achieved, perhaps using a fake interior picture to hide the equipment inside. That said, I fully intended to paint curtains on the windows but after some practice using the 'dry brush' technique (putting paint on a brush and then scrubbing it on a piece of paper so that there's a minimum of paint loaded) I was not convinced I would get an even result or that the effect would significantly improve anything. I think they would also look odd to anyone who's not familiar with the craft (that's almost everyone then) so I've left them plain.

Hydroplane or skimmer?

With the eye of faith, it is possible to discern a shadow on the picture at the front, indicating a tunnel type hull, so this is what I decided to build, essentially a three point Hydroplane where the boat sits on three points when on the plane, i.e. its tail and the two front sponsons. The centre hull is no more than a flat tray with a raised bow, whilst the curved top is styrofoam, shaped to wrap around the cabin, with two styrofoam sponsons on either





ABOVE & LEFT: Good old car spray paint was used to colour the body; white plastic primer followed by the pale cream colour (Audi Almagi white) and then the maroon (Nissan red 465). It's not quite as creamy as I'd have liked but, against pure white you can definitely see the difference.

BELOW LEFT: Joining the two superstructure halves using polystyrene cement and strips of styrene, applied internally along the joints.



long and sloping and it fits very close to the tray bottom so it will not get fouled by weed during the summer. It would be silly to have an airboat and not be able to use it because of weed. A mini-servo sits at one side of the hull with the linkage of a height to clear a standard flat NiMH battery pack, and thus not compromise battery location.

Hispano-Suiza?

Well, that would be nice, however since something modern and eco-friendly is required for today's boating a brushless motor was chosen for being both light and compact for the necessary power. Result? A 28mm diameter outrunner of 1380kV (revolutions per volt) and approx. 80W. On a 7.2V NiMH pack this would turn a prop as large as I could fit despite the small motor diameter. Obviously, I couldn't have the motor driving the prop directly due to the tapering of the rear end, so the motor is situated halfway along the boat with a 4mm stainless steel shaft connecting this to the prop adaptor, the shaft supported by a miniature ball raced bearing, both on high level mounts.

side. The tray bottom extends to the front to create the tunnel form. In truth, it's probably easier to look at the photos than to visualise the explanation.

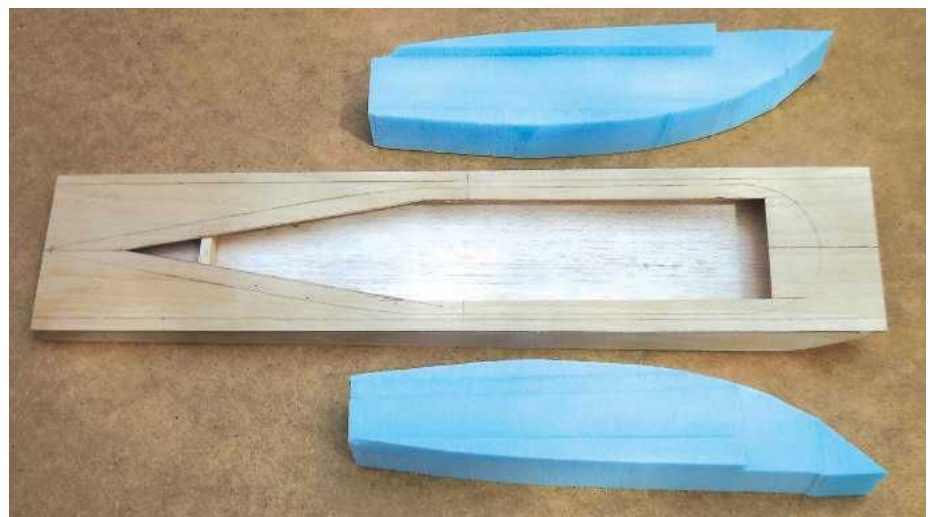
As you can see, there's not much to the actual tray, it's very shallow and has been made from 1.5mm ply with a couple of 4mm ply bulkheads and stringers. After some careful examination of the old photos it appears to slope front to back, giving a very low freeboard at the stern. Accordingly, my hull tapers from 35mm at the front to 20mm at the rear. Luckily, I'm writing this from the perspective of having already built the model, so the vac-form cabin was produced with a slope at the back to accommodate this.

Motor mounts were built-in at this time to assist in keeping the hull warp-free and sitting inside the coamings that the cabin was to fit over. For the bow, which is a complicated shape, I used several blocks of blue styrofoam glued together to fit the front of the hull, cut and sanded to shape... then altered several times! At the side of the bow the sponson outer sections drop lower than the hull bottom in order that the boat can sit on three points when on the plane. This drop and indeed general underwater shape is pure guesswork

There's not much to the actual tray, it's very shallow and has been made from 1.5mm ply with a couple of 4mm ply bulkheads and stringers.

despite having taken views from a number of people and looked at other hydro boats and plans. One of the reasons for using styrofoam is that it's easily altered or added to if some adjustment is needed during testing. Strictly speaking the rear edges of the front pontoons look to be a bit too far back for a normal hydro hull, but that's as the real thing was built!

There's no air rudder to be seen, therefore there must have been a water rudder underneath the boat at the back end and this is where I installed one. I made the rudder





For the bow, which is a complicated shape, I used several blocks of blue styrofoam glued together to fit the front of the hull, then cut and sanded to shape.



While I was at it, I gave the thrustline a small upwards tilt which, I figured, should be beneficial as a horizontal line will tend to push the nose down (see photo below). The motor mount is positioned above the tray to allow the battery to slide up and down the hull as much as possible in order to shift the centre of gravity as required. My 2.4GHz receiver is fitted to the rear bearing support and the ESC to an extension arm forward of the motor mount. Both units are very light and do not add significantly to top-weight.

To control the beast a J. Perkins EnErG aircraft style forward-only brushless ESC of 20A capacity was installed, the intention being to power it all using a 7.2V NiMH stick pack. I was pretty sure I'd need some ballast to counter the weight of the high-level motor and this, I thought, would be ideal.

Testing, testing

Airboats can be very tricky. Unlike a water propeller, which obviously loses drive once it leaves the water, an air propeller just keeps powering a boat along, indeed this thrust increases dramatically once the drag of the water is absent. So, the boat was deliberately 'underpropped' for its first outing, although a handful of airscrews were carried in the toolbox for experimentation purposes.

I had already 'motored' the craft at home to make sure nothing fell apart and now with the boat on the water the throttle was nudged open, by degrees, to explore



ABOVE: Mission accomplished. With colours that nicely reflect the period, she's a real head-turner.

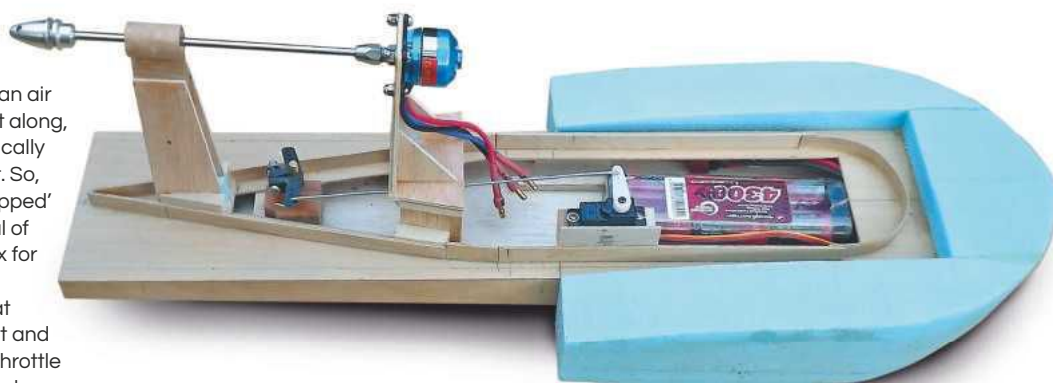
the handling and stability qualities of this guesswork hull. It went faster and faster but only up to a point, as the 5.5 x 4" (diameter and pitch) prop was clearly inadequate, as indeed, was expected. Mind you it did prove that at 'pottering about' speeds the manoeuvrability was good and there was no unforeseen radical change of trim or any tendency to fall over in the turn. Meanwhile, a rearward movement of the battery countered a moderate nose-down trim when first moving off. Following this, larger props were fitted, going up in stages to arrive at the best looking and performing combination of two 7 x 4" props. Using this set-up the boat is nicely brisk, but not hydroplane brisk, i.e. to justify the hull shape. Clearly there was more performance to be had from somewhere and this somewhere was found by using a LiPo battery pack. It does seem to defy the laws of physics that a 2s 7.4V LiPo appears to produce significantly more performance than a 7.2 NiMH, but (besides the reduction in weight) the wattmeter tells the full story. Even with a fully charged battery, at full throttle the NiMH voltage drops to roughly 7V and the meter showed 57 watts. However the LiPo voltage stayed at about 7.8V (a fully charged pack is well over 8V despite the 7.4V tag) and the watts went up to about 75, a decent percentage increase. Even so, it still didn't look like a Hydroplane and so the motor was swapped out for a Turnigy 2822/14 of 1450kV. At 150W this motor is almost twice as powerful as the original and was mounted aft of the support in order to shorten the shaft a bit and further decrease the likelihood of shaft-whip due to vibration.

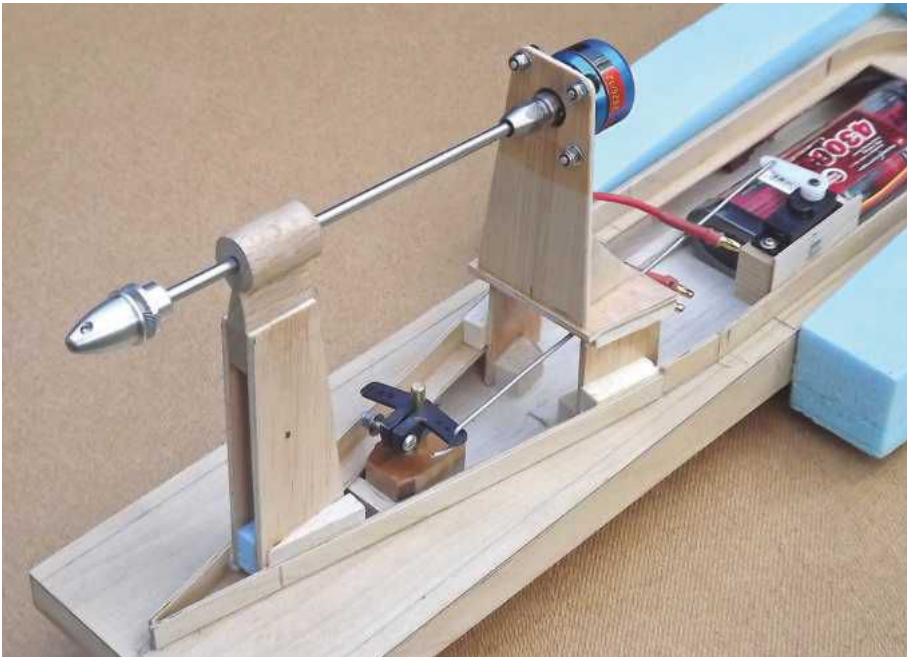
As expected this percentage increase had a dramatic effect on performance and the boat now rockets along to the consternation of all and sundry, especially the person using the controls! And therein lies a problem. With these large props and the very low weight, the boat suffers from a massive torque reaction and, when on the plane, becomes horribly unstable being relatively narrow and having a high superstructure. You dare not try full throttle in anything other than a straight line (as I've found out the hard way). This has been mitigated to some extent by adding 50gm of ballast to the starboard side to counter the torque but, unfortunately, the weight has given a lopsided appearance at rest, which is unavoidable. Ultimately I found that a more stable, if not so brisk, performance could be obtained by running the craft on the aforementioned 2s LiPo battery with the addition of lead to boost the combined weight to something just under the weight of a 6-cell NiMH pack. Now, on face value this might seem a bit silly, however it is to do with the weight distribution and not just the battery type.

Other modifications have included more styrofoam – a 10mm sheet having been fixed underneath the rear hull to stop the back end sinking quite so much – and a go-faster full width trim tab 40mm long to effectively lengthen the hull's contact area with the water. Somewhat strangely the boat seems to need a few seconds at full throttle before fully rising up on the plane and I can only think that this is due to water adhering to the front sponsons and needing time to unstick.

Finishing touch

Having conducted the trial runs all I needed to do now was finalise the finish of the hull. The





TOP LEFT: Due to the tapering of the rear end the motor is situated halfway along the boat with a 4mm stainless steel shaft connecting it to the prop adaptor.

TOP RIGHT: During testing, ever larger props were fitted, going up in stages to arrive at the best looking and performing combination of two 7 x 4" APCs, as seen here.

photos I have are inadequate to tell if the rear flat section of the hull was a paint or a wood finish, so I've painted it gloss black, which contrasts well with the cream bodywork. I'm certain that the original bow construction would have been plywood, and nicely varnished at that. As it happens there was a small roll of leftover mahogany veneer from the Pontoon boat project, so this was used for the bow and hull sides. No surprises this time regarding veneering, it is still time consuming but there was only a relatively small area to treat. After more than a few coats of varnish (well flattened down between coats), I have ended up with a beautifully dark glossy red / brown prow to compliment the pale cream and dark red coloured body, a match made in heaven... At least, I think so.

Overgrown skimmer

Despite the unusual design, this is basically only a long Everglades type skimmer such as you might see with an Action Man figure perched on top. There's some novelty in the long drive shaft and vac-form superstructure but other than that we have something here that is, in fact, fairly conventional. It's certainly a head turner (when you notice it, it looks very small on the pond!) and the colours are nicely chosen – see beginning – to reflect the '20s period. Its speed on a 2s LiPo with additional ballast is more than adequate and definitely justifies the hydro style hull. Funnily enough, I was worried about getting the correct stern low sit in the water, however at rest the boat sits much as the photos of the real thing, which is good. Mind you, when on the move the rear appears to sink alarmingly low in the water, although this has been mitigated somewhat by the aforementioned additions under the hull. With the pusher prop mounted high and to the rear the tall thrustline pushes the front down initially which can cause a decks-awash situation at about ¼ throttle but it soon rises again as more throttle is applied and hydrodynamic lift occurs to correct matters. From some angles, as shown in the



pictures, the hydroglisseur does look very odd, but this was the shape as designed by Monsieur Farman.

The real deal?

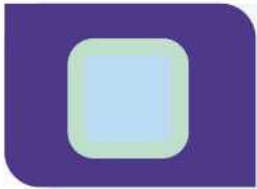
It would be no fun making experimental craft if there were no problems to solve. Stability, as stated, is either good or bad depending on how fast you're going. In all likelihood the original superstructure (in light alloy) was a much smaller percentage of the overall weight in the prototype craft compared to the model, but there again, there must have been considerable torque effect from that massive aero engine and prop. As with all these light craft, sailing is best carried out without too much wind as the superstructure is a jolly nice sail and affects turning performance. At all speeds the Farman is very quiet; even at full throttle it just whispers along and the yellow circle that you see sometimes, when the prop is turning, is the only clue as to exactly what is pushing it along. That additional ballast does limit the performance but makes a big

difference to the stability and hence usability, and the boat is still brisk. Performance on a 3s LiPo (11.1 – 12V) is eye watering, that is, until it leaves the water.

At the end of the day then, did we use sufficient artistic licence and reproduce a genuine 1924 vintage airboat? Almost certainly, and what a little gem. I would have loved to see the original in action and hear that big V8 aero engine roaring away. It does, however, beg the question: Would you want to do 80mph sitting inside it?



It would be no fun making experimental craft if there were no problems to solve. This, then, was fun!



CADMA ■ ■ ■

Conisborough & District Modelling Association

Northern Model Boat Show DONCASTER 2018

Hosted by CADMA
June 2nd & June 3rd
Saturday 10am to 4pm
Sunday 10am to 4pm
at the
Doncaster Deaf Trust
Leger Way Doncaster DN2 6AY

Easy to find directly opposite the race course

Lots of traders!

- 100's of models on show
- Restaurant on site at reasonable prices
- Sailing in our portable pool

Admission charge for all:

Adults - £5

Family ticket:

(2 adults 2 children) - £12

Children under 16yrs - £2

(must be accompanied by an adult)

FREE PARKING

For further details please contact:

Don King (Show Manager)
07990 828201



NR-1

With bow and stern plugs suitably fettled **Roger Suitters** turns his attention to mould-making, but it's not all plain sailing...

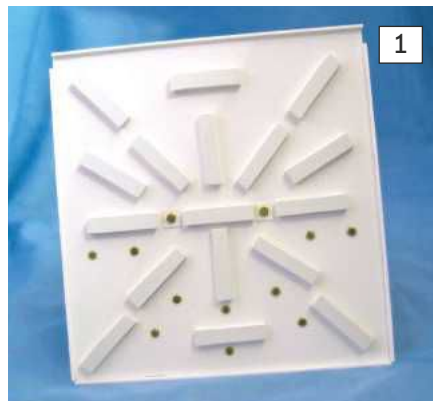


Having (last month) introduced you to the NR-1 and made a start on the build, by producing the plugs for the bow and stern section, we're going to take a look at what's involved in producing the moulds, a process that could only be considered when said plugs had been painted and all openings and blow-holes sealed.

For my part, silicone rubber moulds seemed a good idea but due to the size of the items, 'skin moulds', I thought, would be a more economical way of making them. Regarding sealing the 'masters' and their fittings, a slow-setting two-part epoxy adhesive can, if desired, be lightly smeared over a fitting and where it is attached to the main body of the plug. This will naturally 'level out' and fill any gaps, after which surplus can easily be removed by a tissue lightly wetted with alcohol or methylated spirit.

Preparation is key

As last month, I'll concentrate on the bow section, as the stern cone was pretty much a repeat of this in construction terms. Firstly, then, a 3mm thick, square styrene base was cut to size. On one side of it, lengths of 5mm square styrene were glued to reinforce it so that no distortion would take place. 4BA clearance holes were drilled in this section to allow screws to pass through into the plug's end. **Photo 1** shows of the underside of the base piece. Next, from a sheet of styrene card, an area was cut away such that the bow section would fit into it as closely as possible. Near the outer edge of this card (normally known as a 'fence'), 5 x 5mm square brass tubing was glued to keep it rigid. To ensure it remained vertical, on one side, plastic card angle brackets were also added. See **Photo 2** and you'll get a good idea of where we're heading. On the other side of the fence, small 4mm diameter domes were



glued in place, approximately 6mm from the hull's edge. These little domes would be the male locating pins for one half of the mould. With the bow section and its fence all set-up, Plasticine (red in this case) was forced into the gap between plug and fence (**Photo 3**). During all this, and to avoid direct handling of the master (plug), latex gloves were worn to guard against finger marks which will 'always' show on a casting that's made in this way. As you can imagine, there's nothing worse than a big thumb print 'moulded' into the side of your lovely new GRP hull! Another useful tip is to pre-coat the Plasticine with some silicone rubber, to make sure it stays in place.

Silicone rubber

A few words about this will do no harm. It's a cold cure compound that's supplied as the rubber, together with a small pot of catalyst. The proportions of the two are critical to it curing and it will usually take at least 24 hours to fully 'go off' and be okay for handling. The rubber comes in different grades, usually referred to as its 'shore' rating. This is the degree to which the rubber can be 'pulled around' without it tearing. Clearly,





in a mould with deep undercuts, the rubber needs to be very flexible in order to get the 'master' and later the resin castings, out of it. Equally, if you're making a rubber mould from which white metal castings are planned, then the rubber will usually have to be much harder (and therefore less flexible) in order to withstand the heat.

The other consideration is that unless you're buying very large quantities of the rubber (which has a limited shelf life) then it is not particularly cheap. Therefore, you'll be wanting to use the minimum volume of it to make your mould, hence the term 'skin mould'. I was aiming for a mould thickness of 5 to 12mm, maximum. So, how's it done?

Plaster cast

From here, another sheet of 0.5mm styrene card was temporary glued around the plug as in **Photo 4**, leaving a 5 to 12mm gap around it. Plaster-of-Paris was now placed around this temporary half-tube, Modroc



bandage was added for strength, then a final layer of Plaster-of-Paris. This was all left to dry thoroughly for several days. Once fully set, the 'plaster cast' (for that's what it is) was removed. **Photo 5** shows said 'cast'. Note that it is between this cast and the plug that the rubber will be added.

With the job progressing nicely the next task was to drill the cast so that it could be secured to the styrene base of the mould and the fence around the bow section. A groove was also cut (filed) in its inner face, so that the forthcoming rubber mould would always fit back into it in exactly the same place. The plaster cast was now coated with PVA release agent and then fitted back to the styrene fence and base around the bow section plug. The whole was now ready for the rubber.

Adding the silicone creates something of a dilemma because you don't want to waste any, but on the other hand, calculating how much you will need is not that easy either. You could always fill the void between the 'plug and fences', with water and measure the volume, but then you must let everything thoroughly dry before adding the rubber. Also, inevitably, the fences will leak, but not to the same degree when the thicker consistency rubber is used.

Anyway, three days passed before the rubber skin and its plaster backing were removed, and the job wasn't too shabby, even though I say it myself. The procedure was then repeated, on the remaining side, but this time two grooves were filed in the plaster as a keyway, to avoid any subsequent confusion. **Photo 6** shows the end result. Note, on the left, the rubber mould sitting in its plaster backing piece and on the right, the rubber is separate from the backing piece. The process for moulding the stern cone was exactly the same, but you must remember that every blemish on the master plug will be replicated in the mould and its subsequent castings.



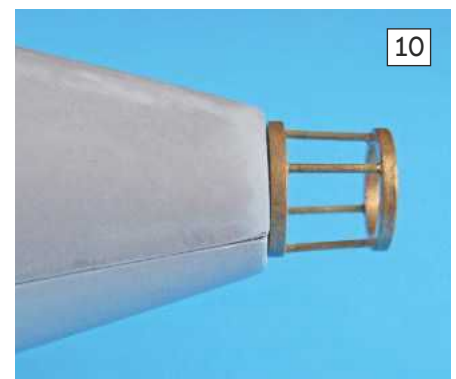
Decision time

By the time the moulds were finished, it was late-September and, bearing in mind that fibreglass gel coat does not like damp conditions, I was faced with a crucial decision: should I continue or stop? Well, I decided to give it a go by 'laying up' the bow section but, alas, here in **Photo 7** you can see what happens if you're working with fibreglass resin (in its various forms) in unsuitable conditions. The laying-up process had followed the usual sequence of a gel coat, followed by a resin, fine tissue and then a chopped strand mat layer but clearly it was the wrong sort of 'atmosphere' on the day. So, not good at all, indeed all I could do was wait for warmer weather and / or make sure the workshop was dry and at a decent temperature before having another go.

Photo 8 is of a later, successfully moulded, stern cone unit after cutting for its removable section. This removable section is to enable the necessary rudder and hydroplane linkages etc. to be installed and adjusted as need be. The stern cone is perfectly symmetrical whichever way it's turned and was made as one piece in its mould so that when the removable section was cut away the two pieces of GRP moulding would still match perfectly without distortion. A jig ensured the correct cutting line and a 'Zona saw' did the business. Mind you, this created a further minor problem...

Mind the gap!

Now that the stern cone had its removable section, there was, of course, a gap created by the saw cut. Admittedly of only 0.2mm, but a gap nevertheless. So, somewhat ironically, it was now necessary to build



“...there's nothing worse than a big thumb print 'moulded' into the side of your lovely new GRP hull!”

up the horizontal and vertical cut edges to recreate the perfect cone. The process of achieving this was to put a temporary 'fence' against the cut edges and build these up with car body filler and then sand so both stern pieces perfectly matched again. Actually, somewhat easier than it sounds, **Photo 9** showing the finished upper section with some locating tabs bonded in place whilst the lower section is in the background, likewise with some locating tabs. But how to secure this? The obvious solution is to lock the cover in place, using vertical screws, preferably from the underside, but inevitably the mountings for these will later turn out to be in the most inconvenient places, so an alternative 'means to an end' was chosen.

On the full-size submarine, there is a light at the tail-end of the stern cone which illuminates the ocean floor and is protected by a shroud as in **Photo 10**. On my model is attached to a bolt that screws into a mounting in one half of the stern cone and is likewise retained in the other section. So, it passes through two 'bosses', one in each section, thus holding it all together. The tabs mentioned earlier ensure that the removable section is always positively located, so it can all be dismantled very easily.

Turning our attention to the light shroud, this is of brass and there are seven parts, a lathe being necessary to turn its end plates, the outer disc being a 'ring' and the inner disk solid, but with its centre accepting a 2BA stud. **Photo 11** is of the key components, namely the outer end plate and the inner ring. Mind you, just be on the safe side, two were made of each. The point of the jigs, is to enable the holes for the bars that join the end plate and inner ring to all be in the right places and to ensure accurate alignment, given that the light shroud actually tapers slightly. Since I

don't possess a dividing head for the lathe and milling machine, these styrene jigs made getting the holes in the right places quite straightforward. The bars between the plates are from 0.8mm brass rod, with their ends slightly reduced (not easy), to fit into the plates. With this complete, the 2BA stud could be screwed into the inner end plate and silver soldered. Incidentally, the stud has a hole through its centre to accommodate wiring for a working light which I may install later. The final result can be seen in **Photo 12** and, as always, patience and jigs make lighter work of such tasks.

Mounting bosses

With the two halves of the stern taped together a clearance hole was drilled through the point of the cone to take the light fitting's

stud. Glued to the lower half of the cone is a brass sleeve to take said stud. The sleeve (which isn't threaded) has a slot cut in it so that it can be opened or closed as necessary to ensure the threaded bit is a snug fit within it. Next a brass blank was drilled and tapped 2BA, then shaped to fit the lower stern cone. The shroud was passed through the brass sleeve into the blank which was then glued in place (**Photo 13**). What was now needed, was something similar in the other part of the cone, but not threaded, so the stud could pass through it into the aforementioned threaded brass section. Inspiration came in





quite complex as they also include the motor housings and their propellers. In other words, as the hydroplane changes its 'angle of attack', so does the line of thrust, a bit like the current American military Osprey aircraft.

Photo 15 of the finished hydroplane will clarify. To achieve this each hydroplane must be made in two halves (top and bottom) with an identical motor mounting bulge in each. Accordingly, the top piece of the port side hydroplane would be the mirror image of the bottom piece on the starboard side. At least that was the plan.

For the initial basic former, two pieces of styrene were cut to shape, bolted back-to-

the form of a centre boss from a servo horn. One such duly had its arms cut off and its centre opened out for clearance over the 2BA stud before being glued to a shaped styrene mounting block for securing into the other part of the stern cone. Fixing this to the cone required deft fingers and some careful work inside it all, i.e. to make sure the glue didn't go where it wasn't wanted and that everything didn't become permanently glued together. The trick was to tack it in place, then separate the two cone sections and reinforce the joint, with the stud bolt and light fitting extracted.

Photo 14 is of the finished mounting and with this sorted the parts of the stern cone could be assembled and disassembled at will, but always returned to the same position.

Mounting excitement!

The hydroplane and drive motor mountings are fitted to the stern cone and are



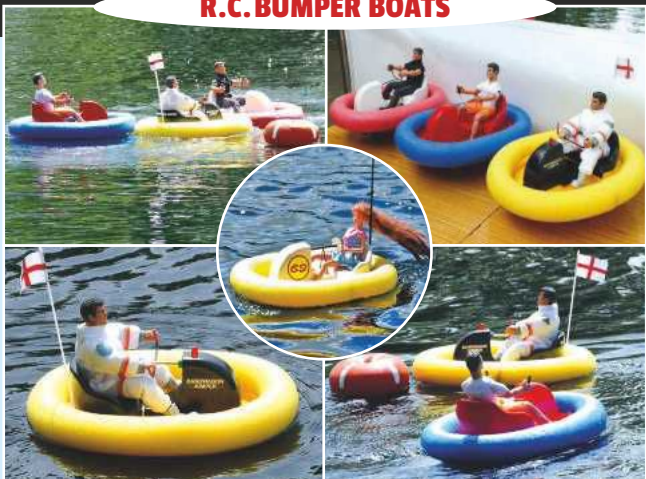
back, and matched to the cone's curvature (**Photo 16**). The hope was that they would be mirror images of each other and the start of the hydroplane mould 'masters'. As you can see from **Photo 17**, ribs of styrene interspersed with foam created the basic profile, in much the same way as the bow and stern sections were created earlier. Sandpaper and a hot wire cutter are really all the tools needed, plus patience and the occasional use of car body filler to rectify over-exuberance with the sanding block. A veneer of 0.25mm styrene sheet finished this part of the job, plus the inevitable filler, yet again.

And that is where we must leave things for this month. Buoyed with success and with some real progress being made, next time we meet we'll sort the motor housings, join the three hull sections and take a look at some fittings. Back soon...



LOWE MODELS & ACCESSORIES

R.C. BUMPER BOATS



Quote mag10 for 10% discount.



MODEL BOAT FUN FOR ALL THE FAMILY!

- Smoke Units • Steam Units
- Spares and accessories

See the website

www.lowemodels.co.uk

Tel: 07846 041049 Or email us on: lowemodel@gmail.com

TONY Green
STEAM MODELS

www.tonygreensteammodels.co.uk

19 Station Road
Thorpe-on-the-Hill
Lincoln LN6 9BS
t: 01522 681989
e: tgsm@btinternet.com

COMING SOON!
"The Jumping Tuna" New model fishing boat.

RNLB 'The Scout'

(Waveney class Lifeboat)

- Model Scale: 1" to 1ft (1:12th)
- Model Length: 44" • Model Beam: 12 3/4"
- Displacement: 18 lbs

The 44 ft Waveney class of lifeboat was a development of the US coast guard surf class of boat, the Waveney was introduced into service in the early 1960's as the RNLI first fast boat.

They had a top speed of 15 knots and cruised at 12 knots. Many were built for Canadian & European services.

Our model is based on archives builder's drawings and contemporary photo's of the Hartlepool lifeboat "RNLB THE SCOUT".

She entered service in 1977, after 20 years' service she was sold to the "ADES" the Uruguay service.

There was a class total of 22 Waveney's built for the RNLI.

Eian & Bill purchased the business of D METCALFE MOULDINGS in 2015 and continue to manufacture model boat kits to a very high standard. There are currently six boats in the range with a new model to follow very soon!

*P&P £15 (Highlands, Islands & Overseas @ cost)

Information Sheets and Photo CD's available on request

• MAIL ORDER SPECIALISTS •

Telephone/24hr Answerphone: 01522 681989



OUR OTHER KITS

Motor Tug Avenger

Sc 3/8" to 1ft (1:32nd),
45"Lg x 12"bm £420+P&P

River Star Motor Tug Launch

Sc 1" to 1ft (1/12th),
27"Lg x 9"bm £195+P&P

Orkney Ferry TDSV GRAEMSAY

Sc 1:24, 28"Lg x 10"bm £239+P&P

Lady Laura/Lady Marina

Sc 1:32, 31 1/2"Lg x 9 1/2"bm £234+P&P

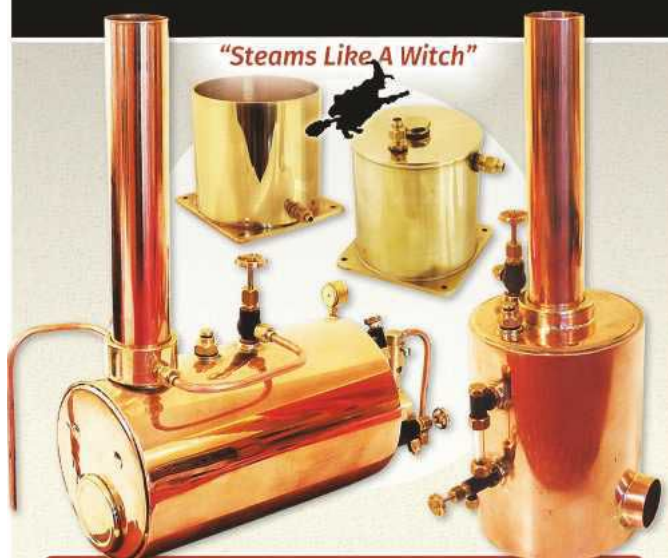
RNLB ALICE UPJOHN

(Rother class Lifeboat)

Sc 1:12, 41"Lg x 13"bm £390+P&P

£420.00
+P&P*

Pendle Steam Boilers



Pendle Steam Boilers have traditionally manufactured boilers for the model steam locomotive community but now specialise in boilers for the stationary & boat enthusiast

All of our items are designed, developed and manufactured in-house using only the very highest quality materials.

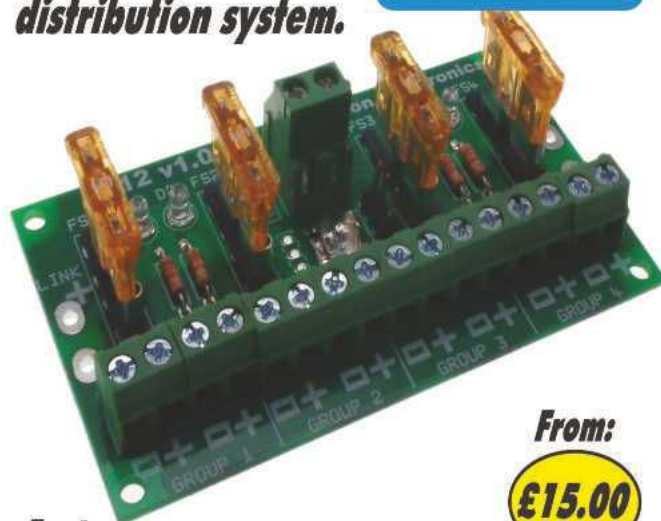
If you have any questions or design modifications, please don't hesitate to get in touch.

t: (07452) 875912 • e: info@pendlesteamboilers.com

www.pendlesteamboilers.com

INTRODUCING:-
The "P112" power
distribution system.

ACTION
R/C ELECTRONICS



From:

£15.00

Features:

4 fused output groups, each with
2 sets of screw terminals.

Multiple P112s can be linked together to
give higher numbers of outputs.

Available with or without main power switch.

For more details or to order call 01248 719353

www.component-shop.co.uk

Waverley

Fraser Gray steps aboard the last surviving seagoing passenger-carrying paddle steamer in the world

Read that introduction again, let it sink in, and you begin to realise that the paddle steamer Waverley is something special... something very special.

Launched in 1946 to replace an 1899 paddler of the same name, the 693 tonne Waverley was built by A & J Inglis of Glasgow and named after Sir Walter Scott's first novel, indeed she carries a portrait of Edward Waverley on her paddle boxes. Her keel was laid on 27 December 1945 but, due to material shortages after the war, she was not ready for launch until 2 October 1946. It wasn't until the following year on 20 January 1947 that she was towed to Greenock for the installation of her boiler and engines. Finally, she made her maiden voyage on 16 June 1947 and started what was to become a very long career.

Entering service with the London and North Eastern Railway in June 1947, Waverley worked the LNER's Firth of Clyde steamer route from Craigendoran Pier, near Helensburgh, up Loch Long to Arrochar. The 1948 nationalisation of Britain's railways brought their Scottish steamers into the Caledonian Steam Packet Company (CSP), a subsidiary of the Railway Executive. Alas, after a revival of fortunes in the 1950s, the 1960s saw a gradual change in holiday habits that led to a decline in passenger

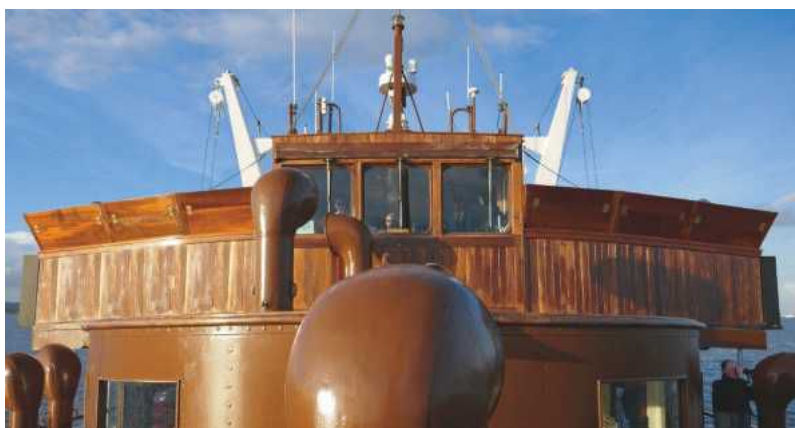


numbers and the closure of many small piers. As the '60s drew to a close CSP had begun to merge with David MacBrayne Ltd., the West Highland shipping and ferry company and, in 1973, CSP became Caledonian MacBrayne Ltd. (CalMac). Finally, and with some regret, CalMac withdrew Waverley after the 1973 season as she was too costly to operate and required significant expenditure.

By then the Paddle Steamer Preservation Society had been set up as a registered UK charity and, keen to ensure that the ship was preserved, CalMac sold Waverley to the PPS for the token sum of one pound. Under the watchful eye of the Preservation Society, then, she has been restored to her 1947 appearance and now operates passenger excursions around the British Coast, mostly in the summer season. Since 2003, P.S. Waverley has been listed in the UK National Historic Fleet by National Historic Ships UK as a vessel of pre-eminent national importance.

If you'd like a trip on Waverley and a unique opportunity to see this famous ship at first hand, visit www.waverleyexcursions.co.uk and make a booking. For more Waverley images visit www.modelboats.co.uk.





DATAFILE

Class & type: Coastal excursion paddle steamer
Tonnage: 693grt
Length: 239ft 11ins (73.13m)
Beam: 57ft 3ins (17.45m)
Draught: 6ft 3ins (1.91m)
Power: 2100 ihp (1566kW)

Propulsion: Diagonal triple expansion steam engine by Rankin & Blackmore Ltd.
Service speed: 14 knots (26km/h or 16mph)
Capacity: Up to 925 passengers





SS Beaverford

In memory of a ship and heroic crew that history has largely forgotten, **Roy Cheers** builds a model of remembrance

Except, perhaps, for tugs, it seems that the most popular subjects for a scale model boat are either a rescue vessel, such as a lifeboat, or a warship. These are the craft involved in saving and defending lives, the types about which books are written and heroic tales told. Merchantmen, on the other hand, generally go about their business out of the public eye, carrying freight and passengers from one port to the next. Maybe that's why they appear not to be a big favourite in our hobby; I certainly haven't seen many. To me, then, it's inexcusable when one of them and its crew takes heroic action and such action is ignored. Such was the case with the *Beaverford*, the story of which makes it an intriguing model. The following summary, extracted from the book *Convoy Will Scatter* by Bernard Edwards, will explain.

Anyone who has read about the Battle of the Atlantic in W.W.II will be familiar with the story of HMS *Jervis Bay*. She was a passenger liner fitted out with seven 1898-vintage 6 inch guns, and designated an Armed Merchant Cruiser. Outgunned and outclassed, she fought valiantly against the German pocket battleship *Admiral Scheer* on a November night in 1940 in defence of convoy HX84. Alas, within twenty-two minutes *Jervis Bay* was out of the fight, lying smashed and burning, most of her crew dead.

The defence of the convoy was then taken up by the *Beaverford*. She was armed with only a 3" gun forward and a 4" aft. A number of eyewitness accounts show that, after the demise of the *Jervis Bay*, the *Beaverford* manoeuvred to hold the *Admiral Scheer* at bay for some five hours, allowing thirty-three ships

to escape. Inevitably, she paid the ultimate price for her defiance being hit by 11" and 5.9" shells and finally torpedoed from the German warship. She sank leaving no survivors.

When the news reached London of the Atlantic battle, Acting Captain Edward Fogarty Fegen of the *Jervis Bay* was posthumously awarded the Victoria Cross, while a number of his crew also received awards for bravery in action, including no fewer than seven Distinguished Service Medals. The story of the *Jervis Bay*'s last stand made headlines around the world. This was Boy's Own Annual stuff and the British public, sickened by defeat after defeat, loved it. Over the intervening years countless books have been written, films made, and memorials to HMS *Jervis Bay* erected in the UK and elsewhere. The story of this heroic armed merchant cruiser is still recited with awe. Fogarty Fegen did what he had to do and as a result he lost his ship, his life, and the lives of 189 other men. Their heroism was justly acknowledged and honoured.

In a just world Captain Hugh Pettigrew and his crew of seventy-two would have received the highest awards in recognition of their gallant fight, which went far beyond the call of duty. What they actually received was a VNC (Voyage Not Completed) against their names and their pay stopped the moment the *Beaverford* slipped below the waves. The *Beaverford* has no significant place in history. The only memorial ever commissioned to the ship was a small bronze plaque in the assembly hall of Downhills Central School in North London. You see, Downhills had adopted the *Beaverford* under the auspices

of the Marine Society in the 1930s and when the school disappeared the memorial plaque was lost. Many years later, it was found in a junk shop in Tottenham, London; anybody's for a few shillings. So were the *Beaverford* and the seventy-three men who died with her remembered. It is only fair to question why the men of the *Beaverford* received no recognition. It was Pettigrew and the crew of the *Beaverford* who saved HX 84 from complete annihilation, yet they were awarded no medals, no commendations even, only the cold comfort of a watery grave.

SS *Beaverford* was one of a class of five similar ships and entered service in 1928, having been built by Barclay Curle & Co on the River Clyde. She was a British-registered and manned cargo ship, but owned and operated by Canadian Pacific Steamships on its regular transatlantic service between London and the east coast of Canada. She was 159m long, 19m in beam and had a 9m draft with a capacity of 10042 GRT. She was twin screw and powered by two Parsons single-reduction geared steam turbine sets developing 8000 shp, which gave her a speed of 14 knots, with a normal crew of 77.

Maritime treasure

Copies of the deck plans and rigging profile were obtained from the National Maritime Museum at Greenwich. For plans that were almost 90 years old most were in excellent condition, especially the rigging profile. Unfortunately, that was not true for the Lines Plan which was reported as being in poor condition, and could not be copied. So, the

*Beaverford disrupts the enemy's fire.
A painting by Jim Rae, reproduced by
kind permission of the artist.*



“ This was Boy's Own Annual stuff and the British public, sickened by defeat after defeat, loved it ”

only be estimated based on the pictures and other literature that's shown as typical for vessels of the same period. A scale of 1:144 was selected, giving an overall length of 43 inches and an estimated loaded waterline weight in the range of 12 – 16 lbs. To simplify things a little, the after deck was made flat, with no sheer towards the stern. When the main deck plan and the profile were scaled down to the same overall length I discovered that the two did not quite match. The superstructure on the profile was longer than that shown on the deck plan. Which was wrong, or were both wrong? Alas, there was no way of knowing so the arbitrary decision was made to have the superstructure match the plan of the boat deck.

Frame on plank

In a departure from my previous models I was encouraged to build this one on a plank. To be precise, the plank was, in fact, to be both base and part of the hull. This decision was influenced by the fact that the Beaverford has a long, narrow hull with an 8:1 length:beam ratio and I was concerned that a simple, plank-on-frame hull might have a greater tendency to warp than a solid plank. Advice regarding the best variety of wood to use included pine, poplar, cherry and Spanish cedar, however my local supplier had a piece of planed poplar of appropriate dimensions ($\frac{3}{4}$ " thick by $5\frac{1}{2}$ " wide) in stock and that made the choice easy.

To start with the plank was cut to the shape of the hull after which three $\frac{3}{8}$ " deep recesses were cut with a router. One was to accommodate an SLA battery, the second was for a Steam Master Unit – both of which were too tall to sit on top of the plank – and the third was for the prop shaft drive pulleys. With this the plank was profiled at bow and stern the match the slope near the bottom end of each frame. A router was used to cut transverse grooves $\frac{1}{4}$ " wide by $\frac{1}{4}$ " deep in the plank to locate the $\frac{1}{4}$ " thick plywood frames which, incidentally, were positioned according to my adapted lines plan that saw them spaced 5 inches apart in the parallel-sided midships area. My original idea was to position frames close to the locations of the kingposts and to support the kingposts from them. Later I decided to make both fore and aft decks removable but it was too late then to move the frames.

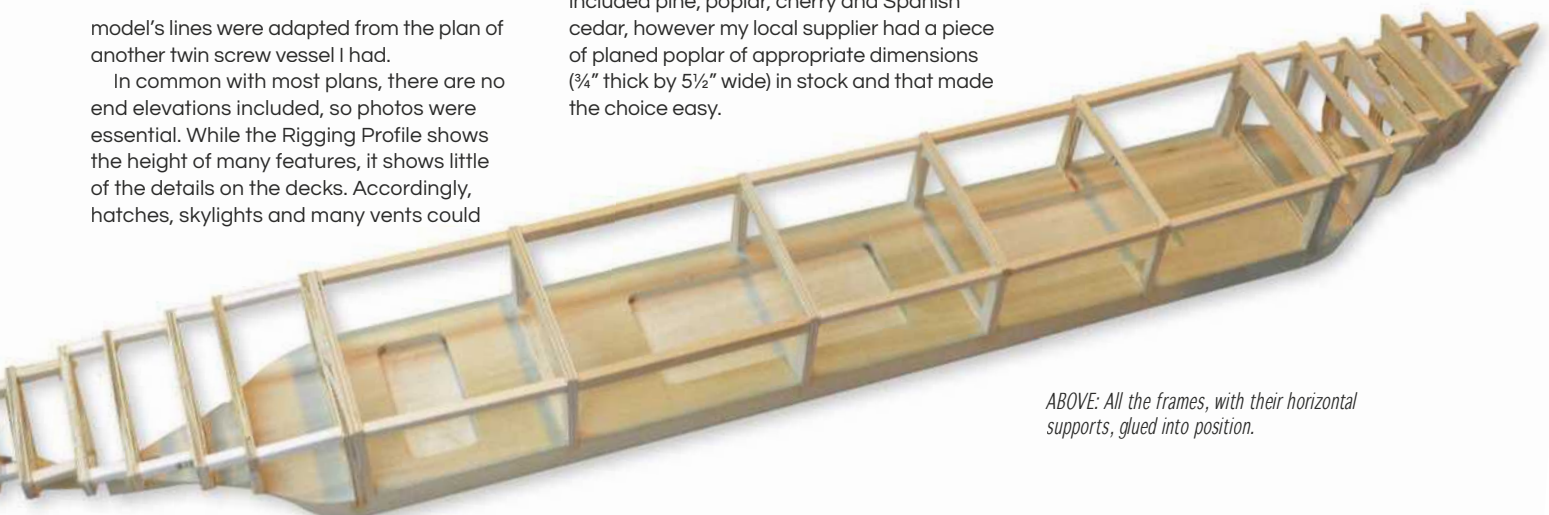
Stiffeners were added between the frames to firmly locate them although it should be noted that these were not inwales in the usual meaning of supports for the deck and hull, indeed they only followed the deck edge in the mid-section. It's also worth noting that in order to ensure precise alignment of the frames I began by positioning the fore and aft mid-section frames, having first marked



ABOVE: The planed poplar base plank of the hull after cutting grooves and recesses.

model's lines were adapted from the plan of another twin screw vessel I had.

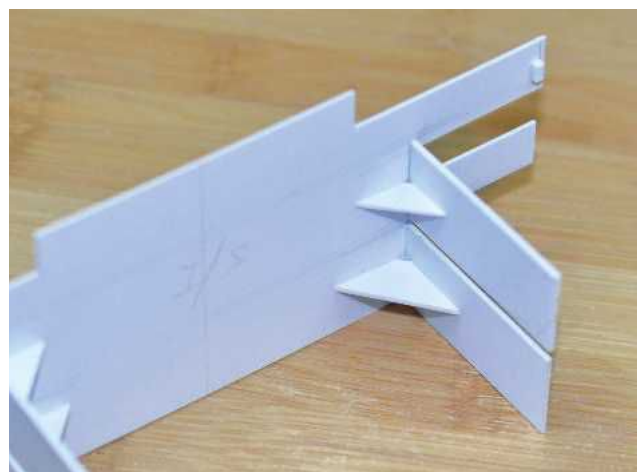
In common with most plans, there are no end elevations included, so photos were essential. While the Rigging Profile shows the height of many features, it shows little of the details on the decks. Accordingly, hatches, skylights and many vents could



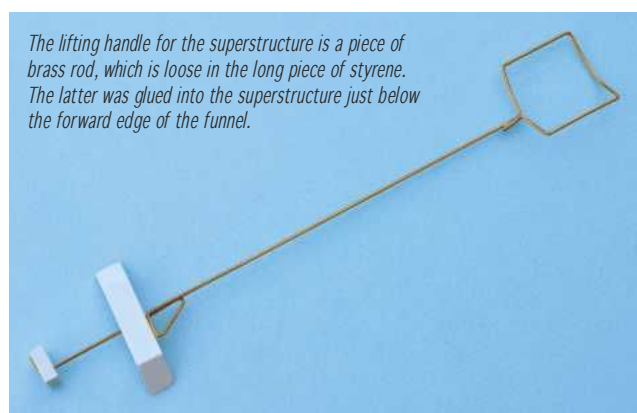
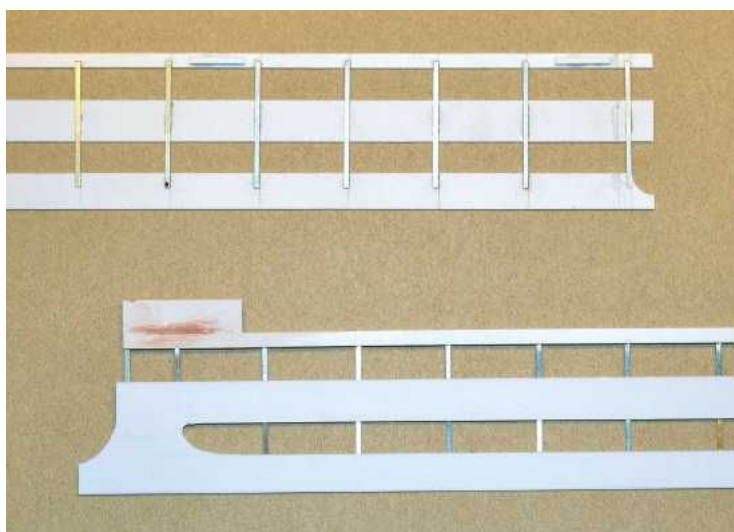
ABOVE: All the frames, with their horizontal supports, glued into position.



ABOVE: Fitting pins to support the bilge keels.



RIGHT: The front wall of the superstructure with the deckhouse walls attached.



LEFT: Parts of the two superstructure sides ready for assembly. At the top is the inside, aft end, starboard side; at the bottom the outside, forward end, port side.

the centrelines on the top edge. These, then, were used with the vertical line of a laser level (pointing downwards) to double-check the position of the remaining frames. Two supports for keel-up assembly were then screwed to the plank and one frame.

Double skin

The main decks were to sit inside the hull plating so to make this look right I selected $\frac{1}{32}$ " birch plywood for the hull wall. Since my planking skills are way below those that can be seen on wooden wall model warships, I knew that some filling and sanding would be required to get a smooth surface and since $\frac{1}{32}$ " doesn't give much scope for sanding, a double thickness was used, with the outer skin extended higher at the deck edge. Large sheets were used in the parallel-section midships area with the bow and stern covered in individual planks, cut from the plywood sheet. Fortunately the plywood was flexible to the point that one length could be easily wrapped around the stern without it cracking or splitting. A diagonal piece was used to satisfy the transition in hull plating from fo'c'sle to main deck, diagonal plating followed for the forebody, whilst on the aft body the outer

planks were arranged vertically. With its ability to make a strong bond quickly, cyano' glue was used to attach the planks, the process accelerated by moistening the wood.

Moving now to the extreme bow and stern, these were built up with blocks of balsa, then shaped as required. Finally, and with all the planking in place, the hull was given a light coat of two-part wood filler, then sanded

smooth, a process which saw the mid-body rounded using a router, then hand-shaped at the ends.

After fibreglassing, the hull was brush-painted with several coats of red and sanded in-between. Meanwhile the turn of the bilge was sanded back to the fibreglass for the fitting of the bilge keels. Now, there was no information on the plans about the

RIGHT: Undoubtedly the most complex part of this build was the superstructure, albeit very 'square'.





ABOVE: Some of the boat deck fittings in situ.



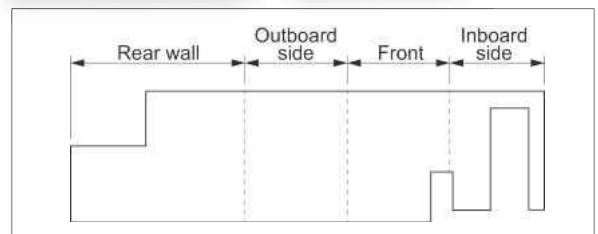
length of the keels, so they were made to span holds 3 to 6, supported at intervals by model rail track pins driven into the base plank, and glued underneath with epoxy. As you'll see from the photo, a small fixture was made from styrene to help position the pins uniformly, after which the bilge keels could be given a coat of Humbrol primer, followed by a couple more coats of red. With the waterline marked the hull above was treated to a coat of matt black, followed by the ship's name, a handful of other markings and an overall coat of matt varnish.

Fo'c'sle

Fashioned from $\frac{1}{32}$ " styrene the fo'c'sle deck is permanently glued in place and even though the anchors will be fixed in position, I like to ensure the two ends of the hawse pipes connect. This proved a little trickier than expected because the pipes are at odd angles to the faces at each end and with solid wood in that location it's really quite awkward to drill from one end and be sure that your hole comes out in the correct location at the other, especially so with the hawse pipes on this model scaling at 2mm diameter. As luck would have it I had a 'good idea', this being to drill out a fairly large blind hole where the two hawse pipes cut the deck, then drill up from the hull side into this large hole which could then be covered with the deck itself. Once the deck is glued on, the hawse pipe openings in both deck and hull would connect through this larger hole. Brilliant! Alas, I had

ABOVE: Ready for painting - the boat deck engine and boiler casings, plus the cargo and coal hatches, and water tanks.

RIGHT: The paper template for cutting the bridge wing shelters from PETG sheet.



this good idea only after I'd glued the styrene deck in place. The saving grace was that the plan showed a teak bed under the windlass, extending forward just beyond the hawse holes. So, I drilled a large hole of a size that would be covered by the windlass bed, and used the same method.

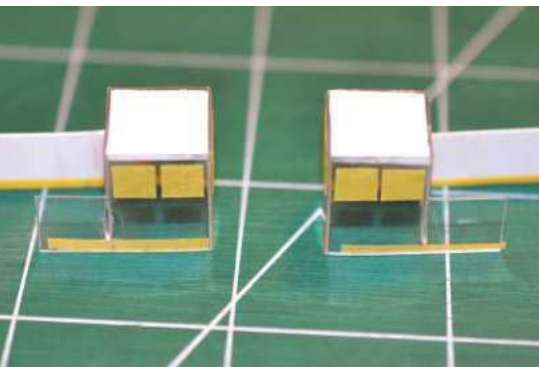
Superstructure

One of the most interesting aspects of building a ship like this in styrene is devising the individual pieces from which the model will be made, and then the way to fit them together in the right order. It's fair to say that the most complex part of this build was the superstructure, although I'll openly admit that 'complex' may be too strong a word since the major parts of the superstructure are flat and at right angles. Streamlined they are not. Anyway, after weighing up a few alternatives, I decided on the following:

1. The navigating bridge and the captain's accommodation below it on the boat deck would be built as one sub-assembly.

2. The boat deck (the top deck) would be cut out and planked.
3. The superstructure front (below the bridge) and the two sides would be made and glued together in conjunction with the boat deck.
4. The main and middle decks, with their deckhouse walls, would be made and glued together, then glued into the other part. Decks and walls had to be made separately, painted and finished before gluing because they were different colours.
5. Stairs between the main and middle decks were fitted at the sub-assembly stage. Stairs between the middle and boat decks had to be fitted after these two sub-assemblies were brought together.

A consequence of this method of assembly was that the join between the main and middle deckhouse walls and the front would be visible. To get around this the forward, narrower part of these walls was glued to the front at the start. This moves the join inside the superstructure where it is almost invisible. Unfortunately I didn't see how I could use the



ABOVE: The bridge wing shelters with the windows and bottom edges masked ready for painting.

same technique with the junction between the superstructure front and the captain's quarters, so there's a visible join there.

At the aft end of the superstructure is a two-storey element, separate from the central portion but joined by the three decks. On the real ship, this housed the carpenter's shop, hospital and dispensary, and some lockers. On the model only the outer walls have been completed, the inner wall is open and matched by an opening in the main deck, the idea being to provide a passage by which air can flow to the smoke unit.

The superstructure parts were mostly made from 0.75mm styrene. 1mm wide x 0.25mm thick nickel silver strips from Palatine Models were glued on to the superstructure sides to represent the between-deck stanchions where single lengths spanning both decks ensured alignment. Now then, before leaving the superstructure, let me mention the lifting arrangement. There are no obvious places to hold the completed superstructure to lift it off that don't risk damaging it. After trying a couple of alternatives the final solution is shown in the picture and is made from $\frac{1}{32}$ " brass wire and styrene. In normal use the rectangular handle sits just below the funnel top, inside the funnel between the smoke unit exhaust and the funnel wall. To remove the superstructure, I simply pull out the handle with a finger and once it's clear of the funnel I can get a good grip on it and lift the superstructure.

Boat deck

Before planking the boat deck the various casings were constructed from styrene and etched nickel-silver. These were the engine and boiler / funnel casings, the cargo and coaling hatches, and the sanitary and fresh



ABOVE: One of the 'fiddly' tasks. Holding a stanchion, which will support the bridge wing, in a temporary styrene fixture while it's glued to the side wall. Two front wall stanchions are already in place.

water tanks. Mounting pads were cut to size and glued to the deck to help with placing the planking around them. The planks are 1mm wide strips cut from 0.5mm thick marquetry veneer of a suitable colour, whilst the caulking was simulated by coating the edges using a black crayon. I did a trial using black permanent marker but it's clearly not permanent because when touched by CA glue it just smeared. For my part the easiest and most accurate way of marking off 1mm wide strips in the veneer was to use graphics software to print a self-adhesive address label with very thin lines 1mm apart. This was stuck onto the veneer over masking tape, because I wasn't sure if the label would leave any glue residue. One piece of advice I'll offer is this: Don't sneeze, whistle too loudly, or try to blow dust off your bench, if you have a stack of thin, cut planks to hand!

After planking, the wood was matt varnished and the bare deck areas painted.

The boat deck was then glued to the starboard side wall, followed by the front wall and the port side wall. Extensions were glued to the lower inside face of the side walls to connect to the main deck.

Bridge

Bridge construction was divided into three main parts: the two bridge wings and the centre structure which comprises the wheelhouse and the captain's cabin. The walls of each bridge wing were in two parts: the front wall in 0.015" white styrene and the remainder from one piece of 0.015" thick clear PETG sheet by K&S. The latter was cut when laid over the template shown on page 35. The large cut-out is the doorway on the inboard side of the wing shelter whilst the smaller one allows the front wall to overlap and be joined to it. The dotted lines are fold lines. These were scored on the inside using an Olfa Laminate Cutter which cuts a V-shape groove. A dummy roof was cut from 0.030" styrene and the wall glued around it. CA adhesive proved to be the best for the PETG sheet and, of course, PETG has the advantage that it isn't turned milky by cyano. The visible roof was a piece of styrene with planking glued on, this, in turn, glued to the dummy roof.

The wing decks were cut to size and planked, and the bridge wing walls painted, before the two were glued together. The outer ends of the bridge wings were then supported by stanchions, shown in the picture.

That's all for now, in next month's second and final part I'll discuss decks, fittings and propulsion. Back soon.





BOOKWORLD

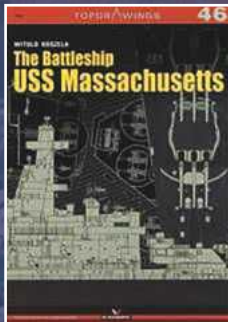
wholesale

www.bookworldws.co.uk

- Tel: +44 (0)1299 823330
- Fax: +44 (0)1299 829970
- Email: info@bookworldws.co.uk
- www.bookworldws.co.uk



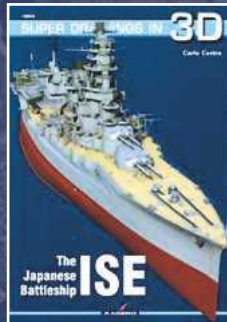
Super Drawings in 3D 16053. German Battleship Posen. German Battleship SMS Posen Marsden Samuel Gary Staff 80 pages £26.99



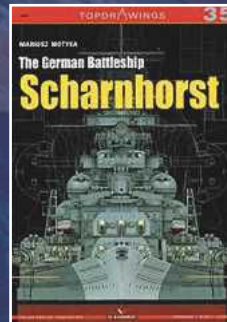
Top Drawings 7046. The Battleship Massachusetts Witold Koszela 26 pages 23 pages A4 model making plans £17.99



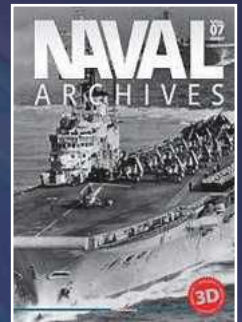
Super Drawings in 3D 16046. Japanese Aircraft Carrier Shinano. Paperback, 80 pages about 150 renders. £21.99



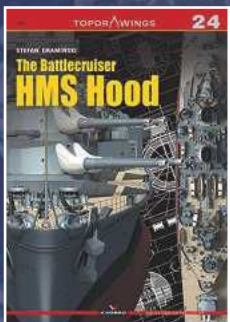
Super Drawings 16054 Japanese Battleship ISE The Japanese Battleship ISE Carlo Cestra 80 pages 120 renders Matte coated paper Format (sizes): A4 (210x297 mm) £26.99



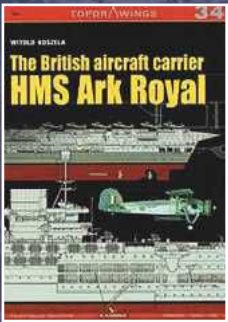
TD.35 The German Battleship Scharnhorst. Paperback, 28 pages, 27 Drawings sheets, 1 Colour profile. £16.99



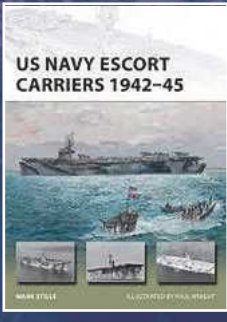
Naval Archives Volume 7. 80 pages 3D glasses 3D Gloss coated paper 3D Format (sizes): A4 (210x297 mm) 3D Soft cover binding HMS Warspite The Grumman Avenger The U-387 In The New Land The Last Classic Destroyers Russian Navy in the 21st Century 3D Battleship Yamato The Battlecruiser Hood £14.99



Top Drawings 24. The Battlecruiser HMS Hood. Hood, launched in 1918 was the last battlecruiser built in Great Britain. Colour photos, black/white plans £15.99



The British aircraft carrier HMS Ark Royal was one of the most famous and recognizable Royal Navy vessels of the Second World War. Built as the first large and modern aircraft carrier she was a true pride of Albion's fleet, £16.99



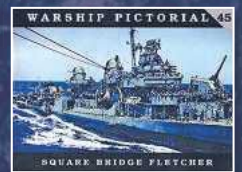
NVG 251 US Navy escort carriers 1942-1945 Fully illustrated with contemporary photographs and unique specially commissioned artwork, this book shines a new light on these unjustly overlooked workhorses of the US Navy £10.99



USS Yorktown (CV-5). This volume explores Yorktown's construction, pre-war and wartime activities through carefully researched photos, many of which have never before been published. £19.95



Coastal Craft History Volume 4. The Fairmile A, B and C. The A and B-Type Motor Launches and C-Type Motor Gun Boat. Profiles & Text by Mark Smith. 48 pages. Colour photos. Profiles based on John Lambert drawings. £17.99



Warship Pictorial 45. Square Bridge Fletcher. Paperback, 70 pages, very well illustrated with numerous black and white photographs. £15.99

Shipcraft Series £14.99 Each

- Shipcraft 1 German Pocket Battleships
- Shipcraft 2 King George V
- Shipcraft 3 Yorktown
- Shipcraft 4 Type VII U-Boats
- Shipcraft 5 Japanese Heavy Cruisers
- Shipcraft 7 British Battlecruisers
- Shipcraft 8 Fletcher Class Destroyers
- Shipcraft 9 Kongo Class Battlecruisers
- Shipcraft 10 Bismarck and Tirpitz
- Shipcraft 11 British Destroyers A-1 + Tribal Classes
- Shipcraft 12 Essex Class Carriers
- Shipcraft 13 New Orleans Class Cruisers
- Shipcraft 14 Yamato Class Battleships
- Shipcraft 15 Queen Elizabeth Class
- Shipcraft 16 Admiral Hipper Class
- Shipcraft 17 Iowa Class Battleships
- Shipcraft 18 Titanic and her Sisters
- Shipcraft 19 County Class Cruisers
- Shipcraft 20 Scharnhorst and Gneisenau
- Shipcraft 21 British Destroyers
- Shipcraft 22 German Battlecruisers
- Shipcraft 23 Rodney and Nelson
- Shipcraft 24 Fuso and Ise Classes

Super Drawings in 3D



Super Drawings in 3D

- 16021 The Battleship HMS Dreadnought £15.99
- 16022 Japanese Destroyer Akizuki £15.99
- 16024 Japanese Destroyer Kagero £15.99
- 16026 Japanese Heavy Cruiser Takao £16.99
- 16027 The Battleship USS Massachusetts £14.99
- 16028 The Battleship Bismarck £14.99
- 16029 The Battleship USS Missouri £14.99
- 16030 The Heavy Cruiser Lutzow £16.99
- 16031 The Japanese Aircraft Carrier Kaga £16.99
- 16032 Admiral Hipper £16.99
- 16033 Battleship Tirpitz £16.99
- 16034 HMS Ark Royal £16.99
- 16035 German Battleship Scharnhorst £16.99
- 16039 Battleship HMS Warspite £18.99
- 16041 Japanese Aircraft Carrier Taiho £18.99
- 16042 Japanese Aircraft Carrier Akagi £19.99
- 16043 Battleship SMS Baden £19.99
- 16044 Italian Submarine Scire £19.99
- 16045 German Aircraft Carrier Graf Zeppelin £19.99
- 16046 Japanese Aircraft Carrier Shinano £21.99
- 16047 Japanese Battleship Musashi £24.99
- 16048 Japanese Battleship Fuso 1944 £23.99
- 16049 Battleship Vittorio Veneto £24.99
- 16050 The Japanese Battleship Yamato £27.99
- 16051 Japanese battleship Nagato £24.99
- 16052 Italian heavy cruiser Pola £25.99
- 16053 German battleship SMS posen £26.99

Warships in Action £11.99 Each

- 4020 U.S Destroyers Part 2
- 4021 U.S Destroyers Part 3
- 4025 Japanese Light Cruisers
- 4028 Gato Class Submarines
- 4033 U.S Subchasers
- 14034 PT Boats £14.99
- 14035 Schnellboote £14.99
- On Deck Warship Walkaround £15.99 Each**
- 5601 USS Alabama
- 5602 USS Lexington
- 5603 Ohio-Class SSBN
- 5604 USS Pampanito
- 5605 Elco 80 PT Boat
- 5606 Nimitz Class Carriers
- 5607 Iowa Class Battleships
- 26008 Higgins PT Boat £16.99
- 26010 USS Kidd £11.99
- 26011 USS Massachusetts £11.99
- 34001 USS Arizona Squadron at Sea £16.99
- 34002 USS North Carolina Squadron at Sea £16.99
- 34003 USS Texas Squadron at Sea £16.99
- 34004 USS Saratoga at Sea £16.99
- 34005 USS Lexington at Sea £16.99
- 34006 USS Alabama at Sea £16.99

• Major Credit cards accepted & cheques payable to: **Bookworld Wholesale Ltd.**

• **Bookworld Wholesale Ltd.** Unit 10 Hodfar Road, Sandy Lane Industrial Estate, Stourport-On-Severn, Worcestershire DY13 9QB



• **UK Postage:** single book £2.50, two or more books £4.50. • **Overseas Airmail:** please allow 15% of order value.



The forward gun on this model of Bismarck was all from PE brass. On the original ship it was designated SK C/34 38cm (15 inch) and the ship had four of these turrets.



A view of this impressive model looking at the top of the forward control tower. At the head is a 10m stereoscopic rangefinder with the FuMO 23 radar array.

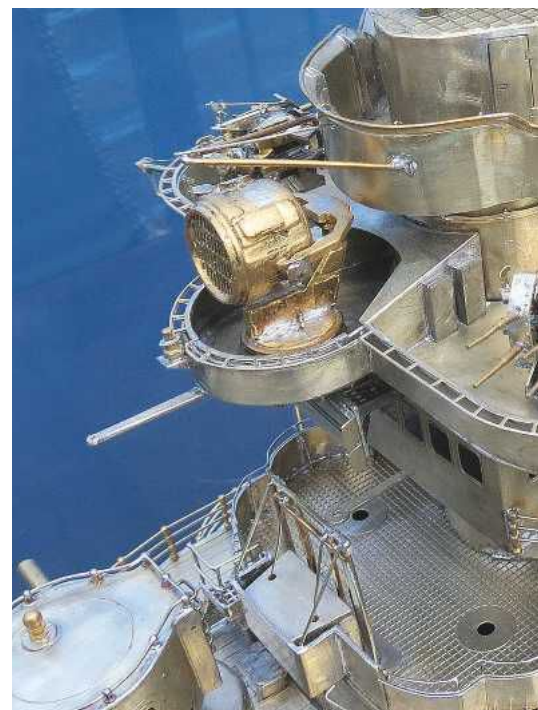
BELOW: A slightly different perspective on the main forward tower with a view of the two 2cm flak 38 AA guns mounted either side of the 150cm Siemens Schukert searchlight on the lower platform.



This part of the superstructure houses the forward armoured conning position with its various director periscope hoods and navigational periscopes, plus the 7m stereoscopic rangefinder with its FuMO 23 radar array.



Much of the work on the photo etched brass involves soldering the parts together. Definitely not an exercise for the faint hearted. On the bottom left is a triaxial mounted 10.5 dual-purpose gun.



Range Finder

If you thought you had it hard working with ABS and Evergreen's extensive range of extruded profiles, then maybe it's time to reassess. **Dave Wooley** stumbles upon a metal masterpiece

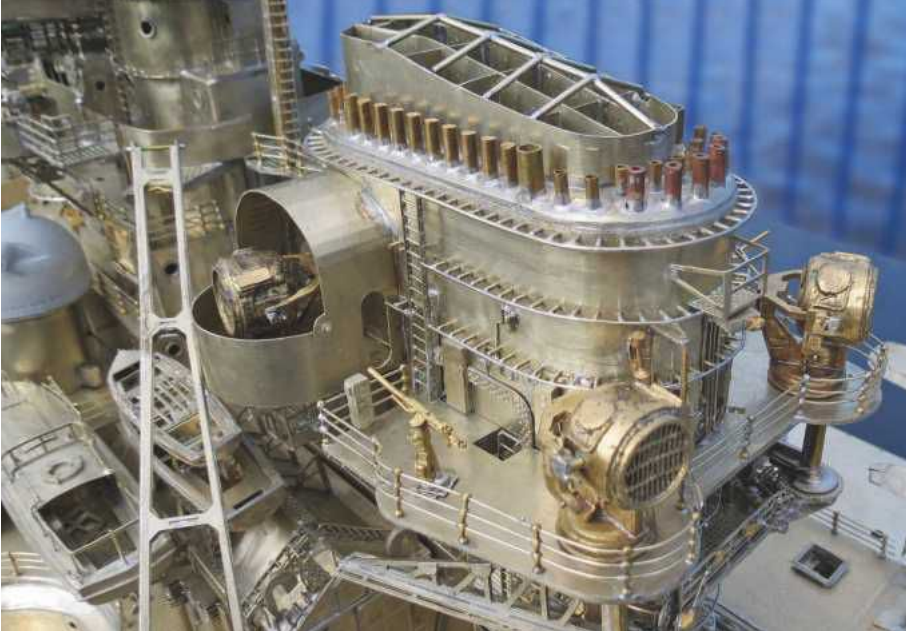
In September 2017 I visited an 'open sail-in' at Sefton Park lake, South Liverpool, hosted by the Sefton park model boat society. Arriving with camera to photograph boats on the water, as one would expect, I hadn't figured on seeing a 1:96 scale all-metal Bismarck battleship – or at least, the complete superstructure and fittings – displayed across two tables.

This remarkable endeavour is the work of model train enthusiast Mike Williams. Mike has a long-standing interest in scratch-building rolling stock and locomotives in HO gauge using etch brass or nickel silver, photo etch prepared by himself. Making use of this skill he decided to shift tack and try his hand

at using the same methods to build an entire model out of etched brass. However, what's remarkable is the choice of subject for a first-time ship model project. Having built the sister ship Tirpitz at the same scale I can fully appreciate the massive undertaking, which is significant enough even in plastic and wood, but in metal it becomes a mammoth project.

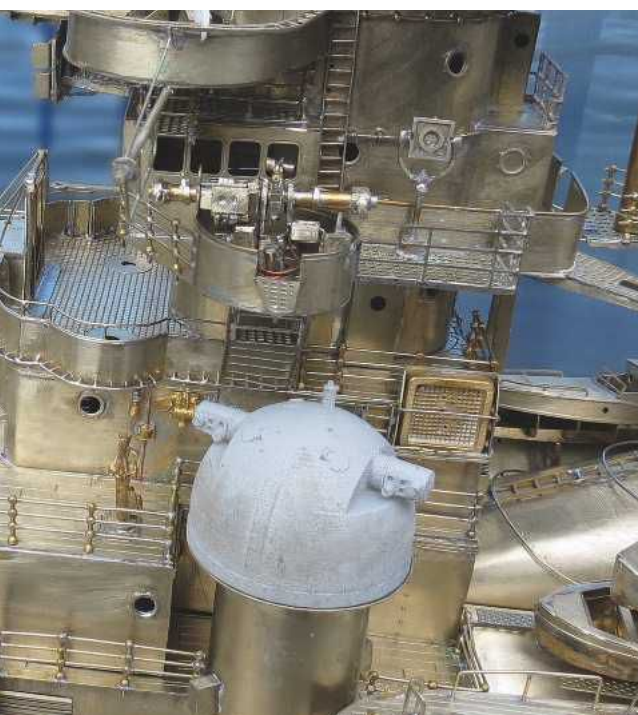
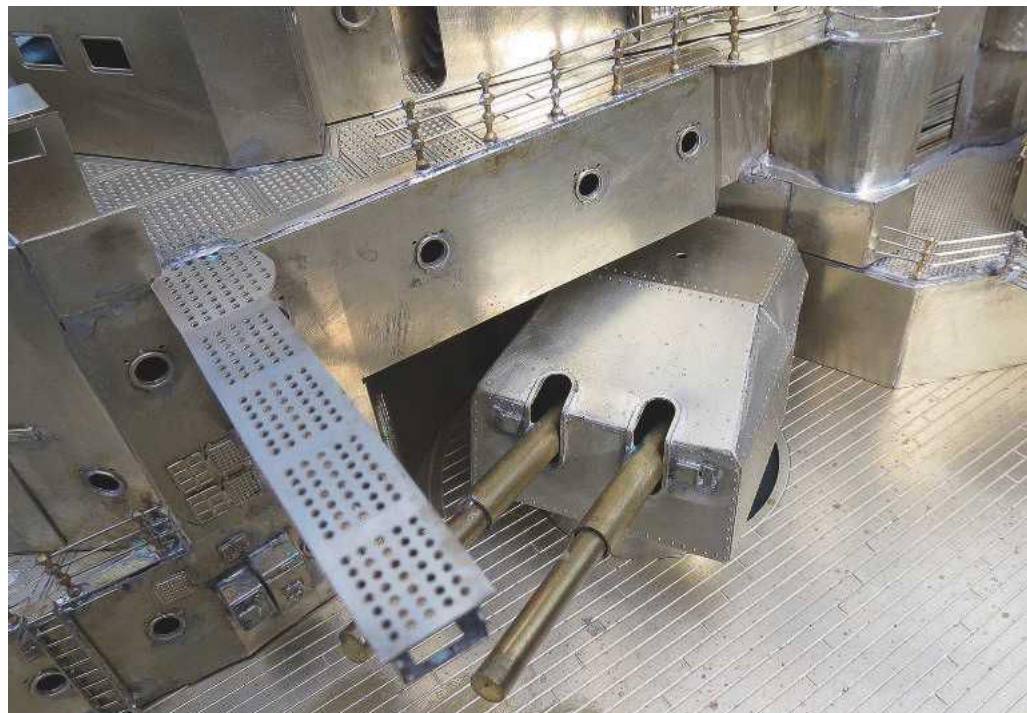
Although at the time these shots were taken the hull was yet to be built, what you see here is a truly remarkable example of craftsmanship where each and every part has either been photo etched, turned on a lathe or hand-made. As you will see in this series of pictures (particularly the photo on page 40) all of the superstructures and many of the parts are in





Moving to the rear of the funnel uptake we have a close-in view of the 15cm search lights. Note also, adjacent to the funnel, one of sixteen SK C/30 single-barrel 3.7cm AA guns.

BELOW: In this shot of what will be the main deck, directly below the armoured tower is the turret of the 15cm SK C/28 secondary fit. The extended docking bridge wing will have a rail around and can be moved to become parallel with the side of the bridge.



LEFT: There's a huge volume of detail and it's all photo-etched except the semi-spherical SL6 anti air fire director in the fore ground. Within the sphere on the original ship was a 4m base stereoscopic night fighting rangefinder.

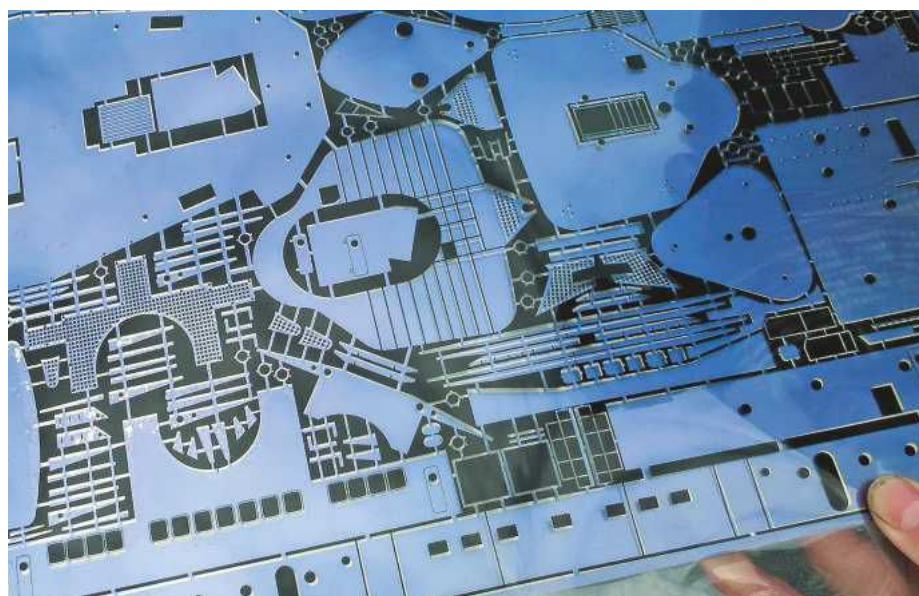
BELOW: Here the part-shielded mounting for the SK C/33 10.5cm dual-purpose gun and the crane for hoisting the float planes are yet to be completed.



an etched fret which was drawn and prepared by Michael. Even the motor pinnaces are built entirely out of etched brass. And the superb reproduction of the famed Arado 196 float plane is something else.

The parts are carefully removed from the fret, folded to the required shape and soldered, indeed it is the latter that is superbly accomplished. Although there's more detail to be added all I can do is let Michael's stunning work do the talking with the help of some captions. Enjoy.

RIGHT: Whilst at an advanced stage, the catapult, amidships, remains under construction.



ABOVE: The Arado 196 with folded wings for hangar stowage. Bismarck had enough hangar space to accommodate four Arados. One hangar sits each side of the funnel with a much larger one under the mainmast and boat stowage.

BELOW: Almost complete - an all-metal motor pinnace.



ABOVE: A superb example of how a motor pinnace is constructed; metal frames on a metal keel, all soldered, then sheeted over with the prepared PE brass.

RIGHT: A beautifully detailed etched brass Arado 196.





NEW WEBSITE
NOW ONLINE!

www.sarikhobbies.com

1000's of Model Aircraft,
Boat & Engineering Plan
designs and parts for your
next - or first - scratch build!

Model boat plans, hulls, wood packs and accessories

sarik hobbies

The store for the model builder

MODEL BOAT BUILDER

Find us on Facebook

NEW! LASER CUT WOOD PACK

Laser cut wood packs from Sarik Hobbies contain all the most intricately shaped parts to build a model boat from a Traplet or Model Boats plan. Here is our most recent addition:



UTE

A semi-scale model of a typical workboat, this delightful model is 24.5 inches (62cm) long and 8 inches (20cm) beam. Designed by Glynn Guest, UTE featured in the February 2013 issue of Model Boats. A two sheet plan including the full-size frames, side skins etc., plus the basic deck layout and profiles is also available, MM2079.

Length (in) 24.5
Beam (in) 8
SKU WPM2079

RRP £49.00

Coastal Forces

	Length (in)	Beam (in)	SKU	Price (£)
RAF Seaplane Tender	37.4		MAGM2041	13.00
RNXS Exploit	50.8	14.6	MAR2321	18.99
Gay Class Fast Patrol Boat	28.2	7.7	MAR2554	18.99
HMS Magpie	26.8	4.25	MAR3259	11.50
Vosper MTB379			MAR3505	14.00
Singapore Knot	28.5	8.25	MAR3670	12.50
Vosper MTB	26.25	7	MM2062	13.00
Halvorsen Seaplane Tender	38.3		MM2077	13.00
US Coast Guard 38' Picket Boat			MM2098	12.50
Vosper RTTL	34	9.5	MM530	14.50
Brave Borderer	36		MM609	13.00
Brave Borderer Hull	36		HULMM609	98.50

Life Boat Plans & Hulls

	Length (in)	Beam (in)	SKU	Price (£)
42 Lifeboat Alexandra Beth Straps	10.25	3.5	MAR3410	5.49
RNLB Plymouth Lifeboat	39	11	MM418	17.50
Rother Class Lifeboat	28		MM1286	17.50
Tyne Class Lifeboat	31	9.75	MM1390	12.50
Tyne Class Lifeboat Hull	31	9.75	HULMM1390	35.99
Liverpool Class Lifeboat	35.6		MM1448	12.50
Liverpool Class Lifeboat Hull	35.6		HULMM1448	93.99

Fishing Boats

	Length (in)	Beam (in)	SKU	Price (£)
Katie (Gaff Rig Pilot Cutter)	40	12.5	DAP001	15.50
Katie (Gaff Rig Pilot Cutter) Hull	40	12.5	DAH001	106.00
Lady Ma (Small Katie - Mevagsissey Lugger)	20	6.5	DAP002	15.50
Lady Ma (Small Katie - Mevagsissey Lugger) Hull	20	6.5	DAH002	52.50
Ibex (Brixham Trawler)	49.2	11.4	DAP004	21.00
Ibex (Brixham Trawler) Hull	49.2	11.4	DAH004	118.50
Manx Nobby	42		DAP005	21.00
Manx Nobby Hull	42		DAH005	131.50
Breeze (Bristol Channel Pilot Cutter)	40	13	DAP006	15.50
Breeze (Bristol Channel Pilot Cutter) Hull	40	13	DAH006	131.50
Lindy Lou (Mevagsissey Fishing Boat)			DAP007	15.50
Ute	24.5	8	MM2079	13.00
Ute Wood Pack	24.5	8	WPM2079	49.00
Tern			MAR3702	13.00

Racing Yachts

	Length (in)	Beam (in)	SKU	Price (£)
Petrel (6M Class)			BM1445	12.50
Lancet (Restricted)			MM266	17.50
Rigging & Fittings For Marblehead			MM503	12.50
Sea Mew (Catamaran)	36	18	MM533	12.50
Square One (Restricted)	36		MM1104	17.50
Gosling (Restricted)	36	9	MM1164	12.50
Rhythm (1M Class)			MM1466	17.50
Swallow (1M Class)			MM1494	13.00

Motor Yachts & Cabin Cruisers

	Length (in)	Beam (in)	SKU	Price (£)
Farmon	28		MAGM2025	13.00
Waterwitch	26		MAGM2029	13.00
Trident	26.8		MAR3618	13.50
Lorraine	54	12	MM512	17.50
Sirocco	39	11.25	MM704	12.50
Sweet Sixteen	16	5.75	MM713	12.50
Greta	44	5.5	MM1036	17.50
Neptune 36	27	10	MM1436	12.50
Savarona	36	4.25	MM1468	17.50
Caryon	36	12	MM1479	22.50
Miller Fifer	25		MM2064	13.00
Selkie	25.6	8.25	MM2072	17.50
Kathleen	30		MM2075	13.00
Fairey Huntress 23			MM2131	12.50

Sailing Yachts

	Length (in)	Beam (in)	SKU	Price (£)
Manx Nobby	42		DA005	21.00
Manx Nobby (Set)	42		DASET005	138.50
Dutch Auxiliary	16.5		MM240	12.50
Bluebottle	35	8	MM293	12.50
Plane Jane	36		MM823	13.00
Barge Yacht	38		MM902	13.00
Topsail Schooner	30		MM909	12.50
Dabchick	24	6	MM1024	12.50
Starlet	34	9.5	MM1048	12.50
Dutch Yacht	18.5		MM1203	13.00
Ranger	33		MM1403	13.00
Gremelin	20.5	6	MM1505	13.00
Jenny	63.5		MM2070	13.00



All prices exclude P&P/S&H. Prices are subject to change so please check current pricing on website or by phone. E&OE.

Email: info@sarikhobbies.com Tel: 01684 311682

sarik hobbies
www.sarikhobbies.com

Units 8 - 12 | Willow End Park | Blackmore Park Road | Welland | Malvern | WR13 6NN

SUBSCRIBE TODAY

DIGITAL
SUBSCRIPTIONS
AVAILABLE ONLINE!

Great savings when you subscribe today

● Model Boats is now in its 66th Year of continuous publication and is the World's Best Seller with 12 regular monthly issues and a 100 page Winter Special Edition, subscribers receiving all the 76 page regular monthly issues and the non-plan issues are always of at least 84 pages, which is more than any other UK based model boating magazine.

● Model Boats, is a magazine for anyone with a passion for model boating in all its various forms, be it static models, radio controlled scale, fast electric and internal combustion engine models, as well as steam driven craft. Model yachting is not forgotten with contributions from leading model yachtsman.

● Each regular issue has as its foundation, regular columns from a selection of respected internationally known enthusiasts on a range of subjects and the 100 page Winter Special Edition published in late-October of each year always includes at least one extra special plan feature for a new model boat and articles that support the model enthusiast in their endeavours.

● The magazine also has a regular Readers' Models section, because this is the part of the magazine where readers can showcase their models, and this is coupled with Around the Clubs, another popular section where clubs let the readership know what they are doing, when and where.



TERMS & CONDITIONS: Offer ends 16th March 2018.
Please see www.mytimemedia.co.uk/terms for full terms & conditions.

*This digital discount is only available when you subscribe to the 'Print + Digital' package. You can still get a great discount on the digital package, please visit the URL stated below for more information.

SUBSCRIBE SECURELY ONLINE

 <http://mb.secureorder.co.uk/MODB/MB0318P>

CALL OUR ORDER LINE

 0344 243 9023

Quote ref: MB0318P

Lines open Mon - Fri - 8.00am - 8.00pm GMT & Sat - 9.30am - 3.30pm GMT.

Calls are charged at the same rate as standard UK landlines and are included as part of any inclusive or free minutes allowances. There are no additional charges with this number. Overseas calls will cost more.

Boiler Room

Looking for a bespoke pressure-tested boiler to which you can add your own fixtures and fittings? What you need is a bare boiler! **Richard Simpson** investigates...

There are many modellers amongst us who would be quite happy to have a go at manufacturing their own boiler from a plan and, at the other end of the scale, many of us who would prefer to purchase the complete plant fully built, tested and ready to steam. In the middle are a great number who would like the opportunity to creatively personalise a boiler that has been produced by someone who knows exactly what they're doing and can competently build to a proven plan with a stated working pressure and expected performance. This is where the 'bare boiler' comes into its own, indeed it's been a popular choice for steam modellers for a number of years now. In essence, you can buy a boiler to a stated requirement that has no fittings or finishes. With this service, companies such as Pendle Steam Boilers will locate the bushes of the threads you chose, in the locations you require, but in a shell of proven design and build quality. The result, of course, is the peace of mind you need when operating your model. It's worth noting that Pendle will even design and manufacture a bespoke boiler, tailored to your exact dimensional requirements to suit a specific need. This ultimate flexibility affords you total creativity for your project, safe in the knowledge that the boiler will be assembled by someone skilled and familiar with silver soldering and boiler manufacturing techniques.

As this seems to be a popular way to obtain a model boiler nowadays I thought it might be a good idea to have a look at just what is required to turn the bare boiler shell into a

The bare shell boiler is supplied with a non-ceramic burner with a jet and a gas supply pipe.



ready-to-steam completed boiler. Assuming we have either received the boiler of our specific design or an off-the-shelf version we will be faced with a copper shell featuring a burner and gas inlet pipe and a number of decisions regarding the mountings, or fittings, and where they should be placed. This month I thought we could take a look at the things we need to include and then next month we can put the project together. Although there will be some mountings, or fittings, that are optional, such as inlet valves for feed water, many are not optional, so let's start with those.

Incidentally, the boiler I have, a vertical 3.1/2 inch with a centre flue and cross tubes (**Photo 1, 2 & 3**) was supplied by Pendle and came with a typical arrangement of bushes to suit a generic requirement. All the bushes are 40 tpi x 1/4 inch diameter, except for the safety valve fitting, which is 26 tpi x 5/16 inch diameter. This enables readily available fittings to be sourced, however if you really have an alternative preference then you can simply state this at the time of ordering and bushes will be fitted to your exact requirements. This could be useful for the pressure gauge connection when readily available 'banjo' type fittings on the end of the siphon tubes are found to be smaller than 1/4 inch diameter.

Safety valve

A Pendle boiler, or any other manufactured boiler for that matter, will come with a pressure test certificate, which will state the working pressure (**Photo 4**). The job of the Safety Valve is to ensure that the boiler pressure never rises by more than 10% of this pressure under full flame. So, not only should it be capable of being set at this pressure it must also have the capacity to relieve the pressure quickly enough. This is precisely why we do a steam test as this is the only way in which you can test the valve's ability to vent the excess pressure. Valves are sold with a known rating so you can at least start by purchasing a valve that can be set to lift at the correct pressure (**Photo 5**). In this case I'm using a safety valve that was fitted to a Cheddar Boiler with a working pressure of 4 bar. As can be seen from the Hydraulic Pressure Test Certificate for the Pendle boiler,



A standard vertical 3 1/2 inch boiler as supplied by Pendle Steam Models.

this also has a working pressure of 4 bar so the valve should be fine for the job and has the correct thread of 26 tpi x 5/16 diameter.

Pressure gauge

As mentioned, most ready-made siphon tubes for the mounting of pressure gauges come with a banjo type fitting on the end of a smaller diameter than 1/4 inch. Since this boiler came with the 1/4 inch bushes I used a fitting from my own spares collection to go into the boiler shell bush and provide a



RIGHT: Any manufactured boiler should come with a pressure test certificate stating the working pressure on it. You need to know this to determine the best pressure gauge range to go for, and an appropriate safety valve rating.

“This ultimate flexibility affords you total creativity for your project...”



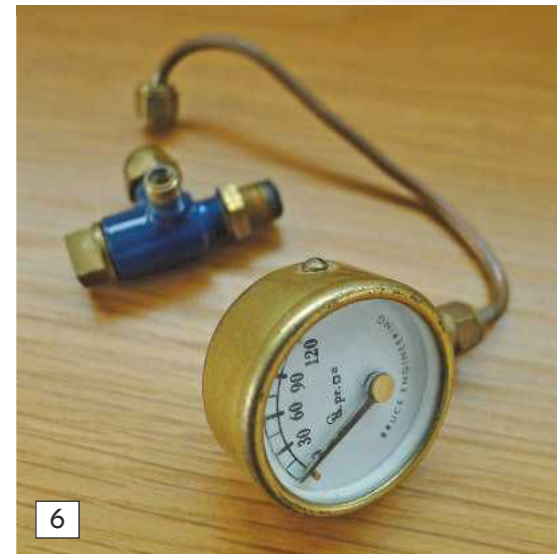
This safety valve can be adjusted in operation, as opposed to some like the old Cheddar type, which have to be removed to adjust. This makes life very much easier and more convenient when setting up the boiler for the first time.

conical female fitting for the pressure gauge siphon tube. The gauge should offer a range in which the working pressure is displayed at the half scale deflection point, or thereabouts (Photo 6). This means that the needle will spend most of its time pointing approximately vertically, which is the most reliable position and least likely to result in it sticking. The gauge, meanwhile, should always be mounted on a siphon tube, which will fill with collected condensate and act as a damper for fluctuations and help to protect the gauge. It is far easier to fit a siphon to the side of the boiler, as opposed to on top, however fitting the gauge to the top plate ensures the minimum risk of filling the gauge with water and hydraulically locking it. If the gauge is mounted on a fitting at the same level as the top of the gauge glass and you over fill the boiler the pressure gauge will fill with water and could be damaged when the boiler gets

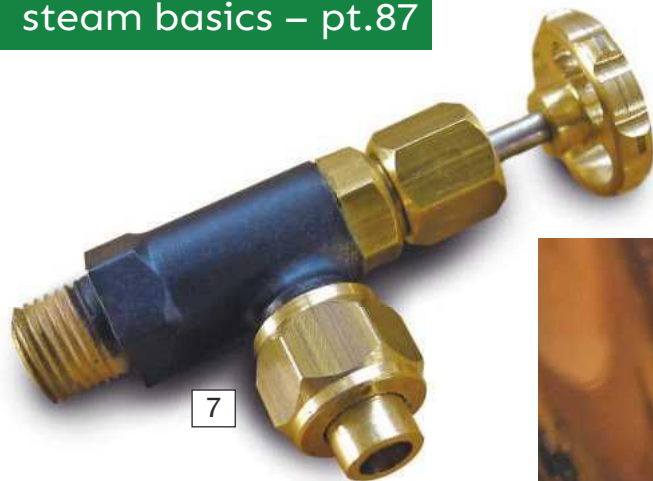
up to pressure. The ideal location is on the side but as close to the top plate as possible.

Steam outlet valve

Initially, you may think that there's nothing to consider with regard to the main steam outlet valve, however there are one or two things to remember. Obviously, the valve configuration is important as you want a conical fitting on the outlet side with a cone ready to take the copper pipe to supply the engine, and a straight thread on the mounting side to fit into the boiler bush (Photo 7). I've had discussions in the past with regard to the use of tapered threads for boiler mountings however I'm not in favour



of them in most cases. My reasoning is that, particularly with a mounting where the orientation is critical, one can be tempted to over-tighten it to ensure the correct attitude. This could stress the thread and lead to failure. A parallel thread can be adjusted by varying thicknesses of washer to give the best orientation while maintaining a consistent torque on the thread. Don't be tempted to use greater quantities of thread tape or thread sealant as the mounting should be tightened down properly to ensure it remains secure. The only way to achieve this correctly is by varying the thickness of the washer. This is absolutely critical with the next item we are going to look at, the gauge glass.



ABOVE: Any valve should have the appropriate parallel thread on the boiler side and the conical fitting to suit your pipework on the discharge side. Right-angle valves are very useful to mount on top of the shell and keep the pipe runs neat.



ABOVE: Gauge glasses may or may not have a drain valve but the valve is useful to prove the level reading. This glass is also of the correct length for the boiler, however you might have to cut the glass in some cases.

Gauge glass

Gauge glasses are one of those things that seem to stay there forever until something goes wrong, then they become a constant source of challenges for a long time. The problems with gauge glasses nearly always stem from a lack of understanding of what is going on when fitting them. Firstly, you need to purchase a glass of the correct thread and length (Photo 8). Again, mine are both 40 tpi x 1/4 inch diameter. If you need to cut the glass to length, fear not, I will describe this in detail next month as well as providing a full description of how to correctly fit the two mountings to minimise the risk of failure. Some gauge glasses have a valve at the lower end to enable you to test the glass in operation, such as this one. If this is the case then you need to consider just where the valve is going to be piped to in order to avoid filling your model with boiling water when you open the valve. The most common is to plumb it into the separator tank.

Other bits

Remaining bushes should be blanked with proper plugs and you should not rely on the integrity of a valve to seal the boiler. These can leak or you could even open it by accident with the boiler under pressure.



ABOVE: On the top of this horizontal boiler is a sensor for the automatic burner control. It actually measures temperature but then controls the burner through a solenoid operated valve in the gas line, to regulate the boiler

Again, I prefer flanged plugs with a washer rather than a tapered plug but that is nothing more than my own preference.

If you wish to include a feed system then you should consider a non-return or 'clack' valve to prevent the boiler pressure working on your feed pump, however these do seem to be notoriously unreliable so I would fit an inline isolation valve as well, after the feed pump. You may also want to consider an electronic burner controller, of the type originally supplied by Cheddar and now by Stuart Models, in which case you will need another available bush on the boiler shell for this to match the sensor thread (Photo 9).

So, those are the main boiler appendages. We also need to decide whether to lag the boiler (Photo 10) and, if so, what with.

Also, whether we want to paint the ends and, again, what with. I have some mahogany planking for the lagging, some brass banding and brass screws to hold it together and I will spray the ends with an etching primer followed by a gloss black enamel paint. Join me next month when we'll see how it all goes together and how we turn a bare shell into an operational boiler.

10 Lagging the boiler and painting the ends really can turn it into an object of great beauty.

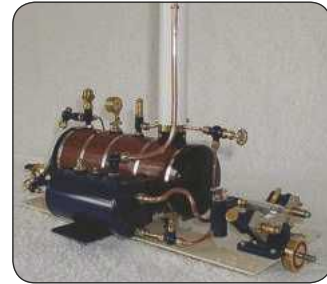


The Best of **BRITISH STEAM**

Beautifully Crafted Models Handmade to Order by John Hemmens

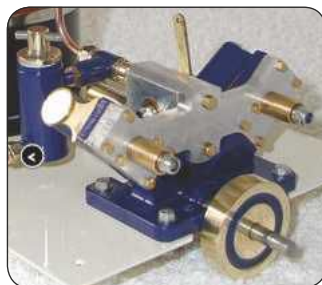
My Ribblesdale and Wharfedale plants are individually made to the highest standard demanded by my customers around the world. They are recognised as wonderful collector's pieces that over time will increase in value as have many of my other models I have made over the last 48 years.

I can proudly state that my models are "Made in Yorkshire" the birthplace of many of the best Engineers in the world



The illustration shows the "Ribblesdale" boiler mounted on a common bedplate with the "Richmond" twin cylinder steam engine and a steam oil separator. The "Ribblesdale" boiler is constructed from copper components and silver soldered. The boiler is stoved with high temperature paint at 175 degrees C. The boiler is lagged with individual hardwood planks and held by stainless steel bands. To improve the boiler performance it is fitted with a ceramic burner. The finished boiler is pressure tested to 150 psi for continuous working pressure of up to 80 psi. A test certificate is supplied with the boiler confirming the test and guarantee of quality. The boiler is fitted with a water filler bush, pressure gauge, water gauge glass and blowdown valve, safety valve, vacuum valve, steam on/off valve, ceramic gas burner, gas pipe and gas on/off valve. The white/cream stove painted chimney is pre-drilled for the exhaust pipe bracket should you wish to extend the exhaust pipe alongside the chimney.

This plant is priced at £1550



The illustration shows the "Wharfedale" boiler mounted on a common bedplate with the "Richmond" twin cylinder steam engine and a steam oil separator. The boiler can be fitted with either the "Richmond" engine or "York" engine and a steam oil separator. These can be purchased as single items. The "Wharfedale" boiler is constructed from copper components and silver soldered. The boiler is stoved with high temperature paint at 175 degrees C. The boiler is lagged with individual hardwood planks and held by stainless steel bands. To improve the boiler performance it is fitted with a ceramic burner. The finished boiler is pressure tested to 150 psi for continuous working pressure of up to 80 psi. A test certificate is supplied with the boiler confirming the test and guarantee of quality. The boiler is fitted with a water filler bush, pressure gauge, water gauge glass and blowdown valve, safety valve, vacuum valve, steam on/off valve, ceramic gas burner, gas pipe and gas on/off valve. The white/cream stove painted chimney is pre-drilled for the exhaust pipe bracket should you wish to extend the exhaust pipe alongside the chimney and also includes a polished brass flared top. This plant is suitable for installation in all my boat products with ample power to drive your boat satisfactory.

The price for this model delivered by UPS within the UK is £1550. Please contact us to discuss delivery, based upon your requirements. You can now place a reservation on payment of £100. The balance of the purchase to be paid upon notification that the model is now ready for despatch.



I also manufacture high quality boat kits with GRP Hulls or plank on frame construction. These fully detailed kits have been produced to supply a package which is full of top quality parts and superb schematic build information that will, with attention to detail and time, produce a very high-quality scale replica of that very product, and if so desired one can reach museum quality. These kits are priced from £1400-£1950

JOHN HEMMENS STEAM ENGINEER

28 Brighton Road, Bubwith, East Riding of Yorkshire. England YO8 6DQ

Tel: +44 (0)1757 289 664 www.steamengines.co.uk Email: enquiries@steamengines.co.uk



OSA 2 Fast Missile Boat

What's in a watertight door? More than you might imagine, as **Dave Wooley** graphically explains...

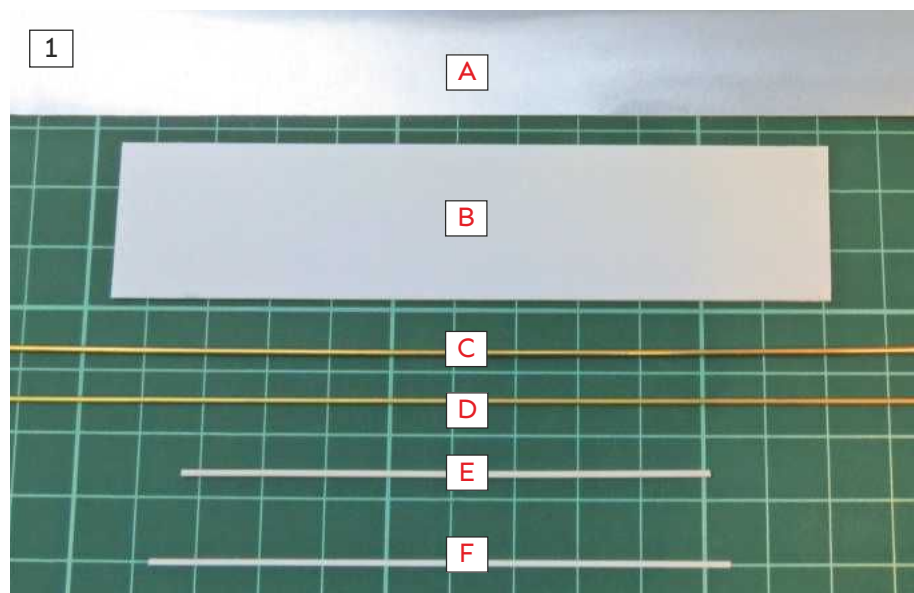
Watertight doors come in all shapes and sizes and are often indicative of their country of origin, in the case of the OSA boats the former Soviet Union. Since the 1950s the WT door fitted to the OSA 1s and 2s are of a type that use two independently operated dogs (or clips) for opening and closing down the door. It is a simple method and one that is becoming more universally accepted. Even the RN has adopted WT doors using a single lever on five of the six Daring Class DDGs, indeed the system may well be seen on the future Type 26 and 31 frigates.

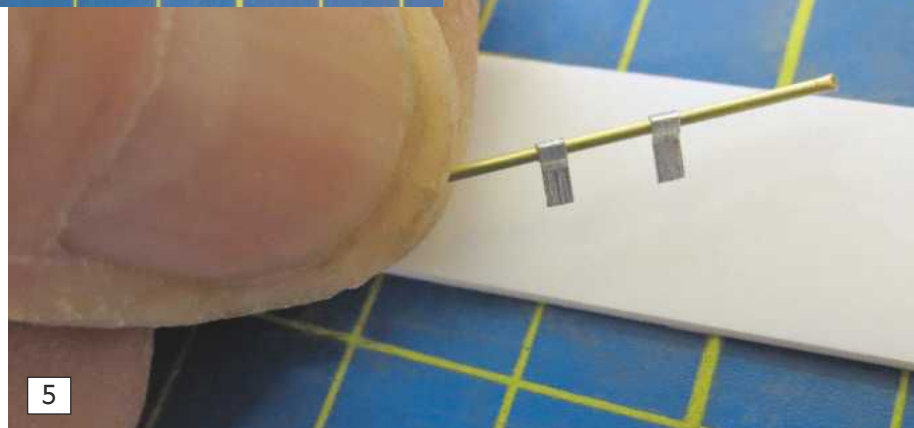
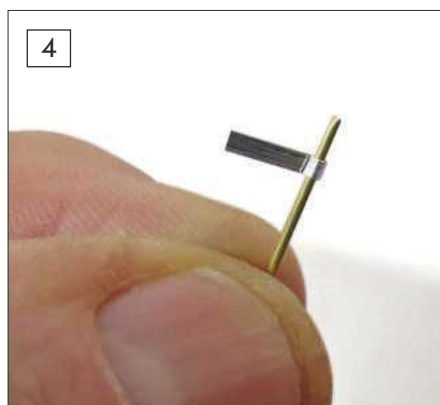
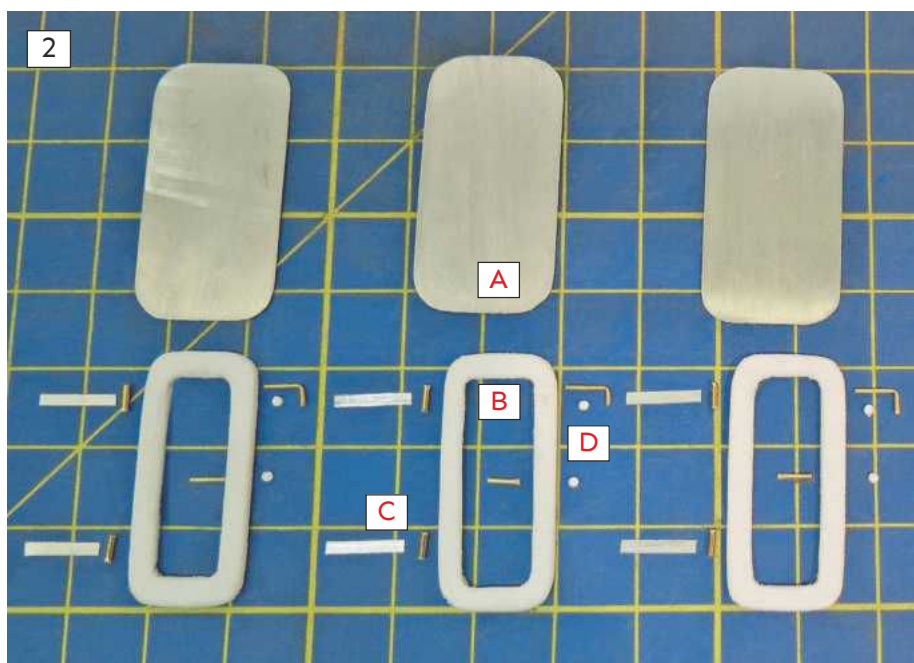
The OSA 2 205U has six WT doors for access to the deck housing. There are two either side of the enclosed wheelhouse, two amidships, one aft and one leading from the upper control position into the lower wheelhouse. Since there's such a small number, fabricating each one from scratch was the easiest method and, quite frankly, the cheapest, but not the quickest! Mind you, if the WT doors were resin cast some of the parts would still need to be added. Similarly, if modelled and printed in 3D they could be made in their entirety but would have more of a cost element. The choice, of course, is down the individual model maker.

A	Back panel and part of hinge	0.25 litho plate
B	Door surround	1mm styrene sheet
C	Hinge pins	1mm od brass rod
D	Dogs /clips	0.06 tube (Albion Alloys ref. SPT1)
E	Part of the door clip	1.2mm styrene rod (Evergreen 221)
F	Water tight risk marker	0.28 x 0.84 strip (Evergreen 0183)

The materials of for forming each standard WT door as fitted to the model are detailed in the table above and shown in **(Photo 1)**. The shape of the door surround is lifted from the original OSA 1 drawing and the internal section removed. This is followed

by rounding off the internal edges to achieve the desired shape, labelled 'A' in **Photo 2**. Here you can also see each part that makes up a single door, laid out ready for assembly. Once again I've lettered the parts for easy identification which correspond with that





shown in **Photo 1** and the description of materials in the blue panel above it.

- A** Back panel
- B** Door surround
- C** Hinge assembly (including pins)
- D** Door dogs / clips

Although locating the door surround onto the back panel should be a simple operation, care is required as the adhesives used for litho – either Evo-Stik or cyanoacrylate – will bond immediately on contact, thus it's always prudent to mark the position to ensure a symmetrical fit (**Photo 3**).

Hinges

There are two hinges per door, these formed from .25mm litho and 1mm brass rod. Each strip of litho is folded around a length of 1mm brass rod, as in **Photo 4 and 5**, leaving a strip of litho which is trimmed to suit the width of the door surround. The hinges and remaining parts of the WT door are laid out as in **Photo 6** with the addition of the raised watertight risk marking (labelled with the

1. The materials that go to make up the watertight doors on the OSA model. These include litho plate and styrene, plus brass rod and tube.

2. Each of the parts that make up the WT doors laid out ready for assembly.

3. Fixing the door surround to the back plate using cyanoacrylate adhesive.

letter F) which is fitted at the top of the door. At this stage the hinges, minus the pins, can be added to each door surround along with the two 1.2mm strips of styrene rod onto which the dog / clip is fixed (**Photo 7**). When set the hinge pins' 1mm brass rod was carefully inserted into the hinge making sure that the amount of pin exposed top and bottom of the hinge was the same (**Photo 8**).

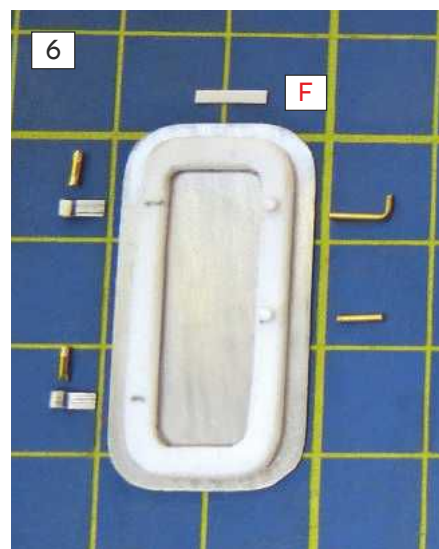
Dog clips

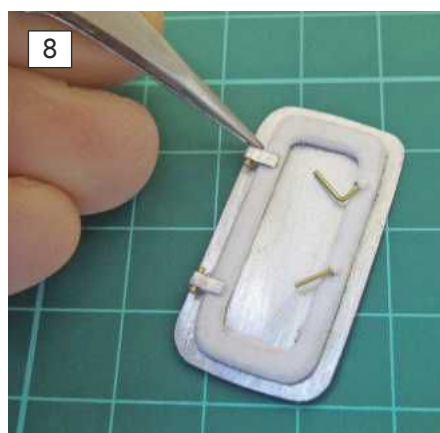
Each door has two clips fixed to a strip of styrene rod on the door surround to simulate the revolving part of the clip when operating the handle. This would release or engage a lever on the inside of the door – simple but

4. Forming the door hinge with .25 litho plate.

5. A set of door hinges in litho.

6. The letter F indicates the raised watertight risk marking which will be painted red.





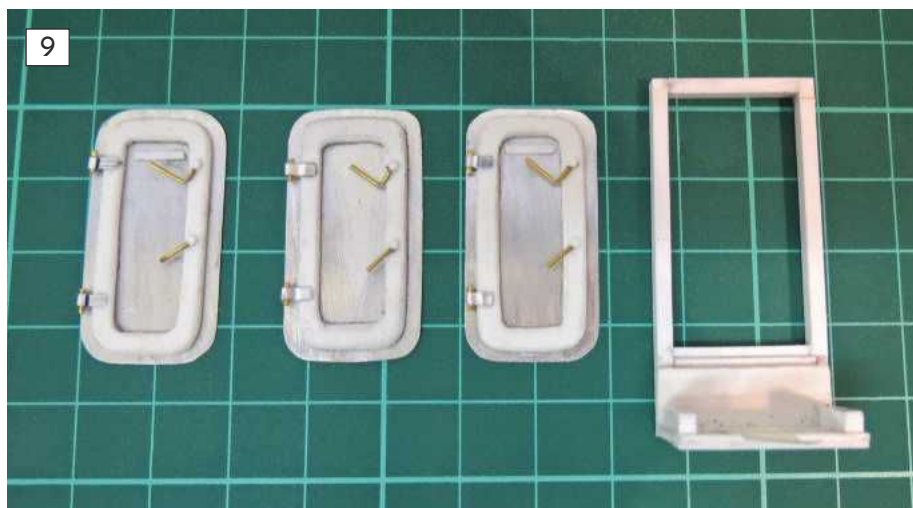
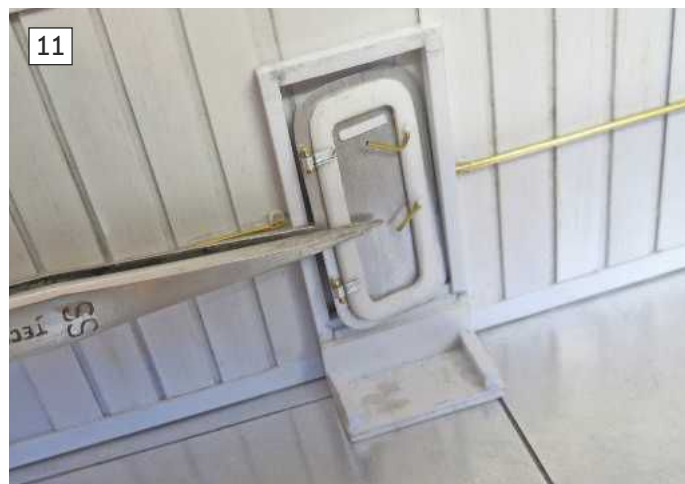
7. The watertight door with litho hinges set into place on the door surround.

8. Each 1mm door pin being inserted into the hinges.

9. With the dog clips fitted the doors are now ready to be fitted into their respective positions with the aid of the simple jig on the right.

10. The jig for securing the door, fitted against the deck housing where the door is to be located.

11. First the door is offered into the jig, adhesive-free, to ensure that the jig is doing its job.



effective (**Photo 9**). In the same picture is a jig for fixing each door into place.

Fixing the doors

Generally it is a simple operation to fix a WT door to any part of a superstructure, although as a result of experience I always try to make the task easier by reducing the guesswork. A good example of this was in the placing of the WT doors on the Type 45 build where the angles on the sides of the superstructures varied but the height off the deck remained constant. Here a simple jig removed the guesswork and made fixing each door far less problematic.

Although the sides of the deck housing on the OSA boat are vertical, positioning without a jig would still have resulted in an element of the aforementioned guesswork. The objective is to achieve consistency and remove any uncertainty. Thus, applying the same method as on the Type 45 and HMS Skirmisher, a jig was made to suit the deck housing on the OSA 2, taking into account the camber and the height above deck. The net result can be seen in **Photos 10 and 11** where, with some adjustment for the reasons explained above, the jig fits gap-free against the deck housing.

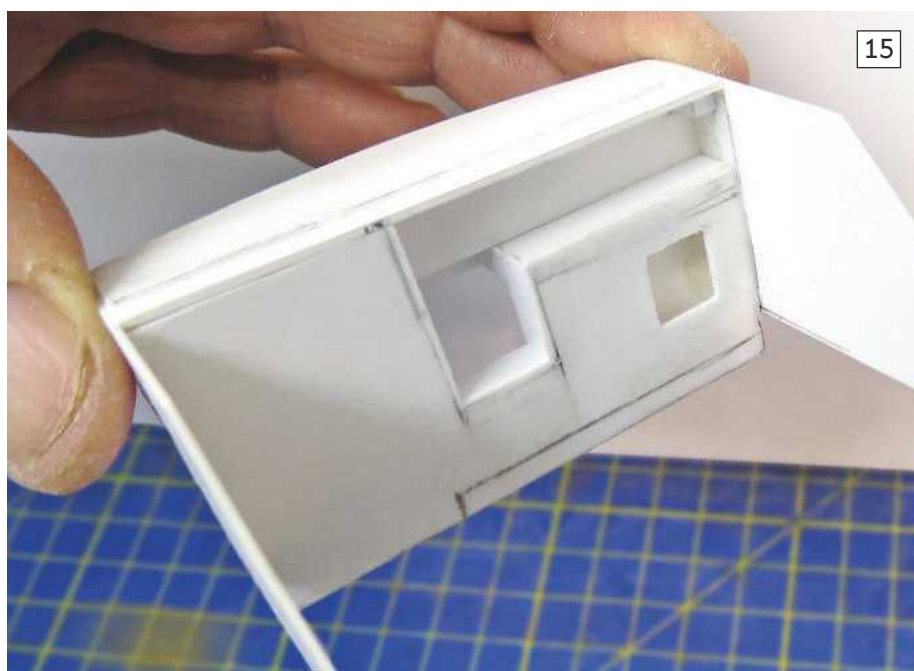
With the jig in place the door, adhesive-free, can be offered into the jig and, once satisfied that all is well, a small amount of cyanoacrylate

metal can be applied to the litho backplate. The advantage of the jig is in being confident that the door will be fixed in one operation with no need for any adjustment (**Photo 12**). The jig can then be removed and on to the next location, and so on, until all the deck level doors are fitted (**Photo 13**).

Upper control position

I'd like to move on to the initial development of the upper control position, or bridge, where the command and control fixtures and fittings are a mirror image of those in the wheelhouse. Essentially the layout is very practical with the combined helm and bearing indicator slightly offset to port whist adjacent (covered with a square box) are the triple throttles, and over to starboard (also covered) is the engine management console. Fire control for the SS-N-2 anti ship missiles is located in the wheelhouse below. Meanwhile, slightly forward but clearly visible within the upper bridge are the various dials to monitor the engine performance and condition (**Photo 14**).

For ease of installation and construction the upper control position was formed to allow the inner section, which houses the controls, to slot into the raised screen surrounding the top of the wheel house. The inner section has a recess to allow for the steering position and a small shelf



References and acknowledgements

OSA Boats:

Fast Attack Craft by Brassy – pages 96 – 98. ISBN 08448 1367 2

OSA 2 205U 1:35 scale hull:

MTB Hulls – www.mtbhulls.co.uk

12. When satisfied that all is well, a coat of cyano is applied to the back of the door and the door carefully placed.

13. After several minutes the jig can be removed leaving the door firmly in place.

14. Some of the fittings within the upper control position. The steering wheel is missing on the blue box. The circular panel on the top of the box is a bearing indicator.

15. At this stage the inner section is placed into the bridge surround but not fixed.

16. Both the surround and the inner section positioned atop the wheelhouse, with the WT door temporarily added along with the raised platform for the slatted floor.

over to starboard for housing the engine management controls and dials. The combined assembly was temporarily slotted into place, allowing for air brushing and for the various fittings to be painted and installed at a later stage (**Photo 15 & 16**). Also there's a slightly sunken two level slatted timber walkway immediately behind the control position, although forming the walkway and windscreen will be detailed next month.





Perseverance

Phil Scales mirrors the life and times of the harbour tug Imara by giving his Caldercraft kit an Admiralty facelift

Built to a Crown Colonies contract for delivery to Dar es Salaam the twin screw tug Perseverance started life with the name Imara but, having been deemed 'not fit for purpose' was purchased barely two years later by the Royal Navy. The date was 1932 and having been modified for colder climates and renamed Perseverance, she worked at Chatham Dockyard for the next 26 years until 1958. So, having built the absolutely fantastic Caldercraft kit of Imara

Starboard bow view with the enclosed bridge and bridge wings with their individual controls. Note the added stove pipes and rope wound tyres to prevent scuffing.



some 15 years previous, it seemed fitting to modify the model to RMAS Perseverance.

From the horse's mouth

This was not an easy exercise as plans and photos of the tug as Perseverance are like hens' teeth, i.e. rather hard to find. Fortunately, a very clear 8 x 10" photo of the vessel was obtained which showed quite clearly most of the modifications. There is also a very good photo on page 102 of Maritime Books' 'Channel Sweep' by B. Warlow. Best of all, however, was some excellent assistance from a member of Chatham Historic Dockyard staff who had sailed on the actual tug and recalled its colour scheme and fittings. This knowledge included its W.W.II convoy escort work in the Thames Estuary and beyond, when she was armed with a single Lewis machine gun that could be mounted on a pintle either side of the bridge to fire one side or the other!

Since there have been previous articles about this conversion I'm going to simply list the modifications in the panel hereabouts, however the main alteration was in the RMAS colour scheme. This included a black hull and deck, buff superstructure and inner bulwarks, generally black fittings, plus a blue stripe to the hull top and funnel.



Foredeck area with stowed Dan Buoy, salvage hatch davit and steel companionway.

Power aplenty

Perseverance, née Imara, is fitted with two 12V Decaperm motors and is very powerful, having also been strengthened for tug towing. That said on the single rudder she's almost useless steering-wise so either a mixer or independent power control of the propellers is needed for manoeuvrability. As Perseverance, she certainly gets more attention than in her previous guise, now being somewhat 'different' and, arguably, somewhat less common.



LEFT: A general view of towing deck from the starboard side.



RIGHT: Stern capstan area with hawser basket and a crewman engaged in hydraulic jack repairs. Figures always give a model a sense of scale.



ABOVE: A general starboard view showing many of the modifications required.



ABOVE: Port amidships section showing the Quaycraft clinker lifeboat, extra stove pipes, new mainmast and revised rigging.



LEFT: Perseverance afloat in RMAS colours and with a Blue Ensign.



Stern area with added tow bow supports, salvage pump heads and revised colour scheme.

ALTERATIONS

1. Add rope fender to bow and stern.
2. Anchor davit stowed in bow bulwarks.
3. Anchor winch black with some brass.
4. Salvage hatch black with butterfly clips.
5. Companionway to below fo'c'sle rebuilt in metal with double metal doors.
6. Bow cowl ventilator elongated.
7. Stove chimney to foremast.
8. Foremast stayed to bridge front, cross yard raised.
9. Add davit to foredeck salvage hatch.
10. Extra lifebelts to bridge sides with slide release behind bridge.
11. Fully enclosed wheelhouse, with windows, doors and extra wing telegraphs.
12. Fire buckets alongside bridge.
13. Single chimney pipe to port bridge rear.
14. Double chimney pipe to starboard bridge rear.
15. Ladders to wheelhouse roof.
16. Opening metal flaps to engine room grilles.
17. Funnel bonnet fitted, plus blue paint band and modified funnel platform.
18. Two rigid diagonal stays to wheelhouse roof.
19. Ship's boats, clinker built and wooden (Carley Floats on top are optional).
20. Fit mainmast, cross yard and ensign gaff behind funnel and ensure the Blue Ensign is flown.
21. Aerial trunk from W/T room.
22. Stove chimney and stay at rear superstructure.
23. Metal doors to rear deckhouse, no portholes.
24. Paint capstan bars black.
25. Add two centre supporting stanchions to the rear tow bow.
26. Add rope rear fender and rope wound side tyres.
27. Hinged freeing ports, and only four each side.
28. Fit loudhailer.
29. Dan Buoys fitted and stored front and rear.
30. Revised shape of navigation light boxes at sides.
31. Optional Lewis gun pintles on bridge sides.



Racing Sails

John Goodyear returns to tidy away a few loose ends, talk us through making a 'main' and offer some valuable set-up advice for own-designs

Welcome back to our short, and very practical, tutorial on making Mylar sails for racing yachts. If you're just joining us you'll need to catch up a bit so grab a copy of the February issue where I've set the scene, detailed the (very basic) tooling required and talked through the process of making a jib.

Time now to focus on the 'main', which in this case comprises three panels all cut slightly oversize with alternating directions of 'curve'. If you refer back to last month's article you'll remember that the curve we're talking about here is inherent in the Mylar as a result of it being supplied on a roll. The procedure for joining the panels is just the same as it was for the jib, however do take extreme care with the joints. The more there are, the more chance you have of something not lining up correctly. When finished to your satisfaction lay the completed sail on the table and overlay with the master sail pattern. You will discover that as a result of the three joints the luff curve that is there in the master doesn't exist in the newly made sail, not unless you are very good at joining panel to panel. Mark out the correct curve and cut to shape but leave the (oversize) leach or trailing edge of the sail alone for now.

You will now need to cut a 6mm wide length of rip-stop nylon to reinforce the luff, although this is easier said than done as the rip-stop nylon doesn't appreciate being cut with scissors which have a habit of wandering all over the place. Instead, hold it down very firmly on a cutting board, use the sharpest blade you have against a steel rule, and you will soon be successful. Now take a suitable length of double-sided tape and leave it to relax while you lightly fasten the sail down to the table or building board, making sure that the beautiful luff curve you have just cut remains in shape. Attach the now relaxed tape being ultra careful that you don't stretch it at all. Now remove the backing strip and

apply the piece of nylon. Once done you can overlay the master pattern again and cut everything except the luff to final shape.

Okay, hold the sail up and flex it both ways. You should see a lovely cambered shape in both directions but if not, scrap it and start over. Cruel I know, but if you want sails that perform well it's the only way to go. To finish things off attach the corner reinforcement patches, install eyelets and you're there. Satisfying isn't it?

All new

Time now to revert to the rather more thorny question of making sails for a new design of hull, which might well represent a step into the unknown for many. Of course, the first question needs to be: "Where does the mast go?" If you're feeling particularly brave, lucky, or silly you can guess, but my money would be on you getting it wrong. This in turn means that no matter what else you do downstream, the yacht will never perform well, if at all, so don't go down that path. What you need to do is determine the Centre of Lateral Resistance (CLR) of the hull from which all other things can be decided. How is this done? Well, there are several methodologies that can be adopted but for my money the best way forward is to take the hull, complete with rudder, keel and all radio equipment, and drop it in the water parallel with the bank. Next, take a relatively sharp pencil and place the point on the side of the hull and use your best guess to determine the Centre of Lateral Resistance. Right, push the hull away from you using only the point of the pencil. Unless you are incredibly fortunate or downright

A reminder of the basic tools and materials that are needed for this very practical job.



MATERIALS

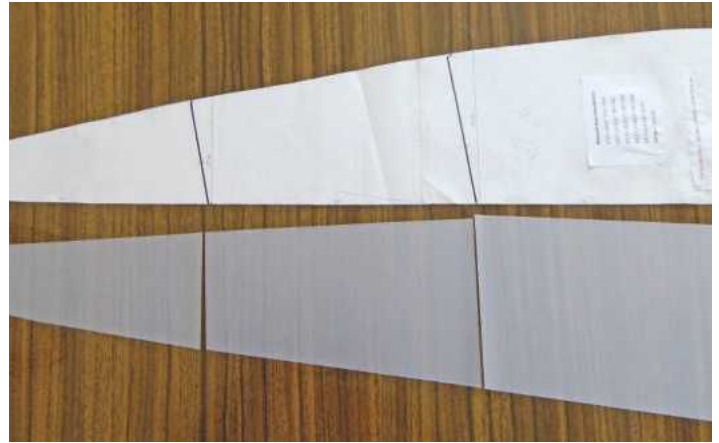
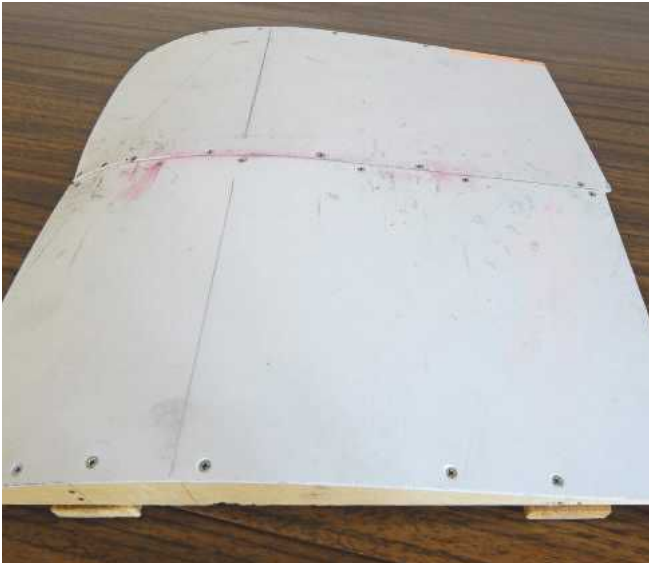
Rip-stop nylon: Fabworks – www.fabworks.co.uk – 01924 466031

Mylar: SailsEtc – www.sailsetc2.com – 01376 570583

3mm eyelets: eBay

Dyneema: eBay

Double-sided tape: Samuel Taylors crafts – www.samuelstaylor.co.uk.



As before the 3 sections of the 'main' will need to be joined atop your jig using a maximum 7° angle between the boards.

ABOVE: A master pattern and three main sail sections ready for joining.

clever the hull will move away either bow or stern first. Repeat the exercise as many times as necessary until the hull moves away at 90 degrees to the pencil point. i.e. with the bow and stern moving together. It's tricky but it will happen, eventually! Mark this point and sit back smiling. You have just made a major discovery that will serve you well.

The next thing to remember, all other things being equal, is that the mast foot needs to be in front of the Centre of Lateral Resistance if the sails are going to work in conjunction with the hull. If you care to Google this you will see why. So, where exactly do we put it? Well, we can only answer that with any accuracy by considering the sizes of the sails to be fitted and the ratio of areas in the jib and main. Why is this important? It's important because

BELOW: I now exclusively use 3mm eyelets on my sails, simply because I've never had much success with the 2mm items.

...do make sure that there's scope to move the mast back and forth to determine where the 'sweet spot' is...

we need to consider where the Centre of Effort (CE) of the sails is going to be. You see, unless the CE of the sails is ahead of the CLR of the hull, your yacht won't perform. We thus have another little question to answer, notably, how to determine the Centre of Effort of the sails. It is at this point that some important decisions based on best guesses / experience / luck / observation need to be made concerning the shapes and sizes of the sails. Now as I said at the beginning of

BELOW: Gorilla tape is perfect for the reinforcement patches, being both strong and flexible.



this article, I'm no expert so cannot provide anything other than guidance based on my experiences built up over ten years and some 20 odd models. I will, however, stick my neck out and state that for a conventional Bermuda rigged yacht, that will perform well in (almost) any conditions, you should aim to have between 38% and 43% of the total sail area in the jib. You can pretty easily calculate this by drawing two triangles which look about right and working out the area of each using the good-old schoolboy formula of half height x length of base to determine the area of each. If the subsequent sums don't provide you with the desired ratio then redraw and recalculate until you get things in the ballpark. "But what about the roach in the main sail?" I hear you ask. "That adds area." Well, it does, and if you want to be precise then you will need to measure this extra portion and use it in your calculations. Alternatively, you can keep it simple and cheat along the lines I will outline shortly. Note, at this point, that for swing-rigs all bets are off. Here the jib needs to be considerably smaller to permit the whole rig to function correctly. This in turn moves the CE of the whole rig back meaning that the mast needs to be moved forward to make everything work as it should. If you need to make a swing rig for your new yacht design, you'll need to do some research of your own.





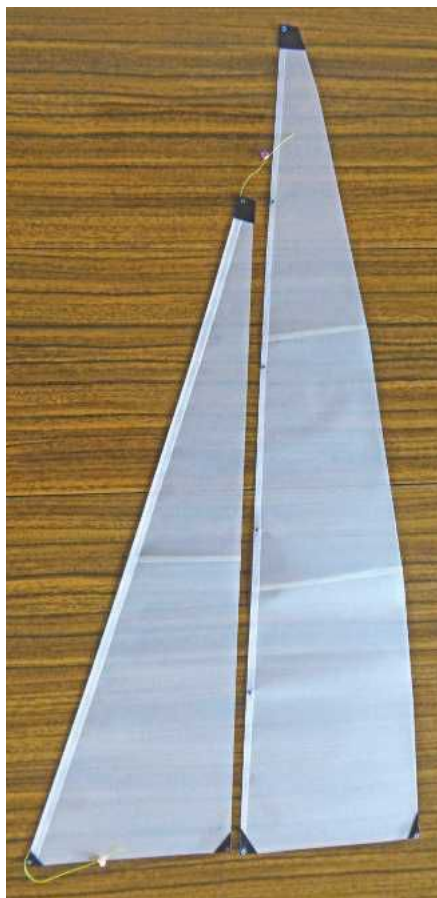
ABOVE: Whatever type and size of eyelet you use, do invest in the proper tooling to make the hole and close the eyelet after insertion. Truly, it makes all the difference.

RIGHT: Voila! A complete set of sails ready to fit. Sail making can be very satisfying.

Must-have

Armed with the areas of our two conventional sails we now have to address the issue of the actual calculation of where the CE is going to lie. For this you can use your own wisdom or put your hand in your pocket and purchase a super little booklet (BB3) from Nylet Sails – www.nylet.co.uk – which will explain all. As a bonus it will also provide you with a great deal more information about setting sails and rigging and is a must-have in my humble opinion.

Right, by now you will have your sail plan and know both the CLR of the hull and the CE of the sails so you're well on the way to success. To determine the position of the mast foot I use my own formula which (amazingly) seems to work well for yachts of up to 31" in length. For anything larger



I suggest you seek guidance elsewhere before committing. Using my formula you will, at least, have a good idea of where to place things. To determine the mast foot position therefore, calculate 4% of the total length of the hull and position the CE of the sails this far in front of the CLR of the hull. This 4% figure accommodates the extra

area in the roach unless, of course, you have made the roach rather large. As a worked example, for a 650mm long RG65 hull, 4% equals 26mm. Note, however, that whilst this calculation will deliver you a good working yacht, mast foot position is critical in terms of optimum performance so when building your yacht do make sure that there is scope to move the mast back and forth to determine where the 'sweet spot' is which, of course, will vary as sailing conditions change. This is what professional yacht designers and manufacturers do so if it's good enough for them it ought to be good enough for us.

In finalizing the mast foot position when sailing, remember that if the yacht constantly luffs up into wind then the mast foot needs to move forward. Conversely, if the yacht bears away then the mast foot needs to move rearwards. Having done all the sums, so to speak, you can now proceed to make a set of sails using the information previously outlined in this little feature, confident in the knowledge that your yacht will have a good chance of performing well and give you a great deal of pleasure and satisfaction, especially if you start beating any out-of-the-box designs or craft equipped with professionally made sails.

We've only just begun

There is a great deal more that could be said about making and using yacht sails as any trawl of the internet will readily confirm. However, if a practical guide is what you're after, without too much science, then all I can say is that if you follow the guidance given above you will finish up with something that you have created, that works well, and will allow you to be competitive. Good luck and happy cutting and joining.



Commercial sails aren't cheap so this could be the perfect way to get yourself fully equipped at a fraction of the cost.



Mark my words, when you create a set of sails that work well enough to compete favourably with the commercial boats, then you know you're on the right lines.



DEANS MARINE

CONQUEST DROVE,
FARCET,

PETERBOROUGH, PE7 3DH

01733 244166 www.deansmarine.co.uk

Visit the **NEW OUTLET CENTRE**
and **SHOWROOM** or our **ONLINE**
SHOP FOR KITS & ACCESSORIES
The only model boat shop &
SHOWROOM with a test pond.



2018 colour catalogues

Deans Marine £7.50

Raboesch £4.00

RB Fittings £2.00

+ alblon + deluxe

Set of 5 for £15.00

incl P & P UK

Outlet centre



New releases See website for details



NARROWBOAT 1/12 scale



KRISTINA 1/48



S.S. NEW FAWN 1/48 scale



Velarde 1/100



The No.1 specialist in complete kits
of modern & classic ferries

www.linkspanmodels.co.uk

www.facebook.com/linkspanmodels

+44 (0)1527 328548

contact@linkspanmodels.co.uk

**** Now Available ****



£415.00 + p&p
Free Enterprise V /
Pride of Hythe
1:96

length: 122cm beam: 20cm
draught: 4.4cm weight: 5.7kg

£535.00 + p&p

Norland / Norstar
1:96

length: 159cm beam: 26cm
draught: 6.3cm weight:
14.6kg



**** For release in 2018 ****



Spirit of Free Enterprise 1:96
length: 137cm beam: 24cm
draught: 6cm weight: 9kg



Suilven 1:96
length: 90.12cm beam: 16.7cm
draught: 5.2cm weight: 5kg

All Linkspan Models kits contain:
Fibreglass hull, laser-cut styrene superstructures, 3D printed fittings, etched metal details,
propshafts & tubes, brass propellers, instructions, drawings & CD of photographs of the
prototype build

Re-live the classic days of ferry travel - in miniature



Miniature Steam Pty Ltd Steam Plants - Ready to Run



Vertical & Horizontal 3" Boilers with Clyde Oscillator Engines



Final (landed) Cost

UK £ 729.00

EU € 919.00

USA \$825.00

Canada \$1095.00

P/N 4049

All our steam plants comprise:

- Mounting Tray with turned up edges
- Boiler complete with cast ceramic burner
- Steam engine/s matched to the boiler
- Refillable Gas Tank
- Refillable Gas Tank Adaptor
- Exhaust Oil Separator
- Screws/Bolts for securing components
- Connecting piping for all components
- Wood lagging, brass binding strips and instructions for lagging the boiler.

See details for all steam plants on our website.



Final (landed) Cost

UK £ 729.00

EU € 919.00

USA \$825.00

Canada \$1095.00

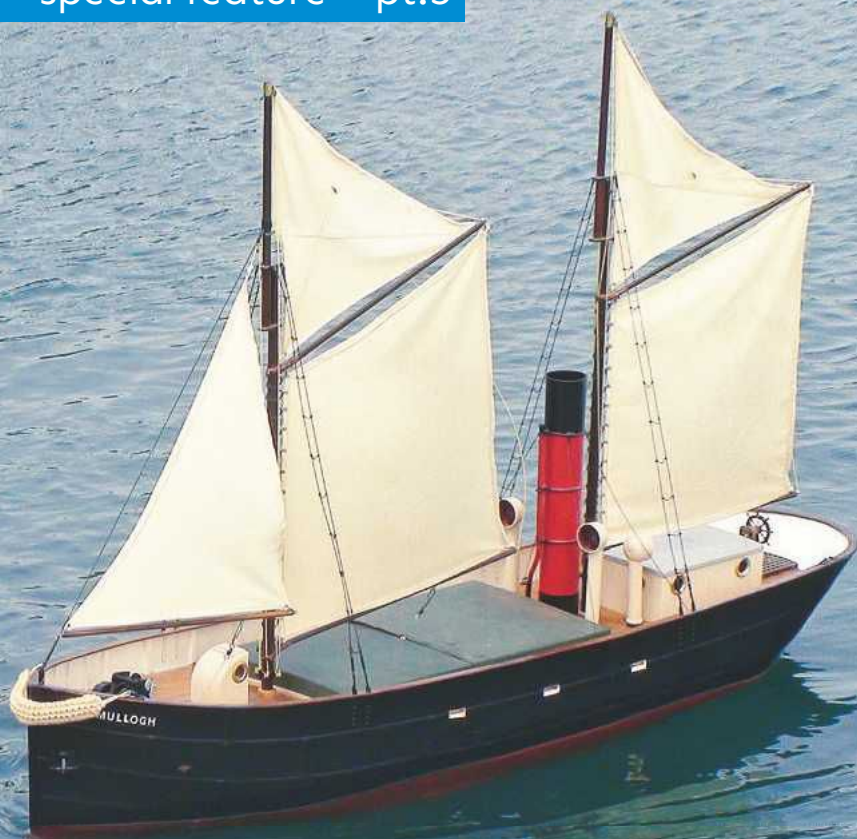
P/N 4050

The prices above are accurate as of Dec 7 2017. Currency exchange rates were calculated using Commonwealth Bank of Australia information on that date.

They include our Special Freight charges and current VAT/GST rates for each country. Currency fluctuations and government impositions may cause changes beyond our control.

our website: www.miniaturesteammodels.com

or email: info@miniaturesteammodels.com



S.S. Mullogh

Steam and sail may well be the best of both worlds but as far as radio installation is concerned it can mean only one thing – complexity! **Phil Button** applies some lateral thinking...

As the hull construction was now substantially complete and the steam plant had at least been offered into place and was a proven fit (more or less) in the space allocated for it, thoughts naturally turned to how the beast was to be controlled. Obviously, radio control would be installed, using one of my stock of Orange 6ch 2.4GHz receivers. These are compatible with the DSM2 system used by Spektrum and work well with the Spektrum DX6i transmitter that is currently used with all my steam models. The Orange receivers are much cheaper than the genuine Spektrum receivers, but seem to work just as well and with a decent range.

In order to operate the model under steam power you need to use five channels, however since most radio control equipment seems to be primarily set up for model aircraft use, **Table 1** shows how the channels are used in most of my steam models.

To explain the need for the compound / simple valve – for those unfamiliar with steam engines – a compound engine uses the exhaust steam from a High Pressure (HP) cylinder to drive the Low Pressure (LP) cylinder. Hence, if the engine stops at top or bottom dead centre on the HP cylinder, where that cylinder cannot start, there is no

exhaust steam to power the LP cylinder and the engine will not run. The 'simple' setting of the valve applies full boiler pressure to both cylinders at once, allowing the engine to start, after which it can be switched to run as a compound. The ahead / astern control is by operation of Stephenson Link reversing gear fitted to the engine (rather like the valve gear fitted to some full-size steam railway locomotives), so it needs a separate control. In addition, I wanted to be able to use the model as a sailing ship, albeit not at the same time as using the steam engine, so I would need some form of sail servo which could be operated from the same radio channel as the steam engine regulator. To achieve switching from steam to sail so that both servos did not operate together, it was a simple matter to disconnect the positive (red) wire from the plugs of both the regulator and sail servos

TABLE 1

Transmitter control

Left-hand stick vertical
Left-hand stick horizontal
Right-hand stick vertical
Right-hand stick horizontal
Gear switch

Aircraft allocation

Throttle
Rudder
Elevator
Aileron
Gear up / down

Phil's allocation

Regulator (throttle)
Whistle valve
Ahead / astern
Rudder
Compound / simple



ABOVE: Note, positioned on the forward face of the funnel, the 4.5mm copper pipe that vents the boiler safety valve.

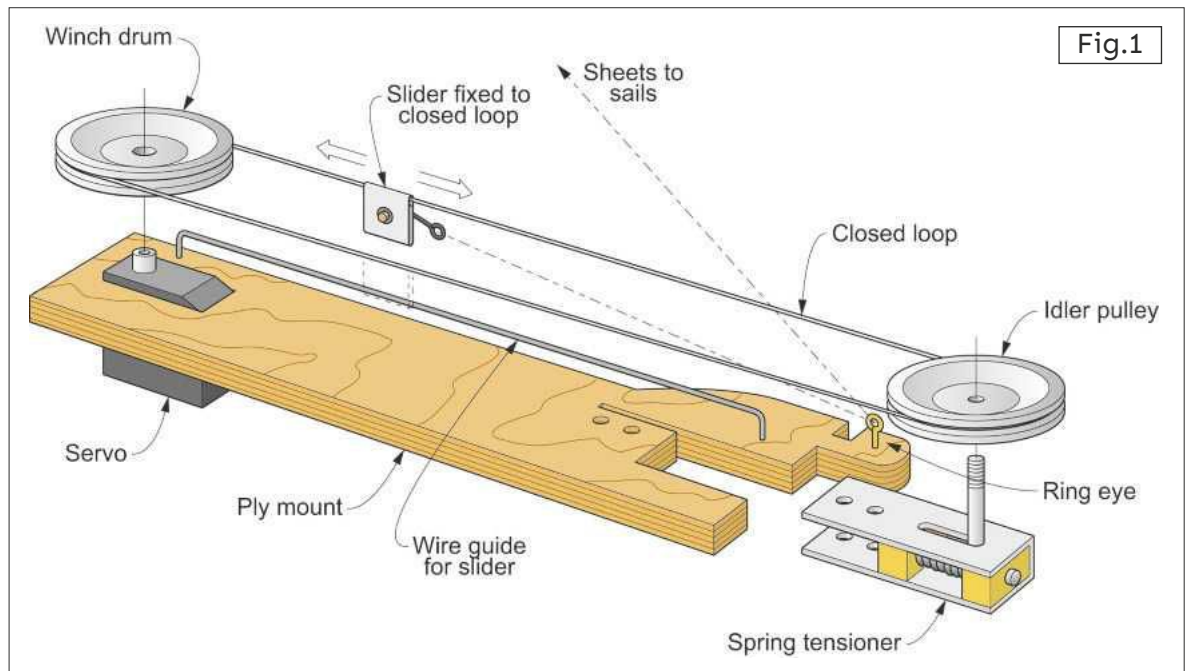
LEFT: I have to admit that I ate more than my fair share of Kinder Eggs before the vents were finished!

and wire them to a switch, labelled 'Steam / Sail', to select the appropriate one to be powered from the receiver.

The receiver, battery pack, on / off switch and all the servos are fitted forward of a solid bulkhead that splits the main hatch area and is designed to keep the heat and damp of the steam plant aft, away from the vulnerable radio gear. When on the water, the radio gear is shielded by the forward section of the removable hatch cover and control rods to all engine functions pass aft through the main hatch bulkhead. As for sail control, this requires a special type of servo that generally takes one of two forms:

1. Sail arm servo. This uses what looks like a standard servo with a long arm fitted to the output shaft. The servo operates over 90 degrees of movement as normal. Sheets (the lines that control the sails) are attached to the end of the arm and the arm pulls the lines tight in one direction whilst the wind pulls the sails in the opposite direction when the servo is let go.

2. Sail winch servo. This also looks like a standard servo but with a drum unit fitted on the output shaft. The difference is inside the servo as it is arranged to produce multiple



turns of the output shaft in response to the radio signal. In this case, the sheets are either wound directly around the drum or fixed to a loop of line that is, in turn, wound around the drum.

After much thought, I chose the drum type for use in S.S. Mullogh, partly because there has been trouble in the past with insufficient torque to overcome the wind loads with sail arm servos and also because there was not enough clear space for the sail arm to swing. I also wanted to have a closed loop of cord to operate the sails, where the cord is wound around the winch drum at one end of the loop and an idler pulley at the other, the sheets being attached to the cord. As the drum moves, the cord pulls the sheets.

In order to achieve this, some form of tensioner would be needed to keep the loop tight so that it did not slip on the drum. Accordingly, some odds and ends of metal were found, along with a spring from the scrap bin and it was all built into the tensioning device shown in **Photo 1**. The idler pulley fits on to the spindle at the right-hand end and the loop is kept tight by the spring. The winch drum servo was fitted at one end of a plywood strip and the tensioner at the other.

With a wire guide rail on the plywood strip and a slider attached to the loop the completed assembly came out as detailed in **Figure 1**. A notch at the idler pulley end of the plywood servo plate locates on one of the hull formers to keep the assembly in place in the hull. This servo assembly gives a linear pull of 12 inches for sail control and is fitted to a wooden block in the forward hold, here seen surrounded by lead ballast in **Photo 2**.

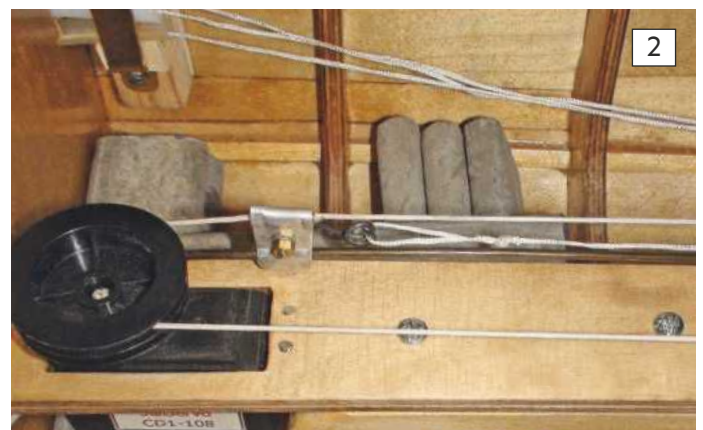
Sheets to control the sails were tied to the slider on the servo assembly and led to the outside via a ring eye on the servo plate and through the deck via the three plastic tubes that had been installed before the deck was completed. The top left-hand corner of **Photo 2** shows the sheets disappearing into the ends of the three tubes inside the forward hold.

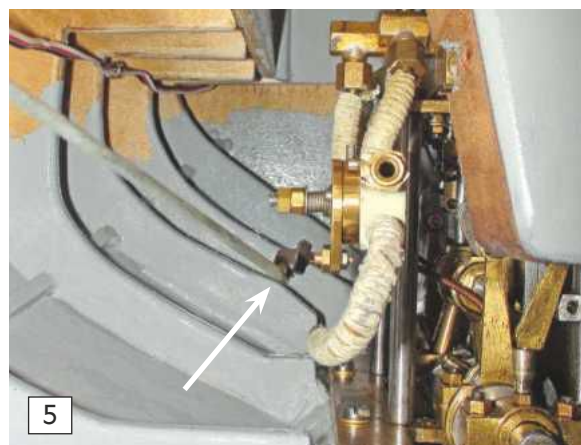
In control

With the sail winch servo assembly safely installed in the forward hold, the rest of the radio gear could now be fitted, which, incidentally, would have to go above the sail servo. As mentioned earlier, the radio installation would need a total of five servos

for the control functions required, together with the receiver and a 4.8V battery pack. The rudder servo would not be installed with the main radio control parts as it had already been fitted in the stern of the model, close to the rudder stock. As such, a long extension cable was installed below the main deck to enable its connection to the receiver.

After some thought, the installation seen in **Photo 3** was adopted. A single hardwood bearer rail was glued to the front of the engine room bulkhead and a second rail fixed by screws across one of the hull formers, so that it could be removed if sail servo access was needed. With this, a pair of flat aluminium plates were made, each arranged to carry two standard servos and a switch. The starboard plate carries the receiver on / off switch and the servos for engine speed control and the compound / simple valve. The port plate carries the steam / sail switch plus the servos for engine reversing and the whistle valve. A battery pack of four AA rechargeable cells was fitted into a simple folded sheet aluminium tray and screwed to the support rails between the two servo plates. The Orange receiver, meanwhile, was fixed to the engine room bulkhead using





double-sided self-adhesive foam tape. Please note that the receiver is mounted as high as possible in the hull to try to avoid possible radio signal reception problems.

To connect the various servos to their respective controls in the machinery spaces, my normal procedure is to make a number of stiff wire linkages, using recycled bicycle spokes. Each linkage has a plastic quick link

clip at the servo end and a brass / plastic ball joint or a metal clip at the 'hot' end to help avoid melting problems. The plastic links can be seen in **Photo 3** with the other ends of the links as follows:

Whistle Valve (Photo 4). The odd-shaped kink in the linkage is to fit around the gas bottle and its control valve.

Engine reversing. This uses a ball and socket joint which was a bit difficult to photograph as it is under the aft deck on the port side, sorry! Owing to the length of this linkage, using one and a bit lengths of bicycle spoke, a support bracket was needed at the halfway point to minimise flexing and this can also be seen in **Photo 4**.

Compound / simple valve (Photo 5). Using a ball and socket joint once again, and difficult to photograph as it's under the after deck on the starboard side. This control run was rather long, similar to the engine reversing linkage, and also has a mid-length support.

Engine speed control regulator (Photo 6). The odd shape is meant to dodge around some steam and water pipes as well as the

gas bottle. The mid-length support for the compound / simple valve can just be seen below the valve hand wheel.

On completion of the radio installation and the control linkages, the receiver and transmitter were powered-up for a check of their operation. To allow the engine to be run, a small air compressor was temporarily piped into the boiler via the water filling valve, and all operations then thoroughly tested. The Spektrum DX6i is a computer transmitter, so it's easy to alter servo end points and /or direction of travel should this be needed.

One more item was needed for the steam installation, namely an Oil Interceptor. This is a vessel connected between the engine exhaust and the flue which is simply there to remove steam oil, which is used to lubricate the internal parts of the engine, and prevent it from leaving the model within the exhaust steam. Allowing steam oil to exit in the exhaust is messy for any model and definitely frowned upon by the owners of your boating lake. In this model, the oil interceptor comprises a simple copper vessel with two incoming steam pipes from the engine exhausts – which turn vertically downwards inside the vessel – and a single outlet pipe





for routing the steam exhaust up and away inside the funnel.

Since there is very little residual pressure in the exhaust system, the oil interceptor does not need to be built as a 'pressure vessel' and I usually connect it using silicone tubing as it needs to be regularly removed and emptied of any collected oil and condensate. **Photo 7** shows the interceptor after soldering together, whilst **Photo 8** shows the mounting bracket for it in the engine room and **Photo 9** shows the completed unit piped and ready to go.

More deck fittings

Before moving on to the sailing rig, there were a few more deck fittings to be completed. The artist's impression that I was working from displayed a very prominent group of four tall cowl ventilators arranged around the funnel. It would be good to have these so that they could rotate and 'open' to help ventilate the machinery spaces, just as in full-size practice. A best guess as to the size of these vents gave a cowl diameter of around 25mm with a stem diameter of 15mm. This meant that one could use the plastic cases from a Kinder Egg for the cowls – and yes, I was 'forced' to eat the chocolate to get them – and 15mm copper plumbing pipe for their stems. It's worth noting that only the older Kinder Egg cases are now suitable for cowls, as their design has since been changed.



The lathe was pressed into service to turn a set of aluminium 'rings' that would be glued into holes in the deck, plus a set of flanges to fit around the cowl stems to stop them dropping down through the deck 'rings'.

Photo 10 shows all the parts for one pair of cowl ventilators prior to assembly and **Photo 11** is of all four vents during painting.

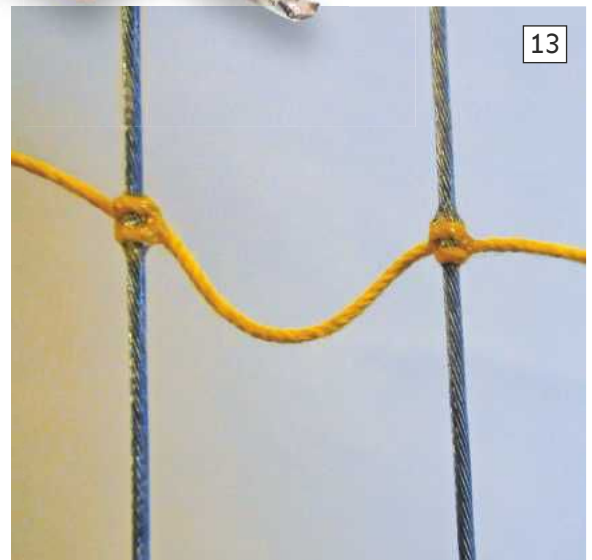
In order to fit these vents, holes of 16mm diameter were needed through the deck at their correct locations. Using a large diameter drill on 1.5mm plywood is never a good idea, as the wood will inevitably split and tear, indeed the standard method of using progressively



larger drills is also not very good. As a result, a simple hole saw using a piece of brass tube and scrap steel was made, **Photo 12**, and this worked brilliantly.

Next, the funnel was cleaned and fitted with a piece of 3/16 inch (4.5mm) copper pipe in the ring eyes on the forward side to act as the boiler safety valve outlet. The funnel was given a coat of red paint, with the top section of it and the funnel bands picked out in black, before being fitted to the deck. Small ring eyes made from steel wire (the armouring from redundant electrical cable) were made and glued into holes drilled in the funnel to take the funnel stays. Similar ring eyes were glued into the deck to take the bottom of the stays, whilst the stays themselves were from strong thread, painted black.

Finally, for this month, the shrouds, complete with their climbing rungs, were made in situ to keep them in tension before painting satin black (**Photo 13**). A drop of superglue was, of course, put on each knot to stop it coming undone. Next month we will continue with fitting out and embark upon the maiden voyage, under both steam and sail.



11



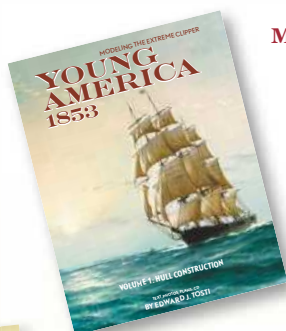
12

10

13

Great Offerings for Ship Modelers From SeaWatch Books

Be sure to check these titles off your list while they're still available!

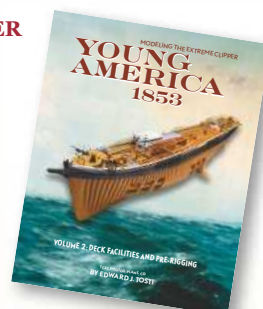


MODELING THE EXTREME CLIPPER YOUNG AMERICA 1853

By Edward Tosti

The Golden Age of the clipper ship produced some of the most beautiful, fast and sturdy sailing ships known to man. Ed Tosti is modeling one of these ships with exquisite detail in 1:72 scale. **Book I** covers building the hull. **Book II**, covers finishing the main deck along with masting and rigging her. Even if you do not build the model, Ed's jigs, tools and techniques are not to be missed.

Vol 1 \$80 • Vol 2 \$75

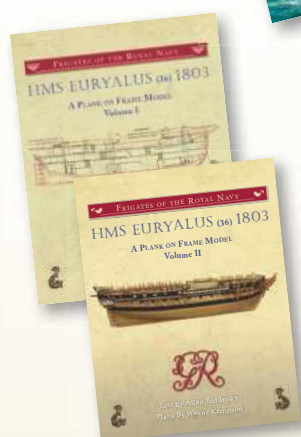


NAIAD FRIGATE (38) 1797

By Edward Tosti

The Naiad Frigate was a Royal Navy fifth-rate frigate that served in the Napoleonic Wars. **Volume I** includes descriptions and photos of jigs and building tools for this "keel up" style of building. **Volume II** deals with interior construction, berth and gun decks, weather decks and all other details of construction. Nine sheets of detailed plans, 16 pages of color photos and a CD.

Vol 1 \$75 • Vol 2 \$80



HMS EURYALUS (36) 1803

By Allan Yedlensky

Euryalus was part of Nelson's fleet and served at Trafalgar. **Volume I** begins the plank on frame model using an upright method and covers building the model through the lower deck. **Volume II** finishes the framing, starboard side planking, upper decks, head and stern details, ships boats, cannon and more.

\$80 each

THE SWAN SERIES BRITISH SWAN CLASS SLOOPS OF 1767-1780

Vol 1, 2 & 4 By David Antscherl, Vol 3 By Greg Herbert

Volumes I and II take you through the building of the Swan Class sloop PEGASUS using the frame up method of construction. In **Volume III** Greg follows David's instructions and documents the building of his model step by step. The finished model is shown in full color along with pictures of other SWAN class models in an appendix section. In **Volume IV** David follows the establishment specifications for an English Sixth Rate Sloop and takes you through the construction of masts and spars.

Vol 1 \$70 • Vol 2 \$70 • Vol 3 \$65 • Vol 4 \$65



17TH CENTURY DUTCH MERCHANT SHIPS

By Ab Hoving

This book profiles ten different merchant ships in spectacular color photography. With plans in both $\frac{1}{4}$ and $\frac{1}{8}$ scale, just pick your building method, the size and complexity of the ship you want to build, and you are ready to cut wood. Besides being a treasure trove for ship modelers, this work helps document the merchant ships of one of the world's greatest sailing nations.

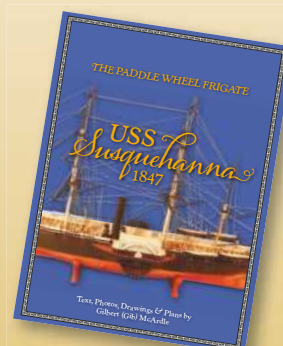
\$75

THE PADDLE WHEEL FRIGATE USS SUSQUEHANNA

By Gilbert (Gib) McArdle

While Gib has built his model using the plank on frame method, it could also be built using plank on bulkhead, or with lifts for a solid hull. Plans for all of the frames are provided along with a full set of templates for a plank on bulkhead build. The ship is fully rigged and makes a beautiful model at 1:96. 10 sheets of plans are provided.

\$75



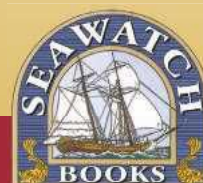
Order by phone or online. Shipping for each volume: \$9 US / \$20 Canada / \$30 all other locations

SEAWATCHBOOKS, LLC • 19 Sea Watch Place, Florence, OR 97439 • seawatchbooks@gmail.com



PHONE: 541-997-4439
FAX: 541-997-1282

SEAWATCHBOOKS.COM



OUR MONTH

An occasional peek into the dusty back rooms and darkened corridors of Model Boats magazine

Editor's Exploits

In preparation for a warts 'n' all account of my DF 95 exploits, I've been getting to the lake as often as possible and have sailed a good number of races over the last few months. Competitive yachting is proving to be quite an addictive pastime and when it's all going well there's little to beat it. With considerable luck and a fair wind I've even chalked up a victory or two but I have to admit that I'm still sailing the course in relative ignorance of the rules so I've started swatting up by watching YouTube video tutorials. Meanwhile my tactic is simple: avoid other boats at all costs and sleep easy! Of course, I've had moments of frustration too, most notable being a snapped jib / boom hook-down line. The result seeing the editorial 95 being blown uncontrollably downwind only to get hooked in a low hanging tree at the far side of the lake where its sails thrashed relentlessly against the branches until the rescue boat could be scrambled. Result? A rigful of nasty creases. Which begs the question: Can I live with said creases and will it make any difference to my sailing? Answer? Probably not and, I doubt it – Ed.



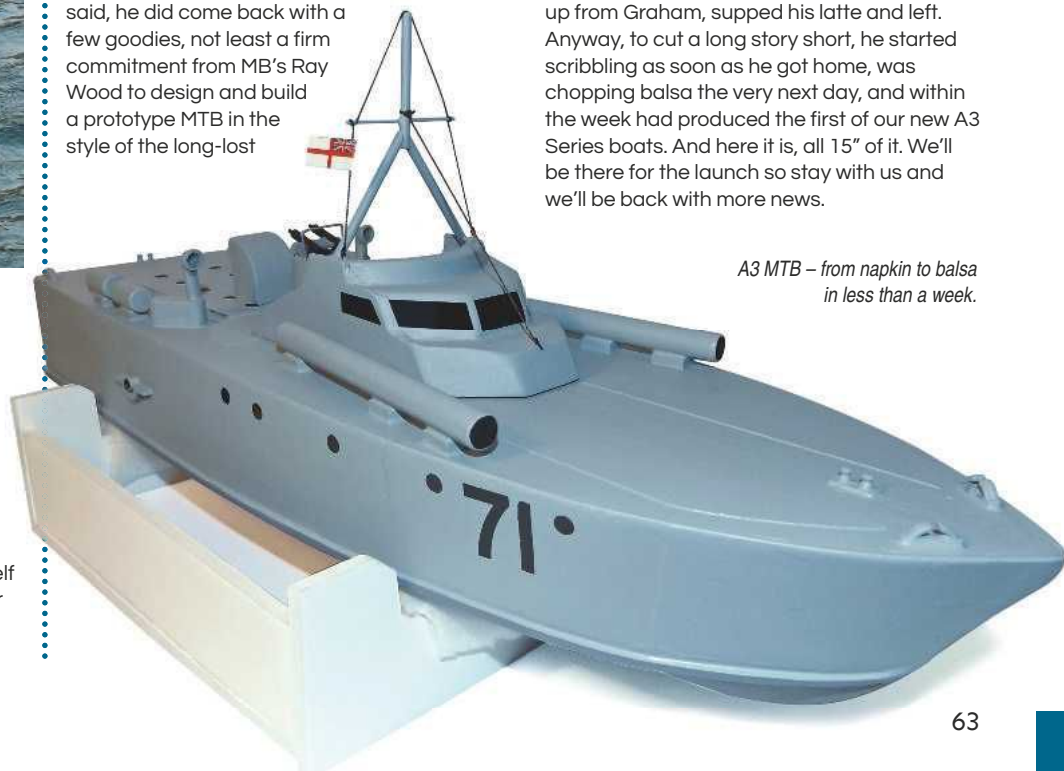
Alpha

In other news, John Goodyear's new RG65 class racing yacht, which he's been working on since November last year, continues to perform well at the pond and, following his very critical appraisal, has now been passed for publication. Look out for the FREE plan later this year. In John's own words: "She puts in a good account of herself when racing and can handle rough weather even with a large-ish rig. I'm delighted with her performance."

Networking

On page 13 of this issue you'll see the Ed's report from the London Model Engineering Exhibition and, if you get a chance to read it, you'll probably get the impression that quite a bit of coffee was consumed. We'll, as his expenses will attest, this is quite true, although he swears blind that it was all consumed in the interests of networking. That said, he did come back with a few goodies, not least a firm commitment from MB's Ray Wood to design and build a prototype MTB in the style of the long-lost

Keil Kraft EeZeBILT boats. Of course, it wasn't quite that simple for not only did the model have to be accessible to those on the very smallest of budgets, it also had to be quick and easy to build, attractive and, crucially, the plan had to fit across the centre pages of the magazine. Ray, being Ray, smiled, scribbled a rough sketch on a napkin, and with a thumbs-up from Graham, supped his latte and left. Anyway, to cut a long story short, he started scribbling as soon as he got home, was chopping balsa the very next day, and within the week had produced the first of our new A3 Series boats. And here it is, all 15" of it. We'll be there for the launch so stay with us and we'll be back with more news.



A3 MTB – from napkin to balsa in less than a week.

Mailbag

Air your views, seek a solution, or just tell us what you're up to in the pages of the hobby's favourite R/C model boat magazine

We welcome all letters of model marine interest, please title your email 'Model Boats Mailbag' and send to: editor@modelboats.co.uk

Finding a crew

I have just received the November issue and was fascinated by the article on Brenda as it's to a scale of 1:48. Being in my late '70s and rather ham-handed now I am no longer able to do the fine work necessary for certain models, however I am able to work in this scale and am presently converting the Graupner HMS Bluebell to a more convincing model of another Flower Class Corvette, HMS Cyclamen. This entails modifying quite a lot as, even after she was brought up to date in 1942, with a new bridge, radar etc., she retained the forward mast. She was my father's ship and was involved in the rescue of almost the whole ship's company of MS Adda and was also involved in the attack on Madagascar. Anyway, I would like to man the ship but



I am having great difficulty in finding crew figures at the scale of 1:48 and notice that Colin Bishop has such figures on Brenda. Would it be too much to ask where he found them?

Michael Day

Michael, thank you for your interest in Brenda. Alas I bought these figures some time ago from George Turner Models who is no longer trading. Some of George Turner's stock was taken over by Adrian's Marine Figures who, I

believe, has also been producing new ones from the George Turner moulds. The best advice I can give is to either email: adriansfigures@gmail.com or telephone 01604 846461. Good luck in your hunt – **Colin Bishop**

Thank you Glynn

After over 50 years of almost unbroken subscription to your magazine I feel that I owe it a big thank you for sustaining my interest for so long, even though I was not always finding time for the hobby itself. Whereas I started as a fan of Vic Smeed I am now particularly indebted to Glynn Guest for producing attractive models that, being relatively easy to tackle, have renewed my enthusiasm for building. I attach a photo of my version of his 'general' destroyer which now belongs to a grandson. I'm sure it would also interest him to know that two Dianas were



built and have survived three seasons of the grandchildren using them to play tag. They've taken hard knocks and one has even been rolled over and waterlogged. Incidentally, I took his building instructions to heart and made crew with Velcro bottoms and cotton bud limbs.

Paul Denholm



Going the extra mile

I thought you might be interested in my latest build, a 1/12 scale Fowler Challenger agricultural crawler which was converted by the RNLI in the '50s for use as a lifeboat tractor, the conversion making it completely waterproof so that it could go into the sea. For this I used three images of the full-size lifeboat tractor based at Chatham Dockyard Museum. The launch trailer, meanwhile, is a copy of the 1960 design that's in the Sheringham Lifeboat Museum in Norfolk. Both tractor and trailer were made from 2mm styrene sheets, I-beam, channel sections, sprockets, idlers and rollers made from six layers of

styrene sheet, with tracks from a model tank. Everything else is from scrap material.

The lifeboat (see Parting Shot on page 82 – Ed.) was built from a Metcalf 1/12 scale kit and is of Alice Upjohn, previously stationed at Dungeness.

Norman Smith





Just the ticket

With regard to your piece in Test Bench this month (January 2018) I have been using an Ikonnik KA-6 transmitter / receiver combo since the beginning of the year. After coming back to model boating a couple of years ago I joined Chantry Model Boat Club but was still using an old 27MHz system. Nothing wrong with that at all, until you start adding to your fleet of models. Turning up at the lake with several transmitters, one for each boat, was getting cumbersome to say the least!

At the start of this year I changed over to the KA-6 combo which proved to be a great improvement. There's not so much to lug from the car to the lakeside and for what I need it is perfect as I only use three channels at the most. I've found the set well-made, robust and very cost-effective. If, like me, you only sail yachts, this is the perfect set-up and as the fleet grows the cost of extra receivers does not break the bank. I'm now the proud owner of four sailing boats and two launches, all with their own receivers and only one transmitter. I would recommend this unit to anyone starting out in our great hobby.

Brian Barber

Straight to the bottom

I've not much experience with model boats and very much require your help. My father is from Aberdeen and when he was a small boy he had a model yacht that he attempted to sail in a local man-made pond. He got it for his birthday and it sank on its maiden voyage! The water was two feet deep (too deep for my father) and my grandfather, I'm told, would not go in and get it, leading to my father crying all the way home. My father has mentioned this incident many

times so it clearly left quite an impression. Anyway, I wanted to get a replacement for him. I know the yacht was red and about 12 inches long. It would have been bought in Aberdeen in the late 1960s and would have been relatively inexpensive.

Could I impose on you to suggest some manufacturers that may have produced it to help me in my search? Thank you so much in advance for your help.

Matthew Buchan

Matthew, it's the kind of question we could spend a whole morning

researching and answering. That said, given what you've told me, I'm going to assume the hull would have been metal – tin or steel – so you're probably looking for a yacht from a company like Triang. Type the following into Google and see if anything looks about right:

Triang Junior Yacht Metal Hull.

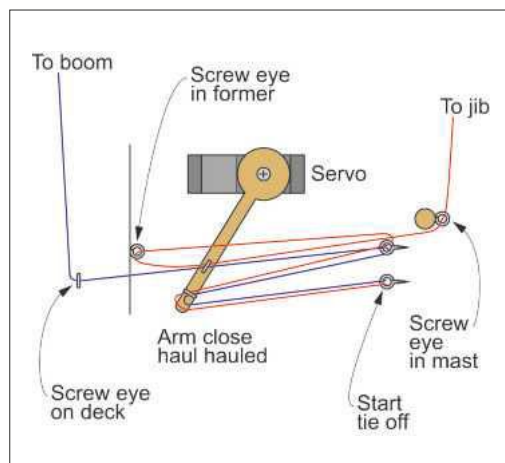
Triang 406Y Lugsail Dinghy – which would surely have gone straight to the bottom!

Good luck in your search – Ed.

Simple sail winch

Back in July 1989 Model Boats featured a plan of a small sailing boat called Jenny, by Douglas McGhee. I duly made and sailed it and thought your readers might be interested in my method of sail control. I've no idea where I got the idea from, although I'm sure I didn't think of it. Small brass screw eyes were used and, hopefully, the drawing shows the direction in which they should face. Have the servo arm right back in the close-hauled position.

Start by tying off the lines where shown – perhaps on bulkhead B4 – pass round the eye at the end of the servo arm, then back through another eye on B4 (about ½" from the other). Continue through the inner eye on the arm, finally going



through an eye on the rear deck and, finally, up to the boom. It's the same process for the jib, up to where it goes through the inner eye on the arm. Take it through to an eye fitted, perhaps, on B8, then take forward through an eye screwed low into the mast, then out to the jib which should also be close-hauled.

Having just started on the Wild Duck plan (July 2017), I'm sure the same system would work for that too. They are about the same size.

Denis Pitcher

Model of the Month

As you can imagine, we get sent many pictures of model boats throughout the month and rarely get a chance to feature them, that is, until now! This then is a shot (or two) of Stan Reffin's Midwest Models Maine Lobster boat which he built in 1990 as his second model boat built. We think it's absolutely terrific, not least because of some truly authentic detailing and weathering. Enjoy the shots which, incidentally, are supplied courtesy of photographers Debbie Roberts and our very own Richard Simpson.



KEILKRAFT

BEST IN THE LONG RUN

INSIST ON KEILKRAFT MARINE FITTINGS FOR THE BOAT YOU BUILD. THEY ARE SCIENTIFICALLY DESIGNED AND STRONGLY MADE TO GIVE YOU THE KIND OF SERVICE YOU HOPE FOR.

ELECTRIC MOTORS

MABUCHI

Mabuchi 15	4/1	Kako 0	4/4
Mabuchi 35	4/4	Kako 1	5/6
Mabuchi 45	4/11	Kako 2	7/7
Mabuchi 55	4/8	Kako 3	9/9
Mabuchi 65	8/5	Kako 4	16/10
	31/4	Kako 5	33/11

KAKO

A precision made British product. 21/-

The SPRITE outboard motor is suitable for boats up to 30' long, and the THRUST-PAK unit is for boats from 18' to 34' long.

ELMIC "THRUST-PAK" Complete unit 16/3

RUDDER ASSEMBLIES

De Luxe Assembly Extra Large	15/2
De Luxe Assembly Large	7/-
De Luxe Assembly Small	7/8
Standard Assembly Large	4/8
Standard Assembly Small	4/8
Junior Rudder Assembly	~10/5

BOAT PROPELLERS

11" dia.	5/3
13" dia.	5/3
15" dia.	5/3
2" dia.	6/6

SHAFT COUPLINGS

SMALL Female end (Shaft) Plain or 4 B.A.	1/4
Male end (Motor) to fit Kako 0, 1, 2 and 3	1/4
LARGE Female end (Shaft) Plain or 4 B.A.	1/9
Male end (Motor) to fit Kako 4 and 5	1/9
Male end (Motor) to fit Kako 55 and 65	1/9
Also 2 B.A. (For small diesels)	1/9

BOAT TANKS

CYLINDRICAL BOAT TANKS	
40 c.c. capacity	7/7
60 c.c. capacity	8/9
80 c.c. capacity	9/4
Rectangular pattern	7/-

STERN TUBE BRACKET 9d.

STERN TUBE CLEATS 9d. per pair

WATER SCOOP AND OUTLET

Large	5/3
Small	5/3

A typical advertisement showing the Keil Kraft range of marine fittings and motors.

KEILKRAFT Handbook 3/6

KEILKRAFT HANDBOOK and CATALOGUE 1959

KEILKRAFT MARINE MODELS

Model boats, fittings, motors, radio-control equipment etc.

Useful information on construction by Vic Smeed.

ARTICLES ON BUILDING AND FLYING. CONTROL LINE FLYING. BEGINNERS TIPS ETC.

FREE FULL SIZE PLAN for "FLICKA" 18" CONTEST CHUCK SLIDER

PRICE 1/6

A selection of Keil Kraft Handbooks.

Flotsam & Jetsam

60: Keil Kraft

John Parker traces the rise and the sad fall of, arguably, the UK's most successful balsa wood model kit manufacturing business

Edward 'Eddie' Keil worked in his father's company in Hackney Road, London, which made custom reproduction furniture and it was here that he developed an interest in the model-making potential of balsa wood, then a new material. He subsequently founded E. Keil & Company Limited in 1931 and commissioned some of the first machinery in the UK for processing balsa wood. When war came, this was put to good use producing parts for the wooden de Havilland Mosquito aircraft and with the return to peace his range of balsa wood kits became hugely successful, making his Keil Kraft brand a household name.

Despite the nautical-sounding name, Keil Kraft's success was founded largely on its range of model aircraft kits, both static and flying, such as the rubber-powered Ajax and Senator, the Chief and Minimoa gliders, and the Phantom control-line trainer. A range of simple and inexpensive models was sold under the EeZeBILT name, whilst a flying

scale series offered better realism at the cost of being more difficult to build and fly. The range had extended to over one hundred kits by the 1950s, in addition to a pretty comprehensive range of accessories.

Product development

In 1946, 22-year old Ernie Webster started work with the company as a designer, joining Albert Hatfull who was concerned with

designing the aircraft kits. One of Ernie's early tasks was the design of Keil Kraft's galleon kits, which were popular at the time as decorative items. Six models were produced in both the Junior Series, which were about six inches long at 4 shillings and 9 old pence (4s/9d), and the Senior Series, which were about twelve inches long and cost 14s/3d (1959 prices).

EeZeBILT boats

Three years after a move to Wickford, Christmas 1958 saw the introduction of the EeZeBILT range of boat kits, simple semi-scale 14 to 17 inch balsa models intended for electric propulsion that came complete with a simple propeller, shaft and stern tube and sold for only 12s/4d, or about £13.70 in today's money. The parts were die-cut from a dozen or so sheets of 1/16 and 3/32 inch balsa sheet plus some pieces of strip and dowel; there was a set of illustrated step-by-step instructions and a tissue sheet for finishing. Within reach of saved-up pocket money but requiring careful assembly along the lines of larger kits, they were an excellent introduction to the hobby, and fitted neatly at the bottom of an expanded kit range that included the plywood Aerokits that Keil Kraft was now distributing.

Curiously, two of the models in the range were called Swan and Cygnet but within a

Announcement of the first EeZeBILT marine kits in the 1959 Handbook. Note the names.

NEW! KEILKRAFT EeZeBILT BOAT KITS

Swan

Cygnet

Each kit contains:

- ALL PARTS DIE-CUT
- PROPELLER & SHAFT
- STERN TUBE
- RUDDER ASSEMBLY
- AMPLE BUILDING MATERIALS
- COMPLETE INSTRUCTIONS

SWAN Length 12" Beam 4"

CYGNET Length 10" Beam 4"

12/4



ABOVE: Contents of the 17" Triton cabin cruiser.

BELOW: The announcement of the three smaller EeZeBILT boat kits in May 1960.



ABOVE: Advertisements from February 1959 (rear) and December 1959 showing the change of names for the Swan and Cygnet and the powering options.

few months had been re-named Triton and Neptune. Any existing kits issued with the original names must be very rare indeed these days. Two of the models were cabin cruisers and completing the quartet was the Mermaid, an ocean-going cruiser, and Cresta, a motor boat, for which the Elmic Sprite electric outboard motor was recommended. The other models managed nicely with either a Mabuchi 35 or 45, or a Kako 1 or 2 electric motor. The availability of these inexpensive

Japanese motors, only recently introduced to the UK, in no small way contributed to the success of the EeZeBILT kits.

In May 1960, three further EeZeBILT boat kits appeared. These were the Terrier motor torpedo boat; Curlew fishing launch and the Otter tug, all smaller than the original kits at under 11 inches long and selling for 7s/6d each (about £8 today). The method of construction and style of presentation was the same as the larger kits but these were at the lower limit of size possible for a boat that



would inevitably be sailed on a lake by a young enthusiast who was too impatient to wait for calm conditions. How many survived their maiden voyages, I wonder? A Kako 01 or 1, or Mabuchi 15 or 25, was the recommended motor and the kits became big sellers.

The larger kits were packaged in colourful boxes featuring illustrations of all four models, relying on an inked stamp on the end to indicate which boat was inside. The smaller kits had individual boxes from the start, though these went through several changes of style, ending up as a generic box

“The company was probably at the peak of its success in the 1960s, with over 200 employees..”

for all three models. The Cresta, meanwhile, faced a problem in 1969 when its intended outboard motor, the Elmic Sprite, went out of production, but fortunately there was an inexpensive alternative that could take its place, and this was the Mabuchi OB-500.

Keil Kraft Handbooks

Keli Kraft issued its Handbook for most years from 1946, indeed Ernie Webster was very much involved in its production, doing much of the photography which sometimes showed his son Dudley completing a model. Ernie was also responsible for representing the company at trade shows and performing flying demonstrations. The Handbook initially cost a shilling but had risen to 50 pence (ten shillings) by 1975. It was essentially a catalogue showing the ever-increasing range of products, with some building and flying tips and behind the scenes articles to encourage buyers to buy a new one each year. The 1959 edition, for example, has some notes on boat construction by Vic Smeed, repeated in the 1960 edition. Today they are a valuable resource tracing the evolution of Keil Kraft products and history and are very collectable.

The 1960 edition was unique, being devoted entirely to marine models rather than a general catalogue. It shows the large range of kits by Aerokits, Marinecraft and Maycraft that Keil Kraft was now stocking, in addition to its own. But that's not all, also included was the range of Mersey Marine fittings, i.e. engines, electric motors, accumulators, tools and a growing selection of radio control equipment that was available from over 3000 stockists in the UK.

The company was probably at the peak of its success in the 1960s, with over 200



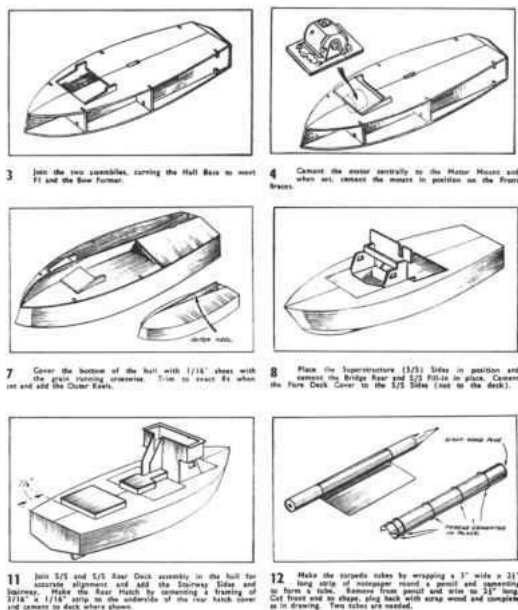
ABOVE: Contents of the Curlew kit.

RIGHT: Box-top styles. From the bottom: Otter (first style); Terrier (second style); Curlew (first style); late-Amerang style at the top.



employees making and dispatching its products to hobby shops around the world. A film has surfaced showing the factory in full swing at this time with Eddie Keil (the stocky bald man) at the helm, indeed it provides a sober reminder of how times have changed. It shows how nearly all of the production was done in-house, from sawing block balsa wood (for the hulls of galleons at a guess) to the die-cutting and printing of balsa sheet, assembly of the kit components, folding the plans, printing the box label and dispatching the kits. I'll leave you to spot the safety hazards, which include smoking amidst huge stockpiles of balsa wood! Search 'Keil Kraft Factory Tour' on YouTube (Well worth a look, it's another world – Ed).

BELOW: Build stages from the Terrier instructions.



Later years

Ernie Webster left the company in 1966, and two years later Eddie Keil was killed in a car accident. It's hard not to conclude that the absence of these two key figures is the reason for the lack of enterprise the company showed from this point onwards. There were to be no more Keil Kraft marine kits and only occasional new aircraft kits. As time moved on, the Keil Kraft range didn't, the 1975 Handbook still showing the outdated galleons and much the same range of model aircraft kits as could be seen in the 1950 Handbook. Radio control was rapidly growing in popularity but again Keil Kraft failed to capitalise on it, devoting just three pages to it in the 1975 Handbook, which included half

a page of single-channel escapements! The last Handbook appeared in 1979.

In the 1990s, a move was made to Lancing in Sussex under the ownership of Amerang, who were still supplying the EeZeBILT boat kits in essentially unchanged form, though the kit boxes now carried photographs of the three models, the propeller was plastic and the balsa wood was by Solarbo with a Mabuchi RE14 specified as the power source. A sales leaflet of the time shows many of the classic Keil Kraft aircraft kits with the heading, 'Models of Yesteryear – Leaders of Today', but I suspect most buyers weren't convinced, and wanted 'Models of Today'. In 2013 the company, which had been dormant for a long time and was then existing only in name, was finally dissolved.

Our father, Tony Lench, died in 2011. He loved the sea and especially the ships that sailed on it and so he started modelling them! Napoleonic frigates, an Elizabethan Galleon and latterly Thames barges, built with loving care, bore testament to his talent and knowledge. On his passing the collection has passed to our family, and to museums. However there are still examples of his work to find a home and as a keen lifetime reader of Model Boats we know that he would love them to go to someone who will enjoy them as we do.



Bark Fore and main masts square rigged with mizzen rigged fore and aft. **offers invited**



Sloop Single masted fore and aft rigged. **offers invited**



Two Masted Schooner
Two masted fore and aft rigged. **offers invited**



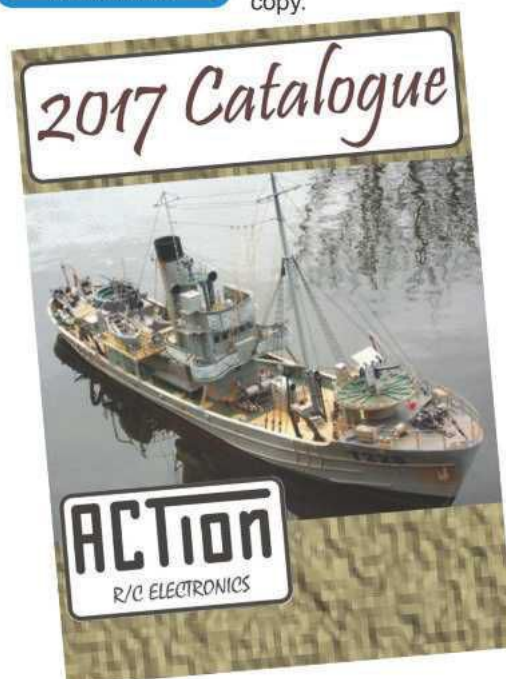
Revenue Cutter c1900
We think this is Dad's first model. **offers invited**

As fellow enthusiasts we hope you enjoy his model ships as he did. For further information please contact **Michael & David Lench 07774 453382**

component-shop



Our new 2017 catalogue is out now with loads of new products. Contact us now for your FREE copy.



Call us on **01248 719353** or visit our web site at:
www.component-shop.co.uk



Mr TOM £65



FAIREY HUNTSMAN 31 £78.40



POLICE LAUNCH £85



ARROW £85

More kits are available from our website along with building materials & accessories.



SEA BREEZE £80



RAF CRASH TENDER £140



WAVEMASTER 34 £100

SLEC Ltd—Units 8-10 Norwich Road Industrial Estate, Watton Norfolk IP25 6DR

Tel: +44 (0)1953 885279 Email : sales@slecuk.com www.slecuk.com

HMS Abdiel

Having collected a veritable potpourri of reference works, fittings and a 1:200-scale card model no less, **Francis Macnaughton** turns a long-term ambition into two foot working replica

I first came across this class of ship 45 years ago when Airfix released its 1/600th plastic kit of HMS Manxman, my interest further deepened with the publication of the Warship Profile on the class, which came with a large colour centre page illustration of HMS Abdiel. Here I learned about the heroic missions Abdiel and her sisters carried out during World War 2 including the many dramatic dashes to support beleaguered garrisons at Tobruk and Malta. Suitably inspired and with the idea of eventually scratch-building an R/C version, I started to collect various other useful items as they became available.

Fast minelayer

World War 1 had shown the Admiralty just how important the sea mine was in modern warfare, not just as a defensive weapon when laid in minefields but also as an offensive weapon by covertly laying mines in areas an enemy thought they controlled. This latter role was often achieved by temporarily converting destroyers to the task but although they had the speed needed to achieve the mission, the number of mines laid by each destroyer was relatively limited. A larger vessel was needed and in the 1920s the minelayer cruiser HMS Adventure was built and tested, however at 27 knots and almost 8000 tonnes, she was found to be too slow and large for the offensive mission type. A new fast minelayer class

was designed and ordered in the late 1930s, with HMS Abdiel being completed in 1941. Some very high speeds have been attributed to Abdiel and her sisters but, in fact, they were expected to achieve 39 kts in a light condition and 36 kts when deep loaded. They were effectively a large destroyer hull with the machinery of a cruiser, this to ensure that high speeds could be sustained in most sea states. The mine deck area was also fully enclosed, a feature which not only helped give them a balanced profile but also allowed them to carry a very useful alternative payload, such as strategically important stores for high-speed delivery in important battle theatres.

ABOVE: This proved to be quite a satisfying way of producing a model that is otherwise unavailable as a plastic or wood kit.

1



2



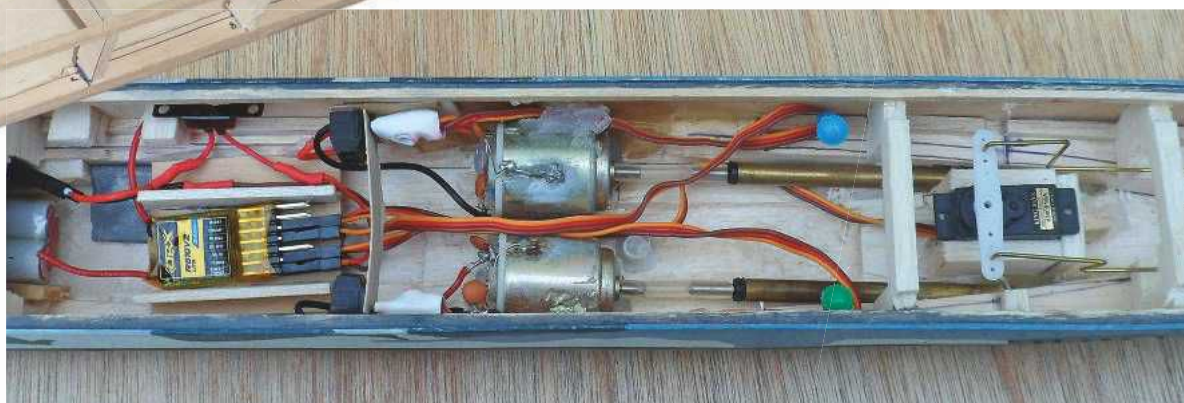
HMS Abdiel herself was kept very busy right from the start in 1941 with two offensive mine lays completed even before she was officially commissioned as a warship. A lot of 1941 was spent supporting the North African desert war with the transfer of stores and troops. After Japan entered the war Abdiel was deployed to the Indian Ocean to lay protective mine fields, that is, until a grounding incident in February 1942 required a return to the UK for repairs and a refit. By early 1943 she was back in the Mediterranean laying many offensive fields in the Sicilian Narrows to



intercept the shipping supporting the Africa Korps. After the victory in North Africa Abdiel then proved very useful as a fast transport of stores and troops in support of the Sicily and Italy campaigns. It was as part of this that she met her fate when she struck a mine at Taranto in September 1943 and sank in a matter of minutes with heavy casualties. During this last period of service she sported a distinctive camouflage pattern using four shades of grey.

Last piece of the puzzle

As well as the Airfix kit and the Warship Profile already mentioned, I managed to collect quite a few bits of useful information on this class and at one time was tempted to follow the simplified 1/144th scale Glynn Guest example



from the 1980s but never quite managed to get started. Two more recent acquisitions finally made things happen. First was the 1/200th card model of Abdiel in her final configuration by the Polish firm Answer (**Photo 1**). Although not providing a route to a working R/C model, the card sheets would provide templates for all the key parts and also offer a wealth of detail that generally appeared accurate. The second item was the book *Very Special Ships* by Arthur Nicholson (**Photo 2**) which gives a detailed account of each ship's history and also has a very good selection of photos of the class in action. This also coincided with the

discovery that there was a photo-etch set for the Answer model which provided a very helpful alternative to scratch-building some of the trickier items like the cranes, life raft supports and the funnel grilles. I had also been watching what was offered in each instalment of the 1/200th Hachette HMS Hood part-work series and had bought the more useful issues with this sort of project in mind. These provided the 4" gun mountings plus most of the boats and the life rafts (issues 61, 86, 92 and 110 are the ones to look out for). The 25ft cutter, meanwhile, is a resin moulding from the John Haynes range in 1/192nd scale. Finally, the Polish firm GPM (the supplier of the card kit and photo-etch parts) also offers a 1/200th four-barrel pom-pom mounting kit, plus separate brass gun barrels. These accessories are shown in **Photos 3 & 4**



and together they reduce the amount of scratch-building of fittings to a much more reasonable level.

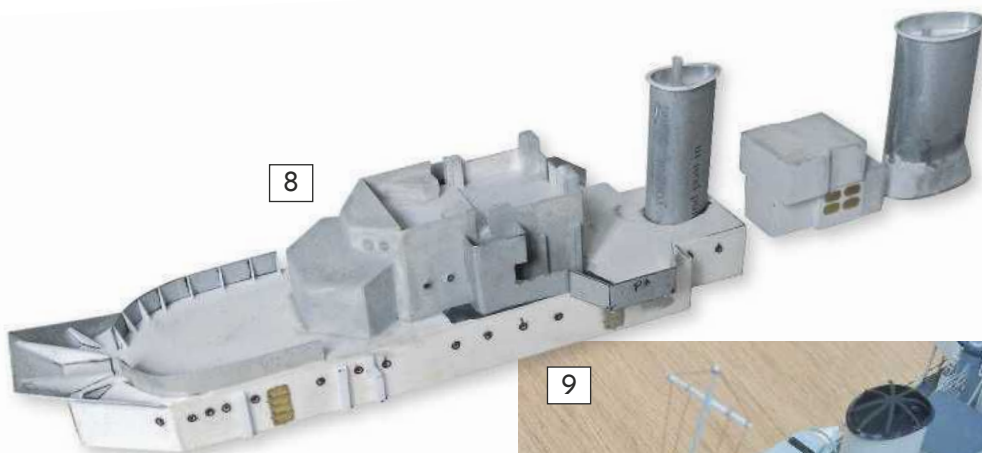
Two foot

A 1/200th scale model works out at about 600mm in length with a weight of about 480 grams (deep load) allowing, perhaps, 120g or so for batteries, R/C gear and motors. This would mean I didn't have to use ultra-lightweight R/C items however care would still be needed to keep the superstructure light, as stability can be a problem otherwise. If using one of these kits make sure you go through every sheet and list which parts are where before starting, as this saves a lot of repeated searching later. On the plus side the Polish instructions offer extensive diagrams of the individual sections whilst further clarity can be found in some useful pictures of the original builder's model on the National Maritime Museum website. **Photo 5** gives a good flavour of what is in the kit.

Rather than incorporate the 17 full hull section shapes provided in the card kit into a framework that would then be fully planked, I preferred to have the underwater hull shape made from balsa layers that would be carved to get the correct rounded section. I'd then use the above waterline part of the kit hull

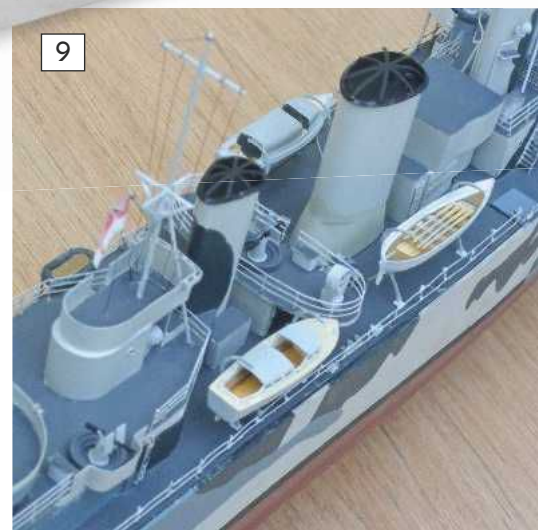
sections to provide a former for liteply sides to be attached. This gives a good smooth surface on the main hull and strength in the underwater section, while keeping the total weight down and leaving adequate space inside. The underwater part was built from two layers of 10mm thick sheet and one of 5mm. Balsa sheet centreline profiles were added at the bow and stern to define the main deck line and 3mm square strip was glued along the top edge of the underwater part inset slightly to securely hold the lower edge of the ply sides. The various above water sections were then cut out of sheet balsa, each having a notch for the bottom strip and another to allow for a gunwale strip along the top. These were then glued in place, 7 of the forward and 2 of the aft ones being in 2 parts to fit either side of the vertical profile. The stern was built up into a solid shape with bits of scrap balsa and carved to the correct outline. Most of the centre-section shapes had the lower part of them cut out – this was to simplify cutting back the frame sections once the hull sides were in place.

With the frame sections set, a gunwale strip of 3mm balsa was glued into the notches and then trimmed on the outer surface to provide a smooth attachment point for the top of the hull sides. **Photo 6** shows the hull at this stage. The main deck was cut from liteply in one piece and positioned over the hull to establish where the supporting ends of the removable deck section were to be. The deck was then cut along these two lines and the centre-section retained till later, while the other two were carefully glued in place. The deck edges were then trimmed where needed to ensure they matched the gunwale strips. These were also cut out as single pieces from liteply allowing a slight margin along the top edge. They were then carefully glued onto the main hull frame, working in stages from the stern section, and a thin strip of hardwood was inserted between the two



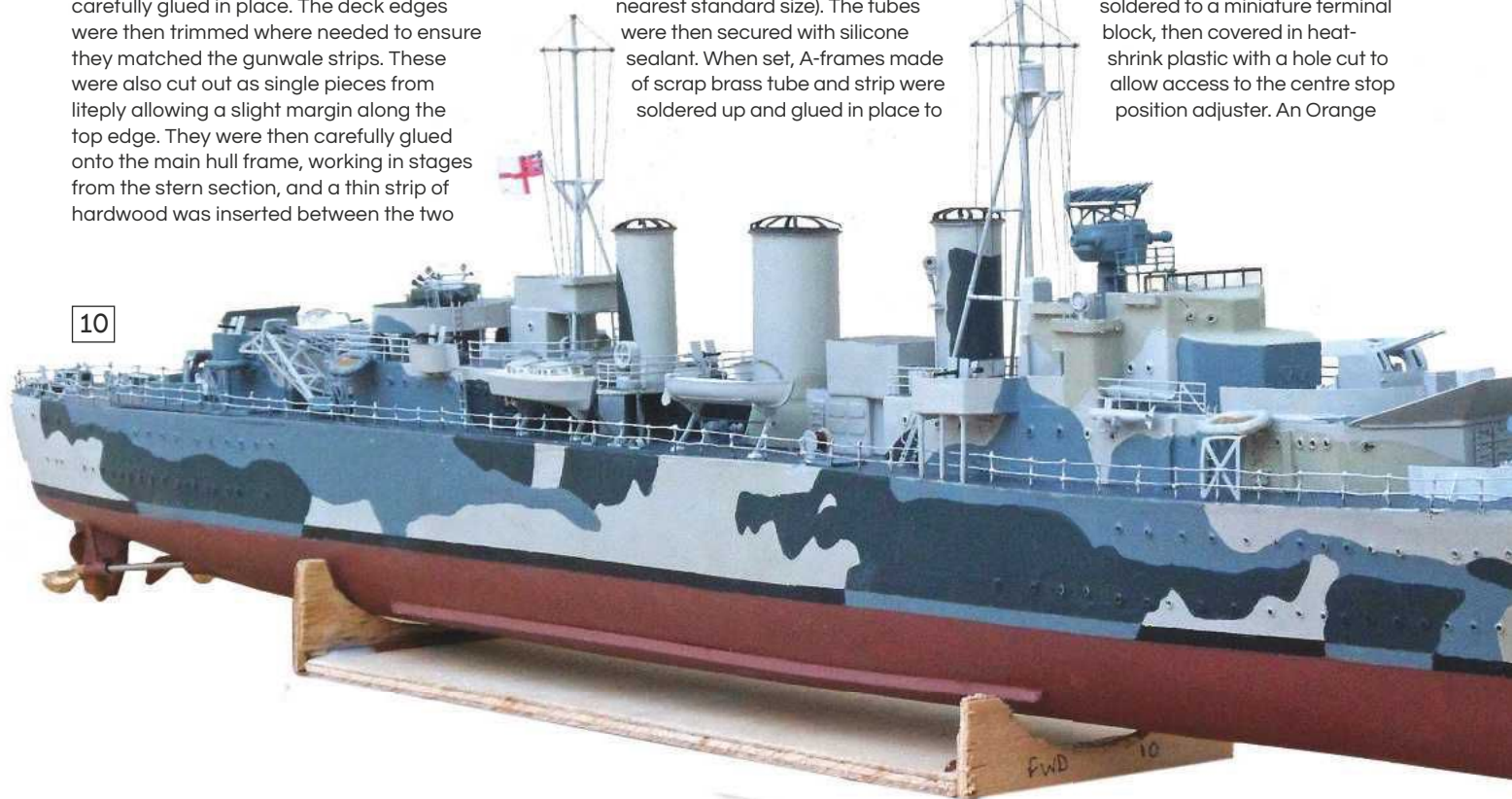
edges along the stem to ensure a straight and strong final result. Once all this had set it could be trimmed, smoothed and the lower hull layers carved and sanded until a streamlined shape had been achieved. The whole was then carefully sanded smooth and several coats of sanding sealer applied and resanded until satisfied with the finish. A balsa strip framework glued under the removable deck section ensures it stays flat whilst secured by ply lugs at the forward end and a keen friction fit at the aft end.

The interior of the stern area was trimmed out until there was enough clearance and then a rudder, made of plastic card and brass rod, was installed along with a double-sided tiller arm. The steering servo (mini type) was fitted in the open section of the hull, connected up and fully tested before the aft section of deck was glued in place. Holes for the prop shafts were then drilled through the hull bottom, each angled to allow clearance for a Dean's Marine 21mm 3 blade prop outboard and a 280 type motor inboard, requiring about 180mm of 2mm shaft in a 105mm long tube (cut down from the nearest standard size). The tubes were then secured with silicone sealant. When set, A-frames made of scrap brass tube and strip were soldered up and glued in place to



give as near a scale appearance as possible. The motors were connected to the shafts with poly tube and carefully bedded into a generous blob of silicone sealer while running gently on a single 1.5V battery so that the optimum alignment could be found.

The speed controllers, meanwhile, are the drive circuits from Feetech FS90R continuous rotation servos (as featured in the May 2017 issue) mounted on light board and soldered to a miniature terminal block, then covered in heat-shrink plastic with a hole cut to allow access to the centre stop position adjuster. An Orange



10



R610 V2 DSM2 2.4GHz mini receiver and a 4.9V 950mAh NiMH battery complete the R/C setup (**Photo.7**).

So far so good

With this, the outside of the hull was then completed with the many scuttles, each represented by winding thin copper wire around a rod, pulling the resulting coil off and then cutting the rings out with a new scalpel blade. They were carefully superglued in place along the hull using a paper copy of the kit parts as a guide for marking out the individual scuttle positions. The anchor hawse pipes were represented using carefully bent bits of solder while the mine doors are thin plastic card.

Once complete and set, the hull was sprayed in a base coat of Tamiya AS16 USAF light grey lacquer. This is the closest match I know of to the AP 507C original colour that's available in a spray can. The paper copies of the card sides were then used to draw out the complex camouflage pattern. I went with the colours given by White Ensign Models for its 1/350th resin model of Abdiel and the appropriate Sovereign Colourcoat enamels

were brushed on to achieve the final result above the waterline, with Humbrol 70 used underwater. Finally, Humbrol Clearcote matt varnish was used to achieve the final finish.

Next, a trial of the bare hull, with R/C gear fitted, proved that there was a fair margin of displacement still available for the superstructure and fittings. Even on 4.8V, plenty of power was available and around 5 ft per second was achieved, equating to over 40 knots in the full-size version and with a convincing wake pattern. Manoeuvrability was adequate rather than impressive, as one might expect with such a long slim hull and a single rudder outside the full prop-wash.

Superstructure

The superstructure was largely made of thin plastic card using the kit parts as templates for the overall shape, as well as scuttle and vent trunk positions. Thin litho plate was used where a curve was involved or a thin piece of plating was being represented, such as the areas in front of the 20mm Oerlikons. Litho plate was particularly useful for making the funnels as it can be smoothly curved by rolling it over progressively smaller rods until it

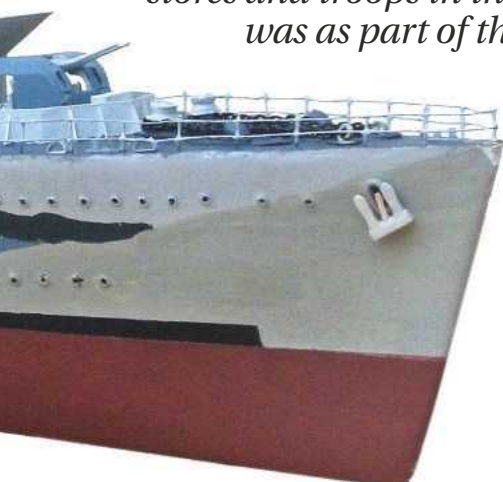
The photo etch set for the card kit made a big contribution at this stage, with locker, watertight doors and other fine detail coming from the smaller sheet. The larger of the two brass sheets, meanwhile – which contained the main items such as the cranes, life raft supports and funnel grilles – is in thicker material than normal and the individual items are quite robust once folded. The many pulleys on the crane were built up from lots of small discs of paper fashioned with a home-made punch set using various diameters of sharpened brass tube. Soaking the paper in superglue gives the pulleys the necessary strength and waterproofing. Making the main 4" guns and ship's boats from the Hood items provided a break from scratch-building and gave satisfying results. The quad pom-pom photo etch kit gives a reasonable result but involves a large number of very small and delicate parts and is quite heavy when finished. With other 1/200th cruiser and destroyer projects in mind, I'm now considering approaching some of the established 3D printing sources to see if one is prepared to resize an existing offering to 1/200th scale as this is likely to offer a lighter and more robust alternative. The same applies to the boat davits which currently require laminating two very delicate photo-etch parts.

Brass tube sections were used for the masts, with fine copper wire for the rigging. I left off some of the mast head detail such as radar aerials as it would be just too vulnerable in a working model. For similar reasons, the handrailing along the edge of the main hull did not mirror the photo etch used on the superstructure. Instead, lengths of 0.3mm piano wire glued into holes in the deck provided a more robust alternative, with fine copper wire for the rails. **Photos 9, 10 and 11** show how it all came together.

Devil in the detail

With all the detail finished it was time to carry out the main flotation trials. The removable superstructure section weighed 70g, much of it quite high up, so I expected to need

“...Abdiel then proved useful as a fast transport of stores and troops in the Sicily and Italy campaigns. It was as part of this that she met her fate...”



matches the internal formers.

Photo 8 shows some of the superstructure before painting. Details such as bollards, lockers, vents and hatches were mainly made from plastic strip, rod and tube although I made a master for the Oerlikon circular steps and copied it in resin rather than try and make seven identical items. Ladders and steps were taken from the White Ensign generic PE set while superstructure handrails were from the L'Arsenal 1/200th set – these have very small tabs at the bottom of each stanchion which ensure a stronger attachment to the deck.



quite a bit of ballast to counterbalance things. In the end about 170g of lead sheet was needed to achieve adequate overall stability, which results in a total model weight of about 580g. This was rather over the scale full load displacement and the model floated with the some of the camouflage effect that's meant to be just above the waterline, submerged. In truth, this didn't greatly affect overall performance and full speed was still convincing. A narrow hull like this is sensitive to shifts in weight and I had to pay more attention than usual to securing everything as even a small movement of quite light items, like the receiver, resulted in a considerable list developing. With

little scope to reduce top weight without rebuilding much of the superstructure I tried a different approach by repositioning the ballast as a detachable bulb keel. This would give a greater stabilising moment and allow an appreciable reduction in the total ballast required. A 70g bulb keel of 12mm brass tube filled with molten lead, and with the ends streamlined with Milliput putty saved 100g of ballast and brought the model back to the intended waterline. In retrospect, making more effort to hollow out the inside of the hull bottom before adding the hull sides would have allowed the motors and ballast to be lower down in the first place. Another thought for other models in the future is, of course, to use lighter materials for the superstructure and it is ironic that my starting point for Abdiel was a light card kit since this is probably one of the lightest materials available.

All said and done

In conclusion, this proved to be quite a satisfying way of producing a model that is otherwise unavailable as a plastic or wood kit. Using the card model certainly saved the considerable effort that would have been required to transfer measurements from plans, indeed the kit parts could even have been used directly for sections that

didn't need strength. The availability of the more complex fittings as commercial items also made a lot of difference to the scratch-building workload. Of course, stability is always going to be critical in a narrow hull at this scale and I will look for every opportunity to reduce top weight and keep heavy items as low as possible in any future similar builds.

Suppliers & references

sklep.gpm.pl
Answer HMS Abdiel 1/200th card model.
GPM HMS Abdiel 1/200th gun barrel set, LUF-L200GB-17. GPM 4 x 40mm pom-pom, 2-piece, photo-etch, FOT-F2011.
papermodelstore.com
GPM HMS Abdiel 1/200th photo-etch sheets, 021 and 022.
www.larsenal.com
L'Arsenal 1/200 handrails (rambards), photo-etch, AC 200-01.
www.whiteensignmodels.com
White Ensign Models 1/200 assorted ships ladders, PE2020.
www.seaforthpublishing.com
Very Special Ships – Abdiel Class Fast Minelayers of World War Two – Arthur Nicholson
Profile Publications Ltd.
Warship Profile 38: Abdiel Class Fast Minelayers – Tom Buxton



25w Soldering Iron Kit

- 25w soldering iron (240v-50Hz)
- straight & bent soldering tips
- tube of solder (tin lead-K60/40) not for use in portable water systems
- tweezers • stand • sponge



25w soldering iron kit has everything to get you started with your soldering projects.

Perfectly solder your metal projects together with this fast heating tool.



For details of your nearest stockist, call or e-mail today!
(Trade Enquiries Welcome)



Sunley House, Olds Approach, Watford WD18 9TB
+44 (0) 20 8451 6188 +44 (0) 20 8451 5450
sales@shesto.co.uk www.shesto.com



BUYING OR SELLING? To use our FREE READERS' AD SERVICE simply fill in the coupon provided and we'll print your advert here in Britain's best-selling model boat magazine. Send it to us at Model Boats Marketplace, Suite 25, Eden House, Enterprise Way, Edenbridge, Kent TN8 6HF.

FOR SALE

GRAUPNER RAU IX Whale-catcher. A rare kit in original box, complete with fittings. Unstarted – £425. Tel. 07535 990538 (Herts).

HMS EXETER. 1:128-scale, excellent scratch-build – £300. Also 1:96 HMS Illustrious, Sirmar RTR with Harriers and Decoparms – £400. Eileen fishing boat, plank-on-frame – £200. Resolve tug, 1:48-scale – £400. Aerokits PT boat – £100. Tel. 0131 661 3295 (Edinburgh).

GLASGOW PADDLER, RTR, – £250. Cabin cruiser, scratch-built – £175. Shelter deck fishing boat, RTR – £200. HMS Royal Oak, 1:128-scale, almost complete – £400. HMS Dreadnought, 1:96-scale – £500. Telephone 0131 661 3295 (Edinburgh).

VARIOUS MODELS: Mountfleet Sealight, no transmitter or receiver – £200 ono. Fishing boat / trawler, no transmitter or receiver – £175 ono. Fishing boat / drifter – £175 ono. Telephone Andy on 07546 188258 (Nottinghamshire).

35MHZ RADIOS, Futaba T6EXA, T6EXP, T6EXAP transmitters with batteries and manuals. Various full range receivers, mainly Futaba, Hitec and GWS. Also crystal sets on channel 72, 79 and 82. All in good used condition. For details and prices contact Denzil on tel. 01454 884971 (Bristol).

TWO RACING MICRO MAGICS, one in carbon-effect – £60 each. Two Springer tugs – £40 each. Each model complete with appropriate servos / speed controller and battery pack. Cash on collection only. For photos and further details contact Mick on tel. 01777 705084 (Nottinghamshire).

LIFEBOATS. Speedline Models Severn, Tamar, Trent, 1:12-scale. Brushless, sound units, full lighting, bow thrusters, 5-blade props, figures, RNLI drawings, stands, batteries, Futaba receivers and servos. RTR but will split. Call Mike on tel. 01509 881438 (Leicestershire).

SAN JUAN P-O-F Spanish Galleon kit – £50. Tel. 07714 778850 (Kent).

STEAM LAUNCH. Length 44", plank-on-frame, twin cylinder TVR1ABB reversible steam engine, boiler certificate, gas tank, brass propeller, exhaust up chimney, three servos. Email richardhuddleston@gmx.com for photos and further information – £550. Tel. 01275 792665 (Somerset).

VINTAGE VOSPER Crash Tender, 34.5" long, 1960, Frog 3.49cc diesel. M.A.P transmitter, Hill two valve receiver, clockwork escapement. Believed to be in working order and supplied with spare valves etc. For details and photos contact Ian on tel. 07703 779610 (North Notts).

WATKINS PADDLE TUG ANGLIA. Five foot long. Boiler steam engine. Needs a blow lamp for the centre flue boiler – £250. Tel. 01923 211792 (Hertfordshire).

TWO SPRITE OUTBOARD motors, Mk.3 from 1960. Only one has the original box. Test run only, very little use – £50. Telephone 01501 731260 (West Lothian).

AERONAUT CLASSIC RUNABOUT, built, inc. motor – £65. Precedent Perkasa kit, 37" – £50. SpearFish kit (MFA), 36" – £50. Christina type cabin cruiser, 40", no motor, otherwise ready to go – £250. Tel. 01217 092279 (West Midlands).

WANTED

GRAUPNER NEPTUN R/C cargo ship. If you have one you're willing to sell please call Mike on tel. 01242 321864 (Gloucestershire).

PLASTIC KITS. Made or unmade. Frog, Revell, Airfix, Tamiya etc. Also naval, military and aviation books. Tel. 07973 885754 (Kent).

DETAILED HULL PLATING plans for HMS Belfast. Also plans for how she was originally fitted out. In addition I'm looking for the address of a photo etching company near Manchester. Tel. 07580 094432 (Manchester).

LARGE MODEL of Great Western plus Great Eastern, must be R/C, all considered even if they require TLC. Phone Ted on 07582 729236 (Lancs).

WINDOW SET for Aerokits Vosper RAF Crash Tender, 34.5". Also interested in any fittings for same. Tel. Colin on 01283 329743 (Staffs).

model Boats

FREE READERS' ADVERTISING

Please write your details in **CAPITALS** in the grid below and include a contact name and address or telephone number in the word count. Please also enter your full details in the address box below the grid.

PLEASE TICK:

FOR SALE

☐

WANTED

☐

* Free Readers' ads are only accepted on a coupon by post, or email.

PLEASE NOTE: 'Free Advertisements are limited to one per reader for each issue. If multiple forms are sent as a batch, then unless the advertisements can be combined within the word allowance, they are spread over subsequent issues'.

Terms and conditions

We will endeavour to print your advertisement in the next available issue of *Model Boats*. Free Readers' Advertisements will only be accepted on this coupon, or by email with all details as required on the coupon with a maximum of 36 words per advertisement. Any received after copy date will be held over until the next issue. No responsibility can be accepted for misprints. Please comply with the Trade Descriptions Act when detailing goods for sale. This service is only available for private sales. Other services and trader advertisers must use the pre-paid classified section of the magazine. By law, consumers must be able to differentiate between an advertisement for private or trade sale (traders would include modellers who have previously purchased items with a view to then selling them at a profit). Only ONE free advertisement per person will be listed each month. Multiple advertisements from the same person will be inserted in subsequent issues, space allowing. MyTimeMedia Ltd reserve the right to refuse a free private advertisement.

Name:

Address:

.....

.....

..... Postcode:

Telephone:

Signature: Date:

* If you don't wish to spoil your magazine, then please photocopy this coupon. **mytime media** MB Vol 68 No 808



MOORING POST

From worryingly poor websites to a trick you can play with spoons, **Glynn Guest** is back with more sage advice

Sail like you drive?

Driving through a nearby town centre had me muttering under my breath and gnashing my teeth at the same time, which is quite a difficult combination so I really must have been annoyed. The source of this frustration was other drivers who seemed to think that no-one else was on the road. I could not blame the use of mobile phones whilst driving since most of them appeared to have their eyes open and both hands on the steering wheel, although quite where their brains were was unclear. These are the sort of drivers who approach roundabouts, road junctions and the like with no apparent intention of stopping. As for signalling their intentions, that is something for others to do and certainly not them.

After arriving home and thanking Saint Christopher, it suddenly occurred to me that these bad driving habits can often be witnessed whenever a group of modellers are sailing together. You have the person who obviously does not look where their model is heading because it is clearly the duty of everyone else to get out of their way. Then there are the people who suddenly, with no warning, decide to change direction, stop or even go astern with no apparent regard to the other models around them.

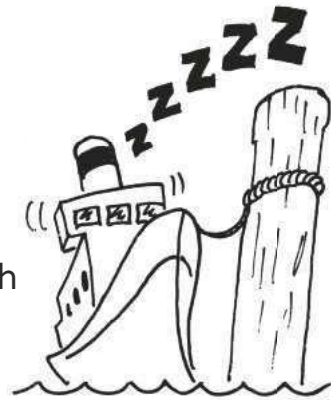
If you've ever suffered at the hands of these people it is very trying not to encourage them to join their model in the water, but

human nature being what it is, you are more likely to offer suggestions on how to improve their sailing skills. Well, perhaps after a few suggestions that are anatomically difficult.

The best way to avoid these problems is to stop worrying about where the model is at the moment but be aware of where it will be in a few seconds time. This region of the water should be based on the space a model needs to stop within or manoeuvre to avoid

collisions. A degree of situational awareness is also needed to register any models that may be about to enter this danger zone. You may have built such a beautiful model that it is hard to take your eyes off it, but sailing with your eyes firmly glued on your pride and joy is a sure recipe for an accident.

Like most things, the ability to sail your model safely in the company of others takes conscious effort at the start, but with practice it becomes automatic and allows you and the others around you to relax and enjoy your day.



The forgotten frequency

I sometimes get funny looks at the lakeside when I extend my transmitter aerial with its brightly coloured frequency ribbon fluttering at the tip. After a moment's puzzled expression, the other modellers remember that all transmitters used to have long shiny telescopic aerials before the current rage for short black ones. It might also bring a fleeting smile across their faces as they remember all the fun of searching for the person who had wandered off with the frequency peg that they needed before switching on their transmitter.

It is commonly accepted that anyone wanting to operate an R/C submarine cannot take advantage of the 2.4GHz outfits that have taken over in our hobby due to this higher frequency's poor penetration through water, indeed I suspect that most R/C submarines are operated using 40MHz frequencies rather than 27MHz. Having

a couple of, admittedly old, but perfectly functioning 27MHz outfits, I'm reluctant to discard them just for the sake of fashion or modernity. It was therefore worrying to read on a US hobby forum that there was still a problem with CB (Citizens Band) radio interference on the 27MHz frequency.

To check if CB radios were a problem in the UK, out of the box of old radio bits I pulled a frequency monitor. This was just a cheap unit that covered the 27MHz band as well as others. Having plugged in a fresh battery and twiddled the knob to scan across this frequency, nothing could be heard. As a check that it was working, a 27MHz transmitter was switched on and the device duly rewarded me with an earful of loud buzzing at the right spot on the dial. I'm not foolish enough to think that this short test means that 27MHz R/C outfits will be free from interference problems but it is



encouraging. Possibly in America more people invested a lot of time and money in becoming 'good buddies' on CB radios and are reluctant to abandon it. Whatever the cause, old-fashioned or not, I plan to carry on using my 27MHz outfits until they finally die. Indeed the same comment also applies to the few 40MHz outfits in my possession. As in the old days, the only precaution needed, when I'm about to sail, is to check the unlikely existence of someone else wagging a long shiny aerial skywards.

Always on the lookout

Cowl vents are one of those items I often prefer to buy rather than make, that is assuming the right size and shape is available. On an electric boat it matters not that most commercial cowl vents are solid for they are there just to add to the appearance of the model. However, faced with getting as much fresh air as possible inside a steam powered model of an early TBD (Torpedo Boat Destroyer) some working cowl vents were a 'must'. Alas, no suitable ready-made vents could be located so I was reluctantly forced to make them. My dear wife inadvertently came to my rescue with the contents of one of her kitchen drawers, for amongst all the knives and other implements were a set of plastic measuring spoons.

My immediate thought was, 'perfect for the tops of cowl vents', however this



was quickly followed by the realisation that I would never get away with just borrowing them. Luckily, a trip to the shops revealed that sets of these spoons, all of different sizes, were cheap enough and two sets were promptly purchased.

Back home again, working vents were made by cutting the bowl away from the spoon handle, making a hole to match a suitable tube, and sticking them together. A little sanding to blend the tube and inner bowl

surfaces, a lick of paint and the TBD model had an outfit of working cowl vents.

This was such an obvious thing to do that I'm sure others must have done it before, but it is another example of how, by keeping problems in the back of your mind, plus your eyes and brain open to inspiration, a solution will often appear in an unexpected place. This approach is also used to make life tolerable when my dear wife insists that I accompany her into shops that I would never normally enter. Running through my mind all the time will be the thought that there has to be some modelling use for all this stuff.



Bad publicity

During my wanderings around the internet I view a number of club websites and find the experience quite eye-opening. Some websites are extremely good, others need a little more effort to use and a few, being tactful here, need a lot more work if they're to have any value at all. The impression often given on these poor sites is that they've been started with masses of enthusiasm which, sadly, seems to have evaporated rather quickly. Updating, if still carried out, is often scheduled using a geological time base rather than this year's calendar. Believe me, a website that has not been updated for some time really can create a negative image of a club.

As a prospective new member, looking at a club's website for the first time, you need to find useful information as quickly and painlessly as possible. Alas, some websites can give the impression that they're trying to hide things from you. Perhaps it's some sort of IQ test designed to keep the lower orders

out of their illustrious ranks? Other clubs clearly do not want applications from people with less than 20:20 vision since they use a small and / or difficult to read print. Perhaps the worst example I've seen was a club which used a coloured page upon which a barely different coloured text was printed. It might have scored some points for artistic merit (although not many) but its usability was practically zero.

Secret meeting and sailing locations is another possible problem. Many clubs are very good, with clear directions, even maps and links to online map sites. However, a few still favour the colourful but useless directions you might get when lost in the rural backwoods, i.e. based on things only locals might know. So, what does a person look for on a club website? Let me offer the following suggestions:

1. Easy to read text.
2. A home page that contains a clear menu to direct you to the relevant contents of the website.
3. A map, link or post code to enable you to locate the sailing water(s).

4. Details of the when the club meets.
5. Details of the club's activities including any restrictions such as when and what types of models they can sail.
6. How to contact the club.

Other information, such as a club's history, plus photos of members and their models, can all be useful extras but the key word here is 'extras', especially if you are trying to attract new members. I'd suggest all clubs with a website do a critical audit of it. If it is lacking in quality and substance please do not make excuses by saying, "It might be vague and out of date but it's so hard to keep a website updated that we really should be thankful that Bill or Fred is willing to do it." Well, Bill or Fred clearly isn't doing it and my grandchildren assure me that it is not hard to do. You've just got the wrong person doing it or, more correctly, not doing it!

These days a good website is what sells anything and as a hobby that's looking to attract new members we need good active websites to promote ourselves. Very often a club website will be the first port of call for anyone looking to join.

Sail Control

Model Boats
April 2018
on sale
16th March



Prestwick



The DF Story



Next month in **model Boats**

Don't look now but there's another packed issue coming your way! Starting with James Pottinger's **FREE** plan for the classic '50s motor tug **Prestwick**, there's all your favourite regulars and, with a nod to the upcoming Titanic anniversary, Tony Dalton converts the Minicraft Titanic and Britannic to R/C. But, of course, there's more. Neville Wade is back to discuss square rig sail control, Dave Wolley reports from the Telford Scale Model World show and John Tushingham joins us with a fascinating insight into the whys and wherefores of the blossoming DF sail racing classes. We could tell you more but we'd have to shoot you. Buy the issue and see for yourself.

Visit www.modelboats.co.uk to see more of what's in Model Boats magazine month-to-month and to catch up on some of the articles you may have missed from past issues. It's a great place to see our latest subscription offers, too!

We have a great range of subscription packages to choose from, including our new **Print + Digital package** which gives subscribers 13 issues a year with 6 **FREE** plans, 13 digital editions to download and keep, **PLUS** access to our Online Archive dating all the way back to January 2007.

Scale Model World



Don't forget! The April 2018 issue will be published on **16th March**, price £5.15 – don't miss it! Order your copy now! Or better still why not make it the first of your new yearly subscription to Model Boats magazine? See our subscription offer on **Page 42** of this issue.

Please reserve/deliver my copy of Model Boats on a regular basis, starting with issue _____

Title _____ First name _____

Surname _____

Address _____

Postcode _____

email address _____

Telephone number _____

If you can't always find a copy of this magazine, help is at hand! Complete this form, give it in at your local store and they'll arrange for a copy of each issue to be reserved for you. Some stores may even be able to have it delivered to your home. Just ask!



If you don't want to miss an issue



Contents may be subject to change.



www.nylet.co.uk

1932 ~ 86 years!

The longest established professional model sailmakers in the world.



**Fast
world-wide
mail order**
(since 1958)

Everything for the model yachtsman. OVER 600 ITEMS IN OUR PRICE LIST

Large range of quality deck & mast fittings, wires, sheeting cordage, brass & st. steel screws, 7075 alum mast tubing, tools, IOM sail rig carry bags & scissor yacht stands, Nylet 'how to' booklets. Sail winches from around £100.

High Quality sails with "wind catching" shape made to your sizes/drawing; IOM sails in racing scrim, film, or white Dacron. Starlet, Wee Nip, Mini-Mumm, Star Baby, DF65 & over 170 other designs. Replacement kit sails, Voyager 2, Victoria, Seawind, Fairwind etc. NYLET Premium "Vintage" cotton sails; Heritage sewn Dacron sails for the 1950's & 60's model yacht. Vintage yacht restoration service. IOM yacht kits "SPIRIT 3" available in semi-kit or full kit with rig/s; prices start under £400. **See 2018 website.**

Phone or email your order for fast response.

36 page CATALOGUE send 10 x 1st cl. stamps (UK).

Some customer comments:

- I've never won anything before with my IOM yacht but with your sails newly fitted I won the series of races; excellent job, marvellous, thank you. **Paul, Essex.**
- Sails arrived this morning, superb as usual, thanks again. **Ian, Nottingham.**
- Thank you for such excellent service again, quality goods sent at lightning speed, a credit to how things should be done. **Tony, Bucks.**
- Again, thank you for the cotton sails, they turned out beautifully. **Eric, U.S.A.**

Nylet (MB17), PO Box 5416, Bournemouth, BH6 5XT. UK

Phone: 01202 619728 (Int.+44 1202619728)

Mobile: 07474 939535 (Int.+44 7474939535)

Website: www.nylet.co.uk

**Fast world-wide
mail order**

PayPal & VISA accepted



Expo

www.expotools.com

We sell 5000+ quality products for Modellers!

This is just a small selection from the ranges we offer!

Please buy from your local stockist whenever possible. In case of difficulty obtaining items you can order direct at: www.expotools.com **TRADE ENQUIRIES WELCOMED.**

Expo Drills & Tools, Unit 6, The Salters, TENBY SA70 7NJ. Tel: 01834 845150 (Mon to Fri 9am-5pm)

Expo
www.expotools.com

Code 74365 - Hand Held Mitre Guillotine



- Uses trimming knife blades
- Blade storage in handle
- Produces quick & accurate straight and mitre cuts in wood & plastic strips
- Ensures all cuts are identical
- Fully adjustable from 45 to 90 degrees
- Sturdy construction
- Spare blades included

See the video on our website!

Price: £11.95

Expo
www.expotools.com

**Code: 80040
Plank Bending Tool**



For materials
up to 25mm
wide.

For bending
strips of wood
(such as planking on model
boats) up to 2mm Thickness.

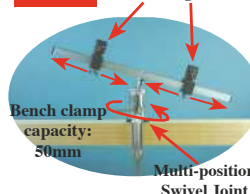
**Price:
£7.95**

Expo
www.expotools.com

Modelmakers Multi Bench Clamp

**Code:
80030**

Fully adjustable
clamps for holding a
wide range of items



Ship Model not included!



Ideal for holding
keels on ship
& boat models

Price: £19.95

Expo
www.expotools.com

High Quality Pin Pushers



**Code:
75110**

2mm

3mm

**Code:
75120**

**Price:
£7.95
each**

CODE: 75110 2mm - for fine modelling pins
CODE: 75120 3mm - for heavier modelling pins

Expo
www.expotools.com

**71006 - Expo Dual Action
Quick Ratchet Clamps**



Key Features:

- Quick ratchet trigger
- Reversible front jaw
- Push button to release & slide rear jaw
- Maximum jaw capacity of 11cm

**£2.50
each**

Expo 2018 Catalogue

New!

Expo
www.expotools.com

**2018
CATALOGUE**

Free!

www.expotools.com

The new Expo 2018 Catalogue will be released towards the end of February. If you have ordered from us in the last year a free copy will automatically be sent out to you. Please visit our website for the latest information.

Balsa Oak **SLEC** Ash Poplar
 Spruce **Manufacturing** Cherry
 Obechi **Buy on Line** Cedar
 Plywood's **www.slecuk.com** Pine Bass
 Beech **Laser & Router Cutting Service** Mahogany

Slec Ltd Tel 01 953 885279 Fax 01 953 889393
 E-mail : sales@slecuk.com

CLEVEDON STEAM

Supplier of steam engines, plants and Cheddar Models compatible accessories

Tel: 01275 340048 • Mobile: 07818 044648
www.clevedonsteam.co.uk

sarik hobbies
WANTED

A Model Boat and/or Aircraft enthusiast needed for part time work. Help required to make up new model products from existing items.



For more information contact
 Tom: 01684 311682 or
 email tom.stephenson@sarikhobbies.com
 Sarik Hobbies Ltd, Malvern, WR13 6NN

Riverside model Engineering Specialists in Model canal boats



Canal Boat Kit Amy Claire

1/12 scale Length 66" All wood construction
 CNC Cut £349.99 +P&P



Canal Boat Kit Amelia Rose

1/12 scale Length 50"
 All wood construction
 CNC Cut £329.99 +P&P

www.riversidemodelengineering.co.uk
 Tel 01692 652960

FLEETSCALE

WWW.FLEETSCALE.COM

GLASSFIBRE BOAT &
 WARSHIP HULLS,
 FITTINGS AND SEMI KITS
 IN MOST SCALES AND ERAS

EXTENSIVE
 SECURE ONLINE STORE

MILITARY & CIVILIAN RANGES

19TH, 20TH & 21ST CENTURY

1/24TH, 1/32ND, 1/48TH,

1/72ND, 1/96TH, 1/128TH

TEL: 01822 832120

FAX: 01822 833938

WESTWARD MOULDINGS LTD

Australia's Premier Maritime Hobby Shop

FLOAT a BOAT
 Fine Models Since 1962

48c Wantima Road, Ringwood Victoria 3134 Australia
 Tel. 61 3 9879 2227
 www.floataboat.com.au Mail Order

Business Opportunity

Well known ranges of 1/700th scale Royal Navy warships, battleships, battlecruisers and cruisers of WW2 also Royal Navy aircraft carriers, cruisers, destroyers and frigates 1960-2000

All original models by one of the UK's finest model makers.

If you're interested please contact by email: navymodelsandbooks@yahoo.co.uk

DAVE METCALF BOAT MODELS

Available again:
MOONBEAM
 Replica 1913
 pond yacht,
 comprehensive
 updated kit now
 available!

Also:
 RNLB - Ann
 Letitia Russell,
 full kit £495.00.
 Available only to
 order, SAE for details!

1 Wentworth Cottages,
 Haultwick, Dane End, Ware,
 Herts. SG11 1JG. Tel: 07592 858417
 e: dave@metcalfboatmodels.com

52"x11"
 £320.00
 + P & P.
 Phone or
 SAE for
 details and
 photo CD.

**Why
 not
 visit...**

getwoodworking
.com

LANCASHIRE

SKELMERSDALE
Scale Hobbies www.scalehobbies.net
Unit 20, Sandy Lane, Skelmersdale,
Lancashire WN8 8LQ. • Tel/Fax: (01695) 732800
Open Friday and Saturday: 9.30am - 5.00pm.
Mail order service • Building repair service
ALL MAJOR CREDIT CARDS ACCEPTED!

To Advertise
your shop here
please call David
07718 64 86 89
david.holden@mytimemedia.com



Mac's Mouldings

Supplier of Larger Scale Modelling Accessories

Tel: 01795 580521. Email: macmouldings@hotmail.co.uk

www.macmouldings.co.uk

WEB GUIDE

Please call David Holden 07718 64 86 89

Speedline Models Ltd.

• Makers of the famous lifeboat kits and accessories • Spectacular 1/16 & 1/12 Shannon kits NOW AVAILABLE • The most detailed yet straightforward to build kits you will ever see • Keep a look out for our new website at:

www.speedlinemodels@googlemail.com

Email: speedlinemodels@googlemail.com • Tel: 01455 637658

www.makeamodelboat.com



Visit our web site for model boat plans and a construction manual based on designs from the Selway Fisher catalogue of full-size canoe, dayboat, motor boat, steam launch and yacht designs.

Tel/fax: 01225 705074
E-mail: paul@makeamodelboat.com



ALWAYS IN STOCK:

Huge range of miniature fixings, including our socket servo screws.

ModelFixings.co.uk

also the home of ModelBearings.co.uk

- Taps, Dies & Drills • Adhesives
- Engine & Miniature bearings • Circlips, etc. etc.

Tel/Fax +44 (0)115 854 8791 Email: info@modelfixings.com

www.maritime-models.co.uk

SECURE ON-LINE SHOPPING - MAIL ORDER ONLY

We stock a range of fittings from Aeronaut, Caldercraft, Krick and Robbe also tools, paints, props, propshafts, couplings and much more check out the web-site for our full range.

Official stockists of BECC accessories and kits from Caldercraft, Krick & Aerokits.

Commissions & restorations also undertaken!

Maritime Models

E-mail: info@maritime-models.co.uk

Telephone: 01432 263 917 or 07786 781 421



Tugging Ahead.....with
MOBILE MARINE MODELS
MODEL TUGNOLOGY.....at its Best

tel: 01522 730731

Britain's Leading Manufacturer of :-
Tugs ; Workboats ; Hulls ; Kits ; Propulsion Gear
Fittings ; Winches ; Lighting Sets ; Budget Boats

Pioneers of the The Budget Building System

www.mobilemarinemodels.com



Model Boats Website!



4000 Members • Forums
Builds • Photos • Model Shop
Videos • Clubs • Boat Harbour
Events

Available on the App Store Google Play

www.model-boats.com

A Place For All Model Boaters

FREE APP!



www.mantua-model.co.uk

179 Dedworth Road Windsor Berks SL4 4JN

Tel: 01753 856321

For all your modelling needs.

Model ship and boat specialist - Radio Control.
All types of wood - Lime - Walnut - Mahogany
Spruce - Balsa - Ply

Distributor for Mantua Model of Italy

Mantua Sergal and Panart model kits fittings and accessories

fast mail order service

THE BEST OF BRITISH STEAM®

Manufacturer of Marine Engines, Boilers, Steam oil Separators and Refillable gas Tanks as well as scale Grp kits and all wood construction kits of Formidable, Lady Jane & Chimaera

JOHN HEMMENS STEAM ENGINEER

28 Brighton Road, Bubwith, East Riding of Yorkshire, England YO8 6DQ
tel: +44 (0)1757 289 664 • Email: enquiries@steamengines.co.uk

www.steamengines.co.uk



Restorer of Ships, Galleons, Steam Engines, Toy Trains, Toy Steam Plants and more.

Models made to order

JSB Model Restorations

Rolling back the playworn years

www.jsbmodelrestorations.com

E: Jeremy@jsbmodelrestorations.com T: 01738 441975 M: 07748 186812



LINKSPAN MODELS

The No.1 Specialist in
complete kits of modern and
classic ferries.

www.linkspanmodels.co.uk

www.facebook.com/linkspanmodels

+44 1527 328548



Now available - £415.00 + p&p

Free Enterprise V / Pride of Hythe

1:96

length: 122cm beam: 20cm draught: 4.4cm weight: 5.7kg



Due for release - June 2017

Norland / Norstar

1:96

length: 159cm beam: 26cm draught: 6.3cm weight: 14.6kg

All Linkspan Models kits contain:
Fibreglass hull, laser-cut styrene superstructures, 3D printed fittings, etched brass details, propshafts & tubes,
brass propellers, instructions & drawings

Re-live the classic days of ferry travel - in miniature

P.J.SAILS makers of
model yacht
sails, fittings
& accessories



catalogue at www.pjsails.co.uk

or S.A.E (A5) to P.J.Sails.

1 Courtenay Road Poole

Dorset BH14 0HD.

TEL 01202 744101.

E mail peter.wiles4@ntlworld.com

PARTING SHOT

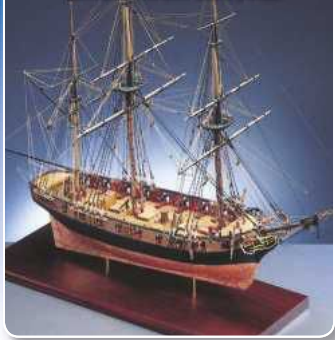
Double take. Building beautiful scale models is one thing, but building them, then shooting photos in a location that makes them look real is, surely, the icing on the cake. We've Norman Smith to thank for this cracking shot of his 1/12 Rother Class lifeboat, Alice Upjohn, along with scratch-built tractor and launch trailer. More details in Mailbag on page 64.



Camera: iPad Air 2
Exposure program: 2
Aperture: f2.4
Shutter speed: 1/500th second



**SECURE ON-LINE
SHOPPING AND WORLDWIDE
MAIL ORDER SERVICE**



CORNWALL MODEL BOATS

www.cornwallmodelboats.co.uk

Highfield Road Industrial Estate, Camelford, Cornwall PL32 9RA

Telephone: **01840 211009**

MAIL ORDER ONLY

FREE UK SHIPPING ON ORDERS OVER £150

**WE STOCK A WIDE RANGE OF RADIO CONTROL
AND STATIC DISPLAY KITS, FITTINGS, TOOLS & PLANS.**

SECURE ONLINE SHOPPING AND MAIL ORDER SERVICE

**SPECIALIST ADVICE
AVAILABLE!**



**NEW TO CMB, COASTAL CRAFT
MTB BOATS, NEW CAP MAQUETTES
FITTINGS. A SELECTION OF NEW
SHIPYARD CARD MODELS.**

Aeronaut RC

Bismarck Battleship with Fittings Set	£462.95
Classic Sportsboat	£64.94
Diva Cabin Cruiser	£69.95
Queen Sports Boat circa 1960s	£169.99
Ramborator Springer Tug	£79.99
Torben, Hamburg Harbour Tug	£249.95

Amati Static & RC Kits

ArnoXI Ferrari 800kg Hydroplane	£329.00
Bluenose - Fishing Schooner 1921	£87.95
Chinese Pirate Junk	£84.95
Endeavour America's Cup Challenger 1.35	£269.95
Endeavour America's (Wood Hull) 1:80	£79.90
Grand Banks 46' Modern Schooner	£395.00
Hannah U.S. Schooner in a Bottle	£44.95
HMAV Bounty 1787 1:60 Scale	£219.95
Mayflower, English Galleon 1620	£159.95
Oseberg Viking Ship 1:50 Scale	£99.95
Pinta, Caravel of Columbus	£89.95
Pirate Ship 1st Step Starter Kit	£53.99
Q-Ship Hunter 1:60 Scale	£94.50
Rainbow J Class Yacht (Wood Hull)	£79.90
Riva Aquarama - Italian Runabout	£299.95
Robert E Lee Mississippi Steam Boat	£299.95
Sexy Lady Riva Type Launch	£149.99
Titanic 1912 1:250 Scale	£375.00

Artesania Radio Controlled

Atlantis Trawler Suitable for RC - Easy Build	£66.49
Samson Tugboat Suitable for RC - Easy Build	£66.49

Artesania Latina Static Kits

Bon Retour 1:25 Scale:	£58.99
Carmen II Classic Collection 1:40 Scale	£112.49
Hermione La Fayette 1:89 New Version	£202.50
HMS Endeavour's Longboat 1:50 Scale	£58.99
HMS Surprise 1:48 Scale	£595.00
HMS Victory 1:84 Scale	£679.99
Mississippi 1:80 Scale	£143.00

Billings Radio Controlled

Absalon Naval Ship	£549.00
African Queen	£159.00
Andrea Gail "Perfect Storm"	£239.00
Banckert	£179.00
Bluenose II	£78.99
Cux 87 Krabbencutter	£142.00
Elbjorn Icebreaker	£199.00
Fairmount Alpine	£314.00
HMS Renown	£70.50
HMS Warrior	£474.00
Smit Nederland	£390.00
Smit Rotterdam	£314.00
St Canute Tug	£142.00
Nordkap Trawler	£278.00
Norske Love	£342.99
Waveney Class Lifeboat	£43.49
Will Everard Thames Sailing Barge	£79.00
Zwarte Zee	£229.00

Caldercraft Radio Controlled

Alte Liebe - Harbour Tug	£341.00
Brannaren - Swedish Coastal Tanker	£398.00

Cumbræ - Clyde Pilot Cutter	£350.00
Imara - Single Screw / Twin Screw Steam	£612.00
Joffre - Tyne Tug	£332.00
Marie Felling - Single Screw/ Twin Screw	£521.00
Milford Star - Side Trawler	£307.00
Motor Fifie "Amaranth" - Herring Drifter	£156.00
North Light - Steam Clyde Puffer	£332.00
Resolve - Twin Screw Naval	£669.00
Schaarhorn - Steam Yacht	£441.00
Sir Kay Round Table Class Minesweeper	£393.00
SS Talacre - Single Hatch Coaster	£334.00

Caldercraft Heritage Series

HMAV Bounty 1789 1:64	£241.99
HM Bark Endeavour 1768 1:64	£288.95
The Mary Rose 1510 Tudor Warship	£311.95

Caldercraft Nelsons Navy static

HMS Agamemnon 1781	£792.95
HMAV Bounty 1789	£241.99
HM Brig Badger 1778	£210.95
HM Schooner Ballahoo 1804	£74.95
HM Yacht Chatham 1741	£105.95
HM Mortar Vessel Convulsion 1804	£114.95
HMS Cruiser 1797 1:64 Scale	£246.95
HMS Diana 1794 1:64 Scale	£564.95
HM Bark Endeavour 1768 1:64 Scale	£288.95
HM Bomb Vessel Granado 1756	£262.99
HMS Jalouse 1794 1:64 Scale	£268.99
HMS Mars 1:64 Scale	£241.99
The Mary Rose 1510 Tudor Warship	£311.95
HM Schooner Pickle 1778 1:64 Scale	£154.99
HM Cutter Sherbourne 1763 1:64 Scale	£89.95
HMS Snake 1797 1:64 Scale	£246.95
HM Brig Supply 1759 1:64 Scale	£174.95
HMS Victory 1781 1:72 Scale	£892.00
HM Gunboat William 1795 1:32 Scale	£236.95

Constructo Static Display Kits

America, Schooner 1851	£99.73
Carmen 1850 1:80 Scale	£74.95
Cutty Sark Tea Clipper 1:115 Scale	£176.34
Endeavour 1:60 Scale	£193.22
Gjoa - Amundsen Expedition Ship	£79.94
HMS Prince 1670	£356.39
HMS Victory 1:94 Scale	£326.95
Louise Steam Launch 1:26 Scale	£80.99
Robert E. Lee 1:48 Scale	£167.57

Corel Static Display Kits

Amphion 18th Century Swedish Yacht	£188.00
Dolphyn, Dutch Privateer 1750	£180.00
Flying Fish 1:50 Scale	£144.00
Half Moon 17th Century Galleon	£166.00
HM Endeavour Bark 1768	£196.00
HMS Bellona 74 Gun Ship	£302.00
HMS Greyhound 20 Gun Frigate	£127.00
HMS Peregrine, English 6th Rate	£79.00
HMS Unicorn. 18th Century Frigate	£205.00
HMS Victory 1:98 Scale	£317.00
HMS Victory Cross Section	£99.00
Le Mirage 84 Gun First Rate Ship	£370.00
Liaut Spanish Fishing Boat	£60.00

Dumas Radio Controlled

American Beauty Mississippi River Towboat	£236.00
Akula Russian Nuclear Attack Submarine	£189.00
Big Swamp Buggy Airboat Kit #1505	£140.00
Chris-Craft 24' Mahogany Runabout 1930	£387.00
Chris-Craft Commander Express Cruiser	£353.00
Jersey City Tugboat	£330.00
Miss Circus Circus	£406.00
PT-109 US Navy Boat	£184.00
Trojan F-31 Motor Yacht	£170.00
US Coastguard 36500 36' Lifeboat	£203.00
U.S.S. Crockett	£193.00
Huson 24 Sailboat	£134.00

Joysway

Joysway Blue Mania Brushless ARTR	£164.90
Joysway Mad Flow F1 Brushless ARTR	£165.95
Joysway Super Mono X2 B/less 2.4GHz	£103.49
Joysway Sea Fire Super Brushless RTR	£179.99
Joysway Dragonforce Yacht V5 RTR	£155.00
Joysway Focus II 1-Metre	£237.49
Joysway Orion Yacht RTR	£91.99
Joysway Dragon Force 65 V6 Yacht RTR	£236.99

Krick Kits Suitable for Electric Power

Alexandra Steam Launch with Fittings	£330.00
Felix Hamburg Harbour Launch	£100.99
Grimmershorn Motor Vessel	£273.00
Lisa M Motor Yacht	£119.99
Nordstrand Trawler Yacht	£180.00
Victoria Steam River Launch with Fittings	£387.00

Mantua & Panart Suitable for RC

Anteo Harbour Tug 1:30	£329.00
Bruma Open Cruiser Yacht 1:43	£165.00
Mincio Freelance Mahogany Runabout 1:20	£98.00
RMS Titanic Complete Kit 1:200	£845.00
Venetian Passenger Motor Boat 1:28	£230.00

Mantua Static Display Kits

Albatros. US Coastguard Clipper	£110.00
Amerigo Vespucci. Italian Navy 1.150	£296.00
Astrolabe. French Sloop	£197.00
Black Falcon. 18th Century Brig	£93.00
Golden Star. English Brig	£77.00
Gorch Fock. German Sail Training Ship	£265.00
HMS Victory. Nelson's Flagship 1.200	£103.00
Kon-Tiki 1:8 Scale	£132.00
Le Superbe. 74 Gun French Fighting Ship	£322.00
Mercator. Belgian Sail Training Ship	£145.00
Santa Maria. Flagship of Columbus	£156.00

Model Shipways Static Display Kits

Benjamin Latham 1:48 Scale	£242.95
Bluenose, Canadian Fishing Schooner	£170.95
Chaparron, Sternwheel Steam	£242.95
Emma C. Berry, Lobster Smack	£116.95
Fair America, 14-Gun Privateer,	£179.95

New Maquettes Radio Controlled

Akragas, 25 Metre Tug 1:30	£255.00
Asterix II Stern Trawler / Lobster Boat	£129.00
La Jocelyne, 300 Tonne Barge	£253.99
Le Marignan, 30 Metre Trawler	£259.99
Marie Ange, Coastal Fishing Trawler	£174.00

Le Marsouin, Trawler 1:30	£240.00
Marie Morgane, Breton Lobster Boat	£85.00
Le Patrick, Sardine Fishing Boat	£139.99
V.L.M. Missile Launching	£288.00

Occre Static Display Models

Albatros Schooner 1:100 Scale	£89.95
Aurora Brig 1:65 Scale	£129.95
Bounty with Cutaway Hull Section	£245.00
Buccaneer 1:100 Scale	£89.95
Calella Light Boat 1:15 Scale	£43.94
Corsair Brig 1:80 Scale	£144.95
Diana Frigate 1792 1:85 Scale	£225.00
Endeavour 1:54 Scale	£239.95
Golden Hind 1:85 Scale	£89.95
Gorch Fock 1:95 Scale	£334.99
HMS Revenge 1:85 Scale	£144.95
Mississippi Paddle Steamer	£179.95
Palamos Fishing Boat 1:45 Scale	£69.95
San Ildefonso 1:70 Scale	£395.00
San Marcos Spanish Galleon	£225.95
Santisima Trinidad	£369.95
Santisima Trinidad Cross Section	£125.00
Ulises Ocean Going Steam	£195.00

Panart Static Display Kits

Amerigo Vespucci. Italian	£670.00
Anteo Harbour Tug 1:30	£329.00
HMS Victory Bow Section	£173.00
Lynx. Baltimore Schooner	£133.00
Royal Caroline 1749	£265.00
San Felipe Spanish 104 Gun Man of War	£583.00
Section Deck Between Gun deck	£130.00

Sergal Static Display Kits

Achilles. American Pilot Cutter	£77.00
Dutch Whaler "Baleneria Olandese"	£269.00
Cutty Sark Tea Clipper	£358.00
HMS Bounty 1787 1:60	£174.00
HMS Jamaica 14 Gun Sloop	£133.00
HMS Peregrine Galley "Runner Class"	£182.00
Mississippi River Steamboat	£356.00
Soleil Royale	£715.00
Sovereign of the Seas	£715.00
Thermopylae. Tea Clipper	£73.99

Thunder Tiger

Avanti ARTR Brushless Powerboat	£189.95
Madcat Jr. ARTR	£198.95
Atlantic Motor Yacht ARTR	£194.99
Nautantia 1M Yacht	£149.99
Victoria II	£119.99
Volans Trimaran	£224.99
Voyager III 1M Cup Yacht	£135.95

Accessories

Amati Keel Clamp	£ 49.50
Amati Precision Toolset	£ 39.26
Billing Boats Building Slip B397	£ 49.99
David-4 Combi Plane	£ 10.99
Planking Tool Set	£ 26.50
Rigging Tool Set	£ 21.95
Occre Portable Work Bench	£49.99
Warding File Set 6 Piece	£ 6.60

All prices correct at time of going to press

ALSO:

ALL THE HARDWARE, BUILDING MATERIALS AND RC EQUIPMENT REQUIRED TO COMPLETE YOUR MODEL

Visit the website for our full range of kits:

www.cornwallmodelboats.co.uk

email: **sales@cornwallmodelboats.co.uk**



Mtroniks

electronics innovation

30 years of know
M 40 years

24V VIPER Marine

Brushed speed controller
Available in 15A, 20A, 25A or 40A

FROM £32.99



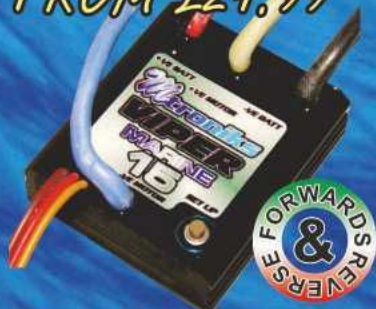
No Relays or moving parts!

Ultra fine control for model boats running up to 24V.
Available in different power ratings to suit all sizes of motors.
100% waterproof for trouble free modelling!
See website or contact your local dealer for more information.

VIPER Marine

Brushed speed controller
Available in 15A, 20A, 25, 40A or 75A

FROM £24.99

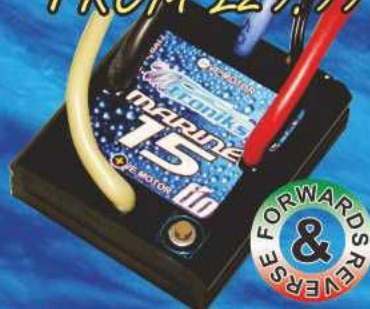


Ultra fine control for model boats running up to 12V.
Available in different power ratings to suit all sizes of motors.
100% waterproof for trouble free modelling!
See website or contact your local dealer for more information.

tio Marine

Brushed speed controller
Available in 15A, 30A or 50A

FROM £29.99



Ultra fine control for model boats running up to 12V, including Lipo cells!
Available in different power ratings to suit all sizes of motors.
100% waterproof for trouble free modelling!
See website or contact your local dealer for more information.

microVIPER

Brushed speed controller

£24.99



Ultra fine control for small model boats running up to 12V with a 10A motor limit.
100% waterproof for trouble free modelling!
See website or contact your local dealer for more information.

Marine motors

Brushed motors for model RC boats

M400



£6.99

M500



£8.99

M600



£10.99

DIGISOUND

Realistic engine sound system



£65.99

Waterproof, 12V, amplified sound module for model boats that require realistic sound with engine start/stop, horn and changing running sound.
Speaker included!
See website for available sounds.

24 Month Warranty on all Mtroniks electronic products



Mtroniks marine products are available from all good model shops, we are always available for advice direct

High quality speed controls designed and manufactured since 1987 in the UK

Mtroniks
electronics innovation

41A Ilkley Road, Otley, LS21 3LP, UK
Tel: +44(0)1943 461482 Fax: +44(0)1943 468335

www.mtroniks.net
enquiries@mtroniks.net
www.facebook.com/MtroniksLtd
Twitter: @mtroniksteam