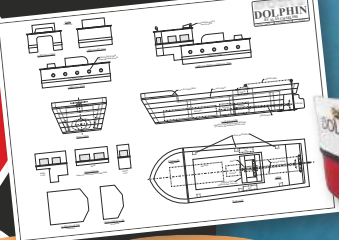


FREE!



**EASY BUILD
PULL-OUT PLAN**

**No.1 For
Sail & Scale**

July 2021
Vol.71 No.848

model Boats



RESCUE REMEDY

More of your incredible
lockdown builds



D.I.Y. FLAGS MADE A BREEZE

A crafty way to create
additional realism



TEST YOUR PULLING POWER

A modeller's guide to
'Bollard Pull'

GET ON BOARD

www.modelboats.co.uk



SHARK! PRIZE DRAW

Snap up an exciting Carson
RTR 2.4Ghz R/C Race Shark

Casting Kit

Everything you need to make high detail reusable moulds to produce professional quality resin casts

Casting Kit - £39.90

400g Casting Resin and 450g Moulding Rubber

Casting Kit XL - £59.20

2kg Casting Resin and 1kg Moulding Rubber

Double the materials for only £19.30 more

Both Kits include Release Agent, Mixing Cups, Pipettes, Stirrers, Gloves and easy-to-follow instructions



Superglue Kit - £20.00

Superglue Kit - £24.50 + Activator 50ml

Superglue Kit

Three grades of Sylmasta Superglue for fast, precision bonds

Thin - for bonding fine gaps and hairline cracks

Medium - for general purpose bonding

Thick - for gap-filling and vertical bonding

Plus 4x Superfine Application Nozzles

For an instant bond, use Activator

Putty Kit

Our most popular modelling putties - **Green Stuff**, **Magic Sculp** and **Geomfix Original A+B** - in one Kit



Putty Kit - £28

Green Stuff 36" Reel, Magic Sculp 250g and Geomfix A+B 250g

Saving £8.00 on individual putties

Putty Kit XL - £48

2x Green Stuff 36" Reel, Magic Sculp 500g and Geomfix A+B 500g

Saving £13.90 on individual putties

Buy online at SylCreate.com

Phone +44 (0)1444 831459 | Email: sales@sylmasta.com

SylCreate.com delivers WORLDWIDE

There's Many Ways to buy from
www.mobilemarinemodels.com



Buy on the Web
www.mobilemarinemodels.com



or by Phone
01522 730731



In-house Designers....
& Manufacturers of Fine marine model Products

Buy with a Visit to the Boat Shed ... LN1 2YQ



at the
Shop



in the
Shop



Visit our Website for our Full Range of Products

Tugging Ahead..... with

MOBILE MARINE MODELS

Model Tugology..... the driving force



Full Colour Catalogue £6

Factory Visitors Welcome

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



DEANS MARINE
CONQUEST DROVE, FARCET.
PETERBOROUGH, PE7 3DH
01733 244166
www.deansmarine.co.uk

2021 colour catalogues
 Deans Marine £6.75
 Raboesch £4.00
 RB Fittings £2.00
 Deluxe adhesives £3.50
 Albion alloys £1.50
 £4.00 postage each
 Or all 5 for £12.50 incl p&p u k

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



New release M.T. AGILE 11 1/72 L.320mm X B. 115mm



New release S.S. FALCON 1/96 L.720mm X B. 120mm

A selection of ACCESSORIES in our range see our website for full details



OUTLET CENTRE NOW OPEN 10- 4 DAILY



NYLON PROPELLORS



RUDDERS



COUPLINGS



BRASS PROPELLORS



PROPSHAFTS

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: 01795 662976

EDITORIAL

Editor: Lindsey Amrani

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

Email: editor@modelboats.co.uk

PRODUCTION

Designer: Richard Dyer

Illustrator: Grahame Chambers

Retouching Manager: Brian Vickers

Ad Production: Nik Harber

ADVERTISING SALES EXECUTIVE

Angela Price:

Email: angela.price@mytimemedia.com

SUBSCRIPTIONS MANAGER

Kate Hall

MANAGEMENT

Commercial Sales Manager: Rhona Bolger

Email: rhona.bolger@mytimemedia.com

Tel: 0204 522 8221

Chief Executive: Owen Davies

mytimemedia
print & digital media publishers

Follow us on Facebook and Twitter



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

© MyTimeMedia Ltd. 2021

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 by MyTimeMedia Ltd, Suite 25, Eden House, Enterprise Way, Edenbridge, Kent, TN8 6HF, UK. The US annual subscription price is \$95USD. Airfreight and mailing in the USA by agent named WN Shipping USA, 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA. Periodicals postage paid at Brooklyn, NY 11256. US Postmaster: Send address changes to Model Boats, WN Shipping USA, 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA. Subscription records are maintained at DSB.net Ltd, 3 Queensbridge, The Lakes, Northampton, NN4 5DT. Air Business Ltd is acting as our mailing agent.



When you have finished with this magazine please recycle it.

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

contents

9 Compass 360

Latest hobby & industry news



10 Shark! Prize Draw

Your chance to win a Carson Ready-to-Run 2.4Ghz Race Shark courtesy of Hobbies



12 MB Q&A

We chat with warship wizard Dave Wooley about his attention commanding builds



18 HMS Diamond

Ashley Needham tells the fascinating tale of how, after responding to an online SOS, he went about sympathetically restoring this 60 year old gem



26 SL Scrapwood: the resurrection launch

What do you do when disaster strikes? Rookie John Milesen shares his own very humorous but highly admirable 'never give in, never give up' story



32 D.I.Y. flags made a breeze

Geoff Fairfax shares a simple but highly effective method of creating convincing looking scaled down flags

38 FREE PLAN BUILD GUIDE

Alan Charlsh explains how to construct the Dolphin, a charmingly simple, easy and economical to build working boat from this month's free plan

FREE PLAN



With summer finally here and with more of us able to get out and about again, I must say a big thank you to the kind folks at Hobbies (www.hobbies.co.uk) for donating the Carson Ready to Run 2.4Ghz R/C Race Shark up for grabs in this month's prize draw (see pages 10-11).

While the pages of this magazine tend to focus on modeller's own brilliant builds, we certainly don't want to dismiss the RTR side of the hobby and by doing so exclude those less confident in their skills or who perhaps simply don't have the time to invest but still want to get out on the water and have some of fun.

Equally, as the Racing Shark is described as being suitable for those aged 8+, we think this cool-looking, eye-catching, (how screamingly '70s' is that orange!) model would be a very exciting first hands-on R/C model boat experience for children and teens.

I know I probably keep banging on about this, but the future of the hobby totally depends on getting the next generation engaged and involved, so I think it's vital that we all do our bit to encourage this at every given opportunity.

We would absolutely love to feature more young model boat enthusiasts/modellers in the magazine, so if you're reading and this applies to you, or indeed to a family member or someone you know, don't be shy – please get in touch.

Of course, for those of us who grew up in far simpler times, with no video games, social media, mobile phones, etc; there was probably far more incentive to get creative and crafty in order to entertain ourselves. But that was then, and this is now, so I very much agree with Dave Wooley's comments in this month's MB Q&A about the importance of embracing innovative new technology as a way of increasing the hobby's appeal amongst the young. In doing so, there's a natural inter-generational synergy, as 'Boomers' have a wealth of traditional skills to pass on, while 'Millennials' can usually teach most of us old dogs some valuable new tricks in terms of all things digital!

As always, your thoughts on this subject, or for that matter any of the topics featured on the pages to follow, will be most welcome. Enjoy your read!

Lindsey

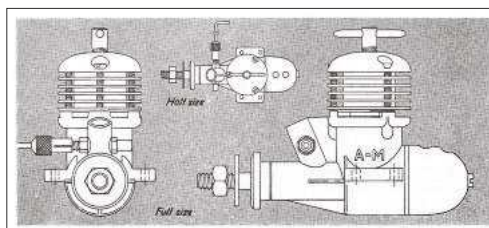


52 Test your pulling power

Phil Scales provides a layman's guide to Bollard Pull and explains how you can get the measure of it in your own model boats

56 Boiler Room

Richard Simpson tests out a new Automatic Boiler Control device



42 The Swordfish

While doing a spot of virtual fishing for ideas, Ashley Needham recently had his imagination fuelled by a blast from the past.

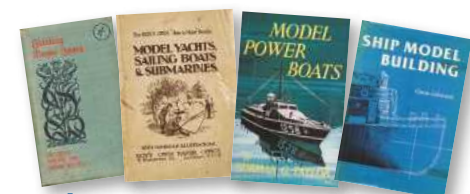


48 Dandy Score

Ever considered extending your modelling beyond simply building ships/boats in order to take in the bigger – and at the same time smaller – picture? David Bray shows off how it's done

60 Memory Lane: An Engine from 'Mr 308'

Dave Wiggins whisks us back to a diesel-fuelled world



62 Flotsam & Jetsam: Back to the bookshelf – Part 1

John Parker dusts off some of the older titles in his collection and reflects upon their contents

66 Your models

More of your brilliant work showcased

73 Next month...

Just a few of the reasons you won't want to miss the August issue of MB!

Waterproof MG



SUPER STRENGTH 20 & 25KG METAL GEARED SERVOS!
STANDARD SIZE, INCLUDE FITTINGS AS WELL AS METAL ARM! WATERPROOF!
20KG - £13.99 - 25KG - £14.99

FUTABA T6L
2.4GHz 6 CHANNEL
RADIO INCLUDES
R3106GF RECEIVER
OUR PRICE £75.99!



PLANET RADIO!
New 4 Channel 2.4GHz Combo Transmitter & Receiver! Stick Type with Dual Rates on both sticks & Servo Reverse. Includes receiver. 2 channels on stick, 1 x proportional dial & 1 x 3 way switch
OUR PRICE ONLY £44.99!
Additional Receivers £15.99!

2.4GHz & 27MHz Receivers
Absima 2CH Receiver £19.00
Radio Link 8CH Receiver £13.99
Futaba R3106GF 6CH £28.99
Futaba R2006 4CH 2.4GHz £39.99
Futaba 617FS 7CH 2.4GHz RX £69.99
Futaba 3006SB 6CH FHSS £47.50
Futaba 2ch Am 40mhz £21.99
Futaba R202GF 2 Ch 2.4GHz £25.99
Saturn 6CH 2.4GHz RX £23.50
Volantex 7CH 2.4GHz RX £16.99
SPEKTRUM RECEIVERS AVAILABLE!
SPEKTRUM DSM2 ORANGE - £18.99

GT Power SD4 NEW IN!
Low Cost UK Mains Multi Charger
Max Charge Output: 3A
Li-PO 2-4S 3.7V-14.8V
NiCd/NiMH Cells - 1-16
NiMH Voltage: 4.8V-14.8V
Superb Charger
For Only £22.99!

SPECIAL OFFER 7.2 VOLT 5000MAH ONLY £26.99



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

Radio Link T8FB
8 Channel 2.4GHz
Replacing the popular T4EU transmitter and receiver set at a great price
Only £54.99
Additional RX £13.99

MC6A
6 Channel 2.4GHz Com-
bo! Includes Receiver
Excellent Quality
Only £47.50

BACK IN STOCK!
SPEKTRUM 2.4GHZ SETS

STX3 3 Channel Combo - £59.99
DX5C 5 Channel Combo - £109.99
DXE 6 Channel Combo - £89.99
DX6E 6 Channel Combo - £199.99
Receivers Also Back in Stock!
Visit our website for info!

POWERPAL 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 £22.99!

Mains Chargers
Fusion NX86 - 4-8 Cells Ni-CD/Ni-MH,
Variable charge rate, 0.5-5amps.
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 £26.50!

SUPER SERVO SPECIAL!
METAL GEARED
17KG HI-TORQUE SERVO
Standard Size
Fits All Brands
ONLY £9.99!
OR 2 FOR £14.00!

LARGE RANGE OFF HIGH QUALITY 7.2 VOLT BATTERY PACKS

1500MAH - £8.50
2000MAH - £9.99
3000MAH - £13.50
3300MAH - £13.99
3800MAH - £19.99
4000MAH - £22.99
5000MAH - £26.99

Lead Acid Batteries

6 VOLT 1.0 AMP - £4.99
6 VOLT 1.3 AMP - £4.99
6 VOLT 3.4 AMP - £5.99
6 VOLT 4.5 AMP - £5.50
6 VOLT 7 AMP - £8.99
6 VOLT 12 AMP - £11.99
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 - £11.50!
6V JELLY CHARGER - £9.99
12V JELLY CHARGER - £9.99
2,6,12V JELLY CHARGER - £11.99

Waterproof Marine Speed Controllers

NEW RANGE WITH LOW PRICES!
10A 4.8-12v ONLY £20.99 NEW PRICE!
15A 6-12 V ONLY £20.99 NEW PRICE!
15A PLUG N PLAY 6-12v - £20.99
15A 12-24 V ONLY £29.99
20A 6-12 V ONLY £25.99
20A PLUG N PLAY 6-12v - £25.99
25A 6-12 V ONLY £30.99
25A PLUG N PLAY - 12v - £30.99
40A 6-12 V ONLY £44.99
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 £59.99 - NOW £43.99
MTRONIKS G2 HYDRA 50A BRUSHLESS
RRP £84.99 - NOW £62.50

HOBBY ENGINE UNIVERSITY CLUB YACHT

Ready to sail starter. This model is perfectly suited for beginners, readily installed for sailing but also more experienced rc enthusiasts will have some fun with this.
Height - 85cm
Length - 120cm
RRP £124.99
Our Price £112.50

NEW 2 CHANNEL RADIO!
ABSIMA 2 Channel 2.4GHz Combo Transmitter & Receiver!
Adjustable Travel Volume
On Rudder Servo
OUR PRICE ONLY £39.99!
Additional Receivers £19.00!

NEW! Kingmax Sail Winch Servo's

Dimensions 40x19x38mm
1.5 Turn Standard Size Servo Speed:
0.9/360 Torque: 6.1kg - **Only £9.99**
2.0 Turn Standard Size Servo Speed:
0.9/360 Torque: 6.1kg - **Only £9.99**
4.0 Turn Standard Size Servo Speed:
0.9/360 Torque: 6.1kg - **Only £9.99**
4.0 Turn Standard Size Metal Gears
Speed: 0.9/360 Torque: 12kg - **Only £14.99**
6.0 Turn Standard Size Servo Speed:
0.9/360 Torque: 6.1kg - **Only £9.99**
6.0 Turn Standard Size Metal Gears
Speed: 0.9/360 Torque: 12kg - **Only £14.99**



Standard Size
KING MAX
MINI-SERVO CO., LTD.

Li-PO Batteries at Great Prices

7.4v 1000mah - £10.99
7.4v 1300mah - £11.99
7.4v 1600mah - £13.49
7.4v 2200mah - £14.99
7.4v 3900mah - £26.99
11.1v 1000mah - £14.99
11.1v 1300mah - £16.99
11.1v 1600mah - £18.99
11.1v 2200mah - £16.99
11.1v 3900mah £38.99
11.1v 5000mah - £47.99

SERVO

POWER 3KG STANDARD - £4.99
AAS700SD WATERPROOF STD - £7.99
NEW! FUTABA S300 DIGITAL - £11.99
RADIATE 3.5KG BB WATER RES - £7.99
FUTABA 3010 6.5 TORQUE - £24.99
FUT 3014 WATERPROOF - £24.99
HITEC 325 BALLRACE - £16.50
POWER HD 9g Micro £3.50
OR 4 For £13.50
HOWES MIDI MG Servo £6.50
MICRO METAL GEARED £4.99
MINI SERVO ONLY £4.00 (4 for £15.00)
HIGH POWERED BALLRACE D £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 £31.50
HITEC 765BB SAIL ARM WITH 12 CMLONG ARM
OUR SPECIAL PRICE £31.50
FUTABA S3802 SAIL ARM WITH 12CMLONG ARM £56.25
HITEC HS 805BB SAIL ARM HUGE WITH 20KG TRQ £29.99



NEW LOW PRICES!

**NEW RANGE OF MODEL BOAT KITS ON THE NEXT PAGE!
NEW DEALS ADDED DAILY ON WEBSITE!**
01865 848000 WWW.HOWESMODELS.CO.UK

BRUSHLESS MOTOR DEAL!

Graupner

Fantastic motor to upgrade your 300 to 600 size motors to Brushless!

Includes gold connectors and mounting bracket

RRP £59.99 Our Price just

£14.99!

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 £50.99

Hydra 30A Combo - Only £59.99

Ideal Replacement for 380 - 400 Motors

Hydra 50A Combo - Only £109.99

MTRONIKS TIO 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 **£25.99**

30A - RRP £43.99 OUR PRICE **£33.99**

50A - RRP £65.99 OUR PRICE **£51.99**

SUPER SERVO SPECIAL!

HOWES STANDARD SERVO

4KG TORQUE - INCLUDES FITTINGS

SIZE - 40.3 X 19.8 X 38.6MM

ONLY £4.99 EACH!

OR 2 FOR

£8.00!

Receiver & Transmitter Batteries

4.8 VOLT PACKS

1300MAH FLAT OR SQUARE - £6.99

2400MAH FLAT OR SQUARE £8.99

6 VOLT PACKS

1300MAH FLAT OR TRI - £8.99

1600MAH FLAT OR TRI AE CELLS - £10.50

2400MAH FLAT OR TRI - £11.75

9.6 VOLT TRANSMITTER PACKS

1300 MAH FLAT - £15.00

1300 MAH SQUARE - £15.00

2400MAH FLAT £19.99

NEW! AAA RECEIVER PACKS!

4.8V 800MAH FLAT OR SQUARE - £11.99

4.8V 1000MAH FLAT OR SQUARE - £12.99

6V 800MAH FLAT OR TRIANGLE - £13.99

6V 1000MAH FLAT OR TRIANGLE - £14.99

DRAGON FORCE 65

Length 650mm Height 1338mm

Perfect model for enthusiasts to easily

and affordably get into the hobby!

Available Ready to Run with 2.4GHz

radio or ARTR (no radio)

ARTR RRP £179.99

Our Price £164.99

RTR RRP £219.99

Our Price £199.99

**THE VERY POPULAR!
CARIBBEAN YACHT**

IDEAL BEGINNERS YACHT!

YACHT COMES PRE BUILT AND READY

TO SAIL! GREAT SIZE FOR EASY

TRANSPORTATION.

LENGTH - 260MM - HEIGHT - 435MM

INCLUDES RECHARGEABLE BATTERY

FOR YACHT

UDI RAPID SPEED BOAT

READY TO RACE SPEED BOAT! LENGTH: 42CM!

TOP SPEED 30KPH!

BRUSHLESS VERSION AVAILABLE

TOP SPEED 45KPH!

GREAT FUN BOAT FOR ONLY £59.99!

BRUSHLESS VERSION ONLY £89.99!



RRP £49.99

Our Price £44.99!



**SOUTHAMPTON &
RICHARDSON TUG BOATS**

Popular ready to run models include

2.4GHz Radio, Battery & Charger.

Includes Smoke Generator!

Length - 560mm x Height - 420mm

RRP £189.99

ONLY £159.99!

Each model



SELF RIGHTING!

POWER VENOM RACING BOATS!

GREAT FUN AND YOU CAN RACE TOGETHER!

AVAILABLE IN BLACK OR ORANGE

25KM/H! 32CM LENGTH

ONLY £49.99 EACH!



UDI GALLOP



ANOTHER NEW MODEL FROM UDI

This Gallop Speed Boat includes

2.4G radio, battery & charger!

TOP SPEED! 30+ KM/H

35CM LONG - 7CM WIDTH

Features include Self righting,

Low Battery & Signal Alarm!

Just Add 4 x AA Batteries for handset!

OUR PRICE

ONLY £54.99!

WANTED

**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**

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



HENG LONG SALINA

LARGE READY TO RUN CABIN

CRUISER, SUPPLIED WITH

POWERFULL 8.4V

RECHARGEABLE BATTERY AND

MAINS CHARGER.

LENGTH - 71CM!

RRP £79.99

OUR PRICE ONLY

£69.99!

DAVE METCALF BOAT MODELS

Manufacturers of scale model boat kits

'LIVERPOOL' Class 35ft 6ins. Twin Screw Motor Lifeboat

Model Scale = 1" to 1ft. (1:12)

Length O.A. = 38" (990mm)

Beam = 11.1/2" (290mm)

This kit is an exact scale model of a twin screw LIVERPOOL class lifeboat of the 1940's to 1960's. Developed from the original yard drawings, this kit is extremely highly prefabricated, using only the best quality materials. Making for a model that can be built using just hand tools and finished to museum quality by the average modeler.

This comprehensive kit contains the following parts:

5 Detailed white GRP mouldings for Hull, Bow & Stern Turtle-backs, Deckhouse & detailed Deckhouse interior bulkhead/floor.

2 Sheets of 'non-burn' laser-etched/cut plywood for main planked decks & all other planked bulkheads etc.

10 accurately cut CNC sheets of Birch ply and HIP's for all other parts.

Over 470 superbly cast white metal fittings, all made from our brass masters.

Pair prop shaft & props, dowel & strip woods, chain & fittings for handrails brass rod, wire, tube, rigging cords etc.

A very comprehensively illustrated step-by-step instruction manual with many construction illustrations. 3 Large sheets of scale GA drawings all are number "keyed" to parts list.

Optional photo DVD of high-definition pictures of model during construction and finished model. This museum standard model is suitable for either static or R/C use, on the water performance is realistic.

e-mail, phone or SAE for information pack.

UK. P & P £10.00. Highlands, Islands and overseas on request.

Collections can be made by prior appointment.

1 Wentworth Cottages, Haultwick, Dane End,
Nr. Ware, Herts. SG11 1JG

Tel: 01920 438373

davemetcalfboatmodels@btinternet.com

£540.00
+ P & P



Also available RNLB Ann Letitia Russell Lifeboat @ £495.00. Moonbeam yacht @ £340.00

component-shop



Superb range of
RC switch units
Single, double,
4-way, 8-way,
miniature,
high-current, a
switcher for every occasion.

For a whole range of great
products, call for your FREE
catalogue, or visit our web site

ACTION
R/C ELECTRONICS

Call us on **01248 719353** or visit our web site at:

www.component-shop.co.uk

Batteries / Chargers / Cables / Connectors
Motors / Servos / LEDs / Electronics & More

The Blackpool Model Show 2021 IS ON! October 16-17

For full details, including application forms
to exhibit (clubs or individuals)

Visit the show web site at
www.blackpoolmodelshow.co.uk
or call 01248 719353

Compass 360

Our hobby-related news round-up

If you have a news story for these pages, please contact the Editor, Lindsey Amrani, via e-mail at editor@modelboats.co.uk Alternatively, pick up the phone and call 01689 869840

OBITUARY:



BRYAN SMITH

The CADMA (Conisborough & District Modelling Association) has informed us that honorary member,

Bryan Smith, has sadly passed away. Until having to retire due to ill health, Bryan had served as the Association's Chairman and as organiser of the CADMA Show for many years. Adding to that legacy, Bryan's successful fund raising efforts have continued to contribute towards keeping the CADMA afloat, despite all the difficulties encountered due to the Covid-19 pandemic and resulting restrictions.

He will be much missed and fondly remembered by both his fellow CADMA members and all those who knew him in the model boating community. Our sincerest condolences to his wife, Celia, his son, Bryan, and his two grandchildren.

POLARIS PRIZE DRAW WINNER

Our congratulations to J.E. Hughes of Grantham, winner of our April 2021 issue prize draw and our thanks to the kind folks at OcCre for donating not only for the superb new 1:50 scale Polarix Starter Pack prize but also both the glue and paint & stain sets with which to complete this project that are usually sold as separate items. ●

NEW 1:72 SCALE TUG/FIRE FIGHTER KIT

Now available from Deans Marine is the latest addition to the Farcet 1:72 scale series of compact kits: Agile 2.

The construction of these smaller kits is very similar to the larger models in Farcet's range, with components comprising of a vac-formed plastic hull and bulwarks; laser cut parts for the plastic superstructure; metal, resin and brass etched fittings, and, of course, a prop

and shaft. The full-size plans and comprehensive instruction booklets that accompany the compact kits explain how to power the resulting models with standard servos to provide main drive motor and electronic speed control and reduce set up costs, although, of course, the models can also be powered by standard motors and ESC units.

Agile 2 is based on the type of highly manoeuvrable harbour

tugs used in The Netherlands' Europort and capable of handling the largest of ships in confined waters. These vessels are constructed by the Delta shipyard to a standard design and then customised by buyers to suit their own particular requirements. Agile 2 is fitted out as a fire-fighter and tug, with powerful water and foam monitors (the one on the top of the bridge being telescopic).

Those interested in seeing the model in action on the water before purchasing this kit (priced at £99.50) can view the video footage posted on YouTube by Deans Marine. ●



WIN!

**A *CARSON* Race Shark
2.4Ghz RTR R/C Boat**

**RRP
£62.99!**

**Don't miss your chance to
snap up this super fun prize
supplied by Hobbies!**

www.hobbies.co.uk

Hobbies

This month, thanks to the generosity of the crew at Hobbies, we're able to offer you the chance to win this exciting ready to race catamaran.

Fitted with two engines, it's fast and agile on the water and is controlled by a 2.4 GHz R/C system. Its aggressive, attention-commanding styling (Hobbies has generously donated the version shown above in screamingly '70s' bright orange, but the model is also sold in an equally eye-catching acid lime green) even includes an LED headlight so the fun can continue even at dusk! The safety circuit does not activate the boat until it is actually in the water with the screws, thus eliminating the need for an on/off switch. Simple!

Its robust ABS hull, cool design and the fact it comes completed equipped and ready to run all serve to make the Carson Race Shark FD an absolute fun bringer for the whole family (suitable for ages 8+).

FEATURES:

- * Ready to sail built boat model
- * 2.4 GHz RC system
- * Transmitter batteries 2 x AA Alkaline
- * NiMH driving battery 7.2V / 700mAh
- * USB Charger
- * Spare propeller
- * Boat stand and instructions included

SPECIFICATIONS

- * Length: 395mm
- * Width: 195mm
- * Height: 83mm
- * Running Time: 10 minutes per charge
- * Speed: Up to 25 KM/H (15.5MPH)
- * Weight: 387g



LEFT: The Carson Race Shark FD is also available in this striking acid lime green.
Article number: 500108025



To explore the entire Carson range,
visit <https://www.carson-modelsport.com>



The Carson Race Shark FD.
Article number: 500108034

HOW TO ENTER...

All you have to do is complete the entry form below, cut it out (photocopies of the form are acceptable), pop it in an envelope addressed to:

Race Shark Prize Draw
Model Boats
MyTimeMedia Ltd
Suite 25, Eden House
Enterprise Way
Edenbridge
Kent TN8 6HF
and mail it back to us.

PLEASE NOTE: In order for your entry to be included in the draw, it must be with us before the closing date of July 23, 2021. Good luck, everyone!



GOT TO HAVE IT?

The Carson Shark is available from Hobbies in the UK. Hobbies stocks a wide range of model boats, from static display kits to RTR radio-controlled models like the Carson Race Shark. For more information visit <https://www.hobbies.co.uk>



TERMS & CONDITIONS

Entry is open to all UK residents with a permanent UK address, with the exception of employees (and their families) of MyTimeMedia Ltd, its printers and agents, and any other companies associated with the competition. All entrants must be aged 18 or over. Only one entry per household is permissible. No responsibility can be accepted for entries lost, damaged or delayed in the post. Winners will be notified by post. Prizes are not transferable to another individual and no cash or other alternatives will be offered. The promoters reserve the right to amend or alter the terms of the competitions. The winner will be chosen from all correct entries received by the closing date specified. Please note that data will be managed in compliance with GDPR law. Our privacy policy can be found at www.mytimemedia.co.uk/privacy. The decision of the judges is final and no correspondence will be entered into.

CARSON RACE SHARK PRIZE DRAW

Name: _____

Address: _____

Postcode: _____

Tel No: _____

Email: _____



MB Q&A

The Warship Wizard

Our Ed, **Lindsey Amrani**, chats with master modeller **Dave Wooley**

Q You grew up in the Wirral and I believe had some sort of family connection to the local Cammel Laird shipyard at Birkenhead. Can you tell us a little more about this?

A Yes, my personal connection to the shipyard and ship buildings goes back to the launch of Ark Royal on March 3, 1950, as my father and uncle, who was a boiler maker in the yard at that time, acquired launch tickets. For a young boy of five years of age this was an overwhelming experience and, from then on, I was hooked. My wife's father and grandfather

also worked in the yard and I did a stint there between the close of 1965 through all of 1966 working on infrastructure projects.

Q How, if at all, did that early exposure to the world of shipbuilding influence your own career path?

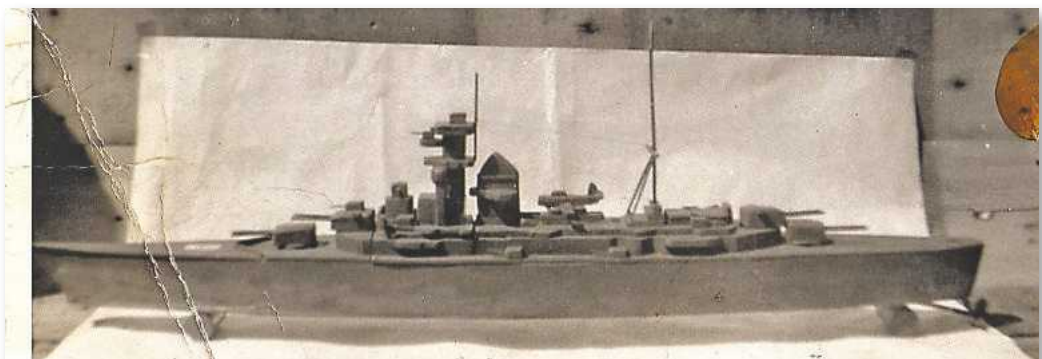
A In our household, the main topic of conversation often centred around ships and ship building and living so close to the river Mersey naturally gave me a grandstand view of all that fascinated me as a boy. All things considered; it could be said a love of ships forms part of my DNA!

“All things considered; it could be said a love of ships forms part of my DNA!”

I was, however, initially trained as a quantity surveyor in the construction industry by a plastering company in Liverpool.

Q Regularly seeing ship launches as a boy explains when, where and why you developed such an interest in, and passion for, warships, but how then did that manifest into modelling?

A I grew up in the 1950s, a truly golden age for the cinema, and was enthralled by such classics as *The Battle of the River Plate*, *The Cruel Sea*, *Above Us The Waves* and *Sink the Bismarck*. As an impressionable boy, this undoubtedly served as the catalyst for my modelling ambitions, and the radio control models of those type of ships I would go on to build.



ABOVE: Dave's first working model as a nine-year-old was this scratch built balsa wood model of the German Heavy cruiser Prinz Eugen. He also took the photograph using his father's Box Brownie: a portent of the future, even if he didn't realise that back then.

Photography of warships was the central theme to Dave Wooley's long running Range Finder column. While that column has now ceased, Dave still continues to add to the photographic material he keeps for reference purposes: this shot he took during a visit of HMS Prince of Wales to the Mersey in 2019 being a good example.



Q What do you recall about your first ever build? How did you go about developing and improving on your skills from there? And, if you began by kit modelling, when, why and how did you then progress to scratch building?

Ah, yes, my first build... As an enthusiastic nine-year-old I embarked on the build of a balsa model of the German Heavy cruiser *Prinz Eugen*. It was a working model driven by a single Kako electric motor, using a flat 4v bell battery. This gave me hours of enjoyment, providing my first insight into the not only the time and effort it takes to build a model boat but how much personal satisfaction there is to be gained from creating something with my own hands.

Developing the skills required was initially need based; for example, I would ask myself if perhaps I could produce a neater cut if I were to use a different saw blade for a given type of timber. This determined how I moved forward and improved my level of skill, thereby directly translating into the overall result achieved.

Q Did you join, and are you still a member of, a local modelling club?

A I've been a member of several model boats clubs, but my first was the Birkenhead Model Yacht and Power Club, which I joined in 1965. I am presently at a member of both the Wallasey Model Boat Society and the Ship Modelling Society.

Q How many years did it take before you felt your modelling had reached competition standard? And how did that first entry at national level come about?

A Strangely, my entry into the competitive world came about through power boat racing. Although I'd been building scale models for some time, I was encouraged by a friend to attend one of the power boat meetings at Walton Hall Park, the then home of Liverpool MBC, and after that introduction I decided I had to get myself one. Fast forward 13 years and, after winning the World FSRE Championships in the Netherlands in 1980, I gradually took on a more administrative

READ THIS FIRST

★RIPMAX★

BULLET 30

the motor that is
BEATING THE REST
INCLUDING 29
GLOWS in
SPEED/
STEERING
EVENTS.

12-pole motor:
magneto-
brush; COLTS
refueling
hose; with
interference sup-
pression fitted. Shuts dia. 3mm.

A genuine 400 WATT MOTOR WITH THE POWER OF A .29 GLOW ENGINE. No-load speed 15,000 rpm on 19.2 volts. Weighs 14 ounces. THE FIRST CHOICE FOR "FAST ELECTRIC" — in contest results are already proving!

£9.95

CYCLONE 15 (150 WATTS)

Designed for 10 volt (nominal) operation and giving the power of a .15 glow engine! The ideal choice for smaller hulls! Wt. 5.3ozs

£3.95

BULLET 30 and CYCLONE 15 also available AS COMPLETE SYSTEMS

Dave Wooley writes. . .

"... my success with the BULLET motor at the Nationals Speed Finals. . . FIRST PLACE in the 20 Kilogram class with a time of 28.8 seconds. . . THE FACTS: A 20 Kilo TAD ADVERTISED AT ANY WELLSVILLE NATIONAL FINAL. Unfortunately, a BULLET powered boat took away my only fast boat. . . I was only 2nd in my class. Dave Hansen's very intense Sea Ram. To top it off, I was only 2 sets from the 20 kilo European Record set by the European Shadon Boat Bremen.

My final in the 20 kilo class would have given me a third place in 19.4 kilo electric. . . but in this I could only manage second place in 1000 watt motor . . . (the Bull can't be beat at around 400 watts)"

MODEL SPEC: HULL-SHARK, MOTOR-RIPMAX BULLET 30, CELLS-V8 LSH, COUPLING-RUBBER SHAF, RIPMAX, PIST-SPECIAL BRASS, RUBBER RIPMAX, RADIO-RIPMAX, FUTABA 2-channel

"... the Bull's success at Manisteeur Open operating against 73 in (and 1 electric in 10 second steering round) I gained a FIRST prize in Trucks, Motors, MIPRO, Tamiya, K. & B 216, and beat a Sea Ram. We received mail from a Super Team 500 (100 points) with my 10th even."

"... was only three points off the unofficial National speed steering record, I could have made those points if I had changed my cable the same day."

"I got now setting up my new 5 Kilogram boat. . . (hardly to be run for up to 12 minutes) using the bigger 40 volt cells, and brand of pump on the BULLET. . . I may have to waterproof the pump and bearings."

SEPARATE ITEMS AND SPARES

Cyclone 15 Motor (Suggested)	£2.95
Cyclone 15 Shalt Adapter	15p
8-Cell to AMP Nicad for Cyclone 15	£14.00
Bullet 30 Motor (Suggested)	£9.95
Bullet 30 Shalt Adapter	15p
3-Cell to AMP Nicad	£1.00
Single Cells (1.2v, 1.2 A.H.)	each 65p
8-Cell Charger/Discharger	£14.95
3 x 8-Cell Charger/Discharger	£39.95
Heavy Duty Pilot Switch	£1.15
1 Amp Charging Fuse	each 25p
15 Amp Fuses Razor Fuse	each 12p
In-Line Fuse Holder	each 25p
2-Pin Plug 21p	3-Pin Tackler 35p
4-Pin Plug 42p	4-Pin Jockey 42p
Heavy Duty Toggle Switch	each 10p

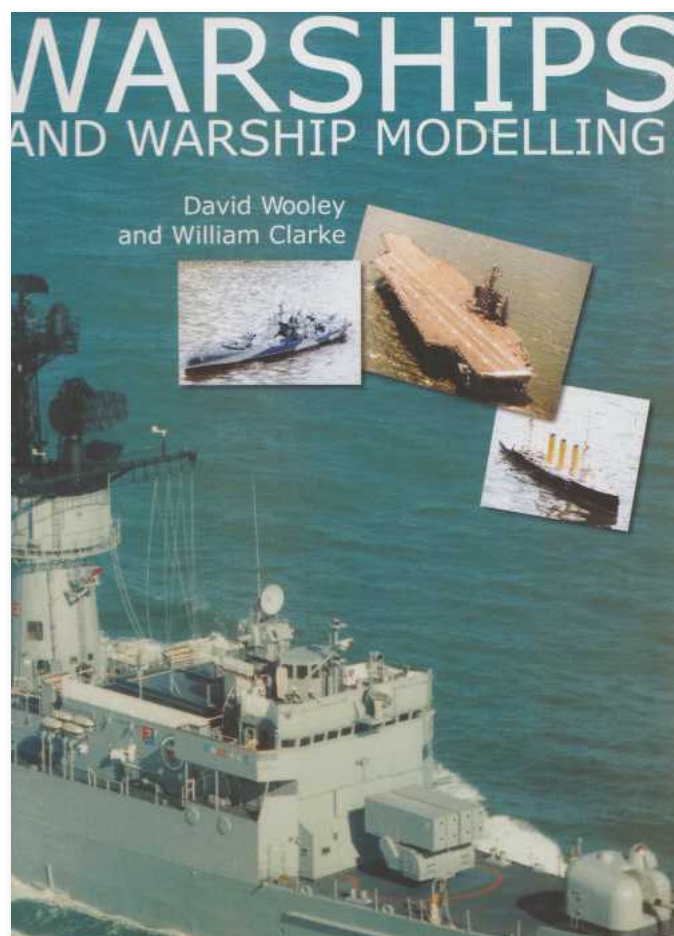
BULLET 30 SYSTEM . . . £44.50

CYCLONE 15 SYSTEM . . . £22.80

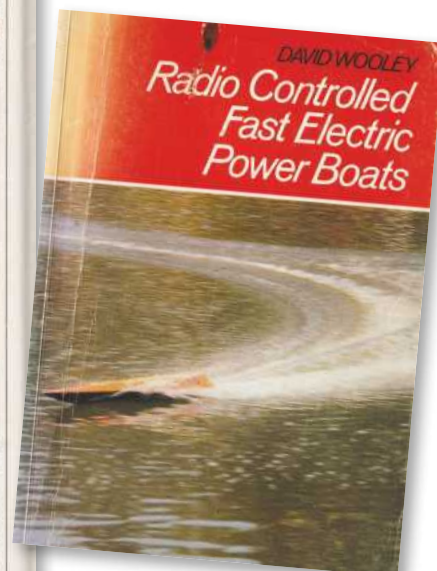
★SEE THEM AT YOUR MODEL SHOP★

KINDLY MENTION 'MODEL BOATS' WHEN REPLYING TO ADVERTISEMENTS

ABOVE: This advertisement from Model Boats, circa 1976, Dave explains, show his younger self being rather brash and somewhat self-assured!



Warships and Warship Modelling: a title Dave collaborated on with his old friend and naval researcher Bill Clarke.



ABOVE: Dave's book *Radio Control Fast Electric Power Boats* was first published by Argus Books in 1981.

role with both the MPBA and the world body Naviga, working with Jim King, the MPBA International Secretary and a true diplomat, on what was known as the Motors Commission.

In 1983, due to business commitments, I decided to change tack and go back to my first love: scale modelling. Looking to challenge myself, by 1987 I knew I wanted to participate in scale modelling competitions and so took the best avenue open to me at that time, which was the Model Engineering Exhibition.

Q Over the years, you have shared your knowledge and expertise with the model boating community by writing regular columns and numerous features for magazines. What is the story behind that? Who first enlisted you or was your first contribution merely submitted on spec?

A That's an interesting question. My long running Fast Electric series, which ran from 1974-1983, was commissioned by Vic Smeed, then editor of Model Boats and my contributions continued under the editorship of John Cundell. It was with John's support and encouragement that I managed to write my first book, Radio Control Fast Electric Power Boats.

The later Range Finder in depth ship photo tour series was prompted by the lack of detailed images of the very ships I was fascinated by. I, therefore, grasped the nettle, so to speak, and made approaches to the North Western



ABOVE: A 196 scale model of the German battleship Tirpitz Dave built for the Battle of the Atlantic Gallery of the Merseyside Maritime Museum. The build commenced in 1985 and was completed by 1989, ready for the opening of the Gallery in 1991.



LEFT: This model prompted Dave's introduction to Lord Newborough, better known as Sub Lieutenant Micky Wynn, a great benefactor to the Merseyside Maritime Museum and who, as Commander of MTB 74, played a vital role in the St Nazaire raid of 1942. It was on his estate at Rhug Hall, Corwen, North Wales that the model made its first and second sorties, prior to being permanently housed in the MMM.

Regional office of the Royal Navy, explaining what I was about and what I'd like to undertake. So began for me a remarkably interesting and very productive relationship with the Royal Navy.

When Paul Freshney took up the editorship of MB, the brief for my contributions diverged into specific build projects, although I continued to provide photographic ship tours in Range Finder series. During this time,

I also penned a few specialist historical articles, did a stint as a museum correspondent, visiting various model collections both at home and abroad, and reported back on the shows that took place in the UK and Germany. It was certainly the busiest period of my career.

Q In 2007, the Naval Institute Press published *Warship and Warship Modelling*, a book

RIGHT: When Dave's model of the Kiev was installed at the FAA museum, the former C/O of the Aviation Cruiser Kiev presented him with this splendid banner.

BELOW: Dave's 1:144 scale Aviation Cruiser Kiev on permanent display at the FAA Museum in Yeovilton, which, he reveals, was one of his favourite builds to date.



you co-authored with US naval expert and fellow modeller William Clarke. What prompted that collaboration?

A Bill Clarke was not just a great friend, he had the ability to source information on just about any naval subject, plus he was a superb photographer. With his links to US naval ship building, naval aviation, and many of the notable authors and luminaries on the other side of the pond, he was a wonderful and inspiring person to be in a collaborative project with.





LEFT: Dave's model of HMS Mersey was presented on board the vessel itself but is now housed at the Naval Regional Office in Liverpool. The model is seen here aboard HMS Mersey in 2008 being admired by her (then) Commanding Officer and former defense minister Bob Ainsworth.

BELOW: Dave's 1:96 scale model of HMS Daring was destined for the Destroyer HQ in Portsmouth.



Q As regular readers will be aware, the series on your scratch-built model of the Russian warship Soobrazitelnyy, concluded in last month's issue of Model Boats. So, as an avid and prolific modeller, what can you tell us about the ship you are now working on or plan to build next?

A Ah, a leading question... As I mentioned in my closing words on the Soobrazitelnyy build, I am now working on several new projects. One of these projects I hope will run as a short 'know how' feature for Model Boats. This will cover the installation of water jet drives and all that involves, using a Finnish fast stealth missile boat as the basis for an introduction to multiple jet drives. In the medium to longer term, I have an underlying passion for Victorian warship building and am working on the low freeboard battleship HMS Hood at 1:96 scale.

Q Considering the professional standard of your modelling and the level of interest in, and admiration of, your work, do you keep all your completed builds or are they then sold on?

A Sadly, I don't keep any of my builds. A home is earmarked prior to building each of them, as this ensures a clear build slip for the next project. I am not in the business of building to order, so prefer to donate rather than sell my models, as the simple joy of working on them give me more than enough satisfaction. For me it's all about

passion and, besides, it would be difficult to put a value on any of my models considering all the time and effort that goes into building them. While I find my background in quantity surveying does, in many ways, help, it's still a challenging and very labour-intensive process.

Q Is there a model that stands out amongst all the others as the one you are most proud of?

A Yes, for me it's the 1:144 scale Soviet Aviation Cruiser Kiev. The research into and build of this model spanned a period of eight years. I have so many fond memories of the spirit of cooperation, the research information received and the encouragement from previous crew members of the vessel, not least the last C/O [Commanding Officer]. The model is now housed at the FAA [Fleet Air Arm] Museum and as a token of appreciation I was presented with a commemorative banner of the Kiev by the Kiev's former C/O.

Q While mere mortals can only dream of attaining the kind of results you do, surely even master modellers have an Achilles' heel? So, what if any, of the methods and techniques employed in warship builds do you still find present the biggest challenges to you personally?

A To be frank, my weakness lies in my inability to use a lathe to its full potential, so I have to find alternative methods to achieve similar results. My old friend Brian King was a past master of these skills, but alas I find it difficult getting even simple turning projects the way I wish them to be.

BELOW: The model of Daring being presented to the Royal Navy and received by Sir Phillip Jones, First Sea Lord and Chief of Naval Staff.



Q Likewise, what are the jobs you most relish/enjoy tackling during the whole model ship building/finishing process?

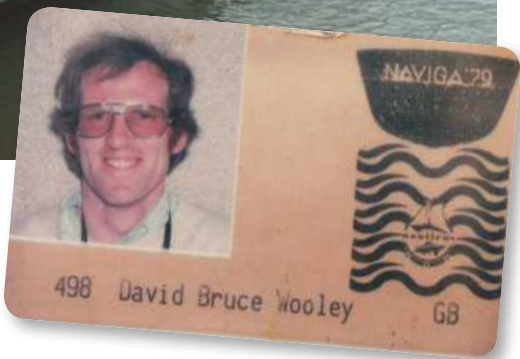
A I absolutely relish the opening stages of a new build, as these, after careful planning, can often provide tangible results in a very short time frame. Likewise, there's so much satisfaction in getting the finished model on the water and watching it perform, then focusing on the pictures that say so much about both the ship and the model. As the old adage goes, a good picture speaks volumes.

Q With all the advances and innovations in digital technology, tools, products, etc, which old school but especially important modelling fundamentals do you feel it is vital to preserve and pass down the generations? And, likewise, what would you say has a) really helped improve the whole modelling experience and the quality and credibility of our models and b) the highest likelihood of revolutionising how we model in the future?

A There are a couple of ways I can answer that question: one from a practical approach, the other having a bearing on temperament. When it comes to the former, even with all the best materials, tools



ABOVE: All of 29ft, this model of the Carrier HMS Invincible, built by Duncan Cameron, was photographed at one of the Model Boat Conventions Dave helped organize: this one having been held at the Boat Museum Ellesmere Port in 2000. RIGHT: ID for Dave's participation in the 1979 Naviga European Championships.



and equipment at your disposal, if you lack the right temperament modelling in detail over a protracted period becomes, shall we say, problematic. You can, however, develop skills in both the former and the latter. The answer is, learn to be patient, accept failure as part of the learning curve and success as a steppingstone. The rest, as they say, will then fall into place.

Surprisingly, two great advances, which may not immediately spring to mind but

have considerably improved model making, are the plethora of advanced adhesives and high-quality paints now on offer.

As for the future, well, I will consult my crystal ball! But seriously, 3D modelling is bound to revolution the hobby, as this tie in with the follow-on generations and the skills they are being taught.

Q In last month's interview with Seaworthy Small Ships, we discussed this company's commendable aim to get more children interested and involved

in the hobby. What, if any, ideas, and suggestions can you add in terms of how we can, both individually and collectively, swell our ranks and attract more newcomers, especially young ones, to our dwindling ranks?

A This is the big question! The answer is to simply get more parents or grandparents interested first; the sons or daughter will follow. I have seen this approach work many times. On the other hand, there is the opportunity to harness the new skills of CAD [Computer Aided Design] and 3D modelling, which are now becoming mainstream in secondary schools. Some will say this is not model making but it's worth reflecting that some years ago the use of things such as photo etches and solder paste was not part of our hobby. At one time even building in styrene was frowned upon. I strongly believe that in order for our superb hobby to survive and flourish we need to accept and embrace the new methods that are now readily available.

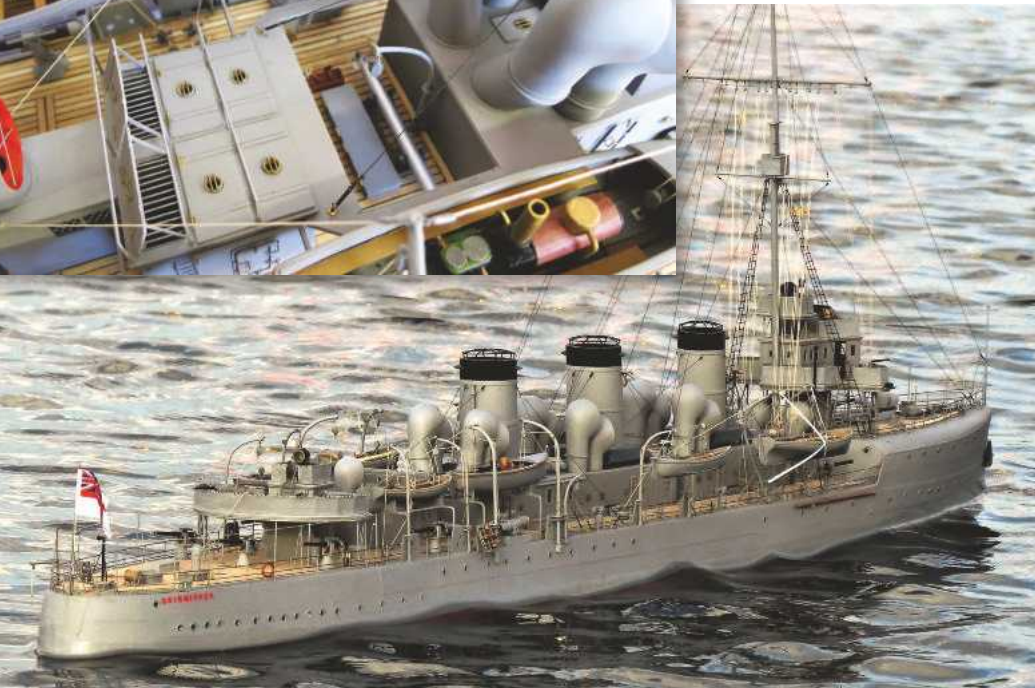
Q What do you consider to be the highlights of your long career in modelling?

A There have been many rewarding and at times exciting aspects, such as my association and collaboration with Vic Smeed in the 1970s representing Great Britain at

INSET BELOW: The detailing in and round the ship's boats on HMS Skirmisher.



BELOW: Dave's model of the 1905 scout cruiser Skirmisher, built to plans from the National Maritime Museum drew him to an older period of warship design. This now forms part of the Deans Marine collection.





As there is very little documented when it comes to the installation of dual water jet drives, Dave is currently working on a feature explaining how to project, using this a Finnish Stealth Missile boat by way of example.

Naviga European, the world power boat event, between 1975 and 1983; Naviga 75 being only time this event was held in the UK. I actually visited the Soviet Union in 1977 as part of team GB for the Naviga championships in Kiev. This necessitated travelling across East Germany, Poland and the Soviet Union at the height of the Cold War, which was both daunting and exciting in equal measure.

On a more local level, I was directly involved in organising the Model Boat Convention, which ran from 1990 to 2010 at the Boat Museum Ellesmere Port.

Q Finally, what would your best advice to modellers who are either perhaps just getting started in the hobby or looking to improve their skills and up their game?

A Model making/model ship building is continually evolving and, as such, is a constant learning curve. The answer to your question, therefore, is simple: if you have questions, join a local model club as there will always be modellers within that club that will have experienced the same problems and can offer genuine first-hand advice.

The other option is paper. yes, the written word, either in book or magazine. There is plenty of good sound advice within credited publication that can always be referenced as required.

Lastly, there is a plethora of internet sites and forums for boat modellers. Pointing anyone in this direction, however, comes with a caveat: if you pose a question, be prepared for multiple different answers! ●

QUICK FIRE QUESTIONS



Q In retrospect, which three subjects on the curriculum at school proved the most beneficial to you, and which, if any, do you now feel were of little value whatsoever?

A *Woodwork and metal work proved invaluable. I could have worked all day and every day on these subjects. Less helpful were rugby and cricket. In rugby I always seemed to come off worse in a scrum and, as for cricket, I never lasted long enough at the crease to be of any use to the team!*

Q What is the first big news story/historic event you can remember?

A *The Festival of Britain.*

Q How old were you when you first left home?

A *I was 19 and ready to fly solo.*

Q What were the best and worst things about that initial taste of independence?

A *I loved the sense of freedom that came with being able to make my own way the world. Rather more sobering was the lack of funds to advance that newfound freedom!*

Q What do you know now that you wish you had realized/appreciated as a young man?

A *The value of my father's advice.*

Q Which of the decades you have lived through do you look back on most fondly today?

A *The 1960s.*

Q If washed up on a desert island following a shipwreck, would you consider scaling up your modelling skills to build raft/craft on which you could sail back to civilisation, or would you rule braving open ocean and resign yourself to staying put for an indefinite period until rescued?

A *The latter, I would rather attempt to survive on land than in the open sea.*

Q If you had to go into battle, what weapon would you choose to fight the enemy with?

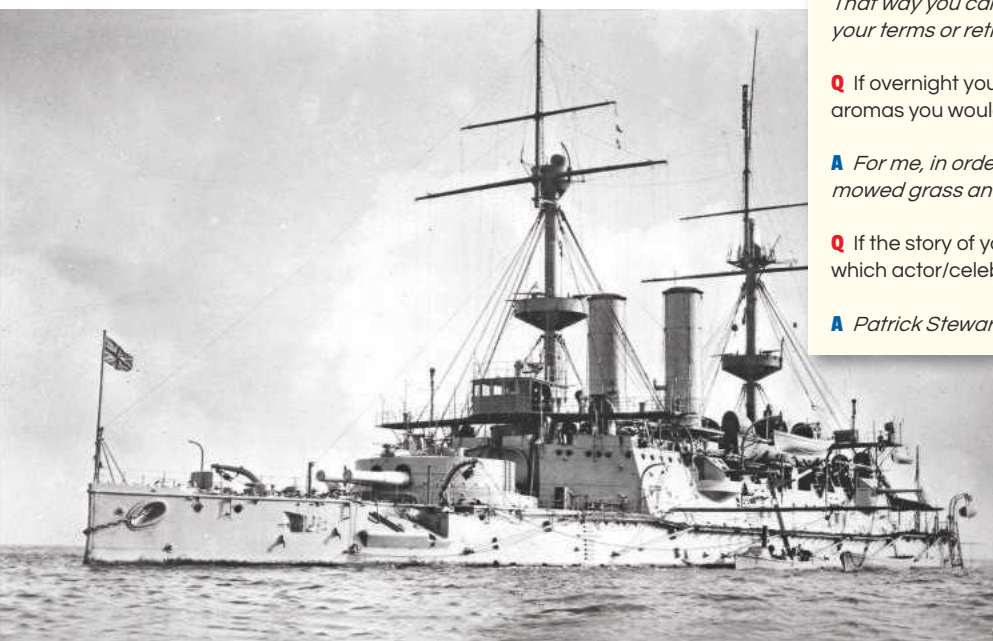
A *The best weapon anyone can have is intelligence on their foe. That way you can make a calculated decision either to fight on your terms or retreat to fight another day.*

Q If overnight you lost your sense of smell, what would be the three aromas you would miss most?

A *For me, in order of preference: the smell of the sea, freshly mowed grass and the scent of flowers in the sunshine.*

Q If the story of your life was to be turned into an audio book, which actor/celebrity's voice would you choose as the narrator?

A *Patrick Stewart.*



LEFT: The Low Freeboard Victorian battleship HMS Hood: Dave's current longer term build project.



HMS Diamond

Ashley Needham tells the tale of how, after responding to an online SOS, he went about sympathetically restoring this 60-year-old gem

For a change, this month I thought I'd share the story not of something I've built but something I've bought back to life, so to speak, and which I've hopefully made good for the next 60 years.

Acquisition of this old model came via the hallowed pages of the MB forum and a very attention-grabbing post entitled: "Free hand-made 6-foot destroyer". The story went that this chap's father (aged 91) needed to get rid of a large-scale model of *HMS Diamond* from his garage, where she'd long languished and sadly fallen into disrepair. Should a new home for her not be found, she would, it was pointed out, be destined for the skip – a horrible fate for any model! How could I let that happen?

The photos showed a very decently built and detailed model and, like many others on the forum, I really didn't want to see her scrapped but, considering the sheer size of her, there were obviously some serious space and storage issues to consider. There was also the little matter of whether or not she'd actually fit in my car and how far I'd have to drive to rescue this *Diamond* in the rough.

Tentatively, then, I messaged the chap who'd posted the ad, asking where exactly he was located and he replied, explaining he was Heston, Middlesex. Fate or what? Heston is only about 8-miles away from where I live. Oh Lord, I was running out of excuses! In the end, I agreed I'd take her off his hands only if no one else volunteered. Fast forward a couple of months and no-one else had been brave or stupid enough to take her on, so the die was cast. My intention, however, was not to keep

her myself. Instead, I offered to get her back in working order so that father and son could see *Diamond* on the water once more before deciding what to do with her next.

The plan was to undertake a sympathetic restoration, with the accent on seaworthiness and reliable running, perhaps adding a few enhancements along the way...

Diamond's original setting

Roy (the owner) explained that he'd bought *Diamond* when his local model shop in Whitton (West London) closed down sometime around 1968, and that for many years prior to that she had stood in pride of place in the shop's front window and had been built by the model shop owner in the 60s. Roy then began sailing *Diamond* with his son, Jason, who was only 4 years old at the

time, in London's Gunnersbury Park. It was quite a squeeze to fit her in the family's estate car, and a modified pram had to be used as a carriage to get her to and from the water. She was fitted with radio control, using a MacGregor R/C set in conjunction with some 6V lead acid batteries – not gel cell ones, but real acid filled types – and Roy remembers her being quite fast.

Diamond appraisal

After the very kind delivery of the boat by Jason and his father, Roy, *Diamond* was sat on a workmate in the garden for a quick perusal. She was quite dirty, and her hull was exhibiting some worryingly large splits and cracks (see **Photo 1**). On top of that, numerous parts were either broken, loose or had dropped off, although, amazingly,



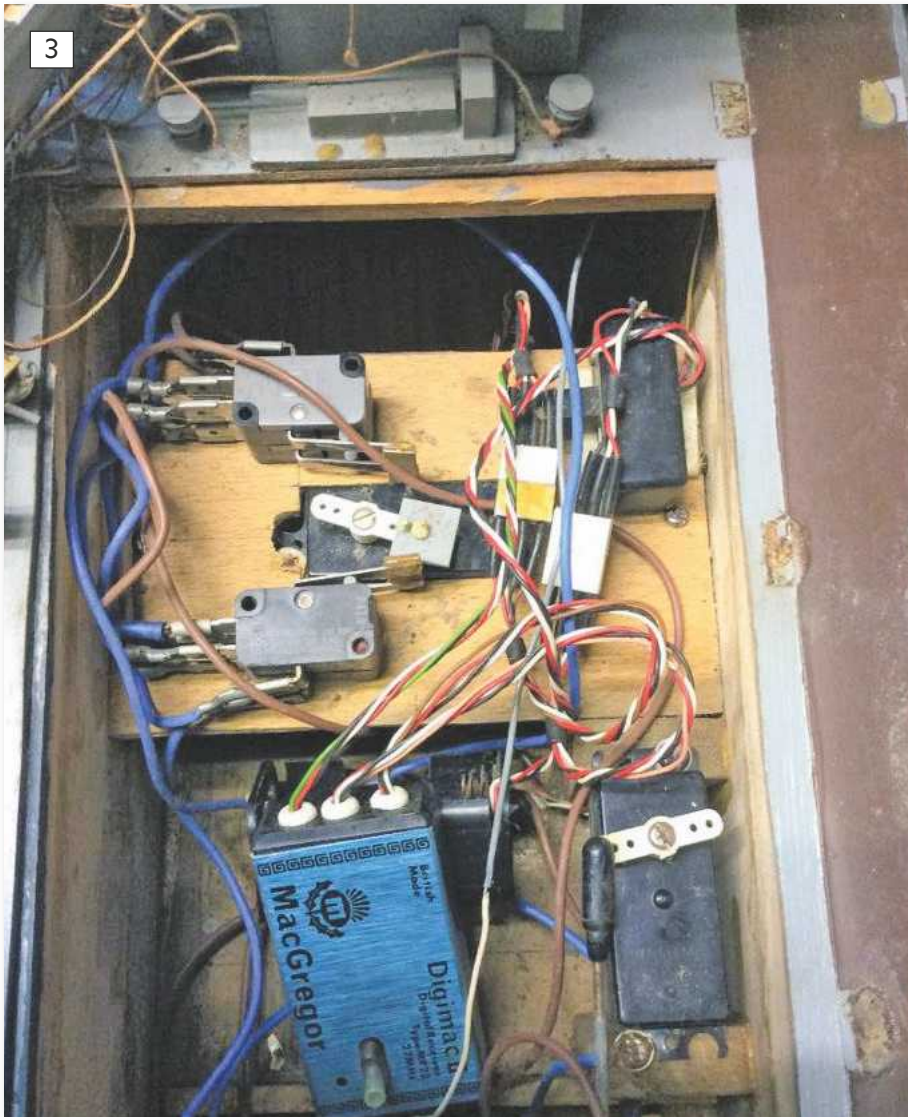
2

these had been kept safe in a cardboard box, supplied to me along with the model. Inside, she still had her original MacGregor receiver and rudder servo and Hectoperm motors, with speed control (simply forwards/stop/reverse) operated via a pair of micro switches on a board linked to another servo (see **Photos 2 and 3**).

Thankfully, the paintwork of the upper deck and superstructure proved to be in a reasonable condition once cleaned, and the major fittings, both those in situ and those in the box, were all OK, too. The *Diamond's* masts, however, which cleverly used old radio transmitter aerials for the main uprights, hadn't held up as well. They were in a right old state, with all the rigging either missing, rotted or hopelessly tangled up, and, of course, horribly bent (see **Photo 4**).



3



Masts and rigging aside, though, featuring an abundance of good commercial fittings, she was a very nice approx. 1:48 scale model of a D class Royal Navy destroyer. The actual vessel on which this model was based was built in 1931 and briefly saw service in World War II, before sadly being sunk by German aircraft off Cape Maleas, Greece in April, 1941.

Plan of action

After a jolly good clean, the *Diamond* already looked much better, and I started to formulate a plan of action.

As the paintwork on top was in still in reasonable condition, I decided to leave well alone. Trying to match the inevitably now faded 60-year-old shade would likely prove very difficult, and a mismatch would stand out like a sore thumb.

Numerous items needed refastening to the upper deck, but reassuringly the missing bits all seemed to be present in the accompanying cardboard box, so would be available to me when the time came (this job I would leave until last). I was also grateful to note the railings that run around the deck edges were mostly in a good state, so, once again, no additional work to be done there.

Of course, inside all the electrical and mechanical parts would need removing

“The actual vessel on which she was based was built in 1931 and briefly saw service in World War II, before sadly being sunk by German aircraft off Cape Maleas, Greece in April, 1941”

4





“As I pulled off some odd bits of balsa from the inside walls, a rather unusual feature of this model revealed itself...”

and new items fitted to ensure reliability and better control than that originally provided.

My main concern was the hull. Up to the waterline this had been constructed using the time honoured ‘bread and butter’ technique (planks glued together and hollowed out as necessary). Above this, however, there was a mishmash of thin ply planking, balsa slabs and a solid block up at the bow. Here, let me tell you, there were some very large splits and cracks to be dealt with!

To work...

I decided to tackle the interior refurbishment first, so, removing all the electrical gear, the insides were thoroughly cleaned.

As I pulled off some odd bits of balsa from the inside walls, a rather unusual feature of this model revealed itself... Sand began leaking out from what was obviously a double wall setup. Sand had been used as ballast. Now, while this was certainly a very economical ballast medium, after all this time the insides had become quite dry and brittle, so after some patches had been glued in place, and the entire inside of the boat had to be treated to a coat of epoxy resin.

The propeller shafts seemed to be in a good condition, with no discernible wear in

the bearings, so these were stripped, degreased, wiped over with oil and refitted.

At the stern, I changed the twin-blade plastic props for 3-blade brass ones. This, however, meant running a 4BA tap in the prop bosses, as of course in a boat this old the shafts were an imperial 4ba size. 4mm would fit, but this proved a bit tight, hence the tapping out.

Whoever made the boat had opted for good quality Marx Hectoperm motors, that would’ve been quite expensive at the time. With a reduction gear built in (not used in this case), these motors were, however, very noisy when running on a 6v supply, due to cracked spur gears. So, I removed the offending gears and stored them away, whereupon the motors ran very smooth and quietly. Being of a decent size, therefore, I decided to re-use them.

After having brushed on some Jenolite de-rusting solution, which turns any oxidation black, I removed all the rust with some wire wool, and, after a coat of varnish and a quick clean of the plastic ends, the motors look almost in original condition (see **Photo 5**). New brass/rubber couplings completed the drive train and a spare Electronise 20A ESC was fitted to provide, at last, the correct proportional forwards and backwards control.

Access to the rudder tillers on this model is via a lift-off hatch incorporating the ‘Y’ gun mount (the last one) and the hardened and broken plastic linkage told its own story, as did the inadequately supported long wire rod used to operate them. New tillers were sourced and modified, and a model aircraft control ‘snake’ was fitted to operate the tillers (see **Photo 6**). *This is a plastic inner wire running in a sleeve and is the best method to use when you have long control runs on a model; the outer only needs a few points of support, but the inner is thus fully supported over its run – in this case some 450mm or so.



The hull

I had planned on simply repairing the hull below the waterline but, having picked off a few flakes of paint, it became apparent that the restoration may have to extend much

further. In order to discover the extent of the damage, I had to strip the entire hull of paint, using paint stripper for the above water section and a good old fashioned hot air gun for the lower plank portion. To my great relief, there

was no actual rot, apart from a chunk of balsa at the stern. All the cracks were then raked out with a sharp knife before superglue was applied to the very fine cracks and epoxy filler to the larger ones (see **Photos 7, 8 and 9**).

Having 'firmed up' the hull, I took stock of the situation. I had thought I might cover the lower hull (below the waterline) with fine glass cloth and epoxy resin, but there were areas where the thin ply planking was only making a tenuous connection with the pine planks and so the glassing would need to be taken up slightly. This, however, would leave a visible ridge showing just above the boot topping. Ideally, the whole thing needed covering, but the sides were festooned with plastic portholes and I knew it would be nigh on impossible to 'glass around' them, or indeed to remove them first without causing significant damage to both the portholes and, I suspected, the thin ply. The only alternative was to slap on the filler! P38 filler was, therefore, mixed in large quantities and scraped across the hull using a broad scraper. One pass, leave it alone to set... Smooth a bit with wet and dry sandpaper... Another scrape of filler. And so on! After three passes of filler either side (I could only work on one side at a time due to the weight of the boat and the space I had to work in), and with some minor filling in-between, I thought I'd achieved the best result possible, given the porthole problem and some of the natural 'highs and lows' due to the actual build.

Several coats of grey primer and red oxide (above and below the waterline respectively) were applied and a special shade of blue-grey Craft Acrylic paint was mixed to match



as closely as possible the superstructure colour (see **Photo 10**). I have a feeling the model as received had been repainted at some point, as I'm sure the builder would have colour matched the hull and superstructure.

Also, her H22 pennant numbers had been crafted from strips of PVC black tape (not a bad job considering, but certainly not in the correct style). So, once painted, some self-adhesive vinyl letters and numbers of approximately the right style were sourced and stuck in place; another not particularly straightforward job, as I had to avoid the portholes when positioning them. By the way, for those of you looking at the photos

and wondering about the size of the lettering, let me assure you it's about right. Modern warship lettering is very small compared to that on pre-war craft.

Finally, the rudders were re-shaped to a better more rounded profile.

How these repairs will hold up is yet to be seen, as the planking may well expand or contract (often an issue on bread-and-butter hulls). If this happens to any great degree, I will have to 'glass' the below water section, although this shouldn't be too difficult as filler now bridges the gap between the solid planking and thin plywood.

"for those of you looking at the photos and wondering about the size of the lettering, let me assure you it's about right. Modern warship lettering is very small compared to that on pre-war craft"

Above decks

Originally, while the decks had been planked fore and aft, sections made from some sort of thin plastic had been fitted to the middle. These plastic sections had bowed upwards, and I feared any attempt to cure would only be likely to make things worse. The plastic was bound to split and in places it would've been difficult to slide a blade underneath a strip, due to the fittings being in the way. I've already mentioned how difficult it can be to get new paint to match well with the old, the deck being very much a case in point. Ideally, I would've liked to re-paint it brown, but I felt this would look very obvious and at odds with the aged look of the superstructure. Thankfully, the upper-works grey was all OK, so some minor repairs were carried out and I did a little touching up using the same colour I had for the hull.

I'd now reached the point where I had to address the masts. The horizontal elements





were very nice thin fittings, with tiny loops in them for the radio wires (cotton thread), and indeed very thin cotton was what appeared to have been used here, or perhaps a linen thread. At build, tiny holes had been drilled in the deck and elsewhere to poke these threads through. There was, however, no way I could have re-drilled these tiny holes and, in any event, there was no access underneath to tension and then glue the threads in place; plus, of course, railings, etc, were in the way. So, accepting a compromise would have to be made, I began wielding my scalpel with gay abandon, shearing off all traces of the old mast rigging. New sockets were put in place for some fibreglass rod, which were filed and fitted with new cross pieces (plain) and rigged with black shirring elastic. While the main and purely practical objective was to be able to unplug the masts for transport and storage, which the elastic allows me to do, this actually looks fine once the boat is out on the water.

VIPs (Very Important Personnel)

It was now time to add a bit of *Diamond* life, as although this model hadn't originally had a crew, I felt she needed one. As 1:48 scale figures, or even 1:50 scale ones for that matter, are a bit thin on the ground (or should that be, on the water!) and when they can be found are rather expensive, I compromised

“Once out at sea, the open bridge of a real ship will always have some crewmen on it, and so in my eyes a model looks wrong, or at very least like something is missing, without them”

by commandeering some 1:43 scale railway chaps! Unfortunately, as these figures tend to be sold in mixed lots, so you end up having to buy far more than you actually need to get the few usable poses you're looking for. Thankfully, however, they're pretty cheap.

Having repainted their attire to represent best Navy-Blue uniforms – you'll note some of them sport caps, while others don't (see **Photo 11**) Photo they were superglued in place, and, in my opinion, they add loads of interest. Yes, they are a touch on the tall side, but personally I'd rather have figures on a ship of this scale and size than not. Once out at sea, the open bridge of a real ship will always have some crewmen on it, and so in my eyes a model looks wrong, or at very least like something is missing, without them (see **Photo 12**). Figures are, of course, a 'love 'em/hate 'em' issue, but in my opinion having, say, a speedboat, or indeed cabin cruiser, with no driver is akin to not including a surfer on a model surfboard!

Back in the wet stuff

Fortunately, *Diamond* just fits in my car, if positioned diagonally, without its stand, and resting on a rolled-up rug to keep the props and rudders clear of the floor. She's actually quite manageable on your own just to move in and out the car, but launching required two of us, mostly to stop me falling in the water!

Incredibly, with two 6v 4.5v SLA batteries aboard (as this was the original fit), *Diamond* floated at her original waterline and dead upright. I applied power and off she motored out into the lake. Those high-quality motors indeed appeared to be man enough to power the new 45mm brass props, even after a layup of several decades. The reshaped rudders and new control rod were working their magic, too, making the boat far more manoeuvrable than I'd hoped she'd be. A smaller vessel turning 180-degrees within three ship-lengths might be considered to have good manoeuvrability, but that sort of performance equates to an 18ft (6m) turning circle on something this size! Stability appeared to be good, no doubt the square section hull helping here, something that's unlikely to be much affected by a bit of wind.

After 45 minutes or so I bought her back into the jetty, limping in on the last vestiges of power from the SLA batteries, only to find 'an amount' of water inside – not a lot, but worrying, nonetheless.

Back in the workshop, a bit of investigation revealed that the shafts were not as solid in

13



“Admittedly, transporting her to and from the boating lake and getting her in and out of the water involves a fair bit of effort, but there’s something very special about sailing a model as large as Diamond that makes all the time and trouble more than worth it!”

the hull as I’d thought, and so were leaking just a bit. This was an easy fix, involving heating them up with a hot air gun to soften the glue a bit before bashing one end of each shaft to unseat it, and then scraping off all the age-hardened glue and refixing with epoxy. More troubling still, though, was the appearance of some hairline cracks to the point in the hull where damage had previously been evident but which I thought I’d rectified. It’s likely the seepage may have led to some swelling, and hence movement. I have now varnished over these cracks and, as there will no longer be a water ingress issue, have crossed my fingers for the long term.

Due to the age of my SLA batteries, I’ve been running *Diamond* on a 7.2V Nimh stick while keeping one SLA in place for the weight, and the motors seem to be happy with the voltage increase. This certainly makes all the difference to the performance as the battery delivers more power and for a longer period than the SLAs ever could. Allied to the electronic ESC, I think I can safely say *Diamond* is now running better than she ever did when new.

14



Diamond makes the grade

On the water, the model doesn’t look that much different to how she did when I took delivery of her, and that’s perhaps how it should be considering the age of the boat (see **Photos 13, 14 and 15**). A considerable amount of work has been carried out, but for the most part this remains unseen.

However, when Roy and Jason finally got to see the *Diamond* again, they were delighted by the sight of her steaming across

the pond at a good speed— and both of them wholeheartedly approved of the change of hull colour and the addition of the crew figures.

As it happens there is room for *Diamond* on a shelf in my shed, so there she remains, save for the occasional outing. Admittedly, transporting her to and from the boating lake and getting her in and out of the water involves a fair bit of effort, but there’s something very special about sailing a model as large as *Diamond* that makes all the time and trouble more than worth it! ●

15



SS JARRIX



Scale: 1:48

L.O.A. 39.75" (1010 mm)

Beam: 6.25" (160mm)

Displacement: 14lb (6kg)

Jarrix launched by Cochranes and Sons of Selby 28.10.1916. For Robert Rix and Sons of Hull.

Used for general cargo work.

The kit is to the usual high standards of all our fleet and includes building manual, GRP hull, Superstructure and lifeboats, other materials, full size plan and of course white metal fittings.

Price £295

MOUNTFLEET MODELS

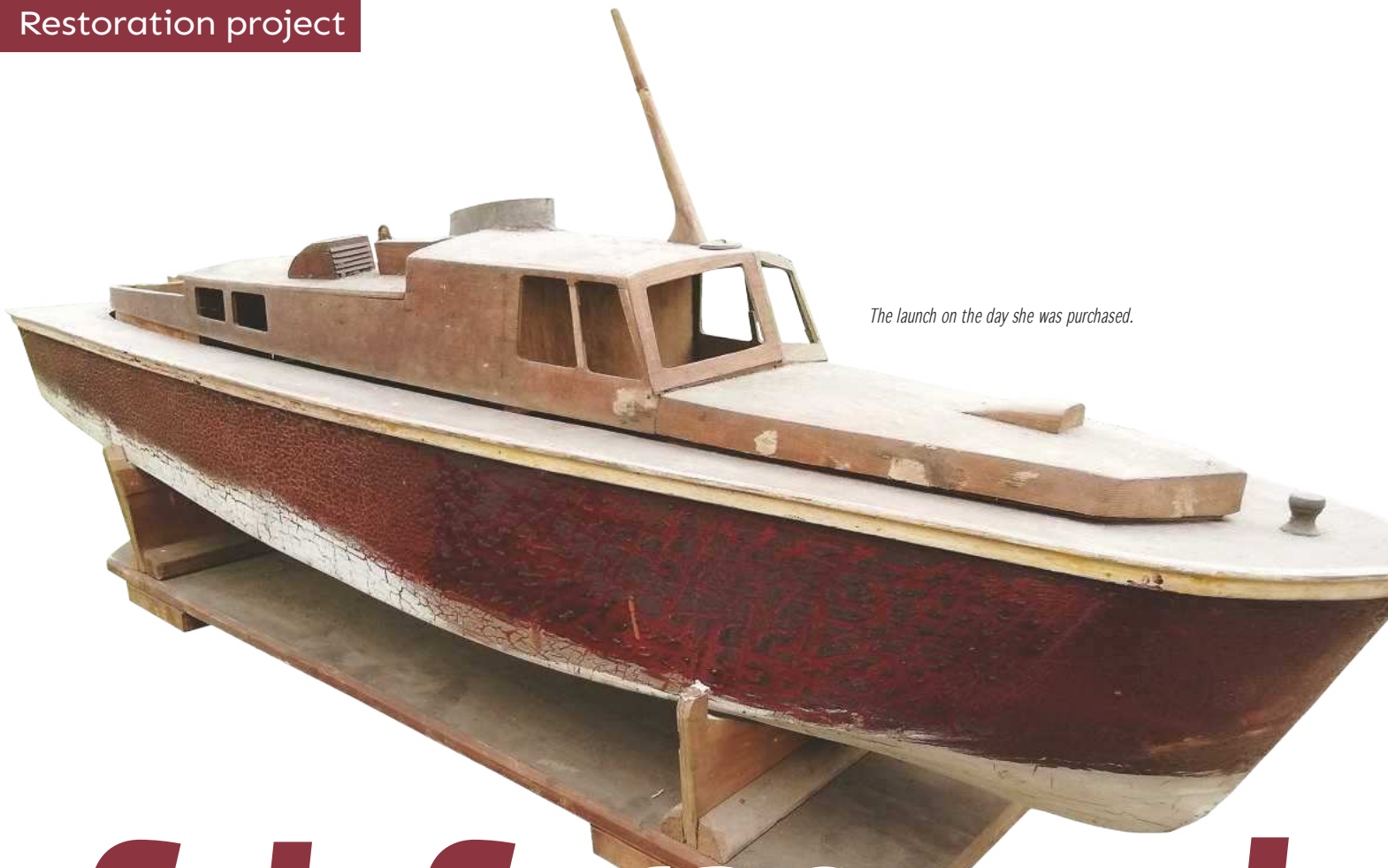


Adam Slater • Rock House • Bankwood Road • Womersley • Doncaster • DN6 9AX

www.mountfleetmodels.co.uk

Tel: 01977 620386 • E-Mail: sales@mountfleetmodels.co.uk

**Buy on-line or
phone/post
your order**



The launch on the day she was purchased.

S. L. Scrapwood

The Resurrection Launch

What do you do when disaster strikes? Rookie **John Mileson** shares his very own humorous but highly admirable 'never give in, never give up' story...

Have you ever wondered if you have the word 'Mug' tattooed on your forehead? No? Oh, just me then! OK, perhaps I ought to explain...

Being a relative newcomer to the model boat scene, I recently decided joining a local club would be my most sensible move. A few weeks ago, therefore, I ventured along to the Northampton Model Boat Club for the very first time, taking my recently completed Aeronaut 'Hansajolle' radio-controlled yacht with me. The welcome was reassuringly friendly and, with introductions concluded, my pride and joy was duly launched on the water for her maiden voyage.

Conditions for sailing were nigh on perfect, with the water calm and little to no breeze. Somewhat embarrassingly, as a radio-control



Details of the original superstructure.

“All of a sudden, a lone voice uttered: ‘Waterspout!’. Thinking this to be some sort of jolly nautical term, I paid no heed...”

rookie, the three servos did seem to have a mind of their own, resulting in my yacht weaving about a fair bit. As it happened, though, this didn't prove much of a problem, as mine was only boat on the water at the time, and I soon found myself not only enjoying the freedom this afforded but also the very favourable comments being made by my newfound fellow club members – not, of course, about my sailing prowess but about my beautiful and much-loved yacht.

Indeed, everything seemed idyllic until, all of a sudden, a lone voice uttered: “Waterspout!”. Thinking this to be some sort of jolly nautical term, I paid no heed and continued to concentrate on my sailing. It was only after several more very agitated voices made alarm bells ring that I spotted, out of the corner of my eye, a whirlwind of water heading across the lake.

While this missed my yacht by some 50ft or so, the strong wind that accompanied it did not! To my horror, not only did my yacht capsize but she sank stern first, leaving just a few inches of bow showing above the water.

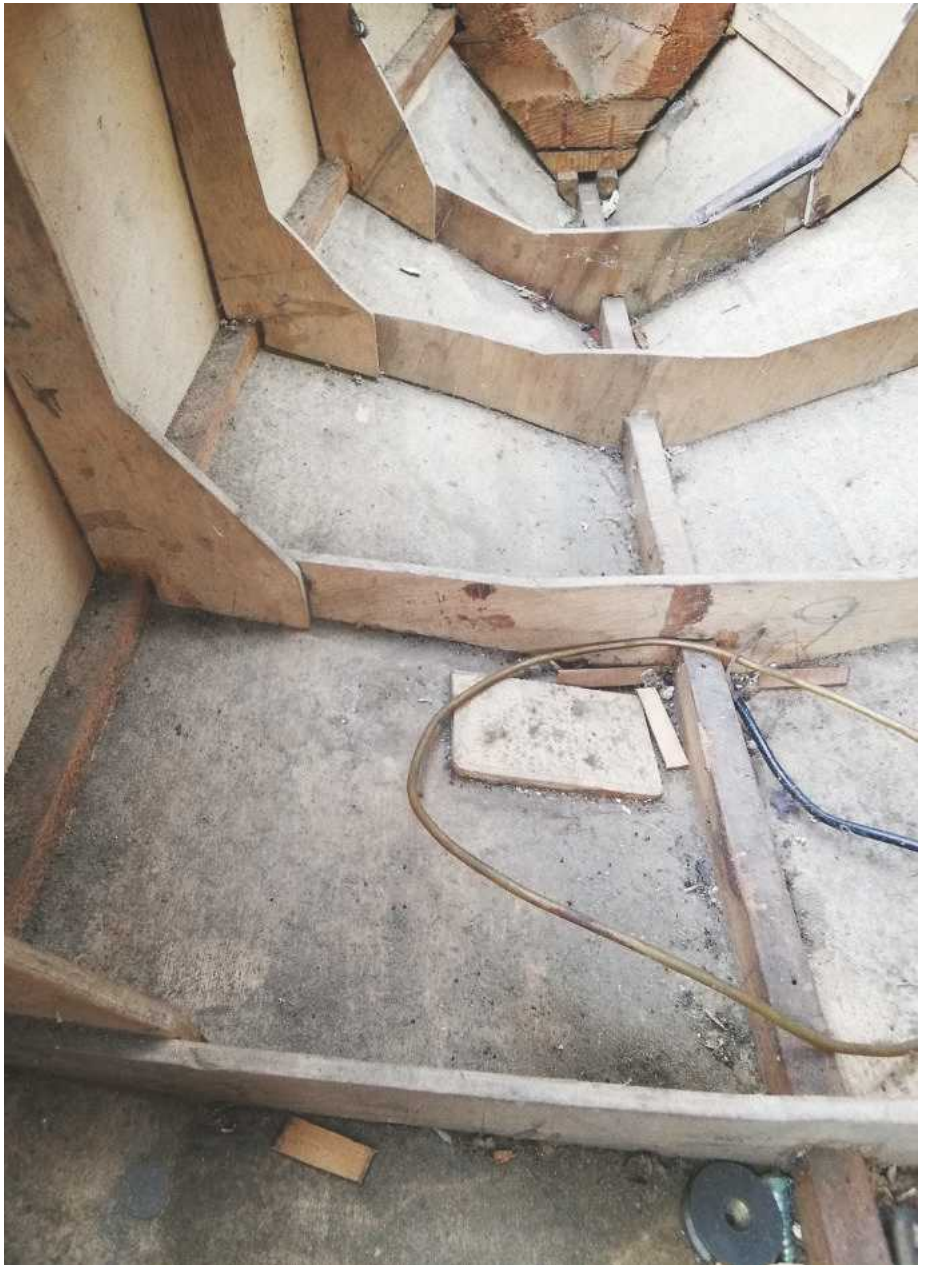
Trying to appear calm and as if what we'd all just encountered was an everyday occurrence, I glanced around and through tear-filled eyes saw, to my amazement, that some members were ceremonially standing to attention and saluting, while others were rushing to their grab their cameras/phones in order to record this remarkable event. After which, following extended bout of mirth, Colin, the club secretary, launched the club dinghy. He then manfully rowed out and rescued the submerged boat, at the same time jovially claiming salvage rights!

From one (albeit disastrous) launch to another...

Rescue complete, the next ‘attraction’ appeared over the horizon: a camper van heading straight for the clubhouse. No sooner than it had come to a halt, members eagerly gathered round, keen to get a better view of the assortment of model boats that were about to be unloaded from the back of the vehicle. These models (some of which were complete and others still in various stages of construction) had, I learnt, previously formed part of a collection owned by an NMBC member's late father. Amidst scratching of heads, intakes of breath and considerable muttering, advice was being given on the best method of sale. However, in the middle of this group of boats, I spotted an old model launch, probably of little value and certainly not of interest to other members. So, rather sheepishly, I approached ‘the man’ and offered him £40 to take her off his hands. The deal was done and having had no takers for any of the other models, off he homeward trundled.



ABOVE: The original Bassett-Lowke motor and gearbox in situ. BELOW: The original state of the inside of the hull.





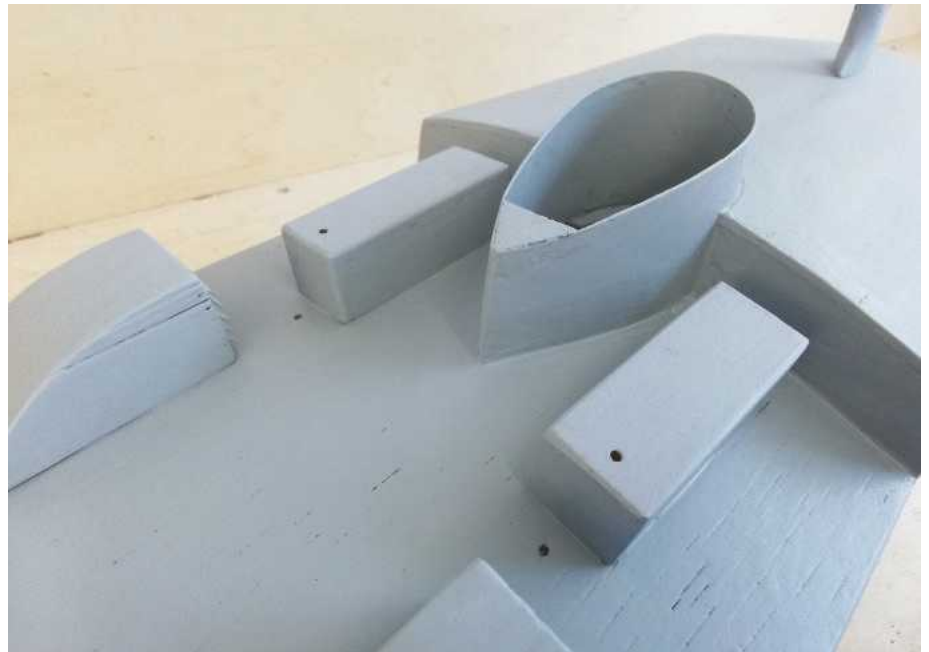
ABOVE LEFT: Aliphatic resin applied to all the internal joints. ABOVE RIGHT: Various stages of paint and varnish removal can be seen here. The bottom section shows the original coating; the centre, the stripper applied; while the top illustrates the finished stripped surface. BELOW: The hull having been completely stripped.

“Clearly, I hadn’t shown myself up enough for one day, because now my far more experienced fellow club members were once again looking at me askance...”

Clearly, I hadn’t shown myself up enough for one day, because now my far more experienced fellow club members were once again looking at me askance, struggling to comprehend why, having sunk one boat, I’d just wasted more money on something that could only be termed as “firewood” – a model “only still in one piece because the wood worms were all holding hands”.

It was at this juncture that I felt the word ‘Mug’ must be emblazoned across my forehead. So, with little hope left of saving face, I quickly loaded both my waterlogged yacht and my pile of “firewood” into the back of the Land Rover, bid everyone a cheery farewell and made a swift exit.





ABOVE LEFT: The rear deck area cleaned and varnished. ABOVE RIGHT: The superstructure after priming. BELOW: The first coats of enamel having been applied.

“Once home, close inspection of my newly acquired launch revealed some interesting features...”

One of a kind and yet comfortingly familiar...

Once home, close inspection of my newly acquired launch revealed some interesting features. At about 4ft long, and I believe based on a 1920s' steam engine driven vessel, her design and build appear to have been the work of a keen amateur. Clearly



Although looking a bit messy at this stage, note the new motor pad and transmission, plus the fibre glassed hull.

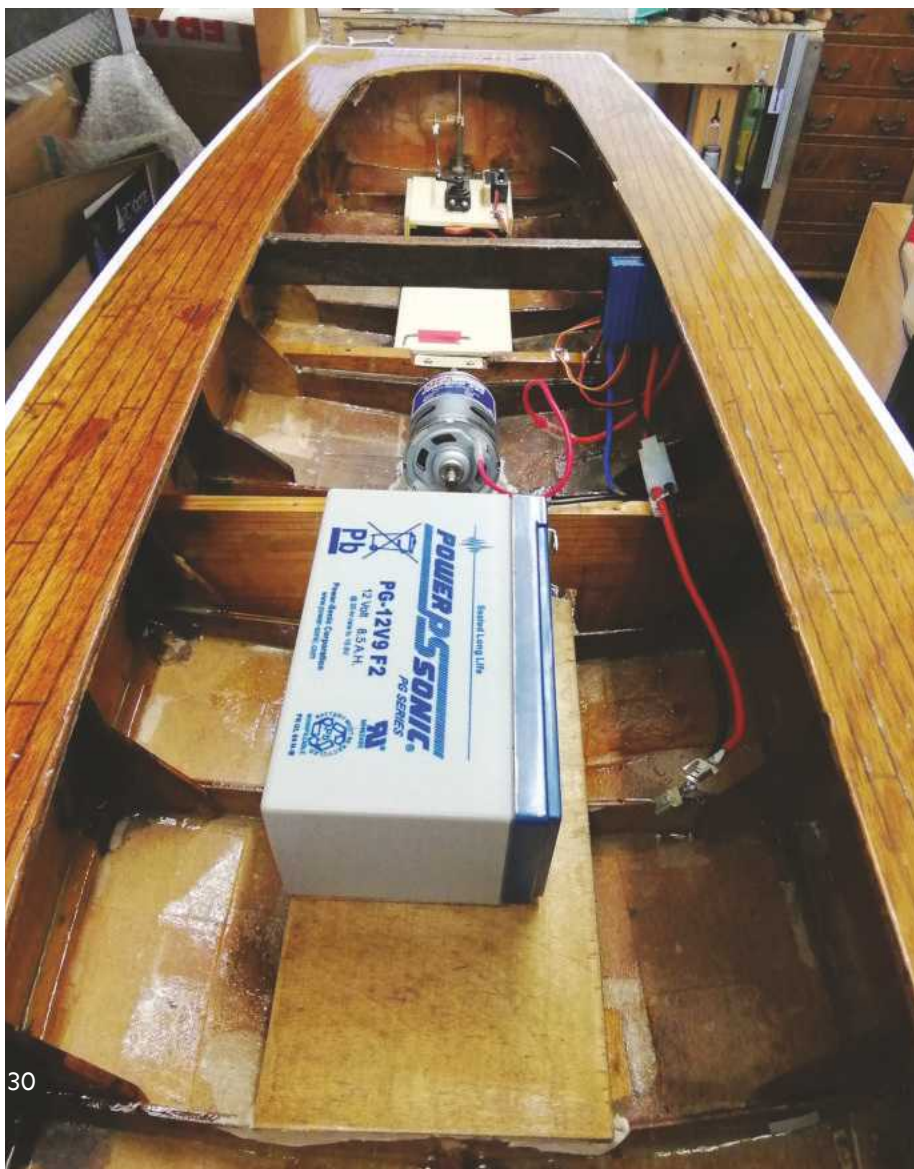


not kit built, she'd very obviously been constructed from whatever her creator could lay his hands on and repurpose, including bits of old furniture, plywood and lumps of pine, with everything securely held together with a selection of nails, screws and 'fish glue'; far from what you would call sophisticated but, nevertheless, sound.

I can actually recall my dad making me toys from exactly the same sort of materials immediately after World War II when everything was in short supply, so I rather suspect this 'built from bits of this and that' launch hails from that same era.



ABOVE: The foredeck restored and varnished. BELOW: The motor, battery and steering servo, etc., in place.



“I decided that she deserved to be sympathetically restored, with no attempt to hide any of her crude charm”

Cosmetically, she was pretty rough. The original red oxide, probably lead-based, paint and varnish had blistered and cracked, and some of the joints in her superstructure had parted company (although, fortunately, these only required re-gluing), while a quick check of her motor and gears revealed an old Bassett Lowke electric motor, which without testing looked to be in good enough nick to perhaps still be in working order.

A bit of a conundrum

The big question was, would it be worth spending possibly another £200 on restoring her and fitting a new motor and radio control? And if so, what level of restoration should be adopted: a complete rebuild using modern materials, or a serious attempt to preserve as many of her original features as I could, with the minimum of intervention?

After much pondering I decided that, while it may be the more difficult of the two paths, she deserved to be sympathetically restored, with no attempt to hide any of her crude charm. The aim here would be a resurrection, not a complete revamp.

Hands-on and hard going...

Being new to the hobby, I sought help and advice from John at Howes Models in Oxford. Incredibly helpful, and a model boat enthusiast himself, he kindly sourced all the replacement items required to upgrade the mechanical/electronic parts.

While not wishing to bore you by sharing chapter and verse on the restoration (as the photos suffice to illustrate this), my first job was to vacuum out years of dust and detritus.

Once all the joints had a bead of ‘Aliphatic’ resin run round them (in order to strengthen them), the original propellor shaft had to be cut out. This was a laborious task and at times tested my patience to the point of threatening the whole future of the project. It took several hours to remove this using cutting discs and a Dremel.

Eventually, however, a new shaft was bonded in, and the whole interior of the hull

“This was a laborious task and at times test my patience to the point of threatening the whole future of the project”



S. L. Scrapwood complete, including bunting!

was covered with resin and fibre glass. A messy, smelly job, but worth all the effort. Endeavouring to remove all the old varnish and paint proved worse still. Several coats of

Nitromors paint stripper removed the varnish but, I discovered, had limited effect on the paint. This, in the end, I had to manually rub down prior to brush painting on a coat of grey primer.

I left all the existing screw and nail heads in situ, making no attempt either remove or disguise them.

Finally, four coats of Phoenix Paints' enamel gloss paint were brushed onto all of the external surfaces.



The front cabin area finished; notice how the joints have been left as was original.

Flotation trial thwarted

I was finally ready to get her into the water for that 'moment of truth' trial, so I excitedly filled the bath to a point level with the overflow and... discovered she was too long to fit in the tub! As I write this feature, therefore, it remains to be seen whether she will actually float.

Make-good man or mug?

At the end of the day, then, what has been achieved? Well, for me, probably the most important reason for taking on the project in the first place was to try and breathe new life back into an old model boat that may otherwise never have been sailed again. Whether or not the time and money I've spent trying to do this has all been worth it is, I suppose, debatable. More to the point, was I a mug for buying her in the first place? I don't think so, but I do keep checking the mirror in case that three-letter word is actually visible on my forehead!

Far less thought, of course, had to be given to a name for my launch! ●



Just a couple of examples of how Geoff's easy to follow method will serve to add even more realism when detailing your builds.



Fluttering flags made a breeze!

Geoff Fairfax shares a simple but highly effective method of creating convincing looking scale downed flags for your model boat/ship builds...

Before we get started, let me first introduce myself... I first began modelling R/C boats when I built Sterling's' American Scout back in 1974. Since retirement in 2012, however, I've been able to devote far more time to the hobby and have now completed over a dozen R/C ships and boats. In 2013, I joined my local boat club, BAMM (Burnaby Association of Marine Modellers), originally started by ex-Brit John

Tarver in 1959. The club located in Burnaby, BC (British Columbia) in Canada – anyone interested in finding out more can check out our website at www.bammrc.com.

Like most modellers, I am constantly looking at how I can improve credibility of my model boats. The purpose of this article, therefore, is to share just one of the ways I've found of doing so. I don't know about you but I've frequently found myself disappointed by

the unrealistic nature of the flags supplied in kits, and equally unimpressed by the majority of those available from modelling suppliers commercially. Most of them look far too stiff and card like, with none of the sense of movement seen in real flags when a vessel is under sail. So, what we're going to focus on here is how easy it is, with a little help of some modern technology, to make our very own scaled-down 'fluttering flags'.



"I don't know about you but I've frequently found myself disappointed by the unrealistic nature of the flags supplied in kits, and equally unimpressed by the majority of those available from modelling suppliers commercially. Most of them look far too stiff and card like, with none of the sense of movement seen in real flags when a vessel is under sail"

Equipment required

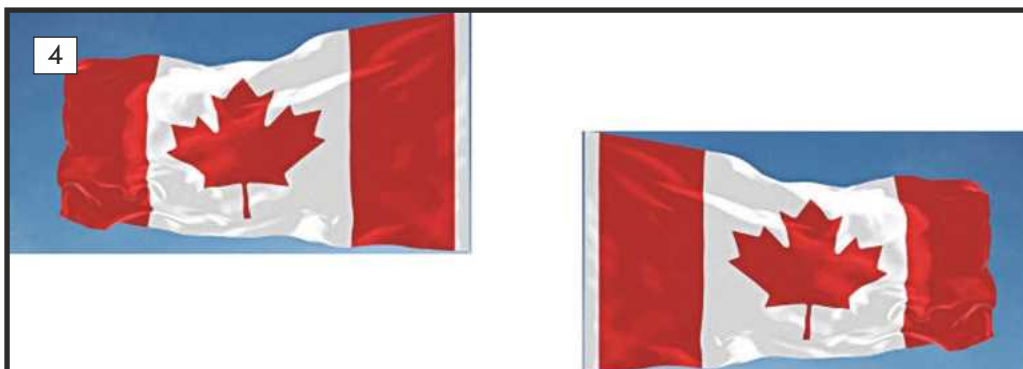
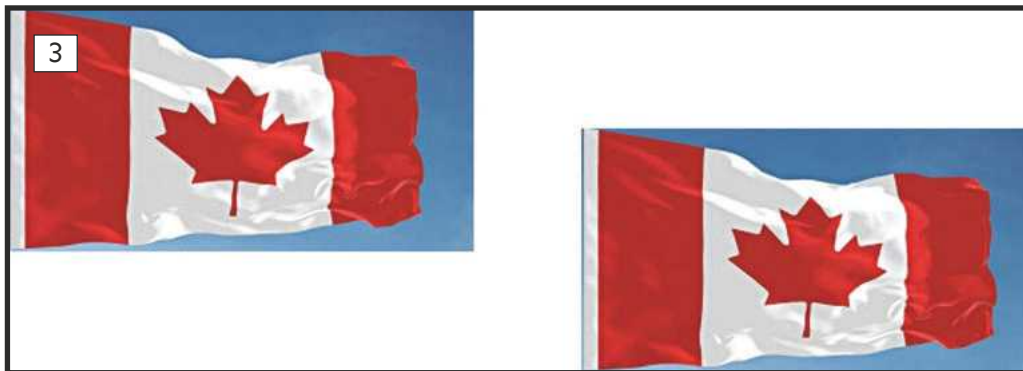
- A PC (Personal Computer)
- Internet access
- Image capture software, such as Snagit 2021
- A colour capable ink jet printer

Supplies

- Spray adhesive, such as 3M Super 77
- Clear satin spray paint, such as RUST-OLEUM Ultra Cover
- 20lb bright white paper
- Beadalon #1 crimp tubes (optional for simulated grommets)
- Scale attaching cord of your choice

Procedure

- Use your browser, selecting 'see all images' and search for "flying ***** flag", *inserting the nation of choice. This should bring up a whole variety photo options to choose from (see **Photo 1**).
- Open Snagit, or whatever image capture software you have installed on your PC, and 'capture' the image you've chosen, resizing it to the flag size required for your model (again, see **Photo 2**).
- Next, select 'Edit' and 'Copy' (see **Photo 3**).
- Then, select 'Image', 'Arrange' and 'Flip Horizontal' to achieve a mirror copy of your original image (see **Photo 4**).
- Now align the two images horizontally, leaving a 3mm wide gap to be used for the securing cord (see **Photo 5**).





6



8



9



7

- Before selecting 'Print', check your printer is set up to achieve the highest quality result possible (some printers will have default settings in order to save on ink, paper and energy).
- Make sure you allow at least an hour for the resulting print to dry thoroughly before proceeding.

● Spray the 'good' side of your flag with two to three successive light coats of clear satin and allow 24 hours drying time after the final coat is applied.

● Cut out your flag images and fold them together, making sure you carefully match all edges (see **Photo 6**).

● Open your flag halves and tape one of them, 'good' face down, using light tack tape so it doesn't move during the gluing process.

● Lightly coat plain faces of flag with spray adhesive

Placing the attaching cord

● Place the attaching cord in the crease in 3mm band (see **Photo 7**).

● Remove the flag from the tape and refold the flag halves, aligning all edges, and smooth the two halves together.

● Allow 15 minutes for the glue to set.

● Carefully cut off any mismatch of edges

If using the crimp tubes...

Carefully drill/punch a 1mm hole approximately 3 mm from each end in the now 1.5mm wide band and glue tubes in place with CA adhesive (see **Photo 8**)

And finally...

● Gently bend some ripples into your flag.

If you've followed these instructions, you should now have a really believable looking flag to mount on your model (**Photo 9**) and fly with pride! ●

IN BETWEEN ISSUES...



While awaiting your next copy of Model Boats magazine, why not visit our website at **www.modelboats.co.uk** or our Facebook page at **www.facebook.com/modelboatsmag**, where you'll find additional content, be able to interact with both the MB team and fellow enthusiasts in the model boating community and be given a sneak peek at what you can look forward to in the next edition.



www.nylet.co.uk

1932 – 89 years

The longest established professional model sailmakers in the world.

Fast
world-wide
mail order
(since 1958)

Everything for the model yachtsman, 600 items in price list. Fine Sails with "wind catching" shape. Makers of sails to The National Maritime Museum Cornwall.

Nylet Mail Order Service is operating normally. The Finest Quality Sails, Special Commissions undertaken for Museums & Collectors. IOM racing sails in light scrim or white Dacron. Marblehead & 10R/6M class sails. Plus all the popular designs, Starlet, DF65, Victoria, Seawind, Fairwind & 180 other designs. Fine "Vintage" cotton sails made incl STAR, Bassett Lowke, Alexander, Moonbeam, Mascotte, Breeze, etc. Large range quality deck & mast fittings, wires, cordage, brass & st. steel screws, 7075 alum mast tubing, tools, IOM sail rig carry/stowage bags, Nylet 'how to' booklets, sail winches. Specialist Vintage Yacht Restoration Service.

Phone or email your order for fast response.

Prices & Products see 2021 website
(paper catalogue £6.40)

Do NOT use our postal address
for letters/parcels, phone first.

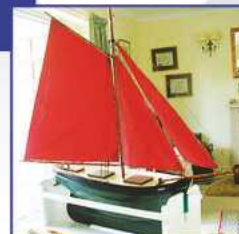
Nylet, 38b Winchester Street, Salisbury, SP1 1HG, UK.

Telephones. Workshop: 07474 939535. Office: 01722 239251

Email: frank.nylet@outlook.com Callers strictly by appointment.

Fast world-wide
mail order

PayPal & VISA accepted



SECURE ONLINE ORDERING

www.sarikhobbies.com

PLANS / MOULDINGS / WOODPACKS / TOOLS / ACCESSORIES / DVDs / BOOKS
The World's biggest selection of Radio Controlled Aircraft, Boat & Model Engineering plans & parts



Be the first to hear about our special offers
Sign up to our newsletter or follow us on Facebook



Model Aircraft & Boat books and DVDs also available!



NEW Many New RC & Static Model Boat Kits now available

sarik hobbies

The store for the model builder



MODEL BOAT BUILDER
Find us on Facebook



BRISTOL CHANNEL PILOT CUTTER 'HILDA 2'

Hilda 2 was built by J. Cooper at Pill, near Bristol, in 1899. This cutter has lovely lines with a deep keel at the transom end.

Plan DAP003 £21.00
Hull DAH003 £131.50

Plan & Hull Set DASET003 £148.00



1000s OF MODEL PLAN DESIGNS

EXTENSIVE RANGE

of model boat plans to keep any builder busy

Scale Boats & Ships
Sailing Boats & Yachts
Easy to Build Boats
Engineering
Competition Boats
Hovercraft
Hydroplanes
Straight Runners
Submarines
Unconventional
X-List Plans



NIMBUS MK3

This One Metre has proved very popular for home building in timber. For International 1 metre Rules

Plan MAR3133 £20.00
Laser Cut Wood Pack WP3133 £43.50
Short Kit SET3133 £59.50



FAIREY HUNTRESS 23

Period charm in abundance, a build quality to admire and detailing that's crisp. It's nautical indulgence.

Plan MB2131 £17.00
Laser Cut Wood Pack WPMB2131 £49.00
Short Kit SETMB2131 £64.00



THAMES BARGE VERONICA

An iconic sailing work boat that plied its trade in and around the River Thames and Medway.

Plan MAR3584 £41.50
Laser Cut Wood Pack WVP3584 £67.00
Short Kit (+ DVD) SET3584 £111.00



VOSPER MTB379

Built for the Royal Navy, these heavily armed and fast patrol boats were very active during and after WW2.

Plan MAR3505 £16.00
Laser Cut Wood Pack WVP3505 £76.50
Short Kit (+ DVD) SET3505DVD £97.50



SG&K 22' GENTLEMANS RUNABOUT

This very attractive runabout was designed for river use hence the flat bottom which was to help reduce wake.

Plan MAR3509 £19.50
Laser Cut Wood Pack WVP3509 £20.00
Short Kit (Set) SET3509 £37.00

MODELMAKING TOOLS, ACCESSORIES & SUPPLIES

Screwdrivers, hand files, sanding blocks, tools & clamps, epoxy, aerosols & more



BALSA & PLY

BALSA & HARDWOOD DOWEL
BALSA & SPRUCE STRIP
SHAPED BALSA LEADING EDGE
SHAPED BALSA TRAILING EDGE
SYMMETRICAL LEADING EDGE
TRAILING & LEADING EDGE
TRIANGULAR BALSA
BALSA SHEET & STRIP
BIRCH PLY



WHITE METAL FITTINGS

Bollards, anchors, wheels, ladders, portholes & more



KATIE (GAFF RIG PILOT CUTTER)

A 1:12 scale model of the fast and manoeuvrable Bristol Channel Pilot Cutter, sometimes described as the best sailing boat design ever made.

Plan DAP001 £15.50
Hull DAH001 £99.50

Plan & Hull Set DASET001 £112.00

Email: info@sarikhobbies.com Tel: 01684 311682



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

www.sarikhobbies.com

sarik hobbies

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

model Boats SUBSCRIPTION ORDER FORM

DIRECT DEBIT SUBSCRIPTIONS (UK ONLY)

Yes, I would like to subscribe to **Model Boats**

- ☐ Print + Digital: £14.00 quarterly
☐ Print Subscription: £11.75 quarterly

YOUR DETAILS MUST BE COMPLETED

Mr/Mrs/Miss/Ms.....Initial.....Surname.....
 Address.....
 Postcode.....Country.....
 Tel.....Mobile.....
 Email.....D.O.B.....

I WOULD LIKE TO SEND A GIFT TO:

Mr/Mrs/Miss/Ms.....Initial.....Surname.....
 Address.....
 Postcode.....Country.....

INSTRUCTIONS TO YOUR BANK/BUILDING SOCIETY

Originator's reference 422562 
 Name of bank.....
 Address of bank.....
 Postcode.....
 Account holder.....
 Signature.....Date.....

Sort code.....Account number.....

Instructions to your bank or building society: Please pay MyTimeMedia Ltd. Direct Debits from the account detailed in this instruction subject to the safeguards assured by the Direct Debit Guarantee. I understand that this instruction may remain with MyTimeMedia Ltd and if so, details will be passed electronically to my bank/building society.

Reference Number (official use only).....

Please note that banks and building societies may not accept Direct Debit instructions from some types of account.

CARD PAYMENTS & OVERSEAS

Yes, I would like to subscribe to **Model Boats**,
 for 1 year with a one-off payment

UK ONLY:

- ☐ Print + Digital: £58.49 ☐ Print: £49.49

EUROPE & ROW:

- ☐ EU Print + Digital: £74.99 ☐ EU Print: £65.99
☐ ROW Print + Digital: £74.99 ☐ ROW Print: £65.99

PAYMENT DETAILS

☐ Postal Order/Cheque ☐ Visa/MasterCard ☐ Maestro
 Please make cheques payable to MyTimeMedia Ltd and write code MB2021 on the back

Cardholder's name.....

Card no:.....(Maestro)

Valid from.....Expiry date.....Maestro issue no.....

Signature.....Date.....

TERMS & CONDITIONS: Offer ends 31 December 2021. MyTimeMedia collects your data so that we can fulfil your subscription. We may also, from time to time, send you details of MyTimeMedia offers, events and competitions but you always have a choice and can opt out by emailing us at unsubscribe@modelboats.co.uk. Please select here if you are happy to receive such offers by email ☐ by post ☐ by phone ☐. We do not share or sell your data with/to third parties. Details you share with us will be managed as outlined in our Privacy Policy here www.mytimemedia.co.uk/privacy-policy. Issue frequency is subject to change, current annual term is 12 issues.

POST THIS FORM TO:
MODEL BOATS SUBSCRIPTIONS, MYTIMEMEDIA LTD,
3 QUEENSBRIDGE, THE LAKES, NORTHAMPTON, NN4 7BF

Please visit www.mytimemedia.co.uk/terms for full terms & conditions

CODE MB2021

**HURRY
OFFER
CLOSES
31st DECEMBER
2021**



PRINT + DIGITAL SUBSCRIPTION

- 1 years worth of issues **delivered to your door**
- Great savings **on the shop price**
- **Download** each new issue to your device
- A **discount** on your digital subscription
- Access your subscription on **multiple devices**



PRINT SUBSCRIPTION

- 1 years worth of issues **delivered to your door**
- Great savings **on the shop price**
- Never miss an issue

SUBSCRIBE TODAY

DIGITAL
SUBSCRIPTIONS
AVAILABLE ONLINE!

Hurry! Subscribe now and make huge savings!

- Now in its 66th year of continuous publication, Model Boats remains the world's best-selling monthly consumer magazine of its kind.

- Packed with content that encompasses all aspects of the hobby, whether your passion lies in it static models, radio controlled scale, fast electric or internal combustion engine models, steam driven craft or model yachts, we guarantee that amongst all the news, reviews and fascinating full length features you'll find something that floats your boat!

- Reader input is actively encouraged. The letters pages are dedicated to views aired and information shared, while the readers' models section serves as a launch party for all those wishing to showcase their latest successfully completed projects.

- What's more, every other issue includes a free model plan, supported by an illustrated feature on the vessel that inspired it and how to achieve the best results from your build.

So, subscribe today and broaden your horizons!



TERMS & CONDITIONS: Offer ends 31 December 2021 *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. Please see www.mytimemedia.co.uk/terms for full terms & conditions.

SUBSCRIBE SECURELY ONLINE

 <http://mb.secureorder.co.uk/MODB/MB2021>

CALL OUR ORDER LINE

 **0344 243 9023**

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

Quote ref: MB2021

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.

“If you are undertaking this build yourself, before the 3mm ply bottom is glued on, it’s best to sand the inside of the hull. In order to work within what is a very restricted space, I used a small belt sander for this job”



Dolphin

Alan Charlsh explains how to construct a charmingly simple, easy and economical to build, working boat from this month’s free plan

The idea for *Dolphin* came about when, while poking around in the roof space of my garage looking for something to do during lockdown, I came across a piece of 12mm plywood I’d picked up at a car boot sale the year before. It had been one of those impulse buys, bought for no other reason than the fact the stallholder was only asking a couple of quid for it, which seemed like a bit of a bargain, despite the fact I had no particular purpose for it in mind! When I got home, then, I simply packed it away and didn’t give it much more thought; if I had, even in my wildest dreams I’d certainly never have envisaged finding myself eyeing it up again during restrictions imposed by a global pandemic and mulling over its possibilities. But, as explained, that’s exactly what happened, and when it did, a mental plan (later to become the physical one included in this issue) began to form. Back to basics would be the order of the day and, while it had been many years since I’d last built a ‘bread-and-butter’ boat, I was confident my piece of ply would lend itself perfectly to just such a project.

The hull

I always make a cardboard template before I start to cut my wood. In this case, I decided that if I made the top layer and then gradually reduced the size of each subsequent layer over about five levels, I might end up with a half decent hull. I copied my template from the plan ‘Top View’. Obviously, I needed to put a bevel on the edges to make a gradual slope

as work progressed down through the layers. I cut my first piece around the card template using a jig saw, angling the footplate on this saw to 70-degrees. It is, of course, essential when cutting a bevel to ensure it’s actually slanting in the right direction.

Once I’d the basic shape cut out, I marked a line 1cm in from the edge all round. I then

cut around this line with the same angle of bevel; this gave me a hollow frame, narrower at the bottom than at the top. By then drawing around the bottom outer edge onto my ply sheet I had my next, slightly reduced in size, layer. I should mention that this second layer needs to have a thicker edge at the back end – i.e., the line should be drawn 4cm in from the back edge – as this forms the rear overhang where the rudder shaft will be fitted. I repeated this procedure, drawing around the bottom edge of each piece I cut for the remaining layers so that when placed one on top of the other I had nice sloping sides on something that actually looked like the right shape for a hull (see **Photo 1**). The five layers (**Photo 2**) were then glued together, clamped and left to dry.

If you are undertaking this build yourself, before the 3mm ply bottom is glued on, it’s best to sand the inside of the hull. In order to work within what is a very restricted space, I used a small belt sander for this job.



Once happy with the inside, I cut the bottom from 3mm ply, once again drawing around the bottom piece, and glued that on. I also cut and glued on the foredeck (also made from 3mm ply). To complete the hull, all that remained was to cut the piece that fits on top of the fore deck. (This can be cut using the same angle of bevel or alternatively can be cut straight.) After all the layers had been glued together and allowed to dry, the outer hull was sanded. Obviously, the more care you take when sanding a hull, the smoother it will be. I have to admit that I'm not overly fussy when it comes to the sanding. Most of my models have a 'used' look about them, which I think tends to look more like the real thing.

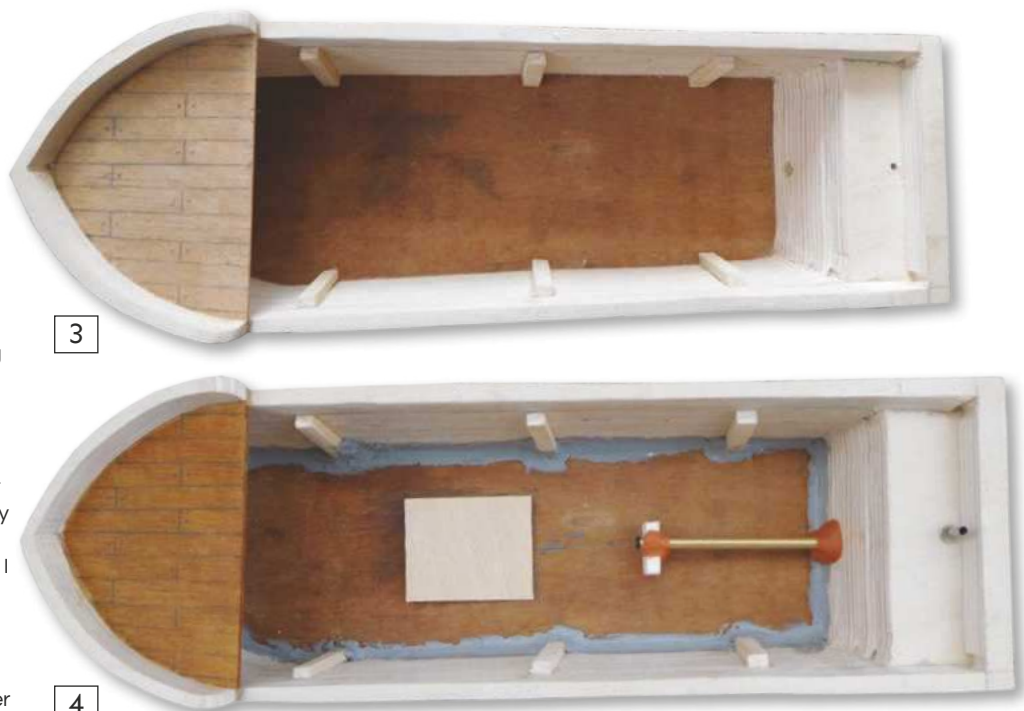
The deck

Next, the deck supports were positioned as per the plan and glued into place (see **Photo 3**). I then put sealant around the inner bottom join to prevent any possible ingress of water (see **Photo 4**). I also inserted the prop shaft and rudder guide tube.

The deck needs to be cut as per the plan and will probably require some sanding in places in order to ensure you achieve a good fit inside the hull. It should rest snugly on top of the deck supports. I didn't secure the deck in any way, although this would be easy to do. My reasoning here was that, if it was a good fit, it would stay firmly in place but also have the advantage of being easy to remove at a later stage when fitting the electronics or making any necessary adjustments.

R/C gear

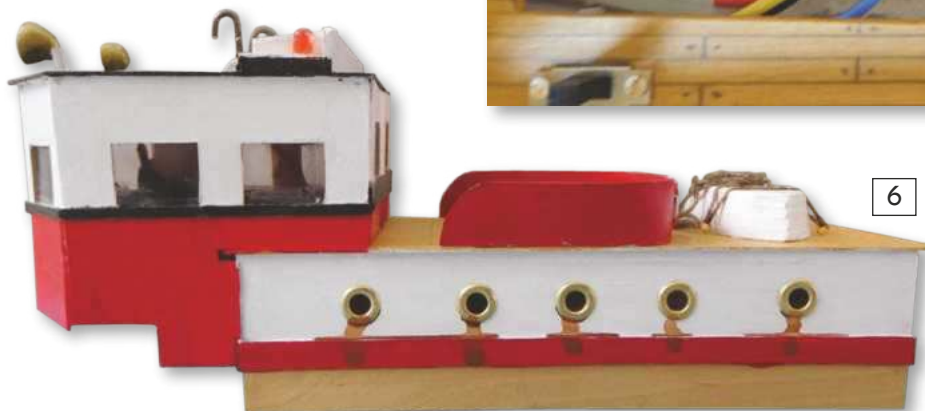
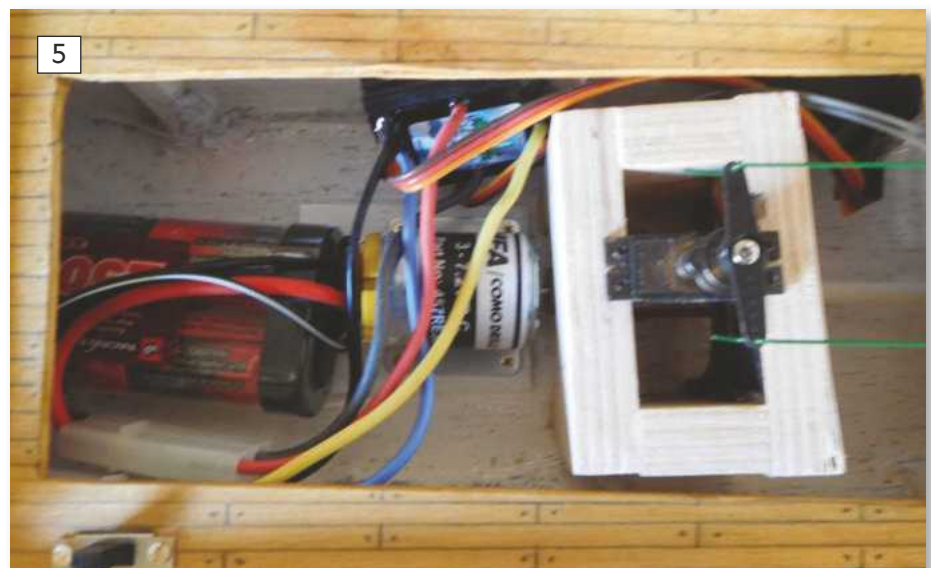
This being a relatively small vessel, there is only limited space to fit the radio control components, motor and prop shaft, etc (see **Photo 5**). I fitted a 385 motor, using a universal joint between the motor and the prop shaft. In fact, a model boat of this size doesn't need such a large motor, or indeed a universal joint, but as my scratch build was undertaken during a national lockdown, I had no choice but to work with what I had to hand. I also used quite a large 7.2v battery pack which, because of its weight and size, coupled with where I had to position it, made the front end of the boat rather heavy. It is,



however, a very buoyant boat, and by adding some ballast at the back end it actually sits quite nicely once on the water. Had I been building this boat in better times I would have opted for a smaller motor, coupled directly to the prop shaft and a small 30mm propeller. I would also have used a smaller battery pack, which I could've fitted more centrally. My speed controller is a Mtroniks Viper Marine 15, and I used a Turnigy receiver. Once again, these were parts that I just happened to have available, or to be more precise, which I salvaged from an older boat.

The superstructure

The cabin and wheelhouse panels were cut from 0.8mm plywood (see **Photo 6**). I made them as two separate pieces for ease of construction. The cabin is basically a box with a cut out at the rear end to allow for clearance of the rudder linkage wires. The rudder servo needs to sit on a wooden support that bridges the propshaft, and this means it will project above deck level. The cabin must be constructed with a strip around the outside edge to prevent it from going too far down into the hole that's been cut out in



"Had I been building this boat in better times I would have opted for a smaller motor, coupled directly to the prop shaft and a small 30mm propeller. I would also have used a smaller battery pack, which I could've fitted more centrally"



“Dolphin may not be the most sophisticated of model boats, but she is, nevertheless, simple, easy and great fun to build (see Photos 13, 14 and 15). What’s more, as a project, she comes with a surprise bonus!”



the deck. As you will note, I used some brass eyelets to represent portholes along the cabin sides (see **Photo 7**). The wheelhouse is a tad more complicated, but nevertheless still quite simple to construct. The base is made of ¼-inch balsa wood, thereby making it easier to glue the panels to. Likewise, I cut some strips of ¼-inch balsa to fit under the top, as this makes a framework for the panels to be glued to at the top end. I initially fashioned the wheelhouse out of cardboard to make sure it would be a good fit before committing to wood (see **Photo 8**).

If working navigation lights are to be fitted, a hole needs to be cut in the top of the wheelhouse to allow for the wiring. I wired two 3v LEDs through a small upper panel (see **Photo 9**). The wiring can then pass through the rear inside of the wheelhouse and out through the bottom, where the wires can then be connected to a 3v computer battery holder. The battery holder is glued into position inside the cabin roof (see **Photo 10**). The type of battery holder I used has a small switch to operate the navigation lights.

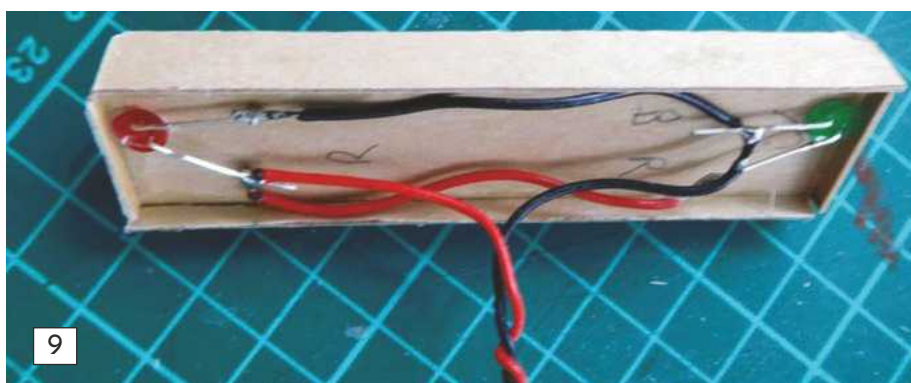
The boat on top of the cabin was simply constructed from a spare piece of wood, while the rail on the cabin rear of the wheelhouse was made from the lid of a two-ounce tobacco tin cut in half, with a piece of 0.8mm ply formed around the lip and secured in position using epoxy glue.

Embellishments

Once the hull and superstructure have been built, the boat can be embellished with various bits and pieces. On my model, a rubbing strip made from 0.8mm ply was applied all around the hull, and from a box of rubber ‘O’ rings in various sizes that I had to hand I made two painted lifebelts and a further ten slightly larger ones I bound with twine to make side fenders (see **Photo 11**). I knocked up a couple of lights from Milliput and tubing from the inside of a ball point pen. My anchor was made from a small wing nut and a bent nail.

The rudder shaft is 3mm brass rod which passes through a short piece of brass tubing; this in turn passes through a hole drilled in the second layer.

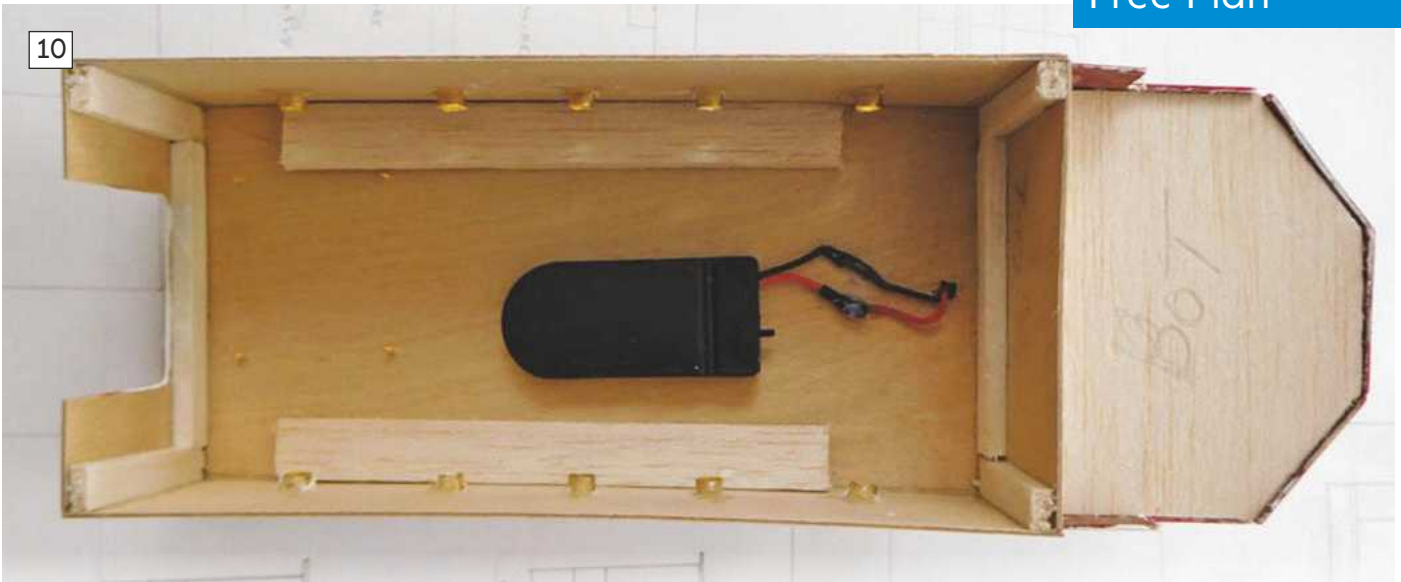
The rudder itself was made from a piece of sheet brass and soldered to the rod (see **Photo 12**). I also made a skeg from sheet brass, which is positioned in such a way that the propeller is well clear of the rudder.



ABOVE: Showing the wiring for navigation lights. BELOW: Navigation lights top panel.



10



11



12



A pod of Dolphins

Dolphin may not be the most sophisticated of model boats, but she is, nevertheless, simple, easy and great fun to build (see **Photos 13, 14 and 15**). What's more, as a project, she comes with a surprise bonus! The shaped plugs you have left over after the centres of your layers are cut out during construction can be used to form a smaller boat. Then, in turn, the plugs cut from that smaller boat can be made into a yet smaller boat, and so on – a bit like a set of Russian dolls (see **Photo 16**). I've put simple masts on the smaller model boats created from my main build and have given them to some of my neighbours' kids, who will, no doubt, enjoy floating them on the lake in our local park. ●

13

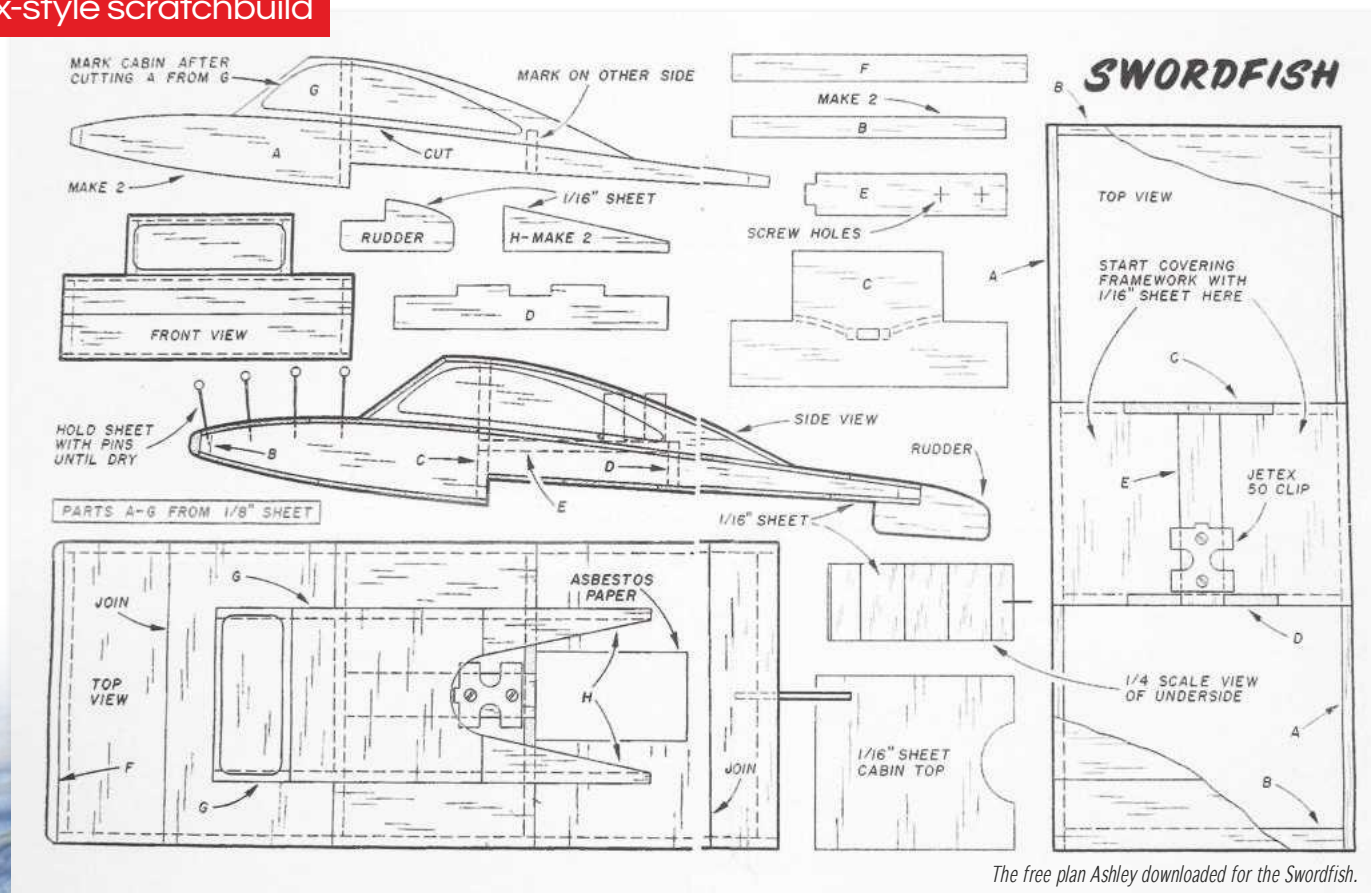


14



15





The free plan Ashley downloaded for the Swordfish.

The Swordfish



While doing a spot of virtual fishing for ideas, **Ashley Needham** recently had his imagination fuelled by a blast from the past...

Nothing makes you start eyeing up your secret stash of wood and wondering what you could do with it quite like a pandemic lockdown! Naturally, without being able to go out and buy bits and bobs, the accent has to be on 'simple' and 'uncomplicated'. This was the very situation I found myself in when a magazine article on Jetex motors caught my eye. Jetex motors were little rocket engines powered by some sort of hard fuel pellets, which burnt at a surprisingly low temperature and gave out a nice plume of pale grey smoke. Sounds fun, but it sure as hell wouldn't pass health and safety regulations nowadays!

I discovered there were many designs available for models you could build yourself

and then power using your Jetex motor: aircraft, cars, helicopters and, of course, boats. But, with no radio control back then, it was evident they'd need to be very small and lightweight to suit the miserable power of the Jetex unit. But one design I came across, the Swordfish, had that certain something about it. Hailing from, I believe, 'Bill Dean's book of Balsa Models', I noted the plan instructions specify, and I quote: "This speedy jet boat weighs only 1 ounce (25gm) and is easy to make". I had to say I was dubious; this sounded almost too good to be true. Even so, I began to ask myself if I could perhaps make one twice as big, weighting in at a hefty 2 ounces!

When is a Jetex motor not a Jetex motor?

At this point I'm going to have to come clean: I didn't actually build something that could be powered by a Jetex motor – mostly because I didn't have one. But even if I had it would only have been suitable for a boat at the original small plan size (about 240mm in length). I wanted to fit radio control and although nowadays very small gear is available, the relatively diminutive proportions would mean such a model could be only used on very calm days. What I did have in the spares box, however, was a hitherto unused and in 'as new' condition GWS 55mm Brushed EDF (electric ducted fan), which to be honest



"The Swordfish plan was sourced from a website devoted to all things Jetex. This was a free download"

ABOVE: The carcass before covering with 0.8mm lite ply.

FREE FOR ALL!

Numerous Jetex plans, including that for the Swordfish, are free to download from the www.Jetex.org website

I'd had for ages and which I'd been dying to use on something or other. Instructions on the box rate the EDF up to 9.6V, so the 8.4V from a fully charged 2s Lipo battery promised to be just fine – not a vast amount of thrust, somewhere around 120gm according to the instructions, hence in terms of this build there would be the need for lightness all round.

"Building time: 5 hours"

We'll come to the 5-hour bit later on, but first things first...

The Swordfish plan was sourced from a website devoted to all things Jetex. This was a free download, which I then printed and Sellotaped together to produce the original plan. From this, an enlarged version was drawn on a large piece of paper, not quite to twice the size, but almost. I didn't alter the relative dimensions too much, as there seemed to be sufficient hull height to put the gear into and the thing was certainly wide enough to the point that I slimmed it down and shortened it very slightly.

I started off as per the plan instructions by cutting two sides of 3mm lite-ply and several cross members from balsa and gluing them together – several times, as the lite-ply twists and bends horribly when unsupported as much as this. Eventually, though, I managed to get everything square and almost twist free. I knew once the top and bottom skins were attached it would firm-up nicely.

Once dry, two runners of balsa strip were glued in the rear section to provide a track for the battery and support for the lower skin. As the rear half would be totally enclosed, my thoughts turned to a rudder. On the original this was just a bit of tin, bent to give a straight or shallow curved course and then glued on the back. I, however, needed to be able to twiddle this, so decided on an external rudder. An internal rudder would've been preferable,



ABOVE: The rudder servo forward; note electrical connector for adjustment. RIGHT: The rudder arrangement, later this would be made a little larger.

but the rear hull of the design is very shallow, giving insufficient height for a tiller, and in any case, there would be no access as the rear hull covering was to be one-piece. I could've fitted a hatch, but this would have detracted from the easiness of the build and introduced yet another deviation from plan, which I was keen to keep as original as I could – well, sort of.

A short length of 8mm wooden dowel was, therefore, set into a filed-out hole on the stern counter, drilled for a thin brass tube, and my brass rudder fabricated from brass wire and sheet. A length of aircraft 'snake' control line outer sheath provided not only the support for the run of the (garden) wire servo rod but quite effectively sealed the interior against water entry. If you're attempting this build yourself, just remember to grease the pushrod wire when assembling! This assembly was set off-centre so that the centre run is free, enabling me to move the battery about in order to alter the centre-of-gravity as necessary. You may have spotted, in the photos here, the blanked off centrally located hole that I drilled before remembering this requirement!

Having decided how wide the central cabin cut-out should be, I made a support for the mini-servo and stuck it in place, making sure there was vertical access through the cabin window cut-out to screw it securely to its mount or indeed remove it if necessary.



Two support beams for the rear upper skin were then added, along with a few at the bow and, once the glue had dried, the bottom hull skin (0.8mm ply) was secured in place with expanding Gorilla glue; this is thick, with a treacle-like consistency, straight out of the container and needs to be moistened with water to cure. Once applied, it foams up, filling any gaps nicely and dries to a crisp hard finish: ideal for sanding!

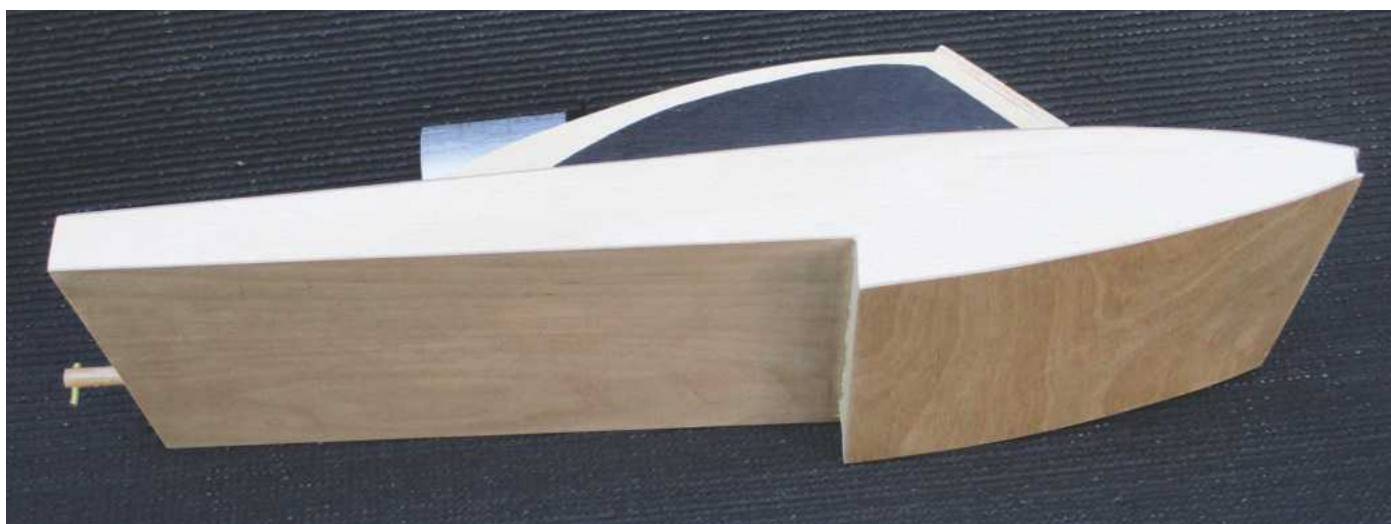
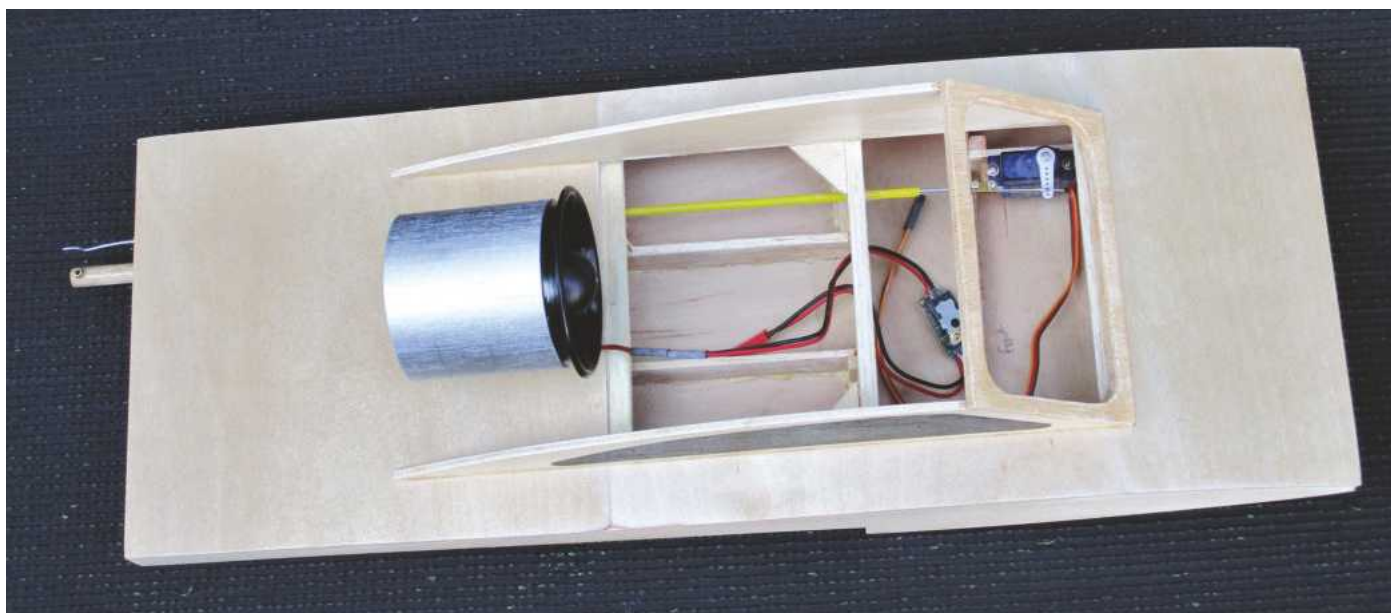
As there's nothing inside the rear hull and the servo mount and rudder operation had been sorted out, the top skins were then added, using 0.8mm ply, again. This, according to my scales, weighed about as much, or even less, than the same area of 2mm lite ply that I'd originally planned to use. The lite-ply simply became too distorted to



ABOVE: The cabin sides and front unglazed window. BELOW: With brushed motor and before hatch and rudder fitment.

use once I'd cut it into suitable sections. It would have glued flat, of course, but I was worried that the stresses would twist my very thin, currently twist-free, frame.

I next turned my attention turned to the cabin (just a front panel and sides). Other than the internal cross members to support the front and rear cabin cut-out, the cabin sides would be their own support on this covering: think supporting strips mounted on top rather than underneath! For the cabin sides I used 3mm liteply, while for the front window I used a laminate of two pieces of 2mm ply stuck together in order to provide a bit of stiffness to the frame. I employed a hole-cutter and a bench fretsaw to cut out the window, which would remain unglazed, not only as this is what the plan dictates but because any form of glazing would have blocked the free flow of air into the EDF. The plan has the cabin side windows simply drawn in outline with a pen; I, however, painted my windows on as



The rather unsophisticated hull viewed from underneath.

"It couldn't have been easier, and the end result proved indistinguishable from the use of dope!"



a solid black shape with acrylic paint. A thin ply two-piece magnet-secured hatch cover was crafted to fill the cabin access cut-out, complete with a flat 'outline' driver. Finally, a strip of white sponge foam rubber (window draught proofing strip) was used as a bumper (as there is no reverse) in the very convenient flat surface at the front completed the build.

It was all embarrassingly easy really, but total hull weight at this point was decidedly more than my original target. Hmm... Whatever happened to my 2-ounce build?

Rocket motor mount

Unfortunately, the EDF casing had no external brackets or mounts and, according to my research, these things seemingly had to be simply glued into the frame of whatever model they were being fitted to, and hot glue seemed to be the weapon of choice. I wanted something a bit neater, so decided on a tunnel mount. 0.8mm ply strip was soaked in hot water for five minutes, bent round a paint spray can, wrapped with rubber bands and allowed to dry. This gave me a nice cylinder of ply, which was then trimmed and clipped around the EDF casing before the ends were glued together. A 'sacrificial' balsa strip was glued at the correct motor lead position (the casing has a small cut-out, so that the wires from the motor run as unobtrusively as possible alongside the bottom of the cowl) and then the assembly was stuck on the top deck, with a little 'chock' of wood to stop the motor pulling forward out of the mount. I use the word 'sacrificial' as it occurred to me that just in case at some future date I wanted to fit something more powerful, I could simply slice through the balsa with a thin chisel and sand the surface flat, leaving a clear space to fit a replacement: a Saturn 5 rocket motor (or whatever – more on this later!). Control over this powerful beast came courtesy of a GWS 8A aircraft ESC I just happened to have – its connection matching, by sheer luck, that of my motor, and, what's more, it weighed a mind numbing 10gm.

Exacting paintwork

The drawings of the craft appear to show it 'au naturel', simply sealed with dope and not painted and the instructions read: "...now waterproof the model by brushing on three or four coats of model plane clear dope"; they don't say anything about painting it afterwards. Curious, but at least that relieved me of the burden involved in choosing a colour scheme. More importantly, I didn't need to fill the grain in order to achieve a nice mirror finish. Lite ply and balsa require heaps of preparation to fill the grain, not helped by being so soft that any sanding needs to be done really carefully, or you end up just make things worse. I opted for Eze-Kote acrylic resin to finish the craft. The initial coat was applied and lightly sanded back, followed by a final second coat. It couldn't have been easier, and the end result proved indistinguishable from the use of dope!

Testing times

Eventually I was allowed out to play and able to get to the pond by bicycle for a first test – although as by this stage I had completely finished the craft, a check to see whether it worked or whether I was wasting my time

seemed a bit late. Having switched on the gear and confirmed it was all working, I tentatively lowered the boat into the water, its battery laying in the dip midway between front and rear sections. I was mindful of the section marked 'operating instructions' in the plan – to quote: "The swordfish is best used in a shallow pool in order that retrieving may easily be carried out". Also noted is that a length of cotton, say 30m, should be attached at the stern in order to aid recovery. Luckily, I'd be using 21st century string in the form of a radio control set!

Power was applied and the boat motored off into the sunset. OK, I admit, that's a tad too poetic – more factual to say a very short way away from the jetty, just so I could test its manoeuvrability and stability. Manoeuvrability at slow speeds was actually not bad; I couldn't have expected more, as the rudder has no flow of water over it, other than when the craft gathers pace, so slow speed manoeuvring will always be an issue. However, when picking up a bit of speed things improved considerably, and the boat progressed into the 'was manoeuvrable enough' bracket. The moment had come to apply full power.

Left, the 50mm EDF brushless replacement.



“Basically, everything was fine in periods of calm, but when the breeze got up the boat became difficult to turn and began crabbing...”

Ripping stuff!

To cut to the chase, it was faster than I expected it to be! Not particularly fast, but certainly enough to play with.

Manoeuvrability at speed was indeed reasonable; I say ‘reasonable’ because models like this (very light and air-propelled) are naturally very affected by the wind. Basically, everything was fine in periods of calm, but when the breeze got up the boat became difficult to turn and began crabbing. Broadside to the wind with full rudder was then the order of the day. To this end, I’ve since crafted a larger rudder with a more pointed front, the top of which has been raised a bit to stop weed catching on it.

Stability was always going to be good with something as wide and flat as this, even with the weight of the fan perched on top, and I’ve found the boat remains flat at all speeds and in any weather. But, after initial testing, some 3mm square wood strakes have been added at the front (underneath, at the sides) to minimise water running up the side of the hull.

Sliding the battery rearwards to the stern seemed to be the right place for it and vindicated my decision to allow the battery a full run of the hull. The 2200mAh Lipo sits mid-way between centre-rear, and the smaller battery (see later) rests right at the stern. Depending on whether going with the wind, or into the wind, there was either a small or a big gap between water and hull in the middle, just past the step,



Swordfish with the gold brushless motor fitted.

indicating that the boat was rising sufficiently to decrease the wetted area by a decent amount.

Trying a fellow boater’s 1500 mAh 2s Lipo battery gave the boat an immediate performance boost, compared to using my 2200 mAh battery, and so a slightly smaller 1000 mAh 2s battery was purchased. With this in place, you could almost describe the boat as fast! A decent weight reduction as a percentage of overall weight has been achieved. The new battery weighs 80gm less than the old, lifting up the rear end visibly and reducing the wetted hull area, assisting performance.

Current draw as measured by my Wattmeter is 5.9A on full throttle, but half

throttle takes only 2A and this is enough to potter about with, so extending pond run time. So far, the 8A ESC has been OK, considering that the boat is not run at full throttle all the time, but even so it only gets a bit warm.

Jolly good fun

This project was hardly the 5-hour build time as specified in the original plan but, of course, that came as no surprise. To be fair, most of the increased time was taken up by making modifications and so on. If I were to make another one I’d simply cut out the parts as I know they should be and stick them all together! Weight has been kept down nicely, and the Swordfish is very light, making the best of the fairly meagre power. Latterly, the white foam ‘bumper’ has been changed to a sturdier black closed-cell type, and thin balsa ‘shoulders’ have been added to the driver to fatten him up a bit! I’m glad I left the boat ‘au natural’, i.e. in its plain wood colour, as this somehow adds to the bygone vintage look and stands out at the pond as being the only boat with no clothes on!

Postscript

It wasn’t long before I got those niggling “What if...” thoughts in the back of my mind. What if I had not messed about with the brushed EDF, but had used a hot brushless unit instead? There are now small 30mm units available that would almost be in scale for a Jetex motor at my increased boat size and thrust might go up to roughly 200g on a



Brushless.

“Some temptations, like an aperitif before lunch, simply cannot be resisted, and the thought of possibly 400+gm of thrust proved one of them”

2s Lipo battery, making the boat a bit faster. However, for about the same cost, there are also 50mm units available producing a whopping 600+ gm of thrust (on 3s Lipo). Running one of those on a 2s Lipo would likely still produce 400-ish gm of thrust...

Some temptations, like an aperitif before lunch, simply cannot be resisted, and the thought of possibly 400+gm of thrust proved one of them. Although I liked the thought of the brushed EDF, and it was fun for a while, at the end of the day it was just not fast enough. I would stand at the side of the jetty willing the boat on, while the public around me wondered when I was going to actually use full throttle.

No more! For a very modest financial outlay a 12 bladed 50mm EDF equipped with a 4600Kv(!) motor and a brushless aircraft style ESC was purchased and fitted. The EDF is marginally heavier at 77gm than the 67gm of the old unit, and a new and slightly longer tube to hide the motor hanging out the rear of the duct was needed, and a new hole had to be made to carry the stiffish wires into the hull. Fortunately, no worries, as this easily enabled courtesy of that sacrificial balsa strip mentioned earlier.

So, on a 2s battery, does it go? Was ever money better spent? Oh yeah! With the battery in the centre position, the Swordfish

really does fly along. With almost a 1:1 thrust ratio (just guessing here!), acceleration off the mark is instant and the boat barely touches the water at full throttle, getting up to full speed in a flash.

Unfortunately, the very wide flat hull leads to a certain amount of ‘slapping’ going on as the boat hits small waves and this then leads to ‘skipping’ as it bounces up and down. Seeing the blast of air kicking up water at the stern when pushing the throttle forward and hearing the jet-like whistle from the EDF, though, was worth the extra cost alone. Much more manoeuvrability, and the boat continues to stay flat even with the massive increase in speed. But, and it’s a big butt, the flat unsophisticated hull leads to some spectacular drifting in fast turns. It’s like watching a speedway rider drifting in an oval speedway track! I could probably cure this, and the slapping, with some hydrodynamic modifications underneath the hull, but I rather like the behaviour of it as it is (I can do a complete circuit of the pond while drifting sideways!).

A 3s Lipo will fit, but the boat then becomes like a guided missile and is simply too fast to control.

This brings me to a peculiarity not experienced before on any build: the high

speed, flat hull and light weight means it takes forever to stop compared to all the other boats I have, by some margin/ The best stopping technique seems to be broadsiding the boat with the throttle off, just like a skier stopping.

Overall, though, it’s stunning, and not what I envisaged when starting the build. It’s a way to go very fast for a minimal outlay. Motors, couplings, propshafts, propellers? No fear, just fit one of these!

Post-postscript

Apologies, but I have a tendency not to be able to leave things alone! I’ve now added curved ‘wings’ to the rear of the boat in best American ‘50s’ car style. True, it’s an embellishment above and beyond the book design, but I just couldn’t resist! ●

Will it fit on your push-bike?

Original Equipment
GWS 55mm EDF- 6A on full throttle
Em150 motor
GWS ics-300 8A ESC.
Estimated thrust 120gm

Refit equipment
50mm EDF with 4600Kv brushless
motor-13A on full throttle
20A Tornado ESC
Estimated thrust 400gm
2200mAh 2s Lipo battery 127gm
1000mAh 2s Lipo 48gm

Length
450mm

Width
165mm

Overall height
105mm

Weight (fully equipped with 2200mAh 2s
Lipo and brushless 50mm EDF)
400gm

Top speed
Mach 2

Onlookers at Ashley's local pond call this the James Bond boat with fins!



LEFT & INSET: A busy day in the kitchen shipyard, with the smack under construction. Note the false timber frames fitted where repairs to the deck and topside are to be visible.

copy of Underhill's *Plank-on-frame Models* that's been sat on my bookshelf for over 40 years yielded hull lines for Leon, a brigantine built in Larvik in 1880. This was indeed the type of vessel I had in mind, but she was too large. So, having scanned the lines views, I compressed the length to give the proportions of a smaller vessel.

Profiles of keel, stem and stern were taken, and frame spaces marked. Paper profiles were cut for each station, or frame. Using limewood, frames were built up from individual futtocks, and, once mounted on the keel and carefully faired, a very pleasing representation of a vessel under construction was created. Some stringers, deck beams, knees and other structure were added. I mounted the completed unit on keel block stools, each built from 6mm square strip wood and suitably weathered.

This assembly was then set aside while I made a start on the second vessel. She was to be a fishing smack, hauled out on a steel trolley. The basis of this was a Billings' kit: the sailing Tunnyman Marie Jeanne. She would be displayed with hull and deck repairs in progress, but otherwise in quite a worn state. Construction of this kit was quite straightforward. The deck layout and rigging were reworked, making her a conventional ketch-rigged smack. A little internal structure needed to be shown, as she would be depicted with some deck and hull planking 'removed'. False deck beams and hull timbers (frames) were fitted in way of the missing planks. An internal flat or deck was built, since the hatch covers would also be shown removed, allowing sight into the fish rooms. The hull was painted in a heavily weathered style, except, of course, for the one part where fresh anti fouling is shown to have been applied. Masts were rigged, but the topmast

Dandy Score

Ever considered extending your modelling beyond simply building ships/boats in order to take in the bigger – and at the same time smaller – picture? David Bray shows off how it's done...

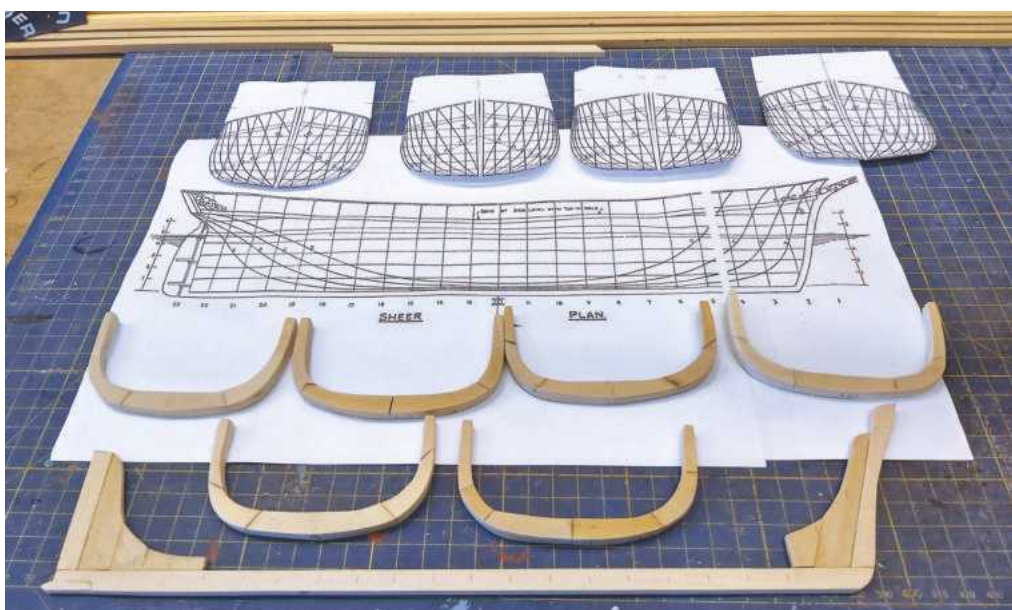
Having built many scale model ships over the years, last year I completed the Norwegian Jekt Gjøa in a slipway setting (see MB March 2020). It was this spurred me on to attempt something more challenging when it came to my next project. I decided, therefore, on a circa 1900s working shipyard in 1:72 scale as a reasonably compact diorama, measuring about 2ft square. Excuse the Imperial measurements but, in my mind, a metre (whichever spelling you use) will always be something you put a shilling in when the light went out! Two slipways would accommodate a small coastal schooner under construction, in frame, and a fishing smack stemmed for repairs.

The benefit of working to this scale is that it's popular with 00/H0 scale model railways enthusiasts, so I knew I'd be able to access a plethora of supplies from our local model railway store, Parr's, run by the very helpful and knowledgeable Anna.

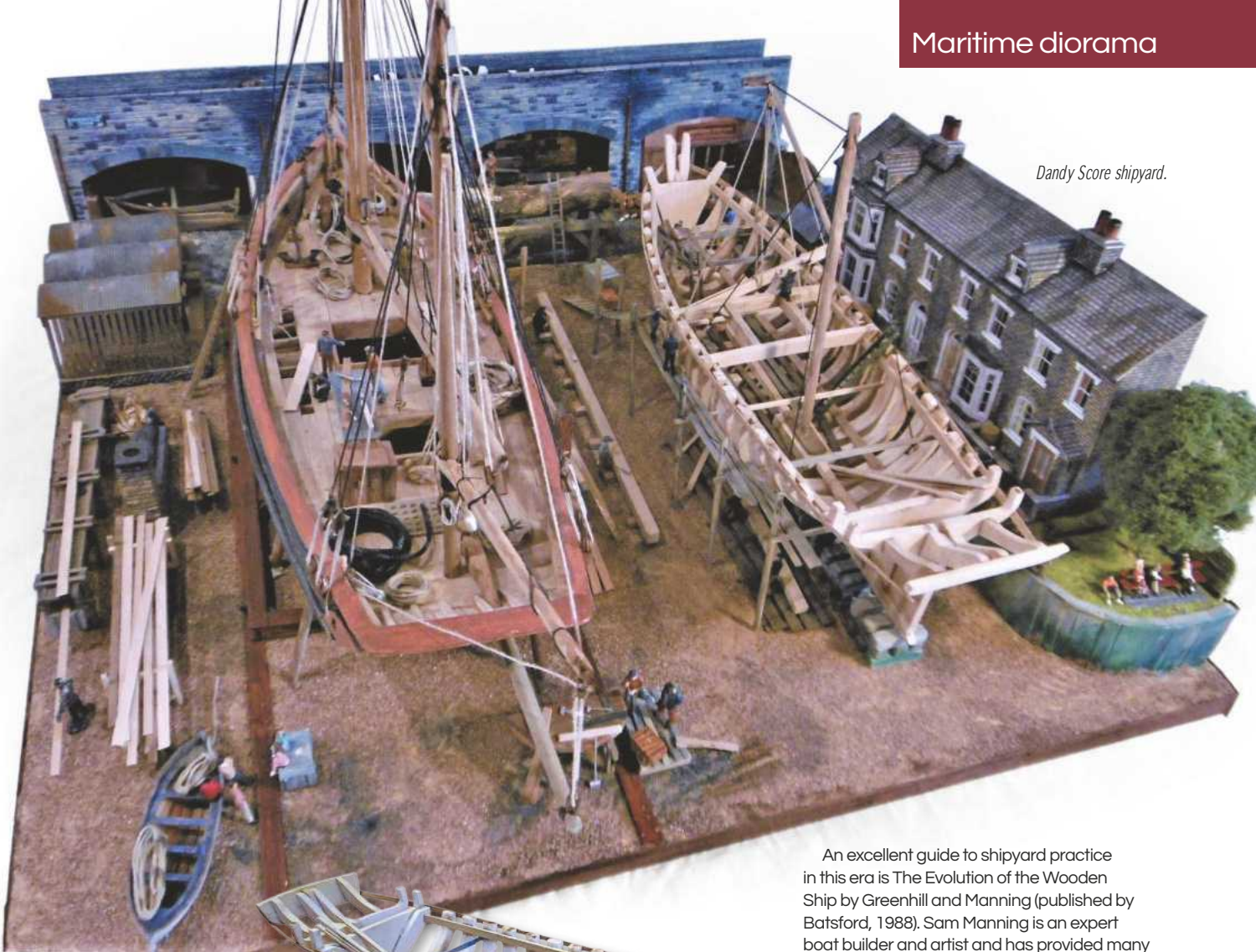
"The benefit of working to this scale is that it's popular with 00/H0 scale model railways enthusiasts, so I knew I'd be able to access a plethora of supplies from our local model railway store"

Central vessels

I needed two vessels, each of about 12-inches in length. The first was to be the aforementioned small coastal schooner, in frame. This would be scratchbuilt from drawings. The venerable and much-thumbed



The schooner was built from scratch and based one of Underwood's collection of plank-on-frame model plans for a 1880 brigantine, which was scanned from the book and then scaled down so the resulting model would instead be constructed to 1:72.

Dandy Score shipyard.

lowered, and the bowsprit rigged inboard. You'll note sails are absent, being 'under repair in the yard sail loft'. I added lots of rigging and clutter lying around the deck because, let's face it, no ship looks her best in a repair yard!

A slipping trolley was constructed from Plastruct sections, mostly 'H' girder, fitted with six tiny wheels. This completed unit was suitably painted (rust) and weathered, and the hull secured to it with 6BA screws. In all my static models, I securely fasten 6BA nuts into the keel structure inside the hull, with holes carefully drilled up from beneath. This is done before planking and gives a secure hull fastening from below. The hull was then secured onto the trolley, with a slight starboard list, such that she leans on the trolley support posts on that side.

Setting the scene

Next, I turned my attention to the shipyard in which these two vessels were to be displayed. An off-cut of 6mm MDF was picked up from my local timber dealer. Approximately 22-inches square, this was cut into two sections. One, the 'hard' containing the two slipways, slopes from ground level at the water end up to about 1½-inches at the shore end; there it meets a level section at the top of the slipways, which contains workshops and a saw pit. The level section extends down the right side of the yard, adjacent to the slipways, where a row of workmen's cottages is located.

An excellent guide to shipyard practice in this era is *The Evolution of the Wooden Ship* by Greenhill and Manning (published by Batsford, 1988). Sam Manning is an expert boat builder and artist and has provided many excellent sketches showing every stage in the construction of wooden coastal craft. Recent perusal of this work provided the impetus for this project. Many small cameos of shipyard activity illustrated by Manning have been included. Having completed the base structure and the two hulls, it was time to move my construction indoors. Up until this point, in Oct 2019,

ABOVE: The completed schooner ready to take her place on the diorama.

BELOW: The schooner's fore end, with a pile of oak crooks seasoning in stick.





LEFT: A general view, showing the smack under repair and scaffolding erected.

BELOW: A shipwright making a mast on stands between the slipways.



construction had taken place in my garage workshop, but the onset of the colder weather led me to set up on the breakfast bar in the kitchen. My wife, Mary, doesn't mind one little bit and, as an added bonus, the supply of tea and biscuits is much more reliable! I've always maintained that every kitchen can be improved by the addition of a shipyard; several model ships have been built in mine!

A visit to Parrs model shop yielded some useful kits for incorporation into the model. From plastic kit maker Wills came a set of four railway arches, exactly the same width as the base (by complete chance). These arches would provide four spaces: one would be 'the horfice', while the others would be workshops and storage space. Another Wills kit was built into a timber store. A row of terraced cottages was also constructed in low relief using a Metcalfe card kit.

Indeed, Parr's came up trumps all round, able to supply scatter materials, plastic moulded stone walling, cobblestones, etc, as well as a whole variety of scale model figures with which to populate my shipyard and its surrounds. I should perhaps point out, however, that many of the scenic elements illustrated in my photographs I aged and weathered to suit my own purposes using acrylic paints.



A hive of activity

A variety of activities can be seen in progress at the yard. Timber is being steamed in a steam-box served by a wood-burning stone-built boiler. One of the arches serves as the boat building shed, in which a wooden dinghy is under construction. In another is the workshop, with bench and shelves, and with all the miscellaneous clutter you'd expect to find in such an environment. The rudder of the smack has been unshipped and is

mounted on a trestle under the stern, with two shipwrights making repairs. On deck, a workbench has been set up for some deck repairs. Shipwrights and crew converse. The smack has a female Skipper – an early example of inclusion! Her pet Collie, the ship's dog, sits on the bowsprit. Some very dodgy scaffolding (no elf 'n safety then!) is erected on the starboard bow, where hull planking is being renewed. Some new timber planking has been fitted, and framing shows through

BELOW: The timber store, steam box and boiler.





“Before anyone calls me out on this, I’m claiming ‘artistic license’!”

the gaps where replacement strakes are to be fitted. The schooner also has scaffolding erected, together with a gangway for access.

On the hard, between the two vessels, a new topmast is being fashioned from square lumber. Aboard the schooner in-frame, a temporary mast and derrick has been rigged for general lift-and-shift. A sling of timber is being lowered into the forepart.

At the top of the slipway is located a sawpit. A large log is being ripped into planks by top

and bottom sawyer. The ‘log’ came gratis of the Beech tree in my garden! There’s a stack of sawn planks, while a pile of sawn knees and ‘wrongs’ is nearby. A couple of yard hands are sitting on the stack with their lunch boxes, one of them reading a newspaper. A horse drawn cart is delivering supplies of rope, etc. Above this scene, on the track over the arches, a farmer is walking some cows to new pastures. One of the cows has decided she’s gone far enough, and the farmer’s son is trying to chivvy her along!

A paling fence divides the hard from the terrace of houses. The Metcalfe card kit was most interesting to construct and built up into a superb row of houses, complete with garden gates and curtains at the windows. This low-relief kit is thoroughly recommended as although it’s more commonly used at backdrop on model railway layouts it works equally as well for this kind of diorama. A small area on the riverside of the houses is grassed, with a tree and a bench seat, and a group of people can be seen enjoying the sunshine and the view.

Another of the scenes features a wooden boat at the bottom of a slipway, where a group of youngsters are standing around chatting – from their attire they probably look more 1950s than 1900s, but fun anyway.

One possible criticism may be that a yard of this size would never have had so many workers. I’m sure that’s the case so, before anyone calls me out on this, I’m claiming ‘artistic license’!

Why Dandy Score?

The name given to my shipyard is completely imaginary. A ‘dandy score’ is actually the term for an iron fitting located on the aft corner of the bulwark rail of a sailing trawler and serves as a fairlead through which the trawl warp runs. I just liked the name! In this town (Lowestoft) many narrow pathways run from the town down to the beach (or ‘the grit’ as local fishermen used to call it). These pathways are known as ‘scores’, while in my native Great Yarmouth, similar pathways are known as ‘the Rows’.

Endless possibilities...

To sum up, then, Dandy Score was fun to build, took me into countless new areas of model-making and provided me with plenty to do while being under Covid curfew. I am hoping that by sharing details of how everything came together more modellers will consider branching out into dioramas. Not only are they incredibly absorbing to work on, but I also guarantee you’ll find they challenge your modelling skills and encourage you to learn new techniques. Plus, by incorporating numerous activities and loads of minute detail to take in and marvel at, you can be sure your diorama will attract loads of attention. Go on, let your imagination run wild! ●

BELOW: A horse-drawn waggon delivering supplies.





1

Test your pulling power!

ABOVE: A Damen Stantug being bollard pull tested in Rotterdam. The strain gauge is located near the hook.

"It is perhaps not widely understood that wind force on a ship rises exponentially and not linearly; so, a 20-knot wind is not simply twice as powerful as a 10-knot wind but four times as strong"

Phil Scales provides a layman's guide to 'Bollard Pull' and explains how you can get the measure of it in your own model boats...

The definition of 'Bollard Pull' is the maximum force that a tug or similar vessel can exert at the tow rope, normally expressed as Tons (or in Metric as Tonnes). As a rough guide, each 1000HP can generate 13-tons of pull, so a 4000HP tug would generate roughly 52-tons of pulling power.

Bollard pull is very important to both tug operators and hirers and is measured as part of sea trials and periodically thereafter (see **Photo 1**). This is done by attaching the tug (or Offshore Service Vessel) to a bollard with a strain gauge in the towing line that measures the pull at 100% power, and sometimes briefly at 110% power. Astern bollard pull is also measured and is usually a few tons less than the ahead figure. There are a number of Classification Society rules which apply to such tests to give them compatibility.

Modern harbour tugs, only 25 metres long in some cases, quite routinely generate 60-, 70-, 80-tons pull or more. To put this into perspective, the World War II Bustler class, which was considered to be a state-of-the-art vessel in its day, generated just 30-tons of bollard pull on a length of 205ft (66m) from two large 16-cylinder Atlas Polar diesels serving a single screw.

As ships, especially container ships, bulk carriers and tankers, get bigger and thus heavier, the pulling capacity required, especially in a strong wind, also increases. It is perhaps not widely understood that wind force on a ship rises exponentially and not linearly; so, a 20-knot wind is not simply twice as powerful as a 10-knot wind but four times as strong. The windage on a big ship can be appreciable (see Windage table). Thus, if

a tanker is 300m long and has a height out of water of, say, 10m, adding about 10% for superstructures, etc, the broadside area is 3,300 square metres and in a 40-knot wind has a windage broadside on of approaching 126 tonnes. Even three harbour tugs of 60-tonnes bollard pull each would, therefore, have great difficulty controlling it, while a 60-knot wind would render it uncontrollable even with four powerful tugs. This explains why ferries and cruise liners need tug assistance once winds reach 40-knots.

Windage table

10 knots	3 Kg (6.8 lbs) per square metre
20 knots	10 Kg (22 lbs) "
30 knots	20 Kg (44 lbs) "
40 knots	38 Kg (84 lbs) "
60 knots	89 Kg (180 lbs) "



2

A typical and cheap spring balance gauge.

3



4



Measuring the bollard pull at the pondside is a two-person job.

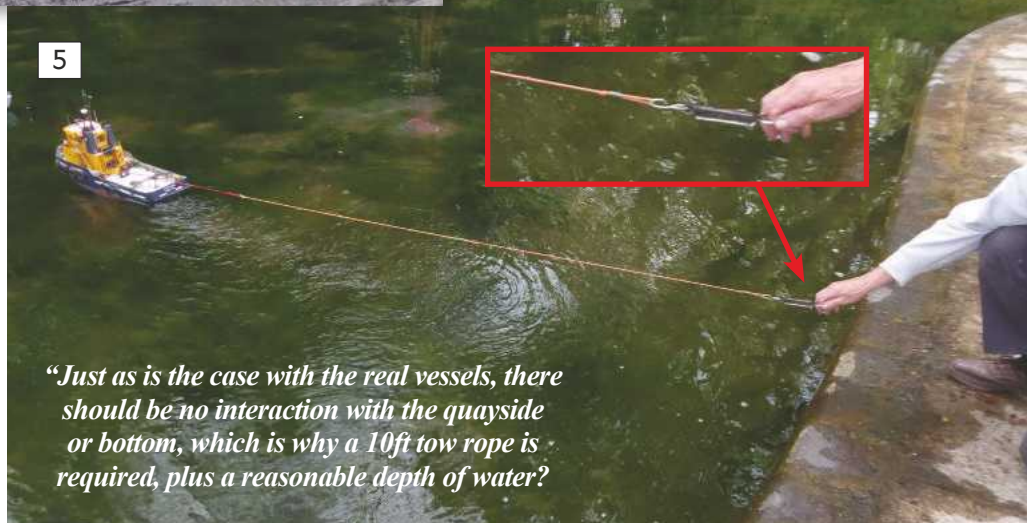
Measuring model tug bollard pull

Now, I have to confess I am a 'tug man'. Within my model boat fleet, I currently have at least a dozen tugs and also take part in 'tug towing' competitions, so naturally 'bollard pull' is important to me. It's not the major factor in towing, though. As far as I'm concerned, sheer pulling power comes way down the list, after, 1) reliability, 2) endurance and 3) maneuverability. As a general rule, the most powerful tug is connected to the stern of the tow, where it acts as 'brakes and steering'. The least powerful one is attached at the bow of the tow. This may seem contrary to common sense but is always followed in real life towing.

How, then, do we measure the bollard pull of model boats? It's quite simple really, but you will need a friend to hold the spring balance or alternatively drive the boat. To complete this exercise, you will need the following:

- * A spring balance (**photo 2**)
 - * A good length of tow line, about 10ft (3m)
 - * Fully charged batteries
 - * A reasonable water depth, 3ft (1m) is good.
- The model, usually a tug, first needs to be

5



"Just as is the case with the real vessels, there should be no interaction with the quayside or bottom, which is why a 10ft tow rope is required, plus a reasonable depth of water?"

connected to the spring balance by the tow rope and then to the towing point. Do not forget the gob rope. Next, sail your boat out to the maximum extension of your rope, and leave it to rest while you make sure you have the spring balance held ready and level to be read off (one of your boating buddy's allocated tasks). Then increased power to full power, keeping the boat as straight as possible. Its maximum constant

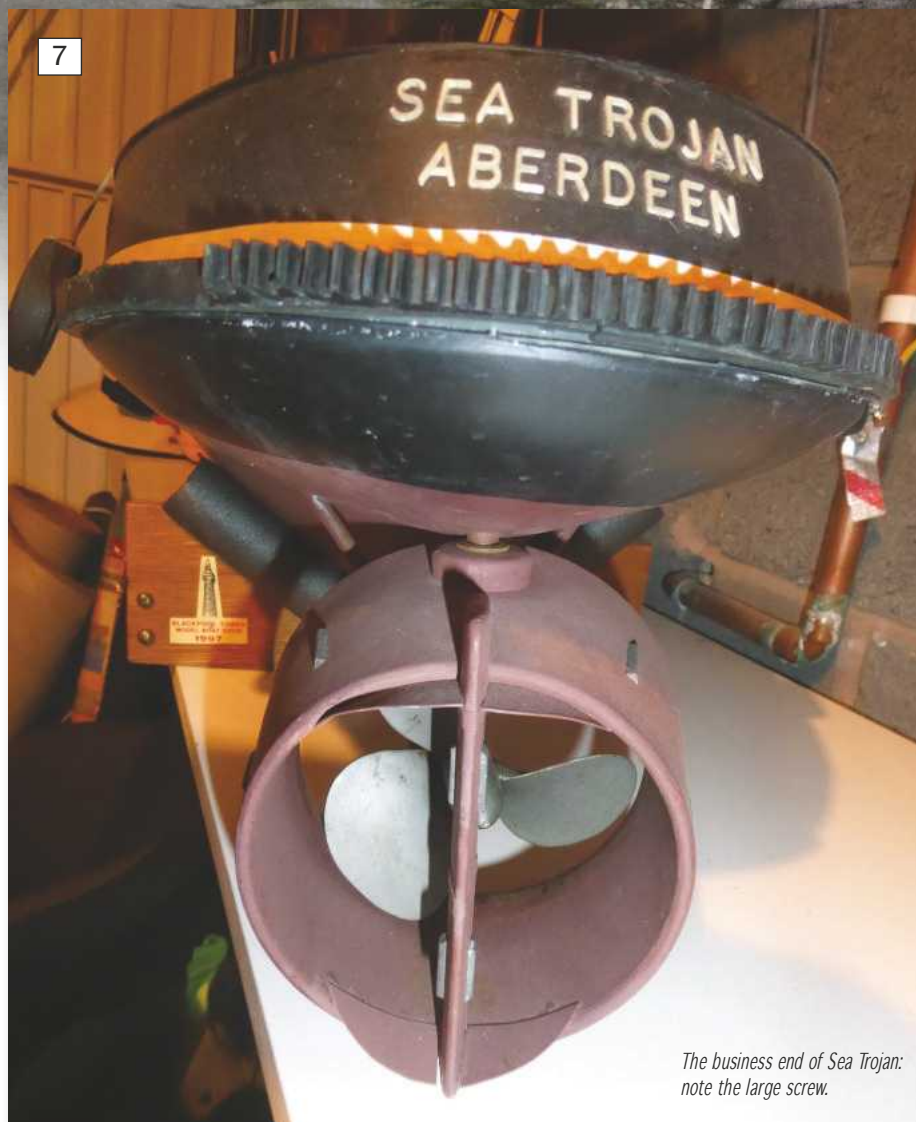
pull can now be read off your spring balance (see **Photos 3 to 5**). To get optimum pull, the transmitter tab on the throttle can be advanced as well; this is the equivalent to the 110% power setting on real boats.

Just as is the case with the real vessels, there should be no interaction with the quayside or bottom, which is why a 10ft tow rope is required, plus a reasonable depth of water.

6



7



*The business end of Sea Trojan:
note the large screw.*

ABOVE: Two Smit tugs engaged in 'indirect towing', using the whole hull as brakes.

Indirect towing

There is a procedure called 'indirect towing', which involves the whole of the hull being used for braking/steering rather than reverse bollard pull. Here things need to be very well balanced as while often spectacular (see **photo 6**), it frequently leads to overturning, or at least the tow rope being let go. To get a better sense of this, check out some of the footage posted on YouTube that feature examples of 'indirect towing' going horribly wrong!

Model tug test results

The model tugs in my own fleet have all been measured for bollard pull and I've listed the results obtained below. You will, however, need to take in to account whether you're using 12-volts or 6- volts, the propeller diameter, and how Kort nozzles can, even in models, add an extra 30-40% of thrust.

Sea Trojan

1:24 scale, 12V, single screw of 100mm diameter in Korts – 7.5 lbs (see **Photo 7**)

Magnum Opus

1:32 scale, 12V, twin screws of 70mm diameter in Korts – 6 lbs

**Tai Koo 4**

1:32 scale, 12V, twin screws of 65mm diameter in Korts – 6 lbs

Scaleforce

1:32 scale, 6V, twin screws of 60 mm diameter in Korts – 5 lbs

Imara

1:32 scale, 12V, twin open screws of 70mm diameter – 5 lbs

Tai Koo 3

1:48 scale, 12V, twin screws of 60mm diameter in Korts – 5 lbs

Hong Kong Police No. 2

1:32 scale, 12V, single open screw of 70mm diameter – 4 lbs

Wyeforce

1:24 scale, 6V, twin screws of 60mm diameter in Korts – 4 lbs

Smit Nederland

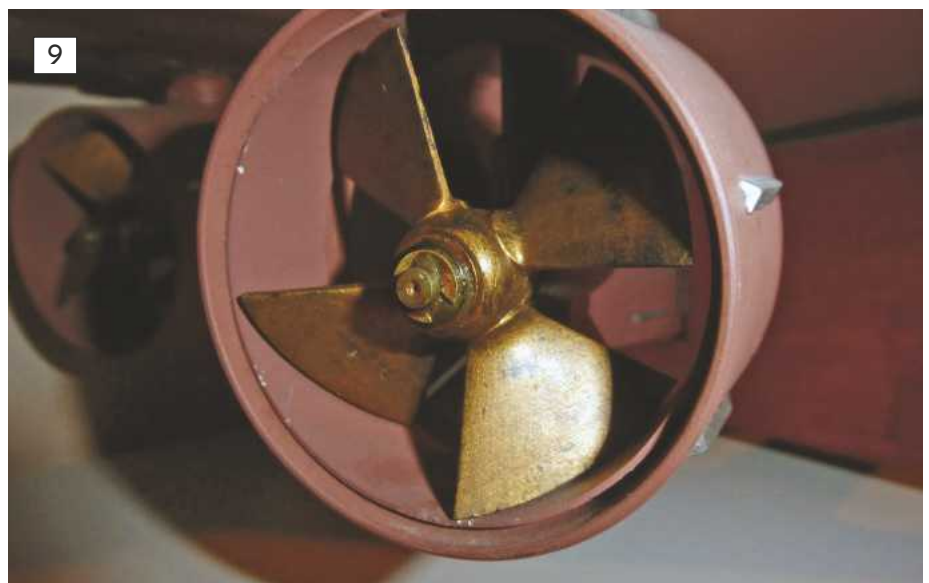
1:32 scale, 6V, twin screws of 55mm diameter in Korts – 3.5 lbs

Tito Neri

1:32 scale, 12V, twin screws of 60mm diameter in Korts – 3 lbs



By fitting 1mm nozzle inserts in Tito Neri, Phil was able to immediately double the pull.

**Workman** (workboat)

1:32 scale, 6V twin screws of 50 mm diameter in Korts – 2.5 lbs

Ribble Rouser (Pollux)

1:100 scale, 5.2V, single screw of 25 mm diameter – 0.5 lbs

The most powerful of all my tugs is the Sea Trojan, which, on 12V, via a Decaperm motor, turns a 100mm 3-bladed screw in a steerable Kort nozzle and generates an amazing 7.5 lbs of bollard pull!

I was, however, initially very disappointed with the results achieved by Tito Neri (based on a Graupner kit converted to the Cory model). Despite having two Torpedo 800s at 12V working the Graupner Schottel nozzles, she only

produced a miserly 1.5 lbs of thrust, and fitting brass propellers made no appreciable difference. The thrust was, however, doubled once I sleeved the nozzles with 1mm card, thus reducing the propeller tip space (see **Photos 8 and 9**), so I thoroughly recommend such a modification to all other Tito Neri owners out there!

Ready to dip your tows in the water

I do hope this brief explanation of both the importance of 'bollard pull' (in the real world and in the model sphere) and how you can test your own models has been of help, and, as we pull forward out of the pandemic, I look forward to meeting more of you at model towing competitions! ●



Boiler Room

Richard Simpson tests out a new Automatic Boiler Control device...

Possibly one of the most interesting aspects of being involved with the testing, inspection and writing about model steam plant is that occasionally a manufacturer might ask for a test and objective review of a potential new product. Sometimes it might be a new boiler, sometimes a new engine, sometimes even a new type of burner, but rarely is it something that not only proposes to address the age-old challenge of operating a boiler but also comes with the suggestion that it might have resolved some of the original issues.

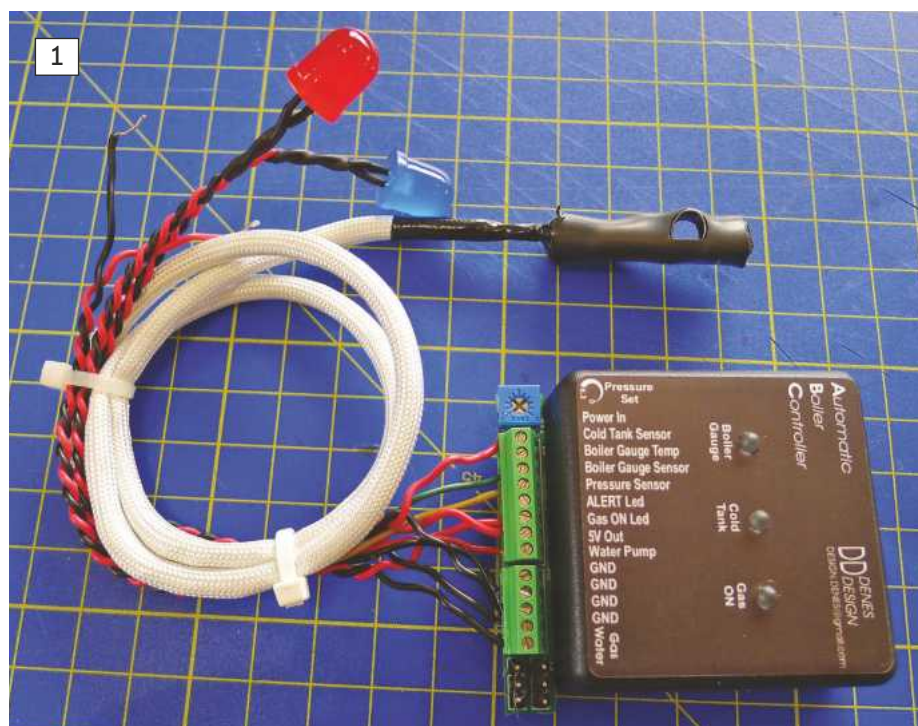
There may be some amongst you who remember the Cheddar manufactured

Automatic Boiler Control system, which remained in production right up until the closure of this company. This electronic device had two main functions: one was to control the gas to the burner in order to maintain a consistent boiler pressure, while the other was to control the water level in the boiler. The challenge with this unit was the difficulty in getting a reliable reading from the gauge glass, thereby making water level function dubious – particularly when the boat was bouncing around on the water with the level continuously going up and down. This was compounded by condensation in the glass confusing the sensor. When Stuart Models took over the production of the Cheddar range of products, it dropped the Automatic Boiler Control Unit and continued to produce and sell the separate and very reliable Electronic Gas Valve.

“In the past, the main challenge with controlling boiler water level in the past has been getting a reliable reading from the gauge glass. The level tends to move up and down very quickly and condensation is always present in the steam part of the glass. Denes Design’s ABC addresses these issues...”



The instructions will be available to download and are very comprehensive. They include flow diagrams for all the LED sequences, as well as installation and operational guidance.



The ABC as it arrives. You will also need: a pressure sensor; two servos; a water control valve; a pump or electrically driven pump; a gas control valve and a power supply

Control of boiler water level hasn't really been successfully tackled by a manufactured product since then – until now perhaps. A new Automatic Boiler Control device promises not only to address the old issues mentioned above but to further improve functionality using displaying system condition LEDs. These can clearly be seen when the boat is on the water and provide warning of a low level in the boiler water feed tank.

The unit has been developed in the UK by Denes Design (primarily an electronics design company) with input from steam modellers. I was, therefore, eager to test the unit (see **Photo 1**) as soon as it arrived in the post, following the comprehensive set of instructions made available online to download and print out (see **Photo 2**).

The challenges

As already mentioned, in the past, the main challenge with controlling boiler water level has been getting a reliable reading from the gauge glass. The level tends to move up and down very quickly and condensation is always present in the steam part of the glass. Denes Design's ABC addresses these issues by using a new Infra-Red sensor unit. This incorporates a five second delay in operating

RIGHT: The subject boiler, a Pendle 3.5-inch vertical boiler: this and the rest of the Pendle range of boilers are all available via the company's regular advertisements in this magazine.

the feed water and temperature correction for the signal to the control unit. I admit I felt a little sceptical at first, but I was more than happy to set up a test rig so I could try out the new unit and put it through its paces.

The test preparation

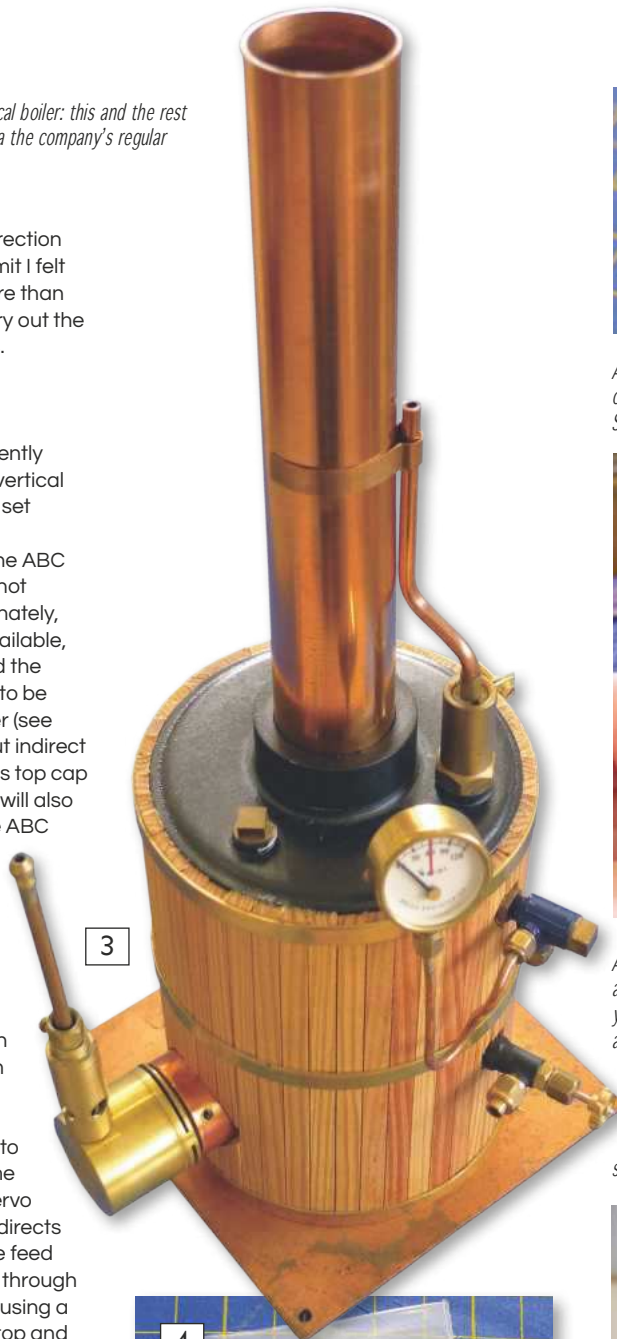
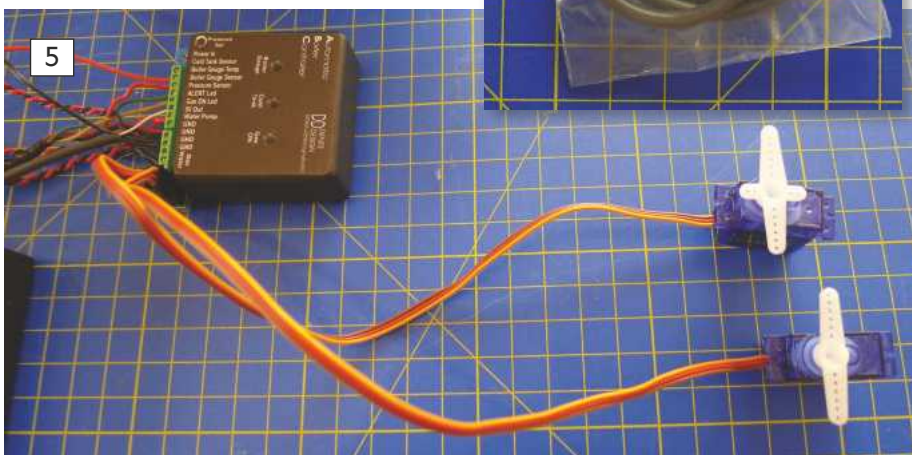
I decided to conduct a test on a currently available boiler, so I put my 3½-inch vertical Pendle boiler on the workbench and set about rigging it up (see **Photo 3**).

The first thing to point out is that the ABC requires a pressure sensor, which is not actually supplied with the unit. Fortunately, this is of exactly the same, readily available, type featured in the old Cheddar and the new Stuart Models units. This needs to be fitted to the steam space of the boiler (see **Photo 4**). Direct mounting is best, but indirect mounting, such as to the gauge glass top cap if you don't have a spare blank plug, will also work. The sensor is connected to the ABC input terminals. I used two micro servos to indicate the condition of the control unit and the signals being sent out (see **Photo 5**).

In a permanent installation the gas servo connects to a gas control valve of the type shown in **Photo 6**. The servo arm simply swings through 90-degrees and goes from fully open to fully closed. When fully closed however, a small by-pass, set by the adjusting screw, allows a pilot flame to remain at the burner so that the flame doesn't actually go out. The water servo connects to a two-way valve, which directs flow either to the boiler or back to the feed tank, again by moving the valve arm through 90-degrees. There's a further option using a power output on the ABC that can stop and start an electrically driven water pump, which makes for slightly easier pipe work.

The level and temperature sensor to the gauge glass also needs to be fitted. This should simply be a case of dismantling the glass and sliding the sensor over it, before reassembling the glands and tightening up (see **Photo 7**). Had this been a permanent

RIGHT: The pressure sensor: this can be mounted in a spare blank plug in the steam space or even in a remote location, such as a spare plug on a fitting, i.e., the top cap on the gauge glass. BELOW: Two micro servos conveniently prove that a signal is being sent to the water valve servo and the gas valve servo.



ABOVE: A gas valve such as the one shown here was originally supplied with the Cheddar Electronic Gas Valve. See the list of suppliers for current options.



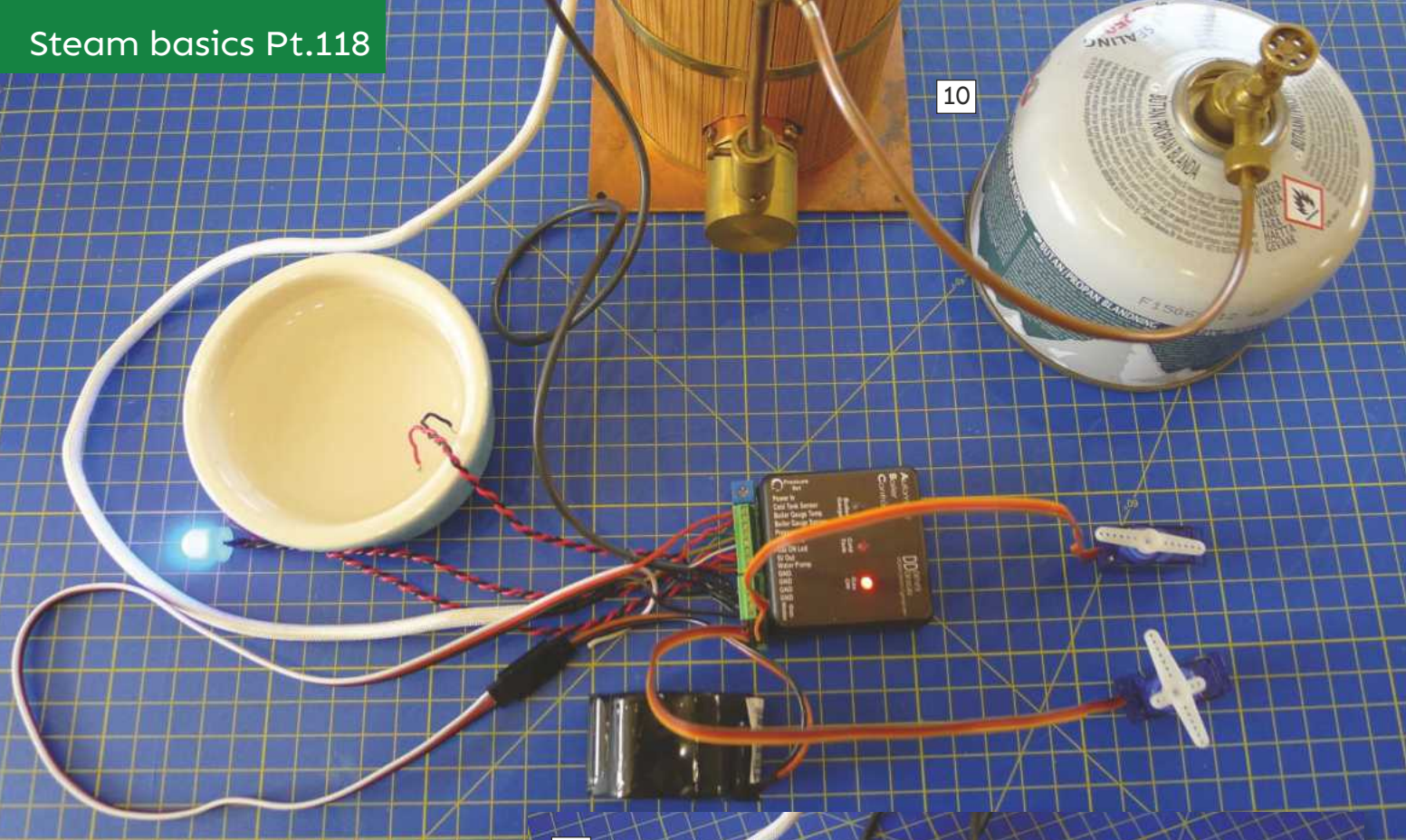
ABOVE: If you're lucky, the gauge glass will all dismantle easily, and the sensor can be slid over the glass before reassembling. If you're unlucky the glass will be seized up with deposited calcium and will refuse to budge; so, make sure you have a spare glass to hand before getting too rough with it.

BELOW: The sensor in place. For a permanent installation Richard suggests it might be safer to secure the end of the sensor against the boiler to protect the glass from undue stress.



installation, I might have been tempted to secure the sensor to the boiler somehow, so as to prevent any inadvertent knocking of the sensor breaking the gauge glass. For the purpose of this test, however, I wanted to be able to slide the sensor up and down the glass to see how reliably it read the water level. It was, therefore, secured by two spring clips, which gently held it to the glass and prevented movement (see **Photo 8**).

The last connection to consider was the feed tank sensor. This is very simply two bare cables that can, in any way you wish to arrange in your feed tank, read the level in the tank. When the two bare wires are immersed in water

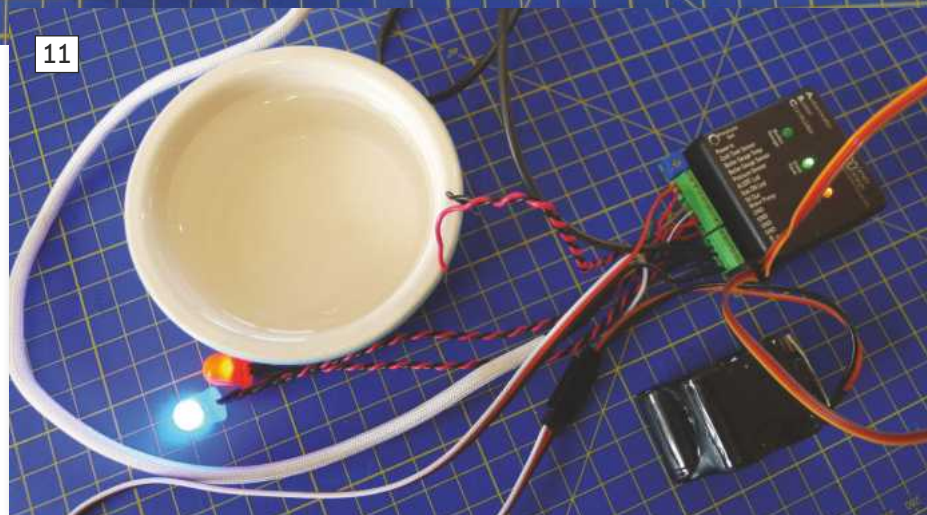


10

ABOVE: The test rigged up and ready to go. Despite such a basic arrangement everything could be proven to work and do what it was supposed to do.

the system operates normally, but when the two wires are lifted out of the water the large red alarm LED is illuminated. I simply placed the two wires into a small ramekin of water to ensure they remained submerged but could be removed whenever I chose (see **Photo 9**).

A gas bottle was connected up, the boiler filled to around half the gauge glass and a battery connected to the ABC. The required range of voltage is anywhere between 5.5V to 16V, so quite a wide variety of battery options will work. I used a NiMH pack, and after charging this up and measuring the output to be at around 7V, I was ready to start (see **Photo 10**).



11

Simply remove the two wires from the water and the alarm LED illuminates, meaning you will immediately know to bring the model to the bank to check what it is that requires attention.

The test

I really wanted to assess the ABC's complete range of functionality and ascertain whether it could actually fulfil all of its promises. So, although my two servos were not actually connected to any valves, I was hoping to see them operate at the correct times and in the

correct manner while I maintained control of the gas with the bottle valve.

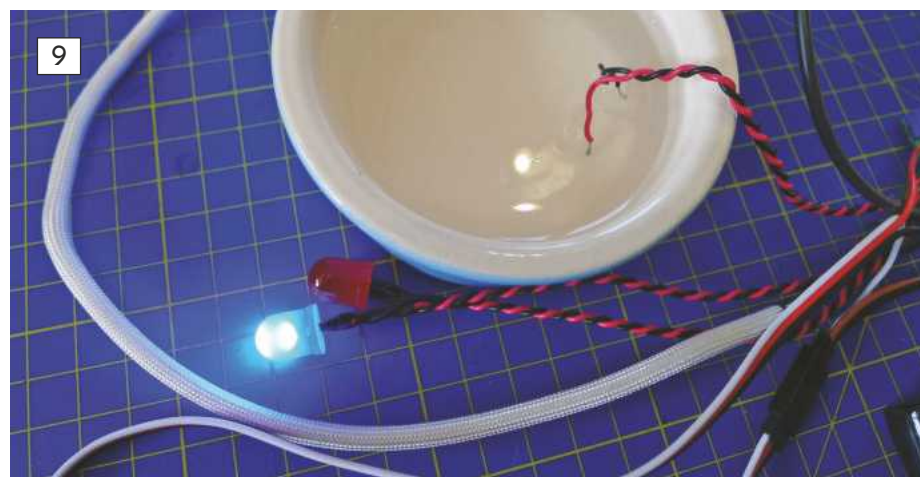
When the unit is first powered up, it goes through a 'boot up' sequence, providing indication that the LEDs and servos are all operating correctly, as explained in the instructions.

All good, so the boiler was lit, and the pressure brought up slowly, to the point where it was just showing on the pressure gauge. As my initial check would be the operation of the gas control valve, I gradually increased the pressure via the adjustment controller and watched as the servo and gas valve LEDs operated as expected. I was, therefore, satisfied that, should the servo be connected to a gas control valve, the pressure would be regulated by the controller at whatever pressure was set on the adjuster.

Next, I wanted to check the feed water tank sensor, which simply involved removing the wires from the ramekin of water and observing the large red alarm LED illuminate (see **Photo 11**).

Finally, I carried out the test I was most interested to see the results of, i.e., how the ABC would cope with controlling the boiler level. My sensor was initially located below

BELOW: The feed water tank sensor simply sat in a ramekin of water in order that Richard could confirm there was feed water available.



9

“If your power supply drops off while your boat is on the pond, you’ll see an indication that you must bring the boat back to the bank for attention”

the water line (see **Photo 12**), so I pushed it up the glass until it was in the steam space (see **Photo 13**). The appropriate LED lit up, flashing on the controller for 5-seconds before the servo began to operate, after which point it remained continuously illuminated. I then moved the sensor down to the water level again and the LED flashed for 15-seconds before remaining constantly on once the servo had changed back to its original position. This 15-second delay can actually be adjusted by removing the unit cover to gain access to the circuit board, which may be useful if you want a larger quantity of water in, for instance, a bigger boiler. I then went through a process of moving the sensor up and down in a manner that I would say reasonably represents the movement of a boat on the water and the consequent bouncing of the level in the glass. The controller worked perfectly throughout, not operating the water valve servo unless the level remained constant above the water level for over five seconds. At no stage did there seem to be any confusion caused by condensation in the steam space of the gauge glass, and the sensor read the level perfectly and consistently.

Conclusion

The bottom line is that the ABC unit certainly seems to do what it promises to. It controls the gas supply to the boiler burner, so ensures a consistent boiler pressure, thereby saving gas and reducing the gas cooling effect in the gas tank. It controls the water level in the boiler by reliable reading of the level, while compensating for movement and changes in ambient temperature. It also provides two large LEDs, in addition to the ones mounted on top of the enclosure, which can be remotely mounted to ensure that they are visible from the pond side to give adequate warning should



ABOVE: Starting off with the sensor below the water level the water valve servo was in the ‘closed’ position and the appropriate LED remained off. BELOW: Moving the sensor up into the steam space and leaving it there for over five seconds operated the water valve servo and permanently illuminated the LED.



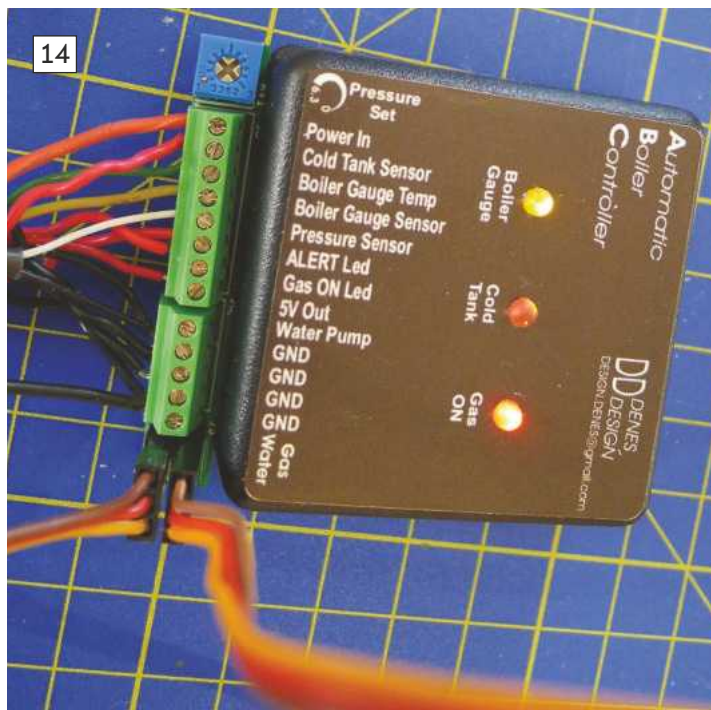
anything, including feed water tank levels, be going wrong. There are also over voltage, under voltage and reverse polarity protections

built in, all being displayed by the same large red alarm LED. So, if your power supply drops off while your boat is on the pond, you’ll see an indication that you must bring the boat to the bank for attention.

As I write this piece, the unit is still under development and the designer is open to further input before committing to a production run. Even as it currently stands, however, I think this is an excellent product and one that could make control of your model boiler considerably more reliable (see **Photo 14**).

Perhaps, when current restrictions are relaxed yet further, it will be possible to fit the ABC into an operational boat and see just how it performs on the water but, for now, it certainly seems to do everything it says it will. ●

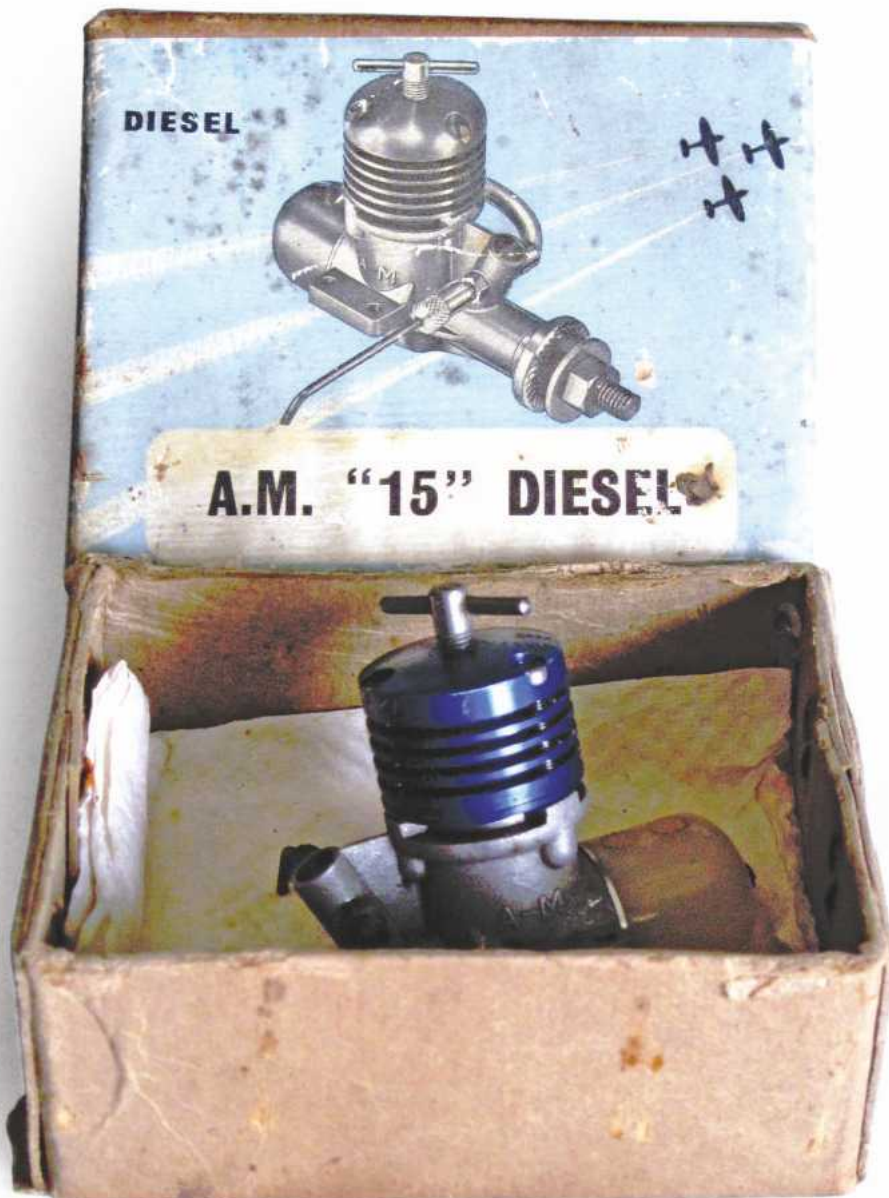
BELOW: Compact and neat the unit will fit easily into most model boats and looks tidy with all cables held in small well identified terminal blocks.



USEFUL CONTACTS FOR THE ADDITIONAL PARTS REQUIRED

Clevedon Steam
Jerry Watson
15 Lusart Drive
The Lizard
Helston
Cornwall
TR12 7RS
Tel: 01326 291390
Mobile: 07818 044 648
email: clevedon.steam@uwclub.net

Stuart Models
Grove Works
West Road
Bridport
Dorset
DT6 5JT
Tel: 01308 456 859
email: sales@stuartmodels.com



LEFT: A lovely example of Dennis Allen's popular Allen-Mercury 15 diesel, still new in original box.

An Engine from 'Mr 308'

Dave Wiggins whisks us back to a diesel-fuelled world...

When I first began to restore and collect vintage model engines and electric motors my primary focus was on, not unnaturally I think, engines that I'd aspired to own when young: big and impressive chunks of solid British engineering, like a Taplin diesel or a 'Gannet' sparkie maybe. Needless to say, I had a very long wait indeed to get my hands on either, so what I, like many other young boating enthusiasts, tended to end up with were small British diesels made by the likes of E.D., Mills, Davies-Charlton, Frog or Allen



The AM15 in detail.

Mercury – the latter being the focus of this month's instalment of Memory Lane.

As an enthusiastic novice, I gravitated to the, mostly acquired second-hand, products of E.D. (Electronic Developments) Ltd, and for many years used engines like this firm's 'Super-Fury' and the reliable 'Racer' in my early kit-built boats. There were, however, lots of other perfectly good British diesels available. For example, I can recall seeing, at the club pond side, nicely engineered little things like the ME Heron and the Snipe. M.E. (Marown Engineering) was a very small manufacturer and I believe these were the only two engines it produced. Davies Charlton, on the other hand, took over the proven range of Allbon Engineering, a highly regarded manufacturer that sold many small engines (later on fitted with a peculiar 'self-starter' spring) under its D/C brand name.

During the 1960s there were, of course, lots of older engines still about and it was not uncommon to see early brands like the Mills or Amco still running effectively, even though well worn and long after their once famous makers had ceased production.

I have perhaps overly stressed that most of us active during the '60s were diesel users. This was probably because glow or petrol engines were much more likely to be available only in the larger and more expensive sizes – from 5cc upwards, say – and therefore out of reach to those of us on a tiny budget.

A/M

The name 'Allen Mercury' was derived from the two people who were the main movers behind both the brand and, later on, the associated but bigger (glow) range of MERCO; these being Dennis Allen, who was the owner of a light engineering factory as well as a man with a solid background in engine design, and the well-known model flying personage Mr Henry J. Nicholls, who owned a famous London model shop as well as various other enterprises, one of which traded as 'Mercury Models'. Clearly these two gentlemen decided to try their hand at going into the joint manufacture of a range of small diesel engines, and in this endeavour they were very successful.

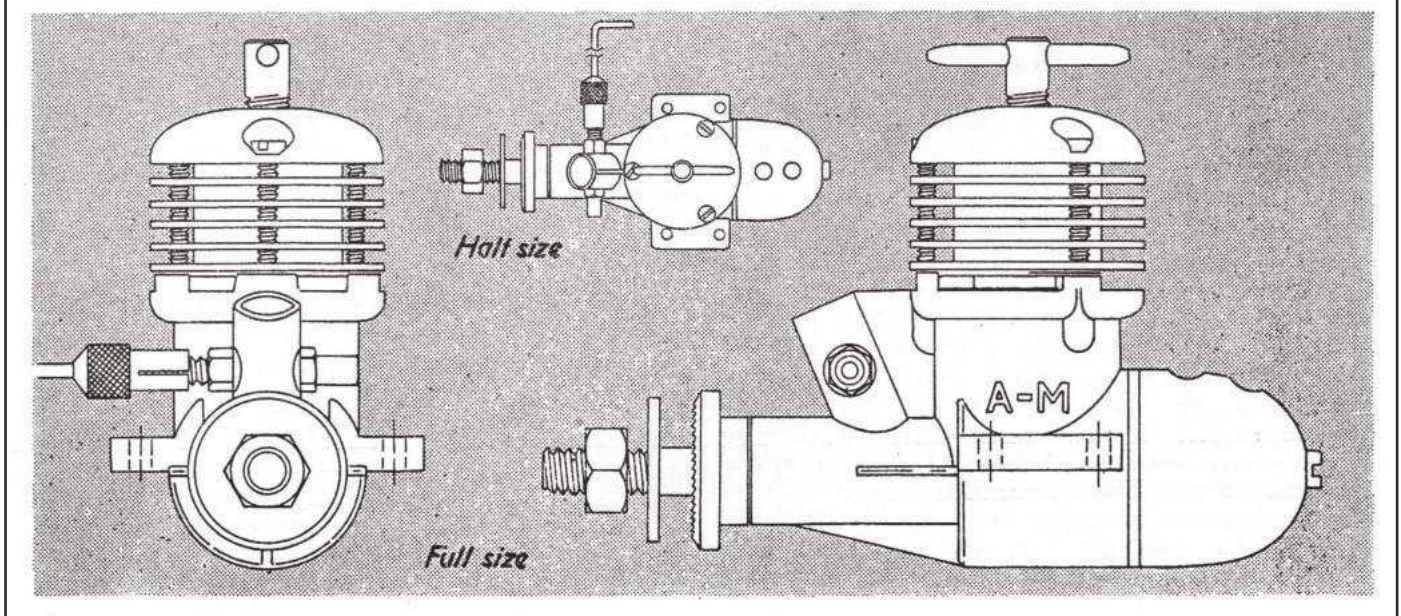
In a policy that Mr Allen was later to repeat with even greater success with the MERCO line, it was decided to design and make just two engines and then to rebore each to obtain

two more. The green headed (1cc) AM-

10 was simply rebored to result in our engine this month, the 1.5cc AM-15 with a blue cylinder head, while the initial (2.5cc) AM offering, the '25',

was bored out to result in a 3.5cc top of the range '35'. All four of these

'sport' diesels, while intended for model aircraft use, were seen in marine models once water-cooled by one means or another, and the 3.5 model was especially suitable for boats due to the popularity of 34-inch kits like the Sea Commander, Crash Tender and Wavemaster, all then much in use.



These engines were adaptable to boat use by various means. The cheapest and simplest option in a novice's small, free-running boat was simply to let the cylinder get plenty of cool air in an unglazed cabin top while fitting an 'after market' (as we'd say now) accessory flywheel plus a marine coupling like the 2 RMA brass wheels pictured. It was never a great idea (certainly not for R/C use where running times are longer), but many youngsters did this sort of thing.

Looking at my still boxed example of a pretty little A/M, one sees a tidy looking product and a good representation of '50s' British light engineering. When bought, this was described by the vendor as 'new', but I doubt that. It has some marks on its cylinder head for one thing, and the needle valve has perhaps been shortened (just compare it to the box top illustration), not to mention there are no user instructions (no 'papers' in collector parlance) in the box. All the same, it's a very nice, boxed, vintage engine that's welcome in my cabinet, plus the price paid was a fair one.

Tested in the Aeromodeller magazine during August 1956, the title's reviewer, Ron Warring, said of the AM-10: "Not only was it a delight to handle and consistent in performance but its power output approximates closely to the best of the 1.5's. In fact, at the upper end of the speed range it is beating most 1.5's and not a few engines of more than twice the capacity."

The two bigger A/M engines

Two years earlier Ron Warring had also tested an AM-25 (the very first engine in the range), at which time the new product was judged to be: "tight", needing much running-in. The following year an example of the biggest AM-35 was tested and, again, judged to be "distressingly tight – overheating rapidly". The various criticisms made regarding 'tightness' in the two bigger engines are, sadly, pretty much par for the course in inexpensive and mass-produced model diesels of the era, built using plain bearings and lapped-in pistons, as was normal practice back then.

Comparing such remarks to the much nicer notes made regarding the smaller, and later, 1 and 1.5cc pair of engines, it does seem obvious that Mr Allen had taken such comments on board by the time the smaller engines went on sale. In view of the fact that, back in the day, the smallest engines would undoubtedly be those purchased by outright beginners (a 1cc diesel was an almost universal choice of a first-time modeller, whether of aircraft or boats), it's perhaps just as well he did so!

Back to the future...

I hope you've enjoyed another blast from the past, vintage fans. Until next time, enjoy your modelling and/or collecting. ●

ABOVE: Three view drawing of the (identical) AM10 tested in 1958 (from Aeromodeller magazine).

BELOW: Simple brass flywheels in various sizes were made by RipMax Ltd to suit aero diesels such as the one featured in this article.



65

A.M. and MERCO ENGINES

KEIL KRAFT

AM 10	79'6
AM 15	84'6
AM 10 R/C	93'2
AM 15 R/C	98'1

MERCO ACCESSORIES

MERCO 49/61 Marine Parts	
Manifold ...	15/1
Flywheel ...	21/-
Cylinder Head	30/3
Cylinder Jacket	48/-
MERCO R/C Throttle	30/-
MERCO Silencer	27/-
MERCO Glowplugs	
1½ volt Short reach	5/11
2 volt Short reach	5/11
2 volt Long reach	5/11
2 volt R/C	7/1

diesels



AM 25 89'5

MERCO



MERCO 29 139'-
MERCO 35 139'-
MERCO 29 R/C 173'5
MERCO 35 R/C 173'5

AM Silencer



AM ACCESSORIES

AM 10/15 Flywheel ...	14/10
AM 25 Flywheel ...	16/-
AM 10/15 Water Jacket	30/11
AM 25 Water Jacket	34/5
AM 10/15 R/C Throttle	14/6
AM 10/15 Silencer ...	12/-
AM 25 Silencer ...	12/-

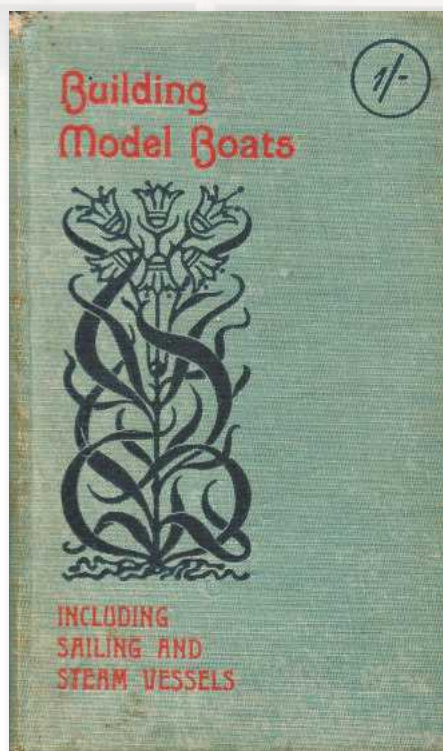


A sample page from a K/K Handbook shows the AM & MERCo range c1960s.

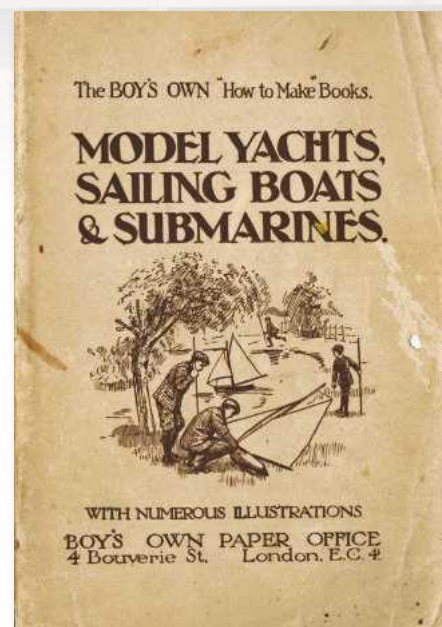
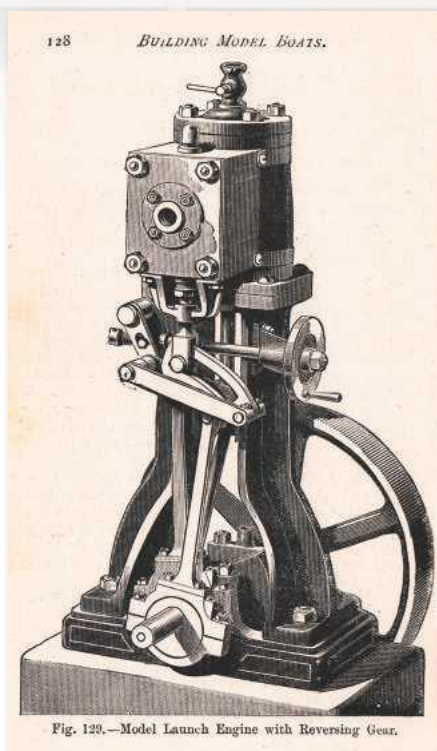
Back to the Bookshelf

Part 1

John Parker dusts off some of the older titles in his book collection and reflects upon their contents...



ABOVE LEFT: Dating back to 1901, *Building Model Boats* is the oldest title on John's bookshelf, originally priced at the princely sum of 1 shilling! ABOVE RIGHT: One can only imagine the man hours that went into producing the illustrations for *Building Models*: shown here, Fig. 129 portrays a Model Launch Engine with Reversing Gear.



ABOVE: Believe to have been published in the early 1920s, this softback *Model Yachts, Sailing Boats & Submarines* book contains a series of 'How to Make' articles aimed at teenage boys and compiled from the pages of the Boys Own Paper journal. The complex nature of the projects, however, would surely challenge all but a young Einstein! BELOW: A typical example of the enigmatic diagrams featured in the book.

Like many modellers, I have gathered a collection of modelling books over the years. Of course, you're not likely to turn to an old modelling book for advice, unless perhaps you need to rig a schooner or consider the finer points of making a clinker hull, for the techniques, materials and especially the technology have all moved on. It will probably be more for reasons of nostalgic enjoyment that you peruse its pages, to plot the course of the hobby, to compare the old with the new, or simply to gain inspiration from craftsmen of the past. With this in mind, I thought I would share details of what can be found between the covers of some of the older titles on my bookshelf, which for the purposes of this article I have listed chronologically.

Building Model Boats including Steam and Sailing Vessels

Edited by Paul N. Hasluck, Cassell and Co., London, 1901

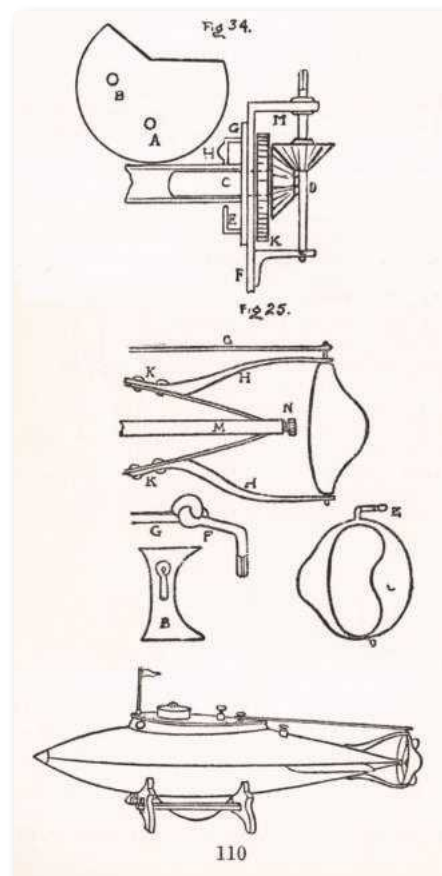
The oldest title in my collection is this small handbook, which claims to be "a comprehensive digest of the knowledge of Building, Rigging and Sailing Model

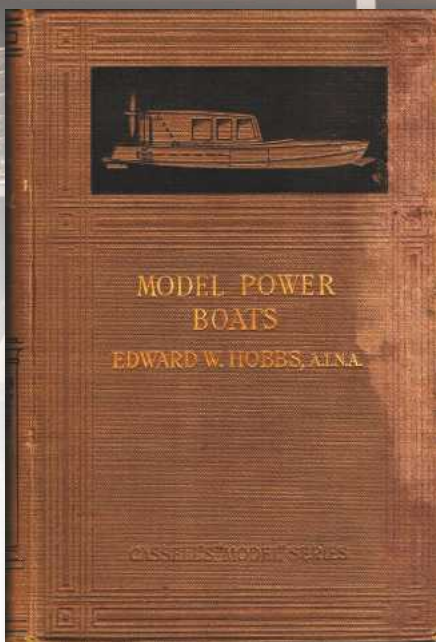
Boats" distilled from the pages of *Work: The Illustrated Journal for Mechanics*. It describes the construction of a sailing cutter with built-up hull and various sail configurations; goes on to cover the building of a Model Atlantic Liner in the form of a sail-assisted steamer inspired by the RMS Teutonic; blithely tackles a couple of steam engine designs (one with reversing gear) including drawings of the casting patterns needed; and ends, appropriately enough, with a design for a display case. All within 160 tiny (170mm x 100mm) pages and priced at just one shilling!

Model Yachts, Sailing Boats & Submarines

Boy's Own Paper Office, London, undated but believed to be circa. 1923

This is a collection of 'How to Make' projects aimed at teenage boys and compiled from the pages of the Boys Own Paper journal. There are numerous simple sailing craft and a more serious racing yacht, three model submarine designs (rubber, clockwork and electric) and even a steam launch, though it is a simple reaction type with its boiler exhausting out the stern. Now, I am prepared to believe that the





Surely a collectable in its own right, this book is the work of Edward Hobbs, the first manager of Bassett-Lowke's London shop, one of the founders of the Model Yacht Club Association and an influential ship modeller.

typical lad of the 1920s was more skilled with his hands than a boy of today, but how anyone could build anything as tricky as an electric powered model submarine from the postage stamp sized hand drawn sketches and vague descriptions in this book is beyond me. Even the clockwork sub has a metal hull of two hand-beaten halves soldered together with numerous watertight penetrations for controls to wind or adjust the mechanisms inside, involving gears, cams and linkages – hardly schoolboy stuff.

Model Power Boats

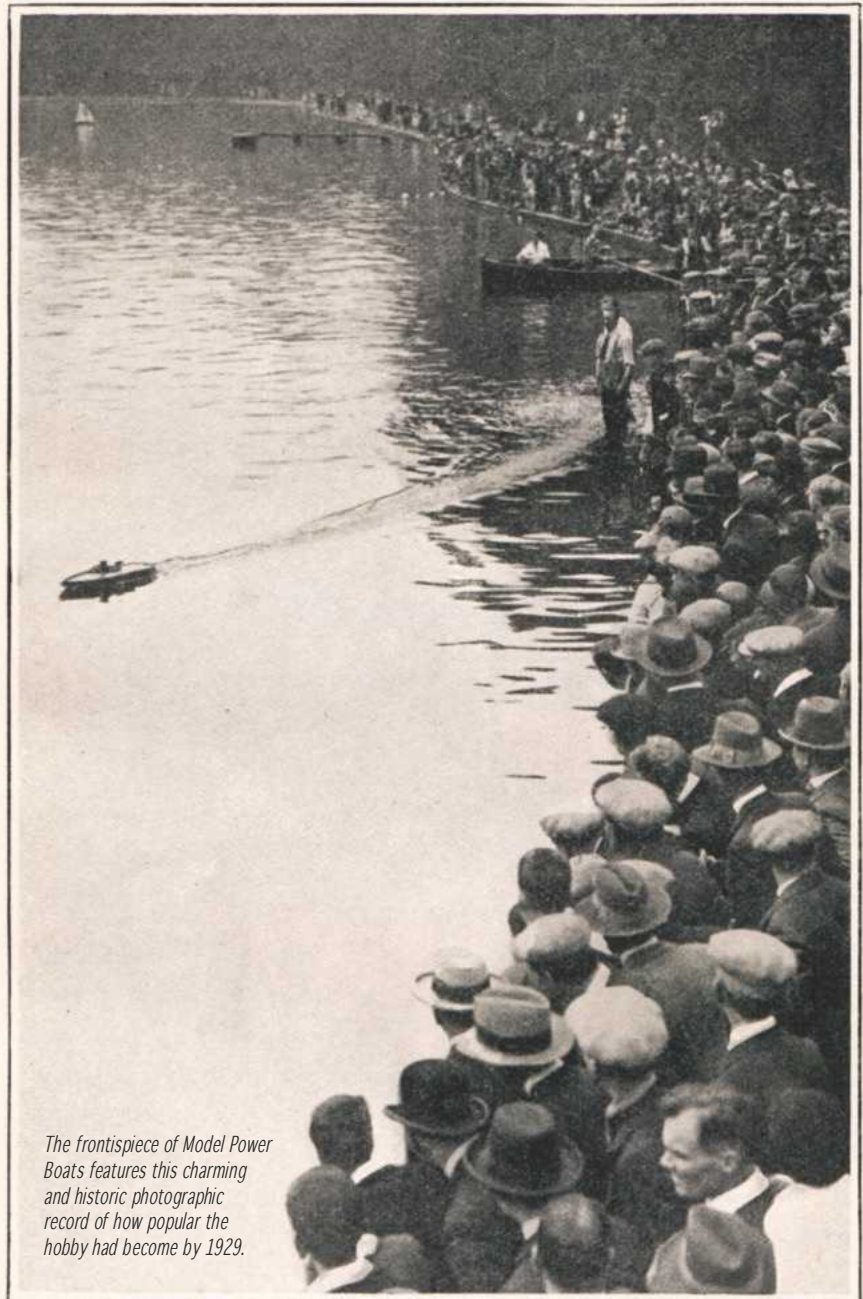
by Edward W. Hobbs, Cassell and Co., London, 1929

This is an important work by Edward Hobbs, the first manager of Bassett-Lowke's London shop, one of the founders of the Model Yacht Club Association and an influential ship modeller. Subtitled "A Practical Text-book covering the whole Art of Model Power Boat Design and Construction", it was Hobbs' second book on the subject, following the success of the first, *Model Power Boats – Steam, Petrol, Electric*, which was published on the eve of World War 1. Some fine illustrations, many reflecting the Bassett-Lowke influence, dot its 310 pages and provide the reader with a good indication of the state-of-the-art prevailing in the 1920s, when the hobby could be said to have fully established itself. Though rather heavy on design and theory, there is much practical advice on building hulls, powering them and fitting them out. Hobbs also wrote the companion book *Model Sailing Boats*.

Ship Model Building

by Gene Johnston, Cornell Maritime Press, Maryland, 1941 (revised 1953, 1961)

This is a book for builders of static display models, from traditional square-riggers through to then-current types. Its strength lies in its detailed description of the features and fittings to be found on almost any type of ship through text and many hundreds of sketches,



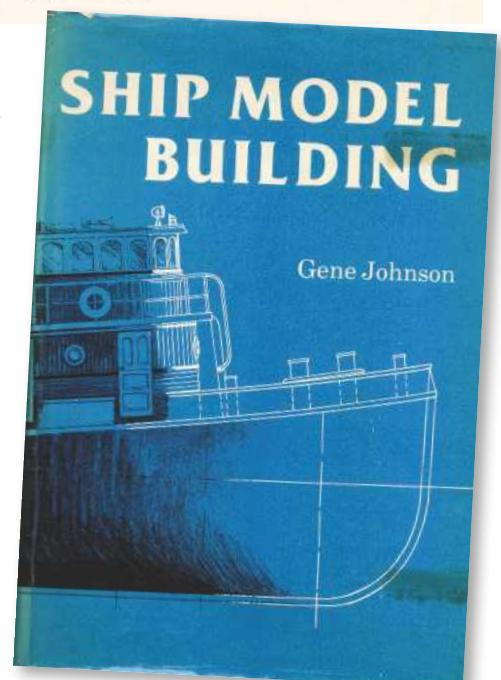
The frontispiece of Model Power Boats features this charming and historic photographic record of how popular the hobby had become by 1929.

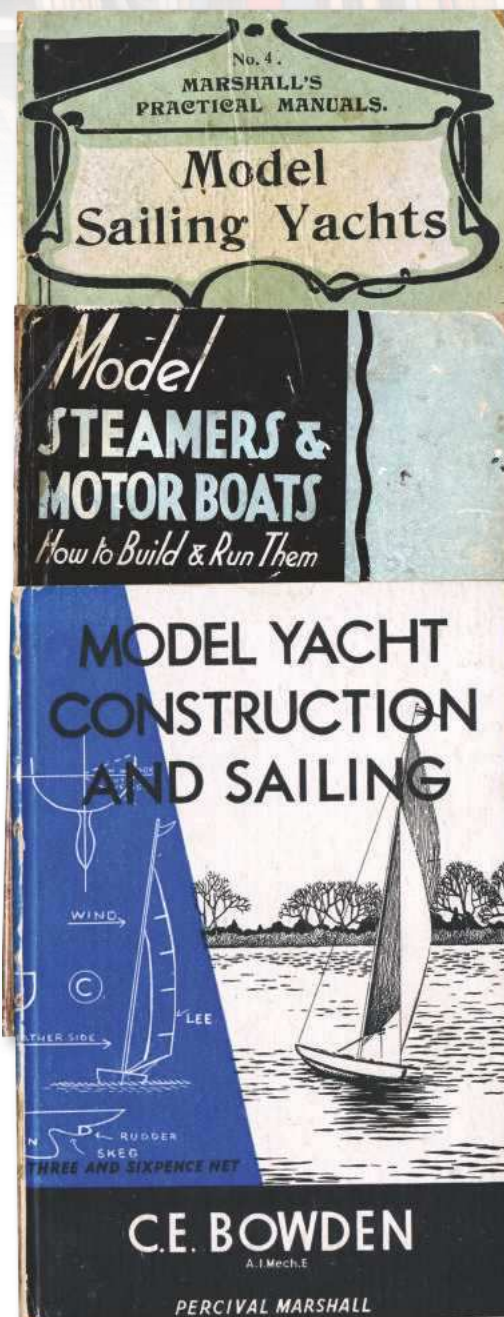
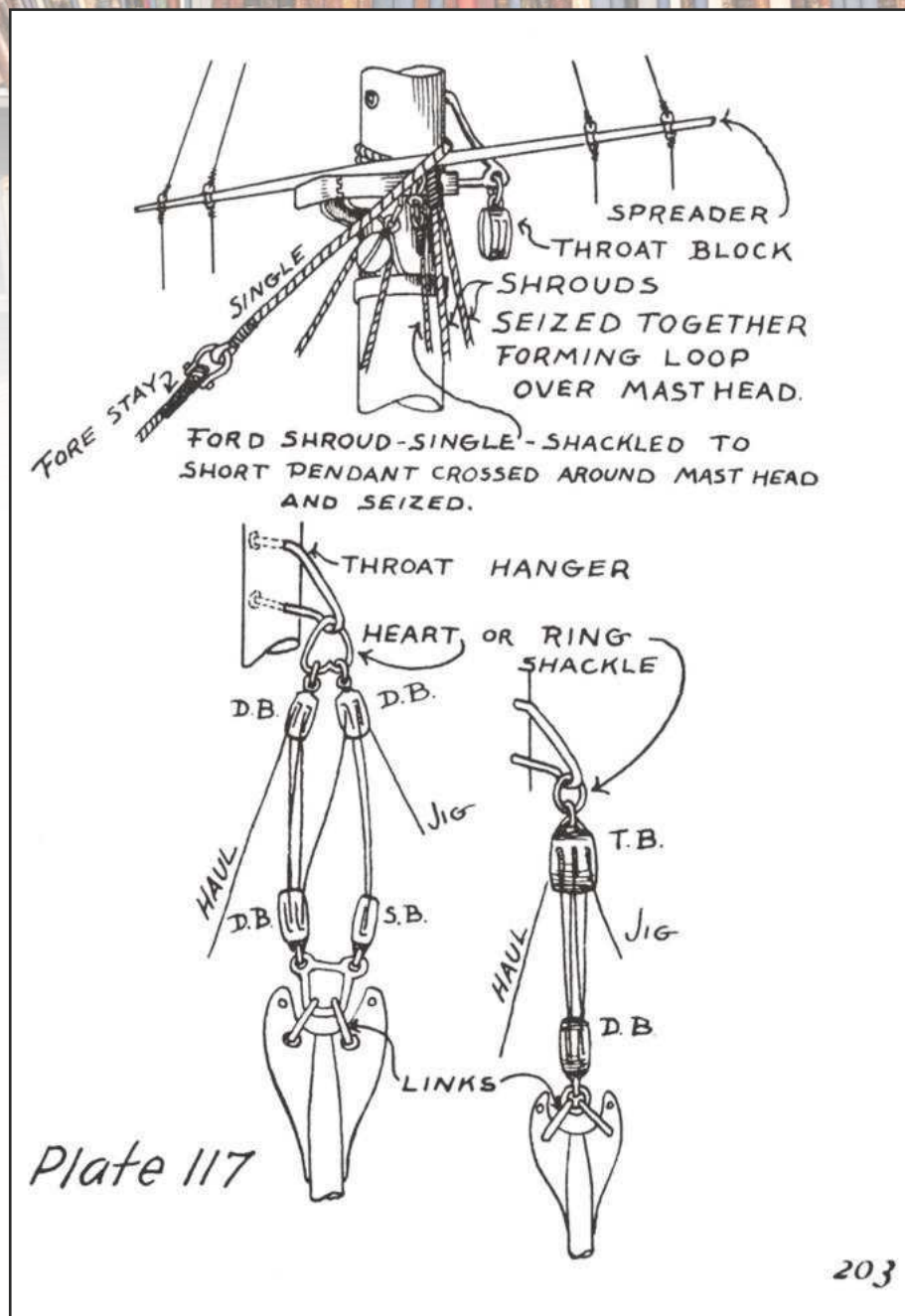
Start of the International Regatta, Victoria Park, London, September, 1929.

RIGHT: There are several editions of Ship Model Building (our contributor John Parker's being the 1961 edition in its seventh reprinting), indicates that the author had quite a following, and that there was continued demand for this book.

along with suggestions on how these parts can be made using common materials such as bamboo and cardboard. There is absolutely no mention of using proprietary parts, plastics, power tools or processes such as moulding. After a brief coverage of tools and hull making, the remainder of book's 300 pages is devoted to details with headings such as Chocks and Cleats, Gratings, Binnacles and Bitts and Anchors.

The several editions of the book (mine is the 1961 edition in its seventh reprinting) indicate the author had quite a following, and that this book fulfilled a real need.





ABOVE: A typical drawing in *Ship Model Building*. RIGHT: Three model boat handbooks as published by Percival Marshall & Co.

Model Sailing Yachts

edited by Percival Marshall, Percival Marshall & Co., London, undated but probably 1930s

Model Yacht Construction and Sailing

by C.E. Bowden, Percival Marshall & Co., London, 1950 (third revised edition)

Model Steamers and Motor Boats – How to build and run them

edited by Percival Marshall, Percival Marshall & Co., London, 1946 (third edition)

I have listed these three titles together as they are all in the same format of small low-cost handbooks by the publishing house of

Percival Marshall and Company, original home of *The Model Engineer* magazine. Percival Marshall produced a vast range of technical and modelling books, and its titles were absorbed into Model and Allied Publications, then publishers of *Model Boats* magazine, in the 1960s. Each provides a surprisingly comprehensive treatment of its subject, given the limit of 120-130 pages, and is well illustrated with small drawings, diagrams and photos.

The two yachting books cover theory, construction, sails, automatic steering gear and sailing, with the earlier work mentioning only Braine steering gear whilst the later one mentions the Vane steering gear as an emerging alternative. Interestingly, it is the earlier work that concentrates more on built-up construction, with the later work almost dismissing it altogether and making the claim that a laminated (bread and butter)

hull is lighter, with a prediction that moulded plywood hulls will become the norm in future for commercial hulls.

The *Model Steamers* book looks quite dated for its time and describes display models, a representative steam tug, cargo boat, steam yacht, destroyer and turbine-powered river gunboat, along with a design for "A Simple Marine Engine" which looks fiendishly complex to me. The chapter on flash boilers and petrol blowlamps is also not for the fainthearted.

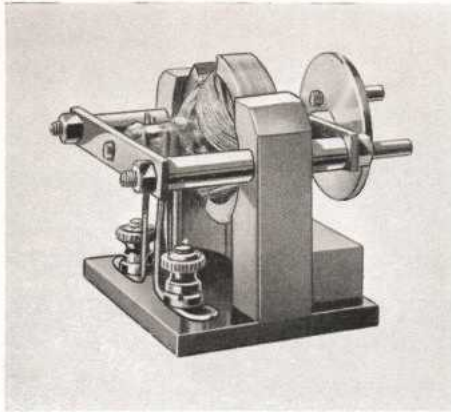


Fig. 76. Permanent-magnet Motor built as described with stock material, As fitted to Tug "Rotary" and other models.

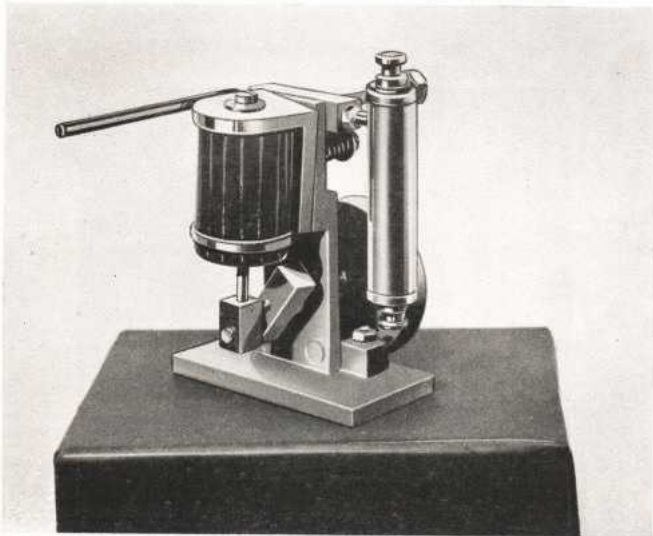


Fig. 84. Single-cylinder Oscillating Engine built entirely from stock material without the use of a lathe (from our own designs). Note cylinder lagged with mahogany strip as an added refinement.

215

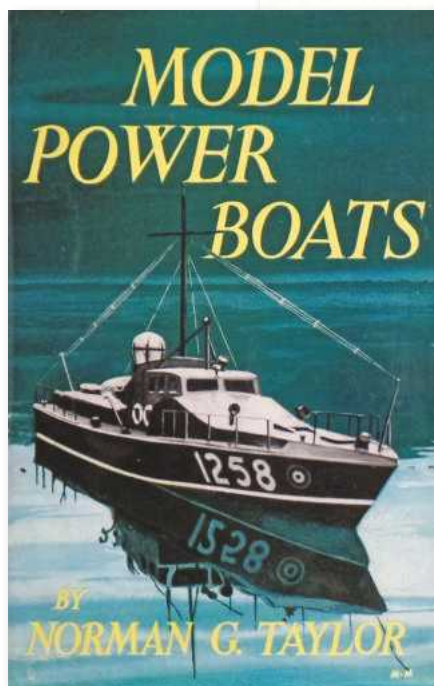
ABOVE: Amongst the diagrams and illustrations included within this early post-war *Scale Model Ships* book are these electric motor and steam engine designs.

Scale Model Ships – their Engines and Construction

by Bernard Reeve and P.W. Thomas, Sidgwick & Jackson Ltd., London, 1951

This early post-war book was "offered as a sincere attempt, not only to foster the spirit of model ship construction, but to assist the maker of such models to achieve a higher standard of accuracy in the portrayal of the model he has elected to build". It is divided into two sections – Scale Model Ships, and Power Plants. The first covers tools, design, hull construction, fittings and finishing, before moving on to the specific techniques for building cabin cruisers, historical models or commercial vessels. The second part covers electric motors, steam engines, internal combustion engines and running gear. Construction details are given for a number of these to be made, including a steam turbine.

An altogether more modern looking book than those previously described, it is well illustrated with diagrams and photographs from authors that were well known for their model plans, kit designs and magazine articles of the time.



Norman G. Taylor's *Model Power Boats* (1956) became one of the 'standards' of its genre, and copies of the book could be found in most public libraries right up until the 1980s.

MODEL POWER BOATS



Fig. 201.—"Costal Cruiser" by Messrs. Modelcraft Ltd

'Wavemaster' has been developed with the following objects in view:

1. Ease and rapidity of construction.
2. Accessibility to engine and radio equipment.
3. Robustness and good seaworthiness.

It is interesting to note that the prototype has been tested under very severe conditions on the sea and on the river Thames.

Following usual practice, all parts in the kit are completely cut out, and need only fitting and trimming to shape.



Fig. 202.—The Veron Police Launch. An attractive and easy-to-build model for diesels up to 2 c.c. or electric motors

[198]

ABOVE: An example of the typical kit notes and illustrations featured in *Model Power Boats*.

Model Power Boats

by Norman G. Taylor, Cassell and Co., London, 1956

One of the 'standards' of the genre, this book could be found in most public libraries right up to the 1980s. It has a fairly well-balanced blend of theory and design, construction, fittings and powerplants, but lacks really detailed instruction on building particular types of vessel. The use of commercial fittings equipment is for once encouraged, with most of the photos of such items having been provided by the manufacturers such as Taycol, Eveready and Bassett-Lowke. There are even details of the recently developed Jetex rocket motors, but radio control is not covered and only gets a brief mention in passing. A list of some typical construction kits of the time is included with specific notes on Les Rowell's Spraymaster and Wavemaster. ●



Your Models

Whether you're highly skilled and experienced or completely new to the hobby, you're definitely invited to this launch party! So please keep the contributions coming by emailing your stories and photos to editor@modelboats.co.uk

CAP DOMINGO

Further to my letter, which you kindly published under the heading Mystery Cargo Ship in the December 2020 issue of Model Boats, one of your readers, a Mr Tew, kindly not only identified a half-finished kit my dad had found in the loft but also sent him the

original booklet and plans that came with it. As a result, the model, Cap Domingo, has now been built and has had her maiden voyage, so it seemed only right and fitting to send in some photos.

JO NICHOLSON
EMAIL

ABOVE: Cap Domingo on her maiden voyage.

*Wow! What an incredible job your dad has done, Jo! A massive shout out to Mr Tew, too, for making this possible. I'm so delighted with the happy ending to this story. What a fantastic outcome. **Ed***



USS GAMBIER BAY

A number of years ago while visiting Deans Marine, Ron Dean and I discussed a future kit for an American World War II Escort Aircraft Carrier he had in mind. After a visit to the Blackpool Tower Model Show I was fortunate enough to be able to purchase a glass fibre hull kit, which in turn became the Escort Carrier CVE 73, USS Gambier Bay,



Due to the fragile nature of the numerous components included, Stan Reffin's model of the Escort Carrier CVE 73 USS Gambier Bay is now displayed as a static, but nevertheless is fitting with a plethora of R/C working features.





NIFTY NAVY

I thought you might like to see a couple of photos of the vessels in my cardboard navy, including the beginnings of my next project, a type 22 frigate, which is posed in front of HMS Avenger and HMS Kent.

All of these boats are built from cardboard and balsa, with details cobbled together from the contents of the scrap box. Not museum standard models, they are intended to be reliable working models that give the right

appearance when on the water. All are built to 1:144 scale, which makes them a reasonable size for handling and transporting and, perhaps more importantly, not too big to store at home!

Sorry the photos aren't taken at some picturesque location but getting out and about recently has not been an easy option!

I look forward to the magazine each month, so keep up the good work!

KEITH CHADWICK
EMAIL

ABOVE: The beginnings of Keith Chadwick's next cardboard/balsa navy project, a type 22 frigate, posed in front of his highly impressive HMS Avenger and HMS Kent builds.

*This is such inspirational work, Keith, as it highlights just how accessible the hobby is and how, provided you're prepared to devote some time, passion and patience to a project, you really don't have to invest masses of cash to achieve truly remarkable results. **Ed***

measuring in 62.5-inches long x 15-inches wide x 18-inches high. I started this build in 2003, finally finishing it in 2009 (I was working full time back then).

Lots of research was required. Fortunately, however, I was able to make contact with the President of the CVE Association, who as it happened flew off this carrier. He kindly sent me lots of the material that's now in my build book, a ship's cap, a squadron cap, his full service history and a signed copy of the book *Men of Gambier Bay*. Sadly, he passed away a couple of years ago.

Due to all the fragile components included on the model, it's now a display only piece, albeit one with a fully fitted with radio control. Working features include radar, lights, rear lift, rudder

and propulsion. Super detailing items were supplied by John Haynes of Fine Scale Models. The paint work, especially the Atlantic splinter camouflage, took a considerable amount of time and patience to neatly mask off between applications. The paints used were purchased from White Ensign Models; these are now available from Phoenix Paints in Scotland.

I have since also added Ron Deans' carrier, which is a different class, to my collection.

STAN REFFIN
EMAIL

*I always love seeing the incredible level of detail you pack into your builds, Stan, and this is yet another fine example of how going that extra mile really pays off. **Ed***



JAMES CABLE SCRATCHBUILD

The Rother Class RNLB *James Cable* was completed in 1982 and initially stationed at Aldeburgh, Suffolk until 1993. She was the last timber boat commissioned by the RNLI, the last of the 'slow' boats and the last whose

*BELOW & RIGHT: Mike Payne's wonderful working scratch build of the Rother Class RNLB *James Cable*.*



ancestry can be clearly traced back to the original sailing and pulling (rowing) lifeboats. She was named after Aldeburgh's most decorated coxswain.

My model is scratch built, working from photos of the original, and rescaled to 1in to the foot from a plan by L.W. Jones at 3/4in to the foot. Purists might note the non-regulation font identification codes applied, but they do actually match the original. Propulsion is provided by two motors, each driving a three-blade 40mm diameter handed propeller. Both motors are simply controlled via a single ESC. A 6V 4ah sealed lead acid battery provides both the power and much of the ballast.

MIKE PAYNE
WARMINSTER MODEL BOAT CLUB
EMAIL

*She's splendid, Mike. I am sure you already know this but there was actually a launch celebrating First Day Cover for the *James Cable* back in September 1982. Ed*



LOCKDOWN SANITY SAVERS

This is how I relieved the boredom of lockdown thanks to your magazine and the fabulous free plans of John Goodyear's Omega RG65 yacht and Glynn Guest's Skimmer 5/600.

DEREK TAYLOR
NEWCASTLE UPON TYNE

*Love these! Aside from the fact that both are brilliant builds, what especially made me smile was the chap manning the Skimmer, with his cheerful face and actual clothes (particularly that chunky knit jumper) rather than painted on ones. **Ed***

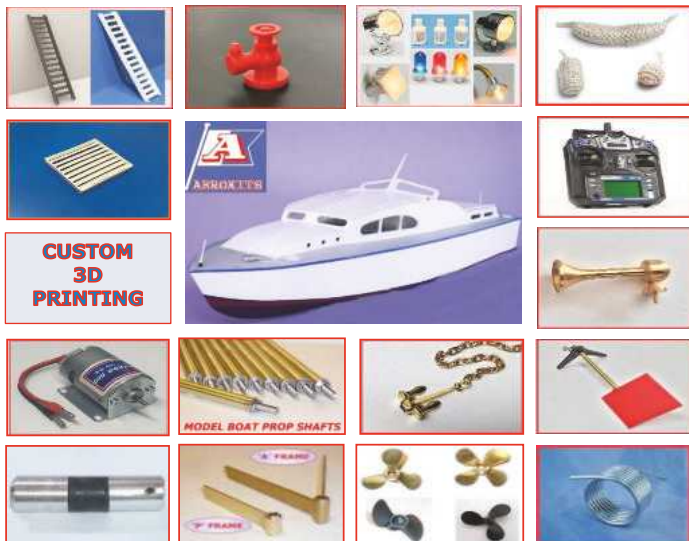
LEFT: Derek Taylor's stunning Omega RG65 yacht, built during lockdown from a free plan featured previously featured in Model Boats.

BELOW: Derek added a novel touch to his build of Glynn Guest's Skimmer 5/600 by borrowing clothes from one of the children's old Barbies in which to clothe the jolly figure manning the controls.

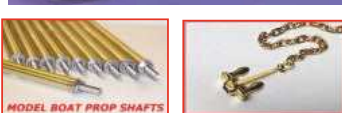




www.modelboatbits.com 01597 870437 / 07921 032624 steve@modelboatbits.com



**CUSTOM
3D
PRINTING**



**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

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

1N1/24TH, 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 Wantirna Road, Ringwood Victoria 3134 Australia

Tel. 61 3 9879 2227

www.floataboat.com.au Mail Order

**Call Angela
to advertise in**

**model
Boats**

07841 019607

angela.price@

mytimemedia.com

**CLEVEDON
STEAM**

Supplier of steam engines, plants and
Cheddar Models compatible accessories

Tel: 01326 291390 • Mobile: 07818 044648

www.clevedonsteam.co.uk

anticsonline.co.uk

**MASSIVE RANGE OF
SHIP MODELS**

01453 377030

info@anticsonline.co.uk

Stroud Gloucester
Bristol Plymouth
Cardiff Stonehouse



1/1250th waterline



**1000's of
models - Navis Neptun,
CM Miniaturen, Albatros, Rhenania,
Risawolesca, etc!**

Our waterline model ship centre is open at
Unit 1, Springfield Business Centre, Brunel Way, Stone-
house, Glos. GL10 3SX

antics
model shops and online stores

Making quality models from quality kits!



A 2019 release from Trumpeter, this 1/350 kit produces a great model of one of the RN three funnelled heavy cruisers, HMS Cornwall, that showed the flag across the world in the thirties. Later in the year we expect a fantastic 1/200 scale Titanic. HMS Cornwall was lost off Ceylon (Sri Lanka) in April 1942.

Rhenania 1/1250 Maersk



Rhenania make a wide variety of commercial vessels from small tugs and supply ships to container ships and tankers. We also have 1/1250 light houses, docks and rigs from time to time!

Kits! All scales!



Lots of plastic, wood and resin kits of US and International naval subjects together with finishing materials and tools.

Balsa Oak SLEC Ash Poplar
Spruce Cherry
Obechi Manufacturing Cedar
Plywood's Buy on Line Pine Bass
Beech www.slecuk.com Mahogany

Laser & Router Cutting Service

Slec Ltd Tel 01 953 885279 Fax 01 953 889393
E-mail : sales@slecuk.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**

model Boats

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

www.mantuaamodell.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

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

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

LINKSPAN MODELS

£456.50 + p&p
 Free Enterprise V /
 Pride of Hythe
 1:96
 length: 122cm beam: 20cm
 draught: 4.4cm weight: 5.7kg

£588.50 + p&p
 Norland / Norstar
 1:96
 length: 159cm beam: 26cm
 draught: 6.3cm weight: 14.6kg

2021 release
 Spirit of Free
 Enterprise
 1:96
 length: 137cm beam: 24cm
 draught: 6cm weight: 9kg

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

model Boats

To place your advertisement
angela.price@mytimemedia.com

AMAZING SAVINGS!

6 issues for £20



Saving **42%**



Saving **30%**



Saving **37%**



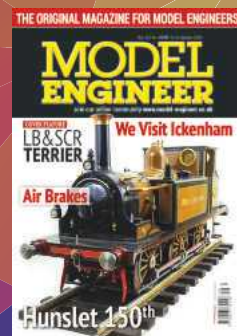
Saving **33%**



Saving **33%**



Saving **41%**



Saving **40%**



Saving **37%**



Saving **33%**



Saving **33%**



Saving **28%**



Saving **33%**

SUBSCRIBE SECURELY ONLINE:
WWW.MYTIMEMEDIA.CO.UK/6FOR20
CALL 0344 243 9023 AND QUOTE 6FOR20**

TERMS & CONDITIONS: Offer ends 31st December 2021. *UK print subscriptions offer only. Subscriptions will begin with the next available issue.

MyTime Media collects your data so that we can fulfil your subscription. We may also, from time to time, send you details of MyTime Media offers, events and competitions but you always have a choice and can opt out by emailing us at unsubscribe@mytimemedia.com

We do not share or sell your data with/to third parties. Details you share with us will be managed as outlined in our Privacy Policy here <http://www.mytimemedia.co.uk/privacy-policy>. Please visit www.mytimemedia.co.uk/terms for full terms & conditions.

**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.

Next month in **model Boats**

In our August issue, on sale from July 23, 2021, be sure not to miss...



● All hands on deck

More of your splendid work showcased



● Showtime!

We chat to the Component Shop's Iain Lewis about the organisational work he's put in to making sure that Blackpool rocks again and about what visitors can look forward to at the October 2021 event



● WIN Revell's newly tooled kit

Be amongst the first to build this 1:72 scale US Navy Swift Boat Mk 1 PCF

You will find more about the exciting content coming next, features of particular interest you may have missed in past editions and details of the very latest subscription offers on our website at www.modelboats.co.uk

You can, of course, order your copy of the August issue, which goes on sale at all good newsagents from July 23, now, but why not treat yourself to an annual subscription, as monthly copies will then be delivered directly to your door.

What's more, the unique subscriber number allocated to you will provide website access to digital copies of the current issue and to our archive of back numbers. It will also unlock subscriber exclusive bonus material not featured in the magazine.

If you can't always find a copy of this magazine, help is at hand!



Complete this form and hand in at your local store, they'll arrange for a copy of each issue to be reserved for you. Some stores may even be able to arrange for it to be delivered to your home. Just ask!

Please reserve/deliver my copy of
on a regular basis, starting with issue.....

Title..... First name.....

Surname.....

Address.....

.....

.....

Postcode.....

Telephone number.....

If you don't want to miss an issue



Pendle Steam Boilers

Makers of High Quality Affordable
Steam Boilers for Marine and
Stationary Enthusiasts



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

www.pendlesteamboilers.com

Working Plans for Model Construction

The Entire Sailing Ship & Power Craft Series of
Authoritative Drawings By Harold A Underhill, AMIES

PUBLICATIONS FOR MAKING MODELS

- Plank -on-Frame , Vol I
- Plank -on-Frame , Vol II
- Masting and Rigging
- Deep Water Sail
- Sailing Ships Rigs and Rigging
- Sail Training and Cadet Ships

Illustrated list of 70 Sailing Ship Designs £4.00

Illustrated list of 35 Power Craft £4.00



Please write for further information and catalogue to:

Brown, Son & Ferguson, Ltd

Unit 1A, 426 Drumoyne Road, Glasgow, G51 4DA

Tel: +44 (0) 141 883 0141

Email: info@skipper.co.uk Website: www.skipper.co.uk

Only available direct from the manufacturer, not from any retail outlet!

Club500 Slipway



Club500 Racing...

...continues to be ever
popular at our model clubs.

See our Website or call us
for details of prices, colours
and accessories available.

Model Specifications:

Length: 515 mm

Beam: 180 mm

Includes motor, propshaft
& Tube, Propeller, Coupling
and Rudder
assembly
with over 200
possible colour
combinations and
a rainbow mix
of colours.

Ordering is only via the website: **www.club500slipway.com**

or by telephoning: Malcolm Griffett at Club 500 Slipway, 59 Shackleton Drive, Perton,
Wolverhampton WV6 7SA. * Tel/fax: 01902 746905

* Mob: 07884 071122 * email: club500@hotmail.co.uk

TONY Green STEAM MODELS

www.tonygreensteammodels.co.uk

19 Station Road
Thorpe-on-the-Hill
Lincoln LN6 9BS
t: 01522 681989

e: sales@tonygreen
steammodels.co.uk

NOW IN!
"The Jumping
Tuna" New model
fishing boat.
£240+P&P

Motor Tug Launch "River Star"

- Model Scale: 1" to 1ft (1:12th)
- Model Length: 27"
- Model Beam: 9"

This small 27ft sea worthy vessel is
designed to operate coastally and on all
the rivers throughout the USA (such as the
mighty Mississippi) right up through to the
great lakes. Easy to handle by a couple,
designed for extended cruising and also
capable of towing small cargoes (such as
pontoon accommodation). She is a small
capable multi role vessel. Our Model of
the 'River Star' has a simple screw and
features a modified type of balance 'fish
tail' rudder. The model of the 'River Star'
is for a full model boat kit containing all
parts (other than motor, batteries and radio
control). We feel this to be a model that
eminently suited to beginners to model
boating. One of the reasons for picking
the 'River Star' was the design and easy
construction.

Orders outside the UK please E-MAIL
address, so we can cost carriage cost

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 seven boats in the range.

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

Information Sheets and Photo CD's available on request

• **MAIL ORDER SPECIALISTS** •

Telephone/24hr Answerphone: 01522 681989



**£210.00
+P&P***

OUR OTHER KITS

Motor Tug Avenger

Sc 3/8" to 1ft (1:32nd),
45"Lg x 12"bm £435+P&P

RNLB 'The Scout' (Waveney class
Lifeboat) Model Scale: 1" to 1ft (1:12th
Sc 1:12th 44" Lg x 12 3/4" bm £435+P&P

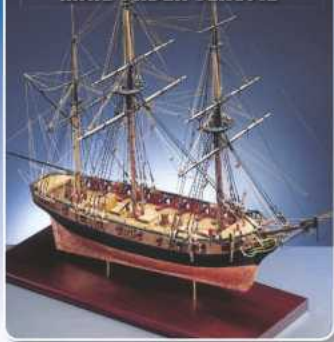
Orkney Ferry TDSV GRAEMSAY
Sc 1:24, 28"Lg x 10"bm £280+P&P

Lady Laura/Lady Marina
Sc 1:32, 31 1/2" Lg x 9 1/2"bm £270+P&P

RNLB ALICE UPJOHN
(Rother class Lifeboat)
Sc 1:12, 41" Lg x 13"bm £410+P&P

"The Jumping Tuna" (Tuna Boat)
Sc 1:16 31" Lg x 10"bm £240+P&P

**SECURE ON-LINE
SHOPPING AND WORLDWIDE
MAIL ORDER SERVICE**



**NEW OCCRE KITS!
ENDURANCE AND TERROR
ALSO FULL RANGE OF
VALLEJO PAINTS
TO FINISH YOUR MODELS**

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 £140

**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!**



**Please check out
our full range of Scale Plastic
Propellers, lots of new sizes
and thread sizes available**

Aerokits

Sea Queen Model Boat Kit	£209.99
Sea Commander 34in Cabin Cruiser	£190.00

Amati

Bellezza Italian Sports Boat	£125.00
Fifie Scottish Motor Fishing Vessel	£224.00
Riva Aquarama - Italian Runabout	£279.00
Sexy Lady Riva Type Launch	£160.00

Aeronaut

Caribic Motor Yacht	£49.99
Delphin Fishing Boat	£69.95
Jenny 1930s American Motor Boat	£124.99
Marina	£145.99
Ramborator Springer Tug	£81.00
Ramboline Push Lighter	£176.95
Spitfire Outboard Racing Boat	£105.00
Torben Modern HamburgTug include Fittings	£249.95

Aquacraft

Aquacraft Mini Wildcat Catamaran RTR	£132.98
Aquacraft Paradise FRP Sailboat	£217.94
Aquacraft Wildcat EP Brushless Catamaran	£217.94

Billings Static Boats

Andrea Gail Perfect Storm B726	£258.00
Cux 87 Krabbencutter Static B474	£154.00
Lilla Dan B578	£168.99
USS Constitution B508	£218.00

Billings Radio Control Boats

Absalon Navel Ship B500	£602.00
African Queen B588	£182.00
Bluenose B576	£168.00
Colin Archer B728	£496.00
Elbjorn Icebreaker B536	£196.00
Havmagen Fishing boat Limited Edition B683	£82.00
Hoga Pearl Harbour Tug B708	£155.00
Jylland Steam and Sail Frigate	£279.00
Kadet B566	£114.00
Nordkap Trawler B476	£252.00
Phantom B710	£127.00
Slo-Mo-Shun B520	£181.00
Smit Nederland B528C	£417.00
Smit Rotterdam	£339.00
St Canute Tug B700	£154.00
White Star Motor Boat B570	£114.00
Zwarte Zee B592	£240.00

Caldercraft Radio Controlled

Imara - Single Screw / Twin Screw Steam	£610.00
---	---------

Caldercraft Heritage Series

HM Bark Endeavour 1768 1:64 C9006	£288.95
The Mary Rose 1510 Tudor Warship C9004	£310.00

Caldercraft Nelsons Navy static

HMAV Bounty 1789 C9008	£234.95
HM Brig Badger 1778 C9017	209.95
HM Schooner Ballahoo 1804 C9013	£74.95
HM Yacht Chatham C9011	£104.95
HM Mortar Vessel Convulsion 1804 C9012	£114.95
HMS Cruiser 1797 1:64 Scale C9001	£245.00
HMS Diana 1794 1:64 Scale C9000	£564.95
HM Bark Endeavour 1768 1:64 Scale C9006	£288.95
HM Bomb Vessel Granado 1756 C9015	£260.00
HMS Jalouse 1794 1:64 Scale C9007	£268.99
HMS Mars 1:64 Scale C9009	£239.95
HMS Snake 1797 1:64 Scale C9002	£245.00
HM Brig Supply 1759 1:64 Scale C9005	£174.95

Corel Static Display Kits

Berlin 17th Century Brandenburg Frigate	£360.00
Cocca Veneta, 16th Century Merchant Vessel	£160.00
Dolphyn, Dutch Privateer AASM16	£196.00
HM Endeavour Bark 1768 SM41	£222.00
HMS Victory SM23	£360.00
La Sirene 18th Century French Frigate 1:75	£236.00
Wasa AASM13	£420.00
Yacht D'Oro 17th C Brandenburg Yacht	£180.00

Disar Models

Agamemnon Ships Boats DM20131	£67.50
Altsu Mendi Basque Tugboat	£135.00
Barquera Motor Fishing Boat	£92.50
Drakka Viking Boat	£67.90
LLaud Del Mediterraneo	£67.50
New York Pilot Boat	£76.00
Vanguard Wooden Paddle Tug	£167.00
Patin Del Mediterraneo Catamaran	£42.13
Soverign of the seas Lifeboat	£50.95

Dumas Chris Craft Radio Controlled

Big Swam Buggy Airboat Kit #1505	£150.39
Barrel Back Mahogany Runabout 1940	£373.43
Chris Craft 16' Painted Racer #1263	£175.50
Chris Craft 16' Utility Boat #1240	£263.00
Chris-Craft 23' Continental 1956 #1243	£348.99
Chris Craft 24' Mahogany Runabout #1230	£387.00
Commander Express Cruiser 1954 #1244	£353.00
Chris Craft Racer 1949 #1249	248.14
Triple Cockpit Barrel Back Runabout	£425.80

Dumas Naval & Patrol Boats

PT-109 US Navy Boat #1233	£192.70
PT-212 Higgins 78' Patrol Boat #1257	£192.40
SC-1 Class Sub Chaser #1259	£215.00
US Army Tug ST-74 1941 #1256	£127.00
U.S.S. Crockett #1218	£196.00
U.S.S. Whitehall #1252	£99.00

Dumas Tugs & Working Boats

Brooklyn Tug Dum1238	£421.00
Carol Moran Tug Dum1250	£108.00
The City of Buffalo Dum1222	£283.00
Great Lakes Freighter #1264	£221.00
Jersey City Tugboat #1248	£330.00

Dumas Static Display Kits

Chinese Junk #1010	£26.30
Chris-Craft 19' Racer #1702	£60.00
DN Iceboat #1123	£56.00
Skip Jack Yacht #1704	£69.99

Joysway

Joysway Blue Mania Brushless ARTR	£164.90
Joysway Bullet V2 ARTR 2.4GHz	£189.95
Bullet Version 3 ARTR 2.4GHz	£247.49
Offshore Lite Sea Rider V4 2.4GHz RTR	£63.64
Dragon Force 65 V6 Yacht ARTR 2.4GHz	£169.99
Magic Vee V5 RTR 2.4GHz	£42.73

Krick Kits Suitable for Electric or Steam Power

Krick Anna with Fittings	£109.00
Borkum Island Supply Vessel with Fittings	£370.00
Lisa M Motor Yacht	£119.99
Krick HE4 Police Boat	£485.35
Krick Muritz	£169.99
U-Boat Type VII b (Inc Running Gear Pack)	£373.99

Mantua & Panart Suitable for RC

Anteo Harbour Tug 1:30	£358.00
Aiace Cargo Ship	£379.00
Venetian Passenger Motor Boat 1:28	£246.00

Mantua Static Display Kits

Albatros. US Coastguard Clipper	£128.00
Amerigo Vespucci. Italian Navy 1.100	£312.00
Astrolabe. French Sloop	£211.00
Britannia. Royal Yacht of the Prince of Wales	£145.00
Golden Star. English Brig	£84.00
Gorch Fock. German Sail Training Ship	£282.00
HMS Victory. Nelson's Flagship 1.200	£114.00
HMS Victory. Nelson's Flagship 1.98	£295.00
Le Superbe. 74 Gun French Fighting Ship	£352.00
Mercator. Belgian Sail Training Ship	£158.00
Santa Maria. Flagship of Columbus	£172.00

Master korabel

Double Boat of the Russian Empire fleet	£99.00
Lifeboat 75mm 1:72 Scale	£18.50
Double Boat 68mm 1:72 Scale	£79.00
Double Boat 1737 1:72 Scale	£99.00
Schooner "Polotsk" 1788	£188.00
Morel - Secret Vessel 1:36 Scale	£91.67

New Maquettes- Instructions are in French

Akragas 25 Metre Tug	£290.00
Avisio 69 Coastal patrol vessel	£392.00
La Jocelyne 300 Tonne Barge	£282.00
Le Marsouin Trawler	£279.00

Oocre Static Models

Please ask about Trams and trains in stock

Albatros Schooner 1:100 Scale	£81.00
Aurora Brig 1:65 Scale	£109.00
Buccaneer 1:100 Scale	£89.95
Corsair Brig 1:80 Scale	£136.00
Diana Frigate 1792 1:85 Scale	£225.00
Endeavour 1:54 Scale	£225.00
Essex Whaling Ship With Sails 1:60 Scale	£113.00
Gorch Fock 1:95 Scale	£323.00
HMS Revenge 1:85 Scale	£149.95
HMS Beagle 1:65 Scale	£110.00
HMS Terror 1:75 Scale	£110.00
Mississippi Paddle Steamer	£174.00
Santisima Trinidad	£369.00
Uliases Ocean Going Steam	£195.00
Santisima Trinidad Cross Section	£116.00

Panart Static & R /C Kits

Amerigo Vespucci. Italian	£710.00
Anteo Harbour Tug 1:30	£358.00
HMS Victory Bow Section	£176.00
Lynx. Baltimore Schooner	£149.00
Panart Section Between Gun Bays	£138.00
Venetian Passenger Motor boat 1:28	£246.00

RO-Marin (Robbe)

Dolly II Harbor Launch 1:20	£113.42
Ro-Marin Antje Fishing Boat	£173.90
Robbe Magin Two.1	£190.00
RO-Marin Najade	£193.00

Sergal Static Display Kits

Dutch Whaler Baleniera Olandese	£275.00
French Xebec (Sciabecco Francaise) 1:49	£85.00
HMS Bounty 1787 1:60	£181.00
HMS Jamaica 14 Gun Sloop	£149.00
HMS Peregrine Galley Runner Class	£193.00
Mississippi River Steamboat	£382.00
Soleil Royale	£709.00
Sovereign of the Seas	£709.00

Victory Models

Lady Nelson Cutter	£105.00
HMS Pegasus 1776 1:64 Scale	£330.00
HMS Vanguard 1787 74 gun ship 1:74 Scale	£680.00
Revenge 1577 Navy Royal Warship 1:64 Scale	£390.00

Model Expo Specialist Kits

Airways-Neuport-Curtiss- Fokker	£394.94
CURTIS JN-4D JENNY, 1917	£332.50
Trailways Allerton Steam Pumper Fire Eng	£719.95

Victory Miniatures- Navel and Military themes

Figurines and guns to glue and paint	POA
--------------------------------------	-----

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



Hoga pearl
harbour tug



Mtroniks

electronics innovation

Over 30 years of
know how

24V VIPER Marine
Brushed speed controller
Available in 15A, 20A, 25A or 40A

FROM £35.99

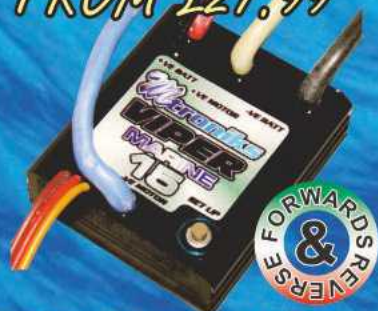


No Relays or moving parts!

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
15A, 20A, 25, 40A or 75A

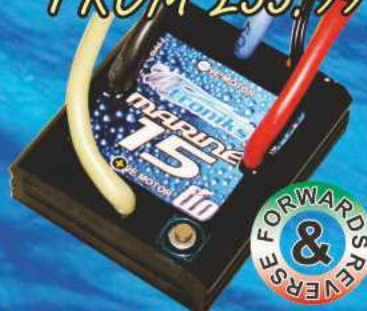
FROM £27.99



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 £33.99



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

£27.99



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



£7.99

M500



£9.99

M600



£11.99

DIGISOUND
Realistic engine sound system



£69.99

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