

FREE!



**LIGHTHOUSE
TENDER PLAN**

**No.1 For
Sail & Scale**
September 2021
Vol.71 No.850

model Boats



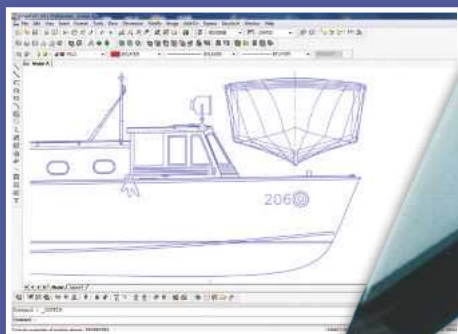
JSC CARD KITS

A 30th anniversary
interview, plus latest
range additions reviewed



TRUE COLOURS

The factors that will affect
your scaled-down finish



2-D CAD

A beginner's guide to
Computer Aided Design

GET ON BOARD

www.modelboats.co.uk



VODKA PALACE

Proof you don't have to be a
billionaire to own a superyacht...
Sundowner, anyone?

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

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

Superglue Kit - £20.00

Superglue Kit - £24.50 + Activator 50ml

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

www.mobilemarinemodels.com

Did You Know...

It Takes More than 30 operations to produce just ONE...

ThrustMaster Propshaft!

That's what makes them SO Special!

& so many to choose from ...

MicroLine

SlimLine

HeavyDuty

MaxLine

Kort-Eze



Designed & Produced In-House by M M M

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

Phone - Visit our Website

Tugging Ahead..... with

MOBILE MARINE MODELS

Model Tugology..... the driving force

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

Full Colour Catalogue £6

Factory Visitors Welcome



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 "STAB boat 1/24 L.310mm X B.125mm



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

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



OUTLET CENTRE NOW OPEN Mon—Sat 10am—4pm



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



12 2021 UK National Fast Electric Championships

Ian Williams reports back on this year's event

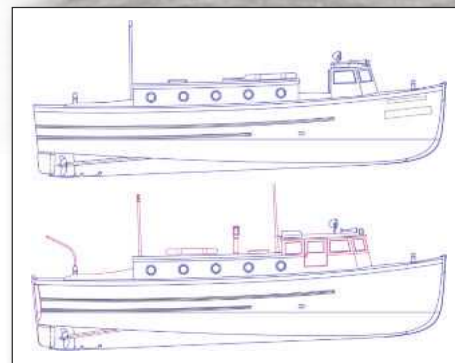
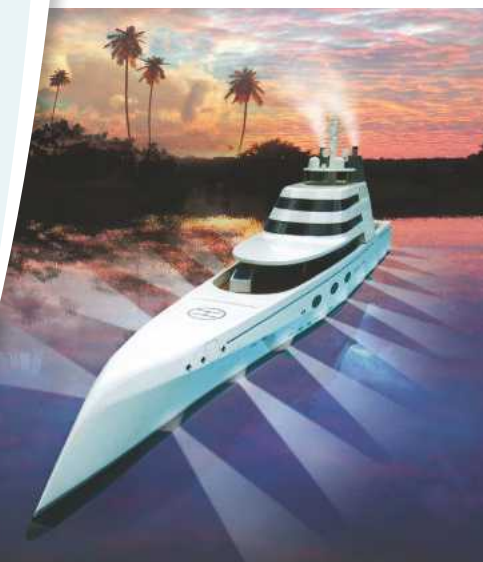


14 JSC MB Q&A

Our Ed chats to Kasia Czolczynska of JSC, the Gdansk-based cardboard kit manufacturing company this year celebrating 30 years of service to the model ship building community...

20 'A' superyacht

Ever fancied joining the Billionaire Boys' Club? Model boat scratch builder Bob Prezioso explains how he managed to treat himself to a little taste of unadulterated luxury without having to let the noughts roll off his pen...



28 2D CAD for modellers

John Parker provides a beginners' guide



34 True colours

Mike Payne tackles this fascinating, and far from black and white, subject from a modellers' perspective

40 FREE PLAN & supporting feature

James Pottinger introduces *Flir*, a classic and beautiful US lighthouse tender



**FREE
PLAN**

I have to say that although very much a working vessel, *Fir*, the historic US Lighthouse Tender upon which this month's free plan is based (see left), really was a very elegant and classy-looking ship, and I reckon she'll make an absolutely stunning model. It's always lovely to be able to share how you've embraced the challenge presented by the free plans included in *Model Boats* (yet another splendid example features in this month's Your Models section, see p. 68), so I am hoping we will also be able to include some of your photos of *Fir* fully built in the near future.

There are, of course, plenty more exciting plans lined-up for forthcoming editions, including one that you'll be able to build and sail with younger family members, as designed and test built by our very own in-house (or, more accurately, in Greece!) draughtsman, Grahame Chambers.

Unfortunately, making any other kind of plans seems to be proving a bit tricky right now. It's encouraging to be able to bring you reports from events such as the 2021 UK National Fast Electric Championships (see pages 12-13), although sadly, as you'll discover on page 9 of our *Compass 360* news section, ongoing uncertainty about where we're at pandemic wise is still seeing some major shows and exhibitions cancelled. I can completely understand organisers feeling the need to err on the side of caution as, Health & Safety logistics aside, I guess it is hard to predict not only any possible changes to the government's route map for the lifting of restrictions but also to try and gauge the level of public confidence when it comes to attending large gatherings and how this will impact attendance/ticket sales.

On the plus side, I know many of you are now enjoying the freedom that comes with being double-jabbed: i.e., being able to get back to the pond side and meet up (albeit with social distancing measures still in place) with fellow club members.

After a difficult couple of years for everyone, clubs probably need our support more than ever before – something we'll be discussing in a bit more depth with our next MB Q&A interviewee.

For now, though, you should find plenty to inspire and entertain you in the pages ahead.

Enjoy your read!

Lindsey



46 Waterjet propulsion – Part 2

Dave Wooley continues his introduction to the installation and operation of, waterjet drives

52 Boiler Room

Richard Simpson showcases two splendid and successful examples of steam-powered working model boats...



58 Memory Lane

Dave Wiggins shares details of his MERCo 35 engine rebuild and points out how it really is possible to put together a very interesting and attractive retro collection on a budget...

60 Printed kit previews

Richard Dyer assesses the latest offerings from card model kit manufacturer JSC

66 Your letters

Knowledge shared, views aired and a heartfelt appeal for help with restoring a family heirloom

68 Your models

Prepare to be wowed by some superb finished builds

73 Coming next month...

Just three of the reasons you won't want to miss the October issue of *Model Boats* revealed



NEW BRUSHLESS MOTOR!

500-600 SIZE
3250KV - 7.4-11.1V

OUR PRICE £29.90



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!



SUPER STRENGTH 25KG METAL GEARED SERVO!

STANDARD SIZE, INCLUDE FITTINGS
AS WELL AS METAL ARM! WATERPROOF!

ONLY
£14.99!



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

NEW 3 CHANNEL RADIO IDEAL FOR MODEL BOATS

2.4GHz with digital trims. Proportional

channels, 2 on the sticks and 1 dial.

Additional receivers

Only £14.99!



Our Price
Only
£34.99

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



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 S3000 DIGITAL - £11.99

RADIANT 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 HUGO

WITH 20KG TRQ £31.50



NEW LOW PRICES!

NEW DEALS ADDED DAILY ON WEBSITE!

01865 848000 WWW.HOWESMODELS.CO.UK

PLEASE NOTE: PRICES IN OUR ADVERT ARE LIABLE TO CHANGE WITHOUT NOTICE

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 FLIGHT 95

Length 950mm Height 1470mm

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 £309.99

Our Price £289.99

RTR RRP £379.99

Our Price £344.99

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



RRP £49.99

Our Price £44.99!

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!**

Electric Motors

385 5-POLE £2.99 each

400 3-POLE £6.99

540 3-POLE £3.99

545 5-POLE £3.99

683 5-POLE £4.00

MFA RE 140 (3-6v) £2.75

MFA RE 170 (1.5-3v) £3.75

MFA RE 360 (6-15v) £4.99

MFA 380 (3-7.2v) £5.75

MFA 385 (4.5-15v) £5.75

MFA RE 540 (4.5-15v) 3 POLE £7.50

MFA TORPEDO 800 £22.50

MFA TORPEDO 850 £22.50



POWER VENOM RACING BOATS!

GREAT FUN AND YOU CAN RACE TOGETHER! AVAILABLE IN BLACK OR ORANGE

25KM/H! 32CM LENGTH

ONLY £49.99 EACH!

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



AERONAUT PILOT BOAT

All the ABS parts are supplied laser-cut, and can be slotted together and glued immediately

Scale 1:25 - Length 715mm

We stock all parts needed to make this model radio controlled

OUR PRICE

ONLY £189.99!

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



UDI ARROW BRUSHLESS SPEED BOAT

LARGE READY TO RUN SPEED BOAT INCLUDES HANDSET, 11.1V LIPO BATTERY AND CHARGER! LOW BATTERY AND LOW SIGNAL WARNING!

RRP £169.99

OUR PRICE ONLY

£139.99!



LENGTH - 633CM

BEAM - 170MM

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



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



KATIE (GAFF RIG PILOT CUTTER)
BY DAVID ALDERTON

A 1:12 scale model of the fast and manoeuvrable Bristol Channel Pilot Cutter. The plan does not contain instructions for building the hull.

Plan DAP001 **£15.50**
Hull DAH001 **£99.50**

Plan & Hull Set DASET001 **£112.00**



**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



MARINER US 80' TUG BOAT

Typical US classic 80' tugboat with the traditional curved wheelhouse. Can still be seen operational in many harbours.

Plan MAR3532 **£17.50**
Laser Cut Wood Pack WP3532 **£99.00**
Short Kit SET3532 **£112.50**



CHOUPETTE

A chine hulled open launch for steam power. Designed as a first model to enable rapid construction of the most practical hull for steam operation.

Plan & Article MAR2560 **£15.50**
Laser Cut Wood Pack WP2560 **£84.50**
Short Kit SET2560 **£93.50**



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 WP3584 **£67.00**
Short Kit (+ DVD) SET3584 **£111.00**



RIVA AQUARAMA

Riva powerboat designed by JJ Laugere

Plan MAR2552 **£17.50** MAR2552-24 **£12.50**
Laser Cut Wood Pack WP2552 **£51.00** Laser Cut Wood Pack WP2552-50PC **£76.50**
Short Kit SET2552 **£65.50** Short Kit SET2552-50PC **£97.50**



TID TUG

The wartime chine hulled tug ever popular as a model drawn to 1:24th scale.

Plan MAR2447 **£14.50**
Laser Cut Wood Pack WP2447 **£50.00**
Short Kit (Set) SET2447 **£61.00**

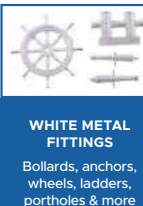
MODELMAKING TOOLS, ACCESSORIES & SUPPLIES

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



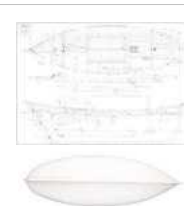
BALSA & PLY

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



**MANX NOBBY
BY DAVID ALDERTON**

A medium to large sized hull (42"). Very attractive shape with beautiful lines.

Plan DAP005 **£21.00**
Hull DAH005 **£131.50**

Plan & Hull Set
DASET005 **£142.50**

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

Our hobby-related news round-up

OBITUARY:

ALAN WHITWORTH

With great sadness, Sheffield Ship Model Society has asked us to announce the passing of its treasurer, Alan Whitworth. Alan had held this post for many years. His main interest was R/C model yachts, and he helped to organise the club's yachting regattas, as well as attending numerous other clubs' open days. Every year he and some of his fellow members arranged the society's stand at the CADMA exhibition, where he served as a marshal for the club. With a broad understand of all aspects of modelling, he worked until retirement at Antics' model shop in Sheffield. He was always open to sharing his knowledge and lending a helping hand to both old and new club members, so, fittingly, on the day of his funeral SSMS members observed a minute's silence at the pondside.



Alan Whitworth, former treasurer of the Sheffield Ship Model Society, will be fondly remembered by his fellow club members and all who knew him in the model boating community.

He will be greatly missed and fondly remembered by his club comrades, and indeed all knew him in the model boating fraternity. Alan was a widower, but our sincerest condolences go out to his family.

MAJOR MODELLING EXHIBITIONS CANCELLED

Exhibition Manager Avril Spence explains: "This difficult decision is taken despite a real determination by the Meridienne Exhibitions team, trade, clubs, societies, exhibitors and other

"Having presented model engineering and other exhibitions for well over 40 years these decisions represent a tremendous disappointment for all but hopefully the situation will be different in later 2022 and we may again present a model engineering exhibition". ●

RACE SHARK SNAPPED UP!

Thanks to the generosity of the kind folks at Hobbies, in the July 2021 issue of Model Boats we were able to offer you the chance to win a Carson Ready to Run 2.4Ghz R/C Race Shark. We're now delighted to announce the winning entrant has been drawn... Congratulations, Colin Hubbard of Stretton Sugwas, Herefordshire!



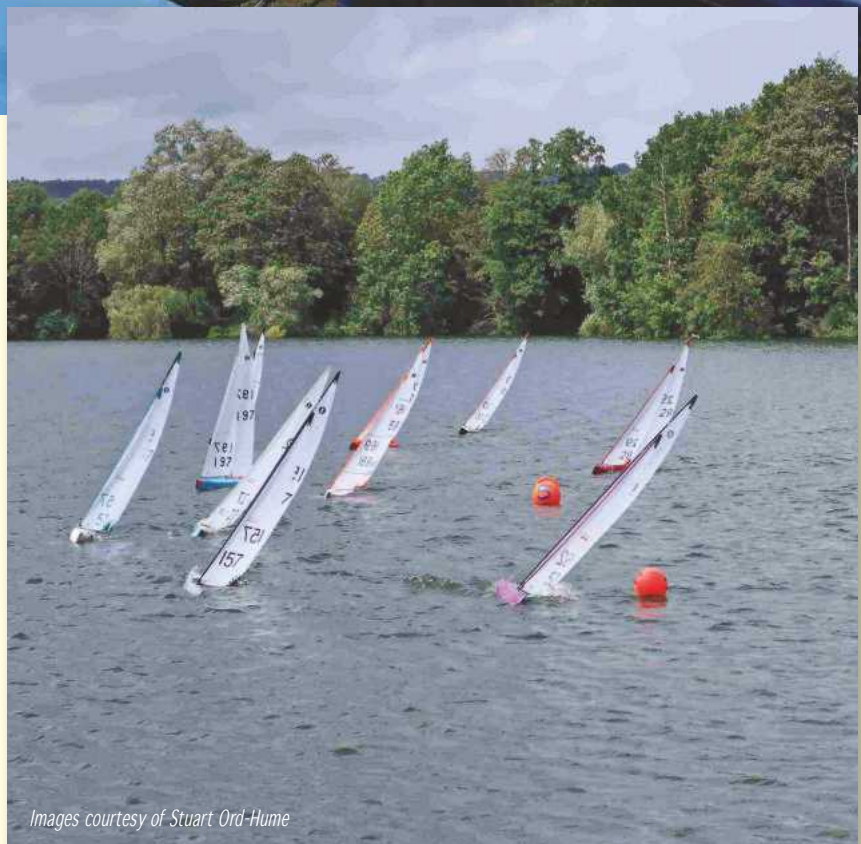


IOM Open Meeting

On July 7, the annual mid-week IOM Open Meeting organised by the Radio Sailing division of Chipstead SC saw 25 sailors, 16 of them being visitors from other clubs, enjoy a day of healthy (COVID-regulation complying) R/C competition and camaraderie.

Performances scored over the course of the day resulted in the top three slots being awarded to:

- David Cole of Hampton Court Model Yacht Club's Kantun-2
- Vernon Appleton of Chipstead Sailing Club's Britpop
- Dave Cockerill of Emsworth Sailing Club's Britpop



Images courtesy of Stuart Ord-Hume

Out and about

THE SHEFFIELD WATERFRONT FESTIVAL

Scheduled for Saturday, September 18, this year's festival will be split over two sites, Victoria Quays and Attercliffe and will run from 10am to 4pm at Victoria Quays, and 11am to 3pm in Attercliffe. Visitors to this free event, organised by the Canal & River Trust and Sheaf and Porter Rivers Trust Victoria Quays, will be able to enjoy live music and street performances, boat trips, canoe and paddle boarding taster sessions, stalls and street food. There will also be guided walks, including taking in the canal's Street Art Trail, a project made possible thanks to support of players of the People's Postcode Lottery. ●

The Sheffield Waterfront Festival will be back this September and this year the fun for all the family event will be split over two sites, Victoria Quays and Attercliffe.



MASSIVE LEGO MAGNE VIKING VESSEL UNVEILED

A 7ft long scale model of an offshore vessel made famous in recent film *Tenet* from Batman director, Christopher Nolan, has gone on display at an Angus port.

The 1:37 scale replica of the Norwegian-registered *Magne Viking* vessel was created entirely from Lego bricks and is realistically detailed with features such as retractable anchor chains and lighting on deck and in the bridge.

The model was commissioned by Montrose Port Authority and built by port employee Jim McDonough, who lives near Arbroath, has been building with Lego since the age of five, and has already had his version of the Royal Yacht *Britannia* immortalised at Ocean Terminal, Edinburgh.

Jim worked largely from technical drawings but, as the *Magne Viking* is a regular visitor to Montrose Port, he was able to go onboard the vessel whenever Covid restrictions allowed during the nine-month long kitchen table build. The model consists of approximately 120,000 bricks and, as no glue was used, everything can be removed and replaced as and when required.

There are several moving parts, which can be controlled by a specialist iPad app created by Hungarian start-up, Sbrick, meaning that many of the features of the vessel portrayed in Christopher Nolan's 2020 film

can also be seen working on the Lego version.

The model is now displayed in a sealed in a bespoke glass cabinet in the reception area of the port's South Quay offices.

Captain Tom Hutchison, CEO and Harbour Master at Montrose Port Authority, explains: "We have been blown away by the detail that Jim has managed to include in the model and how realistic it is.

"There are a lot of mechanised features which can be controlled remotely from a tablet, so we can use it for educational purposes to teach school pupils about how a vessel like the *Magne Viking* operates. We hope to be able to welcome school groups into the port again as soon as restrictions allow.



Markus Abrahamsson, Captain of the *Magne Viking*, and Jim McDonough, Lego model builder extraordinaire, proudly pose alongside the 1:37 scale replica.

"With the ongoing construction of the Seagreen wind farm Operations and Maintenance Base and increasing levels of vessel traffic, including regular visitors like the

Magne Viking, it is an extremely exciting time for the port and Montrose in general and we hope visitors are as amazed by this stunning model as we are."

Further testament to the detail of Jim's creation is the fact that the man in charge of the real ship said that he instantly recognised his vessel when looking at the model. Markus Abrahamsson, Captain of the *Magne Viking*, marvels: "When I first saw the model in person, I was amazed at how big it was. The details are fantastic. It is beyond me how one guy can sit and build that from Lego. When I was shown how everything works, such as winches, etc, I was even more impressed. I think that it really has to be seen several times to appreciate all the details."

Unfortunately, due to Covid, it is not currently possible to visit the model, however the Port hopes that in near future it will be able to welcome school groups into the building to view it.

For more information on Montrose Port Authority, visit www.montroseport.co.uk



Seen here on display in the reception area of the Port's South Quay offices is Jim's 7ft long, magnificently detailed model was constructed from approximately 120,000 bricks. It's numerous moving parts can be controlled by a specialist iPad app created by Hungarian start-up, Sbrick.

Two outrigger hydros fighting it out round a buoy.



The lake is full of large
Coy Carp. They're all
suspects, but could this
one perhaps be the
Devilfish that ruined
Ian's first race?

2021 UK National Fast Electric Championships

Ian Williams reports back on this year's event...



A totally wrecked Hydro!

"I'm not going to mention the gentleman's name, as I wouldn't like to cause any embarrassment, would I, Barry?"

The weather treated us well, except for a Biblical downpour on the Sunday morning, and apart from an occasional bit of drizzle during the day, we were not inconvenienced.

As you can imagine, most people were a little 'ring rusty', for the first round at least, and the first two laps of Mono 1 (the first race) was a little 'hairy'. However, people soon settled down and got into the groove. There were one or two little 'bumps' over the course of the weekend, but no more than is usual. The worst of these happened on Friday afternoon during a practice session, when one of the competitors ran his Hydro 2 straight into one of the pillars supporting the timing gear. The crash was pretty brutal and one of the photos included here shows the result. I'm not going to mention the gentleman's name, as I wouldn't like to cause any embarrassment, would I, Barry? Don't worry, I won't go on about it, but, if you look at the photo you will see the plastic bag ready to take the bits home in! I'm not sure if the hammer played any part.

BELOW: Ian's hero, Andrew, rescues his Mini Mono from the bottom of the lake.



Well, we finally got to race! The 2021 FE Nats were held, as ever, at the Bridlington MBS water at Carnaby over the weekend of July 3/4, with Friday, July 2 being a practice day. The Northern Amp Draggers meeting on June 6, which would have been the first race for us and the only one before a National Championship, had been cancelled. This meant that most of us hadn't raced for about two years and some of the boats had probably hardly ever seen water over that time – not good preparation for a national event.

The event was, unsurprisingly a much-reduced affair, for obvious reasons. Only 17 people attended. Despite this, 51 boats were entered in seven classes; eight, if you include the team race at the end. As is usual at Brid, the event went well, and I must complement the club and especially the ladies in the kitchen for their support.

The AGM

As is usual, the Fast Electric Section AGM was held on the Friday evening, but it was really down in attendance as some members weren't arriving until Saturday morning. Most of the business was dealt with quite quickly as, of course, nothing had happened for almost two years! Also, all the officers of the section, except for the secretary, had agreed to stand for another year. This was a pleasant change. Questions such as "Who wants to be chairman?" can elicit total silence. You can almost see the tumbleweed blowing across a one-horse desert town! The one talking point that came up concerned, as usual, the battery rules. On this occasion it was a short discussion, with us unanimously agreeing to leave things as they are. Now, having mentioned this, I suppose I should explain what I'm going on about... Don't worry, this is going to be a very simple explanation, as I don't want to get into all the to'ing and fro'ing that's gone on over the last few years.

A few years ago, NAVIGA (the Europe-wide controlling body) regulated Lipo batteries by weight. For example, the Mini classes ran with either 2S or 3S cells, with the capacity of the cells limited also. The weight limit for both 2S and 3S was 110gms. Mono 1/Hydro 1 was 280gms and Mono 2/Hydro 2 was 560gms. As people tried to get more energy from the cells without any weight increase, the batteries became increasingly fragile and often failed, meaning things were starting to get costly. After several years of proposals, experimentation and more proposals/disagreements, it was decided that energy limiters would be mandatory in all classes except the Mini classes, although these may also be made compulsory soon.

As the MPBA is affiliated to NAVIGA and the Nationals are by way of being a qualifier for the World and European Championships, we in the UK had to comply with NAVIGA rules. It soon became apparent, however, that this was causing some unrest in the FE fraternity, as not many people were likely to want to go to the major events, especially as they could be anywhere in Europe. (I went to the 1999 Worlds, which was held in the Czech Republic!)

So, after a lot of thought, and more than a few arguments, the current battery rules were brought in (UK only). The three choices available being: -

- 1) Original NAVIGA weight cells, no capacity limits.
- 2) Overweight cells (i.e., increased C rating) limited to 6600mAh (two or four cells depending on class and 4500mAh for 3S or 6S: again, depending on class.
- 3) Energy limiters pre-set at the limit for each class.

If you want to know all the rules go to www.mpba-fes.org.uk

Right, having got that out of the way, back to the racing... As I said earlier, there were one or two 'comings together', but nothing worse than would normally happen at any race meeting. A couple of boats sank and didn't come back up; one of them being my Mini Mono, which remained on the bottom for over two hours. It happened in the first heat of Mini Mono after I had a slight coming together with another boat. There initially appeared to be no damage, with the boat still going well, but it's now apparent that the tape sealing the hatch was lifted somehow. I managed to do 20 laps like this, but on the 21st my boat dived under, as they sometimes do, and failed to resurface. Time to call in the salvage expert, Mr. Andrew Fuller. Donning chest waders and poking around the bottom with a rake, he invariably finds sunken models. Mine was no exception, but first there were a few abortive attempts. Indeed, it wasn't until the lunch break that he recovered both the boat and its separated hatch. The hull looked OK, but I was prepared for everything inside to be trashed. So, that was the end of the racing for this boat. After stripping everything out and drying things as well as I could, it was all packed away until I got home. Fortunately, after a couple of days spent cleaning, lubricating and making sure all was as dry as possible, everything (including, miraculously, the battery) worked OK.

One thing that regularly happens at Bridlington is that for no apparent reason, boats will suddenly jump out of the water, spin out or flip over. Now, there are quite a few Coy Carp in the lake, some of which are over 2ft in length and pretty robust. Everyone is sure that the fish enjoy head butting the boats; that, or there's at

least one resident boat-hating 'Devilfish'. This happened to my 4-cell Cat in the first heat, when it flipped over sideways while I was well in the lead. I then had one of my battery packs expire in the second heat, but I still ended up third in the Cat class at the end of the competition and recorded the fastest lap in that class, so I can't really grumble.

It was good to see people again and there was one or two new faces as well, which was great. One notable pair of returnees, who we hadn't seen for about three years, was father and son team Paul and Lee Heath. They had a great weekend, coming away with a good proportion of the trophies, as can be seen from the photo included, taken when they got home. I will include a list of the 1st three competitors in each class at the end.

Before that, I want to thank the Bridlington club for making us so welcome, especially the ladies in the kitchen who kept us fed, and, of course, Andrew Fuller, the saviour of many a sunken craft.

And, finally, I want to mention the lap counting system in use, as it often goes unsung and unreported. It was developed by our NADS Chairman, Martin Marriott, who also designed and manufactures the ELim energy limiter. The lap counter uses a similar system to that used in R/C car racing, with transponders in the boats which send a signal to the system as each boat passes under two wires suspended over the water on the main straight. It's a very comprehensive system, giving verbal countdowns to the start and end of the race. It will detect and report a jump start and calculate individual lap times,



Ready for the off: three Hydro 2s held in the auto launch devices. These negate the need for human launchers.

as well as overall number of laps. There's a remote monitor near the pit area that mirrors the main monitor in the control booth, which is under the drivers' stand. This shows the situation of each race as it happens and can display the standings in each class, so competitors can see how many laps they did (after the race has ended, of course) and therefore appreciate what they have to do in upcoming heats. NADS has used the system successfully for a while now and it's hired to the MPBA for use at the Nationals each year.

Well, that's it for this year except for the SAWS (Straight Line Speed) event, which is looking like it will be held on September 12. Details are not yet finalised but check out the MPBA-FES web page and NADS webpage for news. ●

BELOW: Father and son team Paul and Lee Heath at home with their trophies.



Top three in each class

Mini mono

1) Lee Heath, 2) Rob Physick, 3) David Harvey

Mini Hydro

1) David Harvey, 2) Rob Physick, 3) Martin Marriott

Mono1

1) Paul Heath, 2) Lee Heath, 3) Rob Physick

Mono2

1) Lee Heath, 2) Paul Heaton, 3) Gary Westwood

Hydro1

1) Lee Heath, 2) Paul Heath, 3) David Harvey.

Hydro2

1) George McDonald. 2) Luke Burton. 3) Keith Mallam

Cat

1) Rob Physick, 2) Keith Mallam, 3) Ian Williams

Team Mono1

1) Team Wacky Racers, 2) No Expectations



MB Q&A

Let's cut to the chase...

Our Ed, **Lindsey Amrani**, chats to **Kasia Czolczynska**, PR/Customer Services Manager at JSC, the Gdansk-based cardboard kit manufacturing company this year celebrating 30 years of service to the model ship building community...

Q For any of our readers who may be unfamiliar with the brand, though, can you tell us a little bit about the business, its background story and own your role within the company?

A The JSC company was founded by my late father-in-law Slawomir Czolczynski in 1991 – the name of the business being an acronym for Janina (my mother-in-law) and Slawomir Czolczynski. Cardboard modelling had been his passion since childhood. He had dozens of model ships at home!

As many readers probably know, the beginning of the '90s was a time of political change in Poland. Finally, my father-in-law could realise his dream and bring paper models to market rather than just building them.

He'd always wanted to design models at the same scale as the ones he built as a child: 1:400, waterline. The technique was to be simple. The models would be designed in such a way as that they didn't have to be glued to thick cardboard before being cut out, thereby making things easier for modellers.

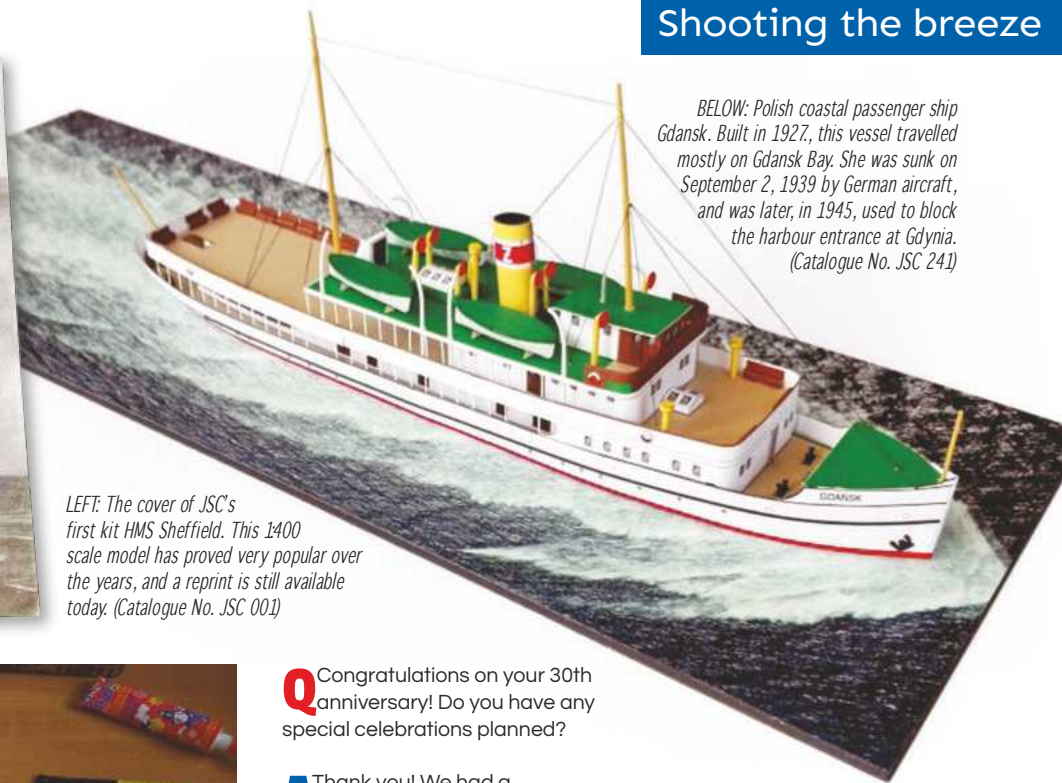
He began looking for people who could help him run the business amongst friends that had



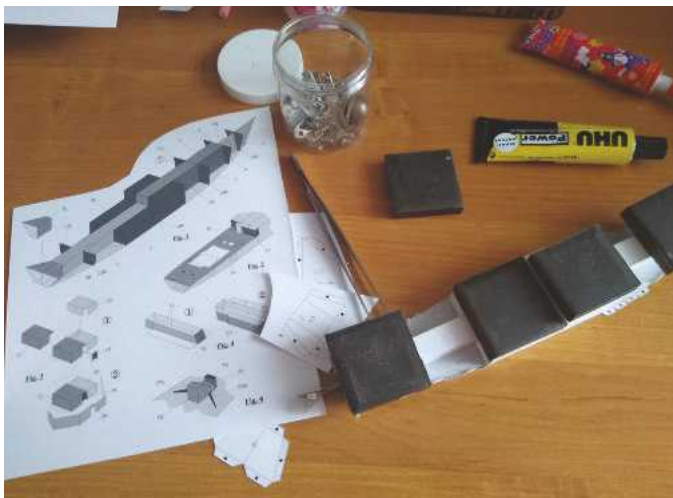
Kasia and Bartek proudly holding their new 1:400 scale model of RMS Titanic. The kit can also be built to represent the Olympic, turn to page 60 for more information. All Images courtesy of JSC.



LEFT: The cover of JSC's first kit HMS Sheffield. This 1:400 scale model has proved very popular over the years, and a reprint is still available today. (Catalogue No. JSC 001)



BELOW: Polish coastal passenger ship Gdansk. Built in 1927, this vessel travelled mostly on Gdansk Bay. She was sunk on September 2, 1939 by German aircraft, and was later, in 1945, used to block the harbour entrance at Gdynia. (Catalogue No. JSC 241)



Card modelling doesn't necessarily require specialist tools in order to get started. Here the inner hull formers are being weighted down on a flat surface to ensure a true alignment while the glue dries.

studied naval architecture with him at university. This is where he and my father had met and how my dad came to be JSC's first designer. At that time, I had no idea that the founder of JSC would be my father-in-law in the future!

The next JSC designer was Bartek, Slawomir's son. Our families, for business reasons, used to meet quite often, so I got to know Bartek and, as a result, our two families became one.

After few years I joined the team in a PR/customer service capacity. Knowing the founder of JSC on a personal level, and the priorities he was guided by, I quickly adapted to the new environment. To this day I share the same principles. Customer satisfaction is of paramount importance. Being hobbyists ourselves, we know how important it is to relax after a long day or working week, so we offer not just a 'model store' but a community, full of good vibes, where modellers can find better and better models, safe in the knowledge we will listen to their

requests, act on their feedback, answer their queries and always be there to offer help and advice.

We are active members of various forums and model groups. Recently we have launched a JSC YouTube channel: <https://www.youtube.com/channel/UCLqn4z3wNzR0JPoWysV0klg/> videos, where we demonstrate the various techniques involved in building paper models.

Q Congratulations on your 30th anniversary! Do you have any special celebrations planned?

A Thank you! We had a wonderful family dinner on the actual date of this anniversary: June 3, 2021.

We received so many lovely messages from modellers all over the world, so it was quite an emotional, but very happy and memorable, day.

So many people shared recollections of the first JSC models they ever built, in most cases as teenagers or young adults. The fact they've remained loyal customers ever since is such a great feeling!

Q I believe HMS Sheffield was chosen as the subject for the first ever card model kit JSC produced. Why that particular ship?

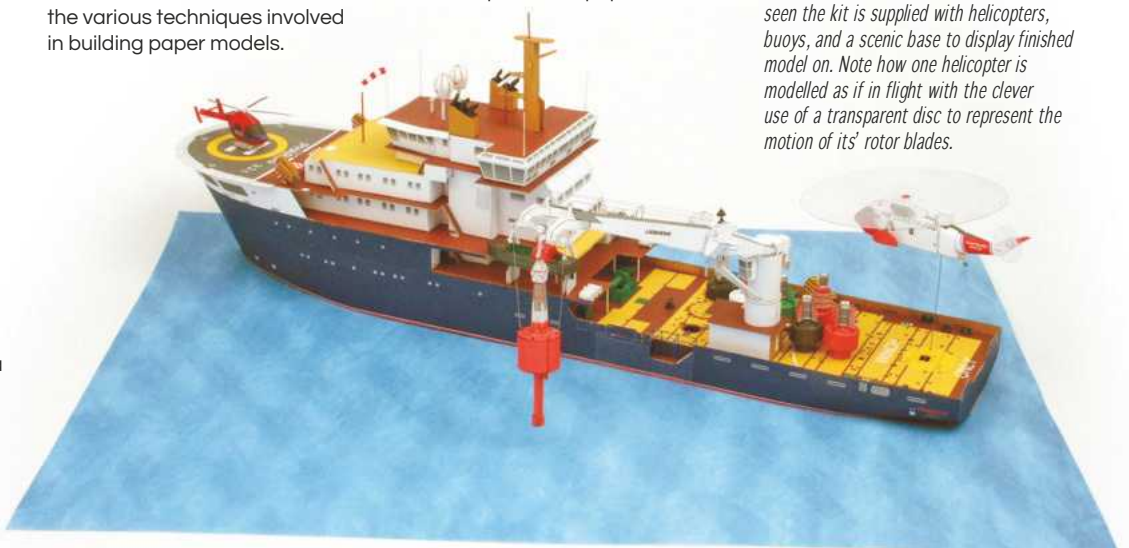
A Yes, HMS Sheffield was the very first JSC kit ever offered. My dad, Jan Schmidt, designed her. He chose the HMS Sheffield because this ship had nice, smooth lines and he really liked her. She proved so popular she's

had several reprints since then. But so many people remember the very first release of this model. The kit components were hand drawn and printed on very thick card, while the cover was printed on thin paper in sepia colours.

Q Considering how much technology has evolved since that first ever release, which aspects of the way you worked back then have remained the same and which have changed as you've embraced the digital age?

A Originally, everything was drawn by hand on tracing paper, so not only did we have to learn how to do this but also how to prepare our models for the printers.

BELOW: Moving up in scale is this 1:250 kit of Scottish multifunction buoy tender Pharos (Catalogue No. JSC 293). As can be seen the kit is supplied with helicopters, buoys, and a scenic base to display finished model on. Note how one helicopter is modelled as if in flight with the clever use of a transparent disc to represent the motion of its rotor blades.



“Blueprints, photos and drawings – which sometimes differ from one another – need to be compared and the facts verified before we can start developing all the fine detail. This is where our designers’ specialised expertise comes into play, as they’re able to call on the knowledge accrued during their naval architecture studies”

What’s remained the same? Research and the sourcing of blueprints, photos and drawings required for the project; except now, of course, we have access to the internet and to library resources from all over the world, plus contact with people is much easier and faster via internet.

Our covers remain the same: i.e., they are still hand-drawn by an artist. Also, while we now use CAD (Computer Aided Design), we still need to be aware of how geometry works, and test build every newly designed kit. This hasn’t changed and never will. Apart from that, everything has moved with the times, including the quality of the paper and the staples – which don’t get rusty anymore as they used to in the ‘90s!

Q How has that affected, if at all, the time frame in which it takes to produce a new kit, i.e., from the research and development stage through to bringing the product to market?



Card models are stronger than you might think. As can be seen here, a modeller's rotary tool is being used to sand the edges of the internal laser cut formers of a hull to ensure the outer printed hull parts fit onto a smooth surface.

A Time frames have remained more or less the same – some things we can now do faster, while others remain labour intensive. For example, we still have to do lots of research and seek out photos, plans and drawings, etc. This actually takes considerably more time than it used to because, thanks to the new technology we have access to, these days we’re able to incorporate more detail into the design of our ships. Consequently, test building takes

longer as well, because our models are now comprised of far more parts.

Working with CAD, however, is faster and more accurate. It’s quicker to arrange parts on A4 sheets, too, because we can change their position to fit the layout of the page with a simple click. Arranging the parts on the sheets had previously proved quite a challenge; first you had to do this in your head, as once you’d drawn them on your tracing paper there was no going back.

What else is easier now? Well, colour preparation is also done with a single click. The test printing for a design is virtually instantaneous because we’re able to use our own colour printer in the office; we no longer have to use a photocopy shop in the city as we did in the past.

Q What would you say are the most challenging and time-consuming aspects of the whole process?

A The most challenging and demanding aspect of the

whole process is the design itself. Blueprints, photos and drawings – which sometimes differ from one another – need to be compared and the facts verified before we can start developing all the fine detail. This is where our designers’ specialised expertise comes into play, as they’re able to call on the knowledge gained during their naval architecture studies. Being able to identify all the parts of a ship and knowing what they look like in real life is key to designing a realistic-looking model.

Another very time-consuming aspect is test building. It’s at this stage our test builder will occasionally come across an unexpected constructional glitch that has to be figured out and perfected before the kit is finalised and put into print.

Q I know as a team you pride yourselves on not just focusing on familiar subjects but also offering more niche subjects, many of which have previously not been produced by either other card or plastic model kit manufacturers. So, when considering a potential subject, what’s the criteria in terms of whether the idea will be viable or not?

A This is a very good question. When choosing our topics, it’s often a matter of ascertaining whether we’ll be able to gain access to the necessary research and development material. Fortunately, being the second generation of the JSC team, we already have plenty of documents, drawings, books and photographs that JSC’s founder Slawomir has gathered over the decades, including many pertaining to unusual, but very interesting, vessels.

Another reason for choosing a particular subject is whether the model in question will bring something new to our collection – whether it will enrich and differentiate our range from that of other manufacturers. Our aim is to give our modellers the opportunity to represent all kinds of ships in their collections, whether they be freighters, tankers, passenger ships or military vessels such as battleships, destroyers and cruisers.



A 1:100 scale waterline model of British Rapid Intervention Vessel Alert (Catalogue No. JSC 104).

BELOW: Two individual ships from one kit! This kit (Catalogue No. JSC 416) contains laser-cut hull construction for both the Meringa and the Sugar Exporter.



LEFT: The German pocket battleship Graf Spee. (Catalogue No. JSC 035)

RIGHT: The British Cruiser Ajax (Catalogue No. JSC 404). Either Ajax or Achilles can be built from this JSC kit. Both the Graf Spee and the Ajax/Achilles kits are 1:400 scale.



Q Which ship in the range has proved to JSC's all-time best-seller to date?

A Our best-sellers are generally well-known ships. The *Titanic* and the *Admiral Graf Spee* have proved to be our two all-time best sellers.

Q You produce kits in a variety of scales. I appreciate modellers in different countries tend to have different preferences, but which scale have you found proves the most popular in terms of overall (worldwide) sales?

A The scale is selected so that the completed model is of a reasonable size. Most of our kits are produced to 1:400 scale so that modellers can display and compare their finished builds easily. This gives a better understanding of the full size vessels, as by sitting one model next to another you will automatically appreciate the size difference. For

example, the VIIC-type U-Boot (16cm in length) vs the Norwegian tanker *Jahre Viking* (116m).

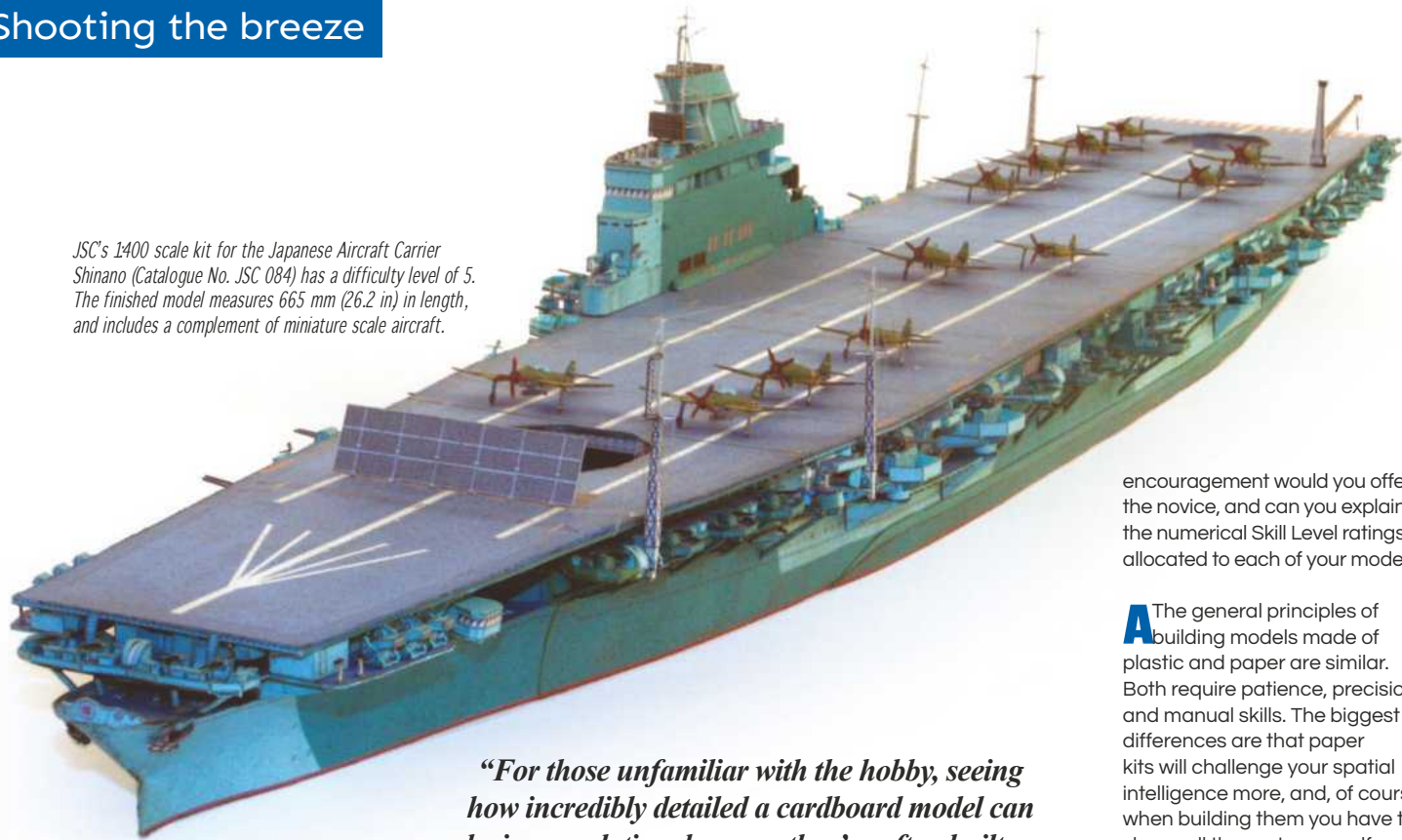
To capture the more diminutive vessels in 1:400 scale, we often have to incorporate them within a kit for a larger model as they're

too small to print separately/individually.

If we do decide to release a stand-alone small ship, we tend to change its scale. A good example of this is the Scottish



JSC's 1:400 scale model of the British Steamer *Californian* (Catalogue No. JSC 417).



JSC's 1:400 scale kit for the Japanese Aircraft Carrier Shinano (Catalogue No. JSC 084) has a difficulty level of 5. The finished model measures 665 mm (26.2 in) in length, and includes a complement of miniature scale aircraft.

“For those unfamiliar with the hobby, seeing how incredibly detailed a cardboard model can be is a revelation, because they’re often built so perfectly that it is impossible to tell they’ve been made entirely from paper”

Fishery Protection Vessel, Hirta, which we produced in 1:250 scale, resulting in model that measures 33 cm in length.

Q What would you say are the advantages of card as opposed to plastic kits when modelling?

A I would call them differences rather than advantages. Paper models don't require painting, because they're already colour printed. They are cheaper than their plastic counterparts but are still hugely satisfying to build and rewarding to display. They also make great talking points, as a modeller can show his completed build to others and point out: "Look, this model is 100% paper". For those unfamiliar with the hobby, seeing how incredibly detailed a cardboard model can be is a revelation, because they're often built so perfectly that it is impossible to tell they've been made entirely from paper.

Q Card is obviously the more environmentally friendly of the two options, but what can card modellers expect in terms of the longevity/durability of their finished models?

A The longevity of finished paper models isn't a problem. Like books, they have a very long life-span. What's more, even if you accidentally drop them on the floor, any resulting damage is

unlikely to be serious: because they're not heavy, they're not particularly fragile. I should point out here that I'm talking about average waterline JSC model with lightweight construction. Obviously, the only things they can't survive are fire and water. You must, however, remember

to protect them from lengthy exposure to direct sunlight, as the otherwise their colours may fade.

Q For readers who have never modelled before in card, how similar or different are the skills required when, say, modelling a plastic kit? What advice and

encouragement would you offer the novice, and can you explain the numerical Skill Level ratings allocated to each of your models?

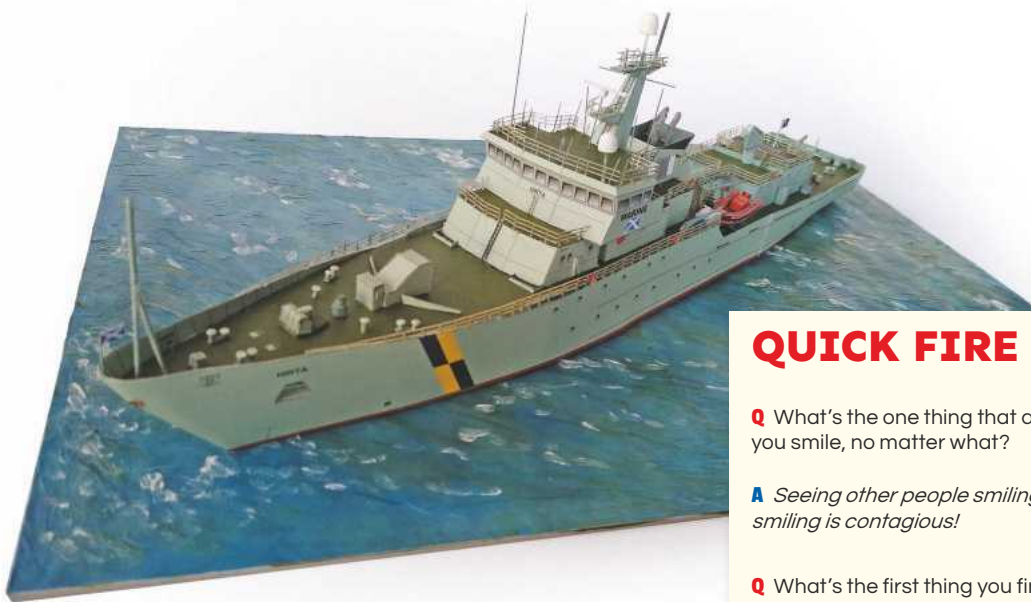
A The general principles of building models made of plastic and paper are similar. Both require patience, precision and manual skills. The biggest differences are that paper kits will challenge your spatial intelligence more, and, of course, when building them you have to shape all the parts yourself.

I'd advise the novice to read hobby magazines, join online forums, view video footage of other modellers building their ships and watch as many online tutorials, such as the ones featured on JSC's YouTube channel, as possible. Then, having built up a better understanding of what's involved, I'd suggest choosing one of the simpler kits, such as HMS Sheffield, as a first project.

The numerical Skill Level ratings we allocate to our models are rated from 1 to 5. '1'

Due to its diminutive size, the Dutch Self-Righting Rescue Boat Carolot has been reproduced in 1:87 scale by JSC. The kit (Catalogue No. JSC 871) can be built either with a full hull or as a waterline model.





LEFT: The Scottish Fishery Protection Vessel Hirta has been produced as a 1:250 scale kit by JSC (Catalogue No. JSC 297), measuring in at 33cm in length on completion.

means that a particular model is comprised of a few parts, most of them being big and easy to cut out. '5' means that model is dedicated to experience modellers, where the parts will be complex and, because of the miniscule size of some of them, assembly will require a lot of precision and skill. The higher the level, the more significantly detailed the model will be. The most difficult JSC model of all time is *Shinano*.

The Skill Level, however, is merely a suggestion, as we appreciate some novice modellers are naturally more confident and ambitious than others. Most of our models are designed at Level 3. Some are offered in two different levels of difficulty, so both beginners

and more experienced modellers can build the same model. The kit aimed at the beginner simply omits some of the more complex parts included in the higher-level version.

Q Few businesses are without competitors, so while I fully understand the need to keep some of your cards close to your chest, is there anything you can reveal about projects currently in the pipeline and what modellers can expect next from JSC?

A For the past two years, we've been concentrating on civilian ships only, so we now feel it's time to revive our navy line, starting with some additions to the Royal Navy fleet. Watch out for announcements coming soon! ●

QUICK FIRE QUESTIONS



Q What's the one thing that always makes you smile, no matter what?

A *Seeing other people smiling always make me do the same – smiling is contagious!*

Q What's the first thing you find yourself noticing or evaluating when you meet someone new?

A *Again, their smile! It's so much easier to start a conversation with someone when he/she is already smiling at me.*

Q Describe your sense of humour in three words...

A *Self-deprecating, a little sarcastic and I enjoy humorous word play, such as a bakery that goes by the name of 'Bread Pitt'!*

Q Who would you call if ever you were in serious trouble (other than the emergency services)?

A *I would call my husband, Bartek. I even have him listed as 'ICE' on my phone instead of by his real name.*

Q If you had to pack up and move to another country tomorrow, where would you go?

A *I would go somewhere nice and warm, Tuscany, or Provence maybe.*

Q If you could have dinner with someone of your choice (dead or alive), who would it be?

A *Jeffrey Hamelman, my bread baking guru. I love baking my own bread at home and it would be great to grill him on his bread making techniques!*

Q What's your most cherished possession?

A *The blue dress my mum gave me. It's now almost 50 years old and it's one she used to wear herself back in the '70s. I now wear it, too, from time to time – and it still fits me!*

Q If suddenly money was no object, what's the first thing you'd buy or do?

A *A real ship! That would be a great addition to my paper ones!*

Q If you were in the market for your dream home and I was your estate agent, what kind of property would I be showing you?

A *A 17th century limestone house, surrounded by a big meadow and a lake.*

Q Would you rather visit your ancestors in the past or meet your descendants in the future?

A *Definitely my descendants in the future. I always try to look forward rather than dwell on the past.*

Also produced in 1:250 scale is the kit for the Dutch tanker *Chevron Nederland* (Catalogue No. JSC 301).



'A' in the harbour of St. Johns, Antigua. Image courtesy of Dstnfrey, via Wikipedia.

'A' Superyacht

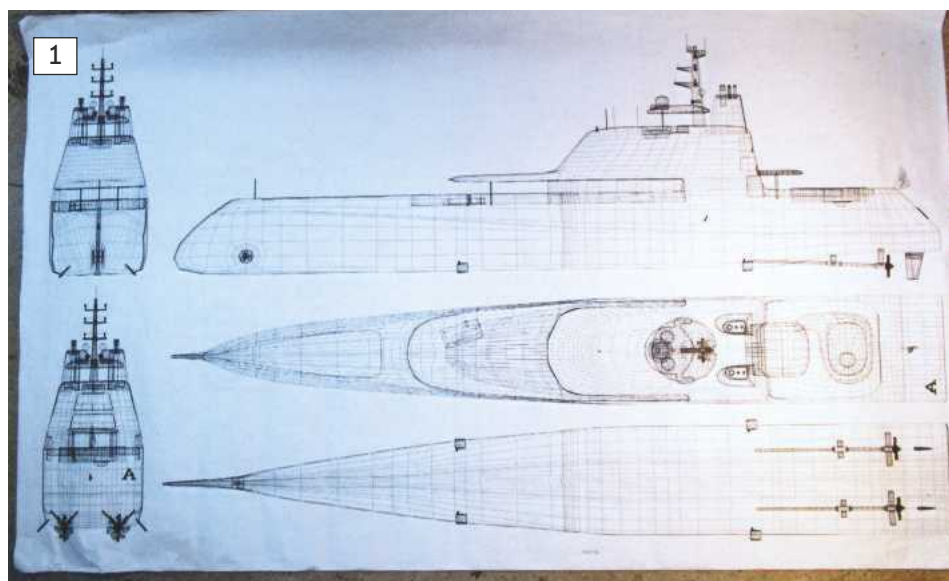
Ever fancied joining the Billionaire Boys' Club? Model boat scratch builder **Bob Prezioso** explains how he managed to treat himself to a little taste of unadulterated luxury without having to let the noughts roll off his pen...

"In my eyes, she was simply crying out to be modelled but, frustratingly, I drew a complete blank when it came to sourcing a suitable plan. Fortunately, however, I eventually chanced upon a solution – one I am going to share with you here..."

Have you ever really wanted to build a specific ship or boat from scratch only to find that without access to a plan you've reluctantly had to shelve the idea? That was the situation I found myself in after having spotted and been completely captivated by 'A' – a sensational super yacht commissioned by a Russian billionaire – on the cover of Show Boat International while browsing in my local bookstore. In my eyes, she was simply crying out to be modelled but, frustratingly, I drew a complete blank when it came to sourcing a suitable plan from which to work. Fortunately, however, I eventually chanced upon a solution – one I am going to share with you here, along with some of the 'learns' from my own build, as hopefully some of the techniques employed can be applied and adapted for various other projects...

Networking pays off

Several years passed and then, as luck would have it, while attending a model boat club meeting, I got talking to Eric Bertelsen. Eric is a computer programmer and has a



business making and selling laser-cut and 3D printed parts for all kinds of naval ships (e-mail www.homeportmodels.com). During the course of our conversation, I mentioned 'A' to him and, much to my delight, he explained that he knew of a website where computer-generated drawings of almost any boat imaginable could be ordered. True to his word, he was able to get me plans at a cost of \$200 (see **Photo 1**), which had top, bottom, side, front and rear views, and illustrated 19 rib profiles at 2.5 inches apart. These plans were drawn up at 1:96 scale (1/8 inch = 1 foot), meaning the completed model would

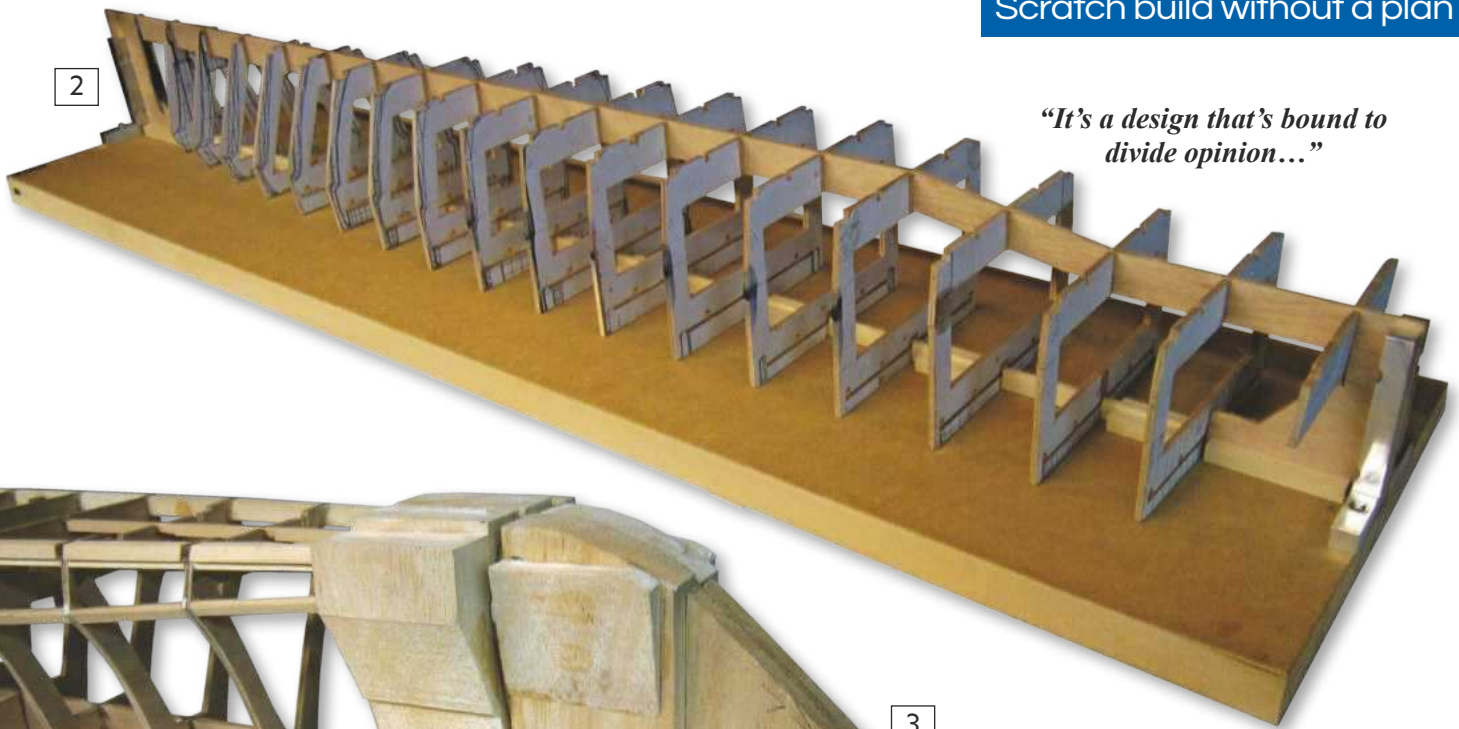
measure 48½ inches in length, with a beam of 6½ inches.

Finally having a visual reference point and accurate dimensions for the various parts/components of the build, I could get down to work. But before we get on to that, let me tell you a little more about 'A' herself...

'A' for Aleksandra

As already pointed out, she was designed and built for a Russian billionaire. Desiring a super yacht that was not only beautiful but in harmony with nature and the sea, he consulted

2



"It's a design that's bound to divide opinion..."

3



4



with naval designer Martin Francis and interior designer Philippe Starck. The result was 'A' (named for the owner's wife, Aleksandra, an active contributor to the yacht's interior design), completed in 2008 at the Blohm & Voss shipyard in Hamburg, Germany.

Her hull and superstructure are made of steel, and she measures an impressive 119m (390ft 5-inches) long, with a beam of 18.8m

(61ft 10-inches). Her two 6035 HP diesel engines power two 19ft 9-inch diameter controllable-pitch, five-bladed propellers to a top speed of 23 knots and can cruise at 19.5 knots for 6,500 nautical miles. 'A's owner and his guests are accommodated in seven luxurious suites (not cabins), and yet there's still ample space for a crew of 37!

Starck claims that it took him just three and a half hours to sketch 'A's unique outlines. The resulting yacht, with its dramatic, monolithic shape looks somewhat submarine-like, with its reverse bow and smoothly sculpted, streamlined superstructure. It's a design that's bound to divide opinion: some may consider it the ultimate status symbol, while others may view it as ostentatious and vulgar. At the end of the day, though, that's irrelevant, as most of us are never going to be in the market for one of these Billionaire Boys Club toys, or at least, not in 1:1 scale!

Construction begins

Before I cut any wood, I had two copies of the plans made, one as a master and the other to cut up. I used a 1 1/4-inch thick piece of MDF as a baseboard and made two pairs of 90-degree angle brackets out of aluminium to support the bow and stern (see **Photo 2**).

Multi-purpose spray adhesive was used to glue the plans to 4mm okoume plywood for the keel and ribs. The hull was built upside down. Balsa wood was used for the reverse bow (**Photo 3**) and 1/8-inch basswood sheets for the bottom. The curved side planks (**Photo 4**) are 1/8-inch-thick x 1/2-inch wide x 1-inch longer



“My planks were soaked for 30 minutes in a mixture of 40% ammonia and 60% water; ammonia acts like a lubricant for wood cells, making it easier for them to move, thus making the planks more pliable”

than needed. My planks were soaked for 30 minutes in a mixture of 40% ammonia and 60% water; ammonia acts like a lubricant for wood cells, making it easier for them to move, thus making the planks more pliable. Planks can be either bent to shape using something round, like a paint can, or by hand. My dried, curved planks were glued at a 45-degree angle with medium superglue.

My next job was crafting the top of the deck (see **Photo 5**). The rudder shaft tubes (**Photo 6**) were made from brass and installed before I covered the transom with 1/8-inch sheet basswood.

Deck planks

Scribed decks look good, but single-planked decks take a model to another dimension. I wanted to make the planks 1/8-inch-wide x .050-inch thick with black caulking. I had a 3/4-inch thick board of teak, so, using a band saw (**Photo 7**) or table saw, I cut several strips 5/32-inch-thick x 18-inches long (see **Photo 8**). I used my thickness sander that has a 3-inch diameter x 3-inch-long abrasive sleeve on an aluminium drum to sand the thickness down to 1/8-inch. If you don't have a thickness sander, cut closer and hand sand both sides. You can then medium superglue a piece of black craft paper; I used .006-inch (**Photo 9**), but you can also use black



5

8

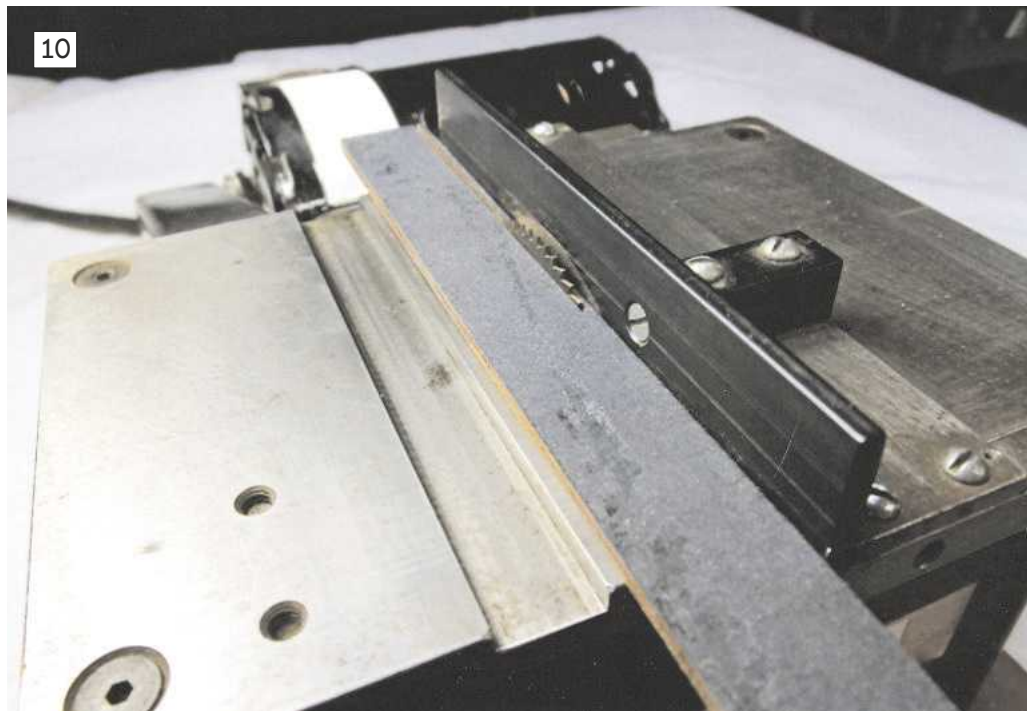
9

“Water-based glue doesn’t bond to teak very well because of the high oil content in this tropical hardwood”

polystyrene plastic, to the top of the teak. (NB water-based glue doesn’t bond to teak very well because of the high oil content in this tropical hardwood).

I cut my planks (caulking side up) oversize (1/16-inches) – this can be done with either a band saw, or modeller’s table saw (see **Photo 10**) – and then sanded to the desired thickness (once again, this can be done by either thickness or hand sanding. Once each plank had the caulking glued to the edge (see **Photo 11**), I then applied medium superglue to both the caulking edge and bottom and pushed each subsequent plank laid against the last, letting the glue dry a few minutes before scraping off the excess and continuing. I was now ready to sand the entire deck (see **Photo 12**). Here I’d advise rubbing on a little teak oil; do not clear coat or varnish.

The planks need to be glued to a strong base board or you could use, as I did, a 1/16-inch Garolite G-10, a fibreglass, cloth-based epoxy phenolic (see **Photo 13**). If the deck is going to be removable, a strong frame needs to be made or the deck will warp. When I build mahogany model boats, I use planks with white or black polystyrene plastic for caulking.



13





14



18



was used for the front and rear overhangs and the aft balconies (see **Photo 16**), while 1/16-inch-thick x 3/16-inch-wide basswood stripes were used to form the circular main saloon (see **Photo 17**) and the smokestacks (**Photo 18**). Finally, after a lot of sanding, my superstructure had taken on a very pleasing shape (see **Photo 19**).

Bow thruster

Using my lathe, I made a wooden tube out of a broom handle 1-inch O.D. x 3/4-inch I.D. Three holes were drilled around the diameter into the center. I glued 1/32-inch pins that went 1/16-inch into the inner diameter. These pins were used as a stop for the aluminium ring (see **Photo 20**) that holds the two 3/4-inch four-bladed props. The tube was glued in the hull. After the hull was painted, props were screwed into each other (see **Photo 21**).

Powering the model

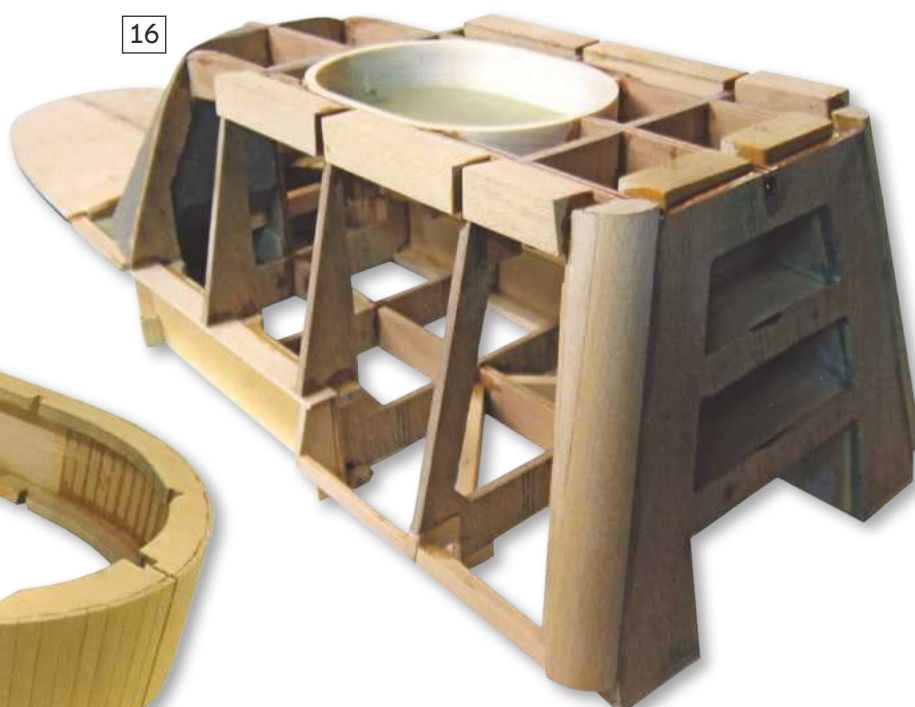
Holes were drilled in the bottom and into a rib (**Photo 22**). A round file was used to open up these holes for the 1/4-inch prop tube. Thin wall stainless steel tubing .014-inch was used, along with a 3/16-inch stainless steel rod for the prop shaft. Bearings at the ends of the



15

Superstructure

Onwards to the construction of the superstructure... I glued six 4mm okoume plywood superstructure profiles 2.5-inches apart on notched stringers (see **Photo 14**). I built a strong framework using 1/8-inch basswood sheets for the top, sides and rear, and balsa blocks for the front (see **Photo 15**). 1/16-inch Baltic birch plywood



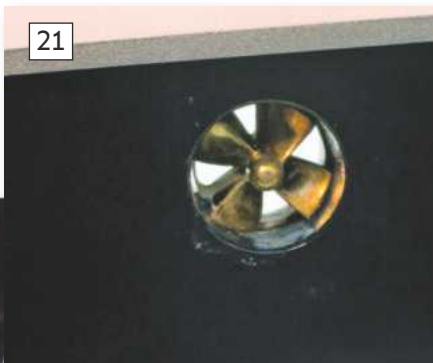
16



17



“Right and left six-bladed 42mm (1 5/8-inch) props were purchased from the UK”



prop tubes and thrust washers were made in my jeweller's lathe out of oil-impregnated bronze. These tubes go from the inside of the boat to the A-frames (see **Photo 23**). The body of the A-frames were also made of brass in my lathe, while the supports were created using my milling machine. I fashioned a fixture to hold pieces for low-temperature silver soldering. Right and left six-bladed 42mm (1 5/8-inch) props were purchased from the UK. The ends of the shafts were threaded for these props, and a 1/16-inch hole was drilled through prop and shaft. A 1/16-inch roll pin was pressed in. Then 3/16-inch stainless steel rudder shafts were slotted for the 1/8-inch stainless





24

rudders; these were silver soldered. I also made four stabilizers (see **Photo 24**).

I chose two Turnigy 540 V-spec in runner w/impeller 810 KV brushless motors because of the high torque and low RPM/KV and, using my milling machine, I created two face-mounted motor mounts out of aluminium (see **Photo 25**). Face-mounting allows for better cooling. These mounts were epoxied to the bottom. I used two Turnigy 60A ESC and three cell (11.1V) LI-PO x 5,000 MAH Turnigy batteries – one for power and the other for ballast. Double jointed universal joints were fitted from motor to shaft (see **Photo 26**).



25



26

“A’ took me approximately 800 hours to build. This, however, really paid off, as she won a gold medal in the Masters category at the U.S.S. Constitution Model Shipwright Guild Annual Judged Model Show”



28

Finish

I started the process of finishing by sanding the entire model. I then applied three coats of finishing resin, wet sanding between each coat. Many years ago, I made a T-shaped sanding block of 1 1/4-inch x 2-inch out of hard rubber, and this does a fantastic job. The entire model was then sprayed with white primer.

I'd tried to ascertain what colour had been used on the bottom of the real boat but having had no luck decided on blue, opting for Krylon Gloss Regal Blue, to be specific. Unfortunately, it wasn't until after the model was complete that I came across a picture in of 'A' in dry dock in a yachting magazine, which revealed her actual bottom to be black, and also that she has two bow thrusters. Of course, I wish I'd seen the picture while I was building my model, but the job's done now, so she will stay as is.

1/8-inch silver tape was used for the waterline. The portholes, windows, and 'H', 'A' and Hamilton markings (see **photos 27** and **28**) were made by a friend using his vinyl cutter. Paper templates were made for the windows in my superstructure. These were represented by charcoal vinyl, which looks like tinted glass, while I used black vinyl for the window frames (**Photo 29**). The side and transom door outlines I applied were dry transfers. This was all finished off with an application of two-part clear epoxy paint in spray form. Even if I say so myself, the results were great!



27

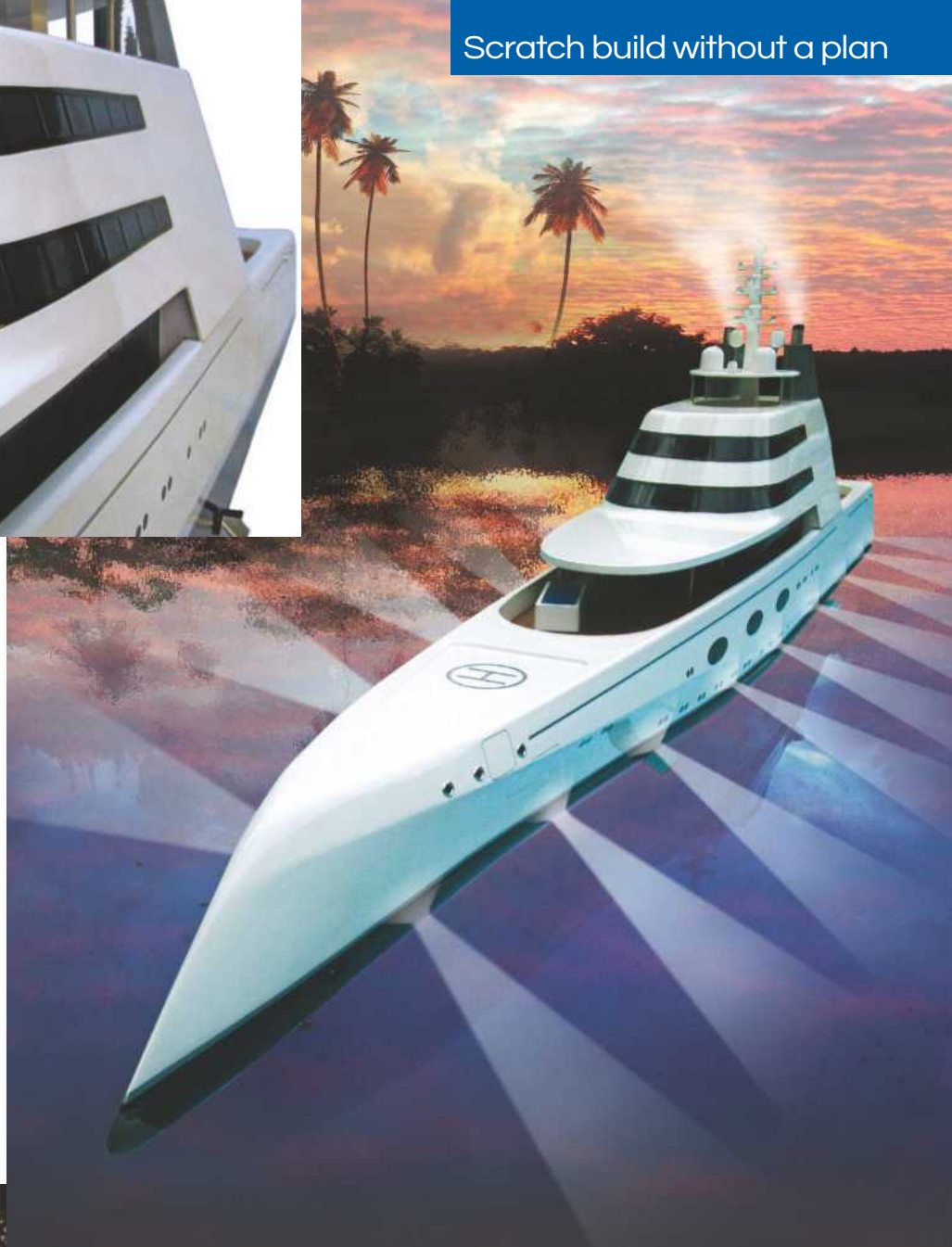


'A' star

Having always appreciated that building models is an absorbing, relaxing and rewarding hobby, I taught my son how to build model boats and later model aircraft, too. Since then, we've thoroughly enjoyed our Sundays together at the pond or flying field. It really has been a great bonding experience for us.

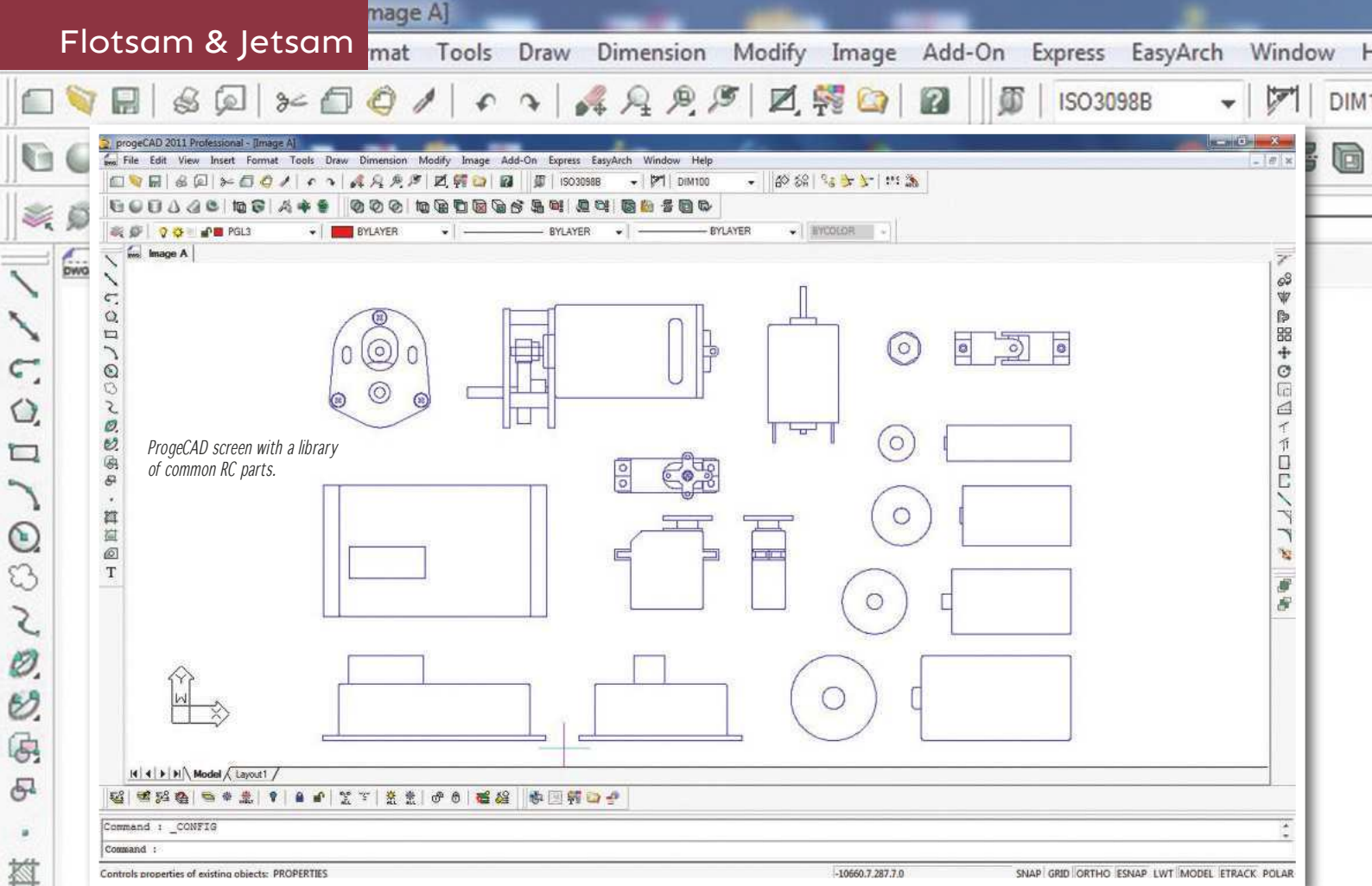
'A' took me approximately 800 hours to build. This, however, really paid off, as she won a gold medal in the Masters category at the U.S.S. Constitution Model Shipwright Guild Annual Judged Model Show.

It really was great fun to work on something completely different. My only disappointment has been that, when I ran the boat at the pond, I discovered I'd made the superstructure too strong and heavy, which causes her to rock a lot; so, I am currently in the process of trying to reduce the weight of the superstructure and install an exterior keel on her long, narrow, flat bottom. The motors provide a lot of power, though, and she looks superb on the water.



After many years of ownership, 'A's' Russian owner consulted with designers and commissioned a sailboat to be built. The result was a 468ft long craft he's also named 'A'. While I think the yacht is beautiful, though, the sailboat is not at all to my taste, so I won't be modelling it. Besides, I already have my next project, a Chris-Craft cabin cruiser, planned! ●



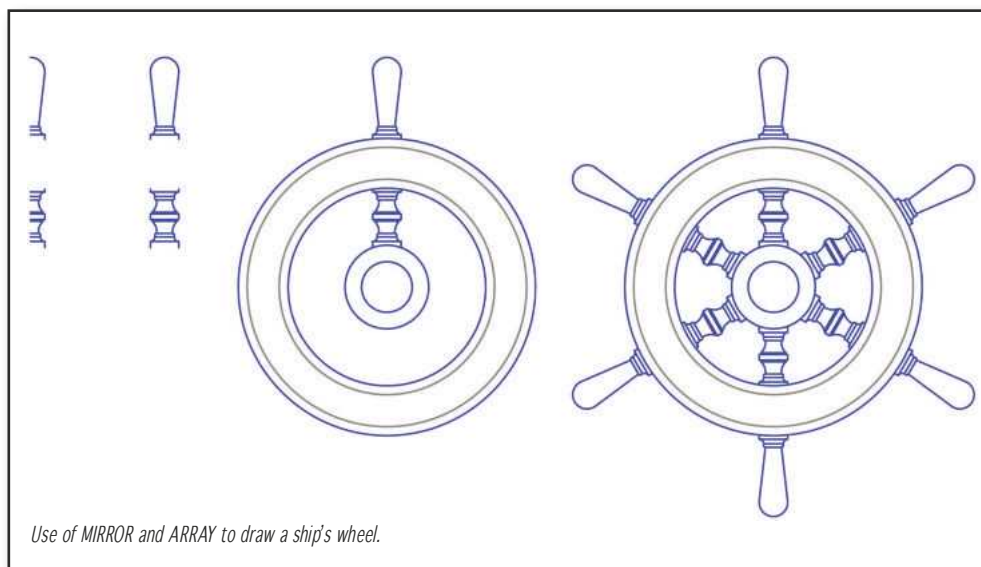


2D CAD for Modellers

John Parker provides an introduction for those with no previous experience...

As you progress with the hobby of building model boats, sooner or later you'll want to be able to draw the subject of your endeavours, or at least some part of it, to assist in its construction, to plan modifications or even to draw up plans where none exist. If you find this is becoming a frequent activity, it might be time to consider learning how to use CAD (Computer Aided Design), in place of a traditional drawing board.

In my professional career as a product designer, I was proud of my drafting skills, done in ink on drafting film. My lettering was neat, whether done by hand or with a stencil; the different views were always nicely balanced on the drawing sheet. Then, around 1992, I had to learn AutoCAD. Despite the limitations of computer technology in those days, it was obvious there was no looking back; the time had come to lay down my Rotring pens. A properly drawn CAD drawing is accurate and absolute, and has many advantages over manual drawings, some of which I hope to demonstrate. It's also the prerequisite to CNC (Computer Numerical Control) manufacturing, such as CNC routing and laser cutting of components, and 3D printing of detail fittings.

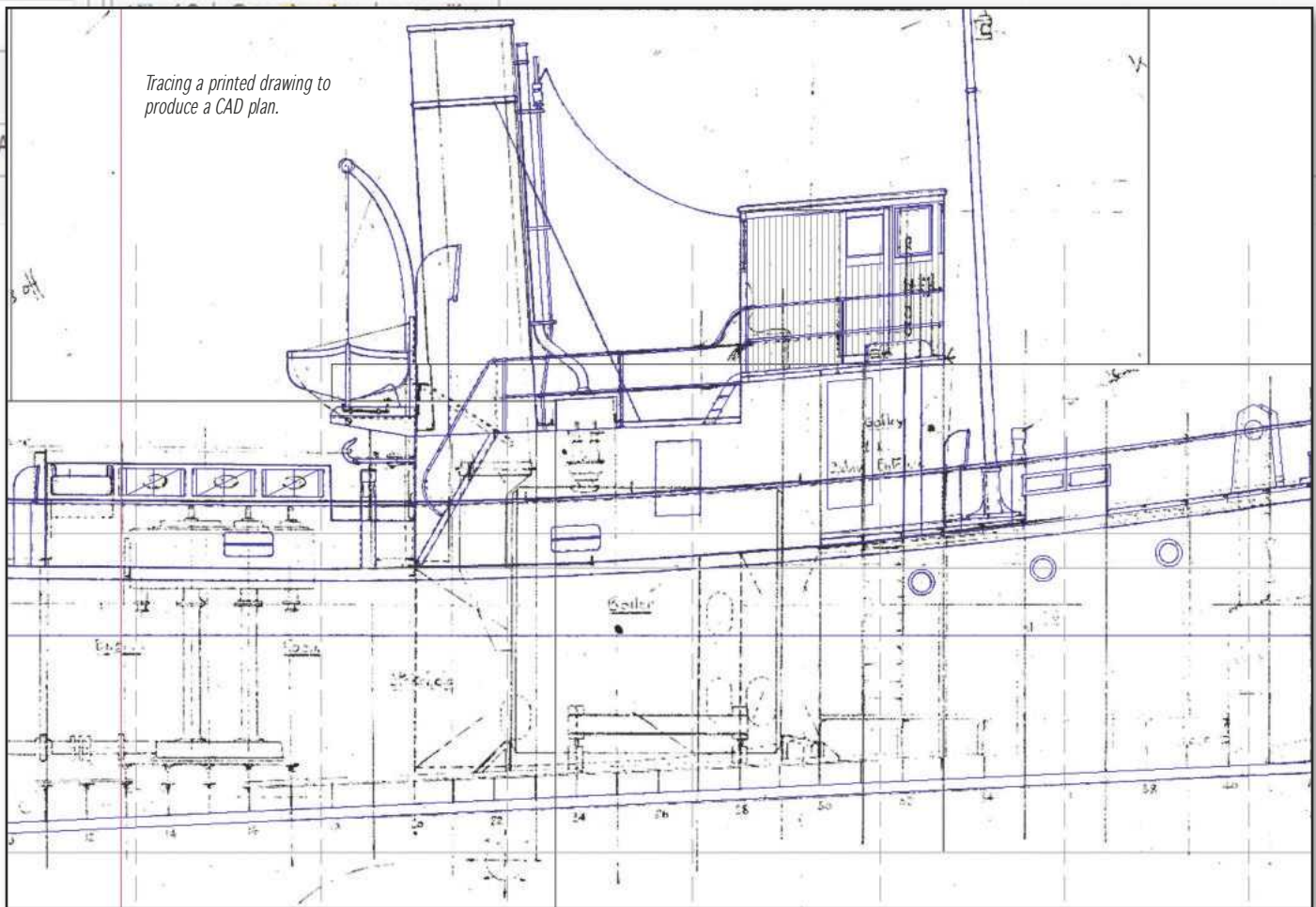


Use of MIRROR and ARRAY to draw a ship's wheel.

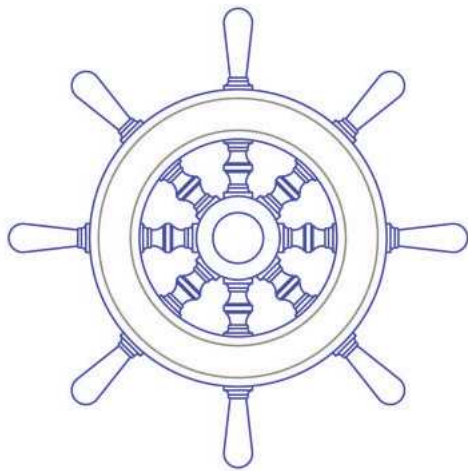
This article serves as a brief general introduction to 2D CAD for modellers with no previous experience of it; in Part 2 I will take a look at 3D CAD. It's not software-specific but adopts a more general approach to show the basic techniques common to most home CAD packages, using them to show what can be done and how much effort is required to do them, in the hope that you will be able to decide for yourself if CAD is for you.

Requirements

The essential requirements are a computer, CAD software and time to spend familiarising yourself with it. An A4 inkjet or laser printer is also desirable, but we will use a plan printing service for most of our final drawings as the cost is very reasonable and a far better option than attempting to print and align multiple A4 sheets together (eight A4s are required to make an A1 drawing). The A4 printer will be

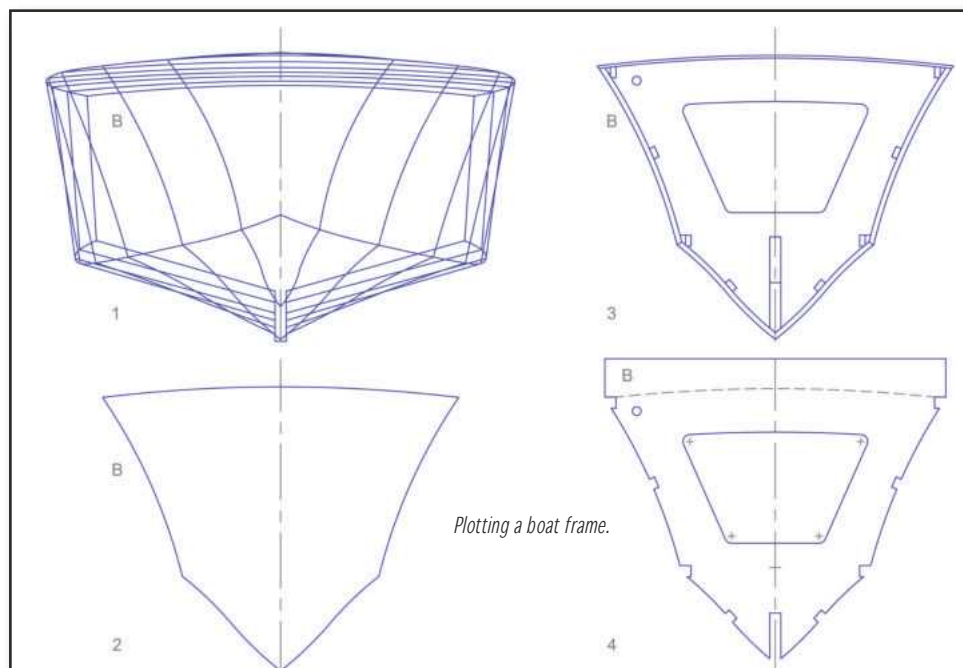


“High-end CAD software is very demanding on computer hardware but for our purposes here I suggest most any home computer bought in the last few years will get by”



very useful when it comes to parts printout, for example the frames of a model boat.

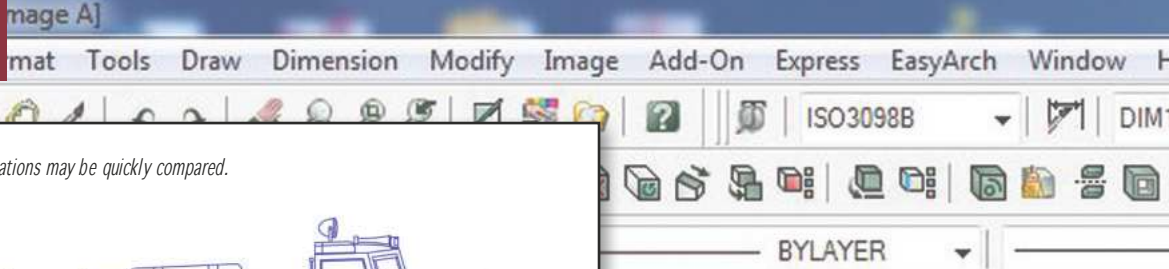
High-end CAD software is very demanding on computer hardware but for our purposes here I suggest most any home computer bought in the last few years will get by. You don't want to spend money upgrading your computer until you are sure CAD is for you; when that time comes, more RAM, a better graphics card and faster processor power



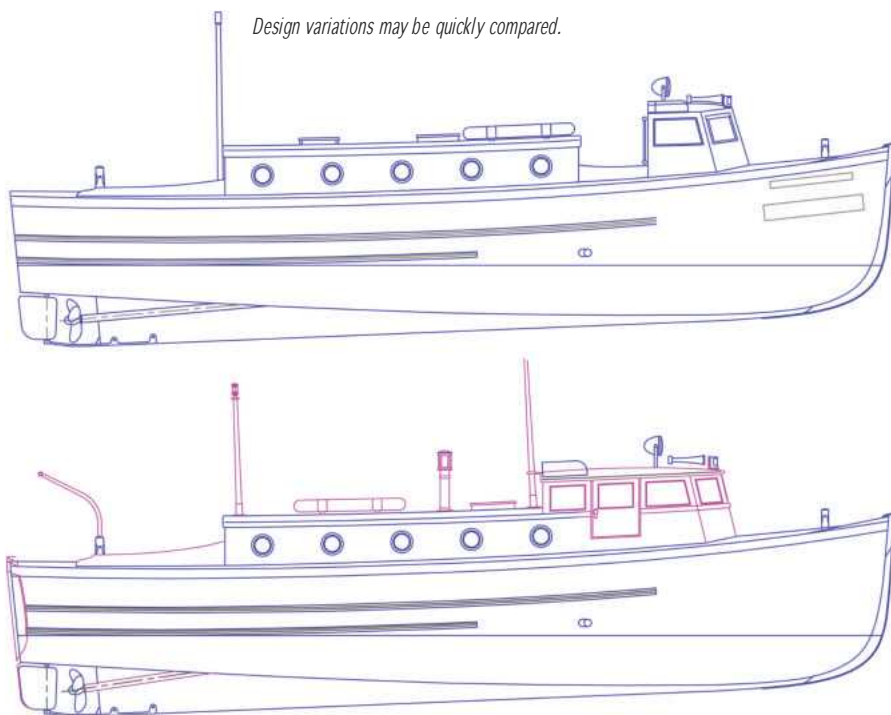
1. Family of boat sections from plan. 2. Section B removed for development.
3. Model structure added making use of OFFSET command. 4. Frame template for cutting.

will be on your shopping list. Until recently I was using a ten-year old computer with 8 GB of RAM and 2.93GHz processor running Windows 10 (upgraded from Windows 7)

and it had proven fine even for complex ship drawings. A large screen of at least 1280 x 960-pixel resolution is desirable, and a mouse with a scroll wheel that doubles



Design variations may be quickly compared.



“We are lucky now in having a wide choice of low cost or even free CAD software available”

TurboCAD and ProgeCAD. Some are 2D only while others offer 2D/3D capability. Being used to AutoCAD from my work but unable to justify the cost, I cast around for something similar about ten years ago and settled for ProgeCAD. It is so similar you can jump from one to the other and hardly notice the difference. Because I wanted to be able to import bitmap images for tracing, I had to settle for the professional version, which cost more but was still a lot cheaper than AutoCAD. The examples shown here were all created with ProgeCAD.

First steps

Firing up any CAD package for the first time can be daunting. There are so many commands, well over a hundred in the case of ProgeCAD, thousands if we count all the pull-out ones and the optional off-screen ones. Fear not, you can get by with just a few at the start, they are LINE, CIRCLE, FILLET, TRIM, EXTEND, DELETE, COPY, MOVE, MIRROR and ROTATE, or their equivalents in the software you are using. If you're drawing modern architecture, these may be all you ever need (!) but because we're drawing boats, which are known for their curved shapes, we will also need POLYLINE and its associated

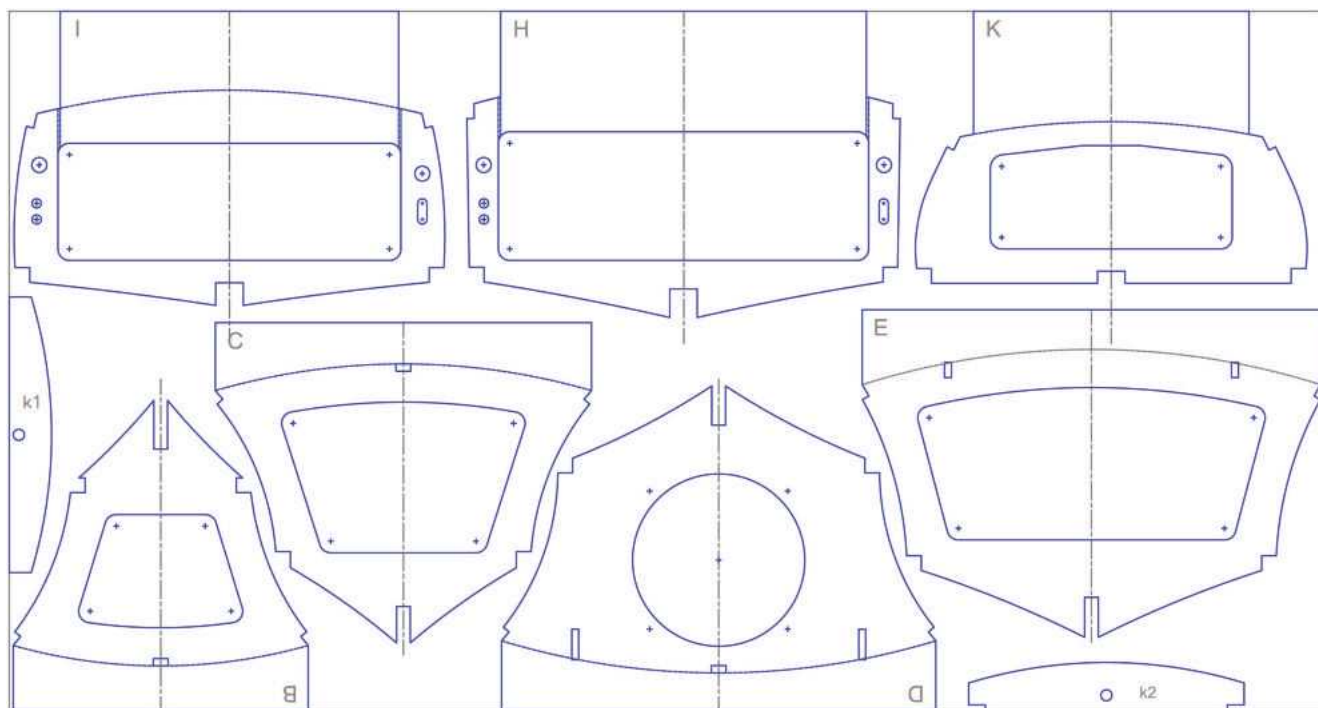
as a third button will make life a lot easier. Laptops with a similar specification are fine but beware a gloss screen that is harder on the eyes due to glare and reflections. Tablets are not suitable for CAD.

Software options

We are lucky now in having a wide choice of low cost or even free CAD software available. I am reluctant to recommend any particular one, as it depends very much on the individual; one man's intuitive, easy to use, product is

another man's impenetrable nightmare. Most are better at some things than others. You can read reviews and comparisons online, look at the tutorials available on YouTube and consider the recommended hardware requirements (take these as minimum requirements). A free trial period is sometimes available and is a good chance to try before you buy. Sometimes an older version of the software, still up to the task for our purposes, may be had for a discounted price.

Some popular software options are LibreCAD, FreeCAD, QCAD, Draftsight,



Frame templates laid out for least wastage of sheet material.

“Learning your basic CAD drawing skills in this way can be used to provide a library of common parts that can be used again and again in your future designs”

commands. Traditional software will let you invoke these commands by typing them in full at the keyboard via the command line at the bottom of the screen or by using the appropriate hot key (L for LINE, C for CIRCLE, etc), as well as with the mouse by clicking on the appropriate icon or using the pull-down menus. Later software tends to use the mouse alone.

Once you're familiar with file opening, closing and saving and finding your way around the screen using the zoom and pan commands, the basic drawing commands may be put to use. I suggest you start with a simple basic component such as a servo. Have one in front of you and take measurements from it, which you can apply to lines and other features on the screen to build up a picture of the servo. This process will be greatly aided if you have a dial or digital calliper to take the measurements with. It's surprising how much detail even a simple part like a servo can have. Have you included the fillets on the corners and the screw head holding the output wheel in place?

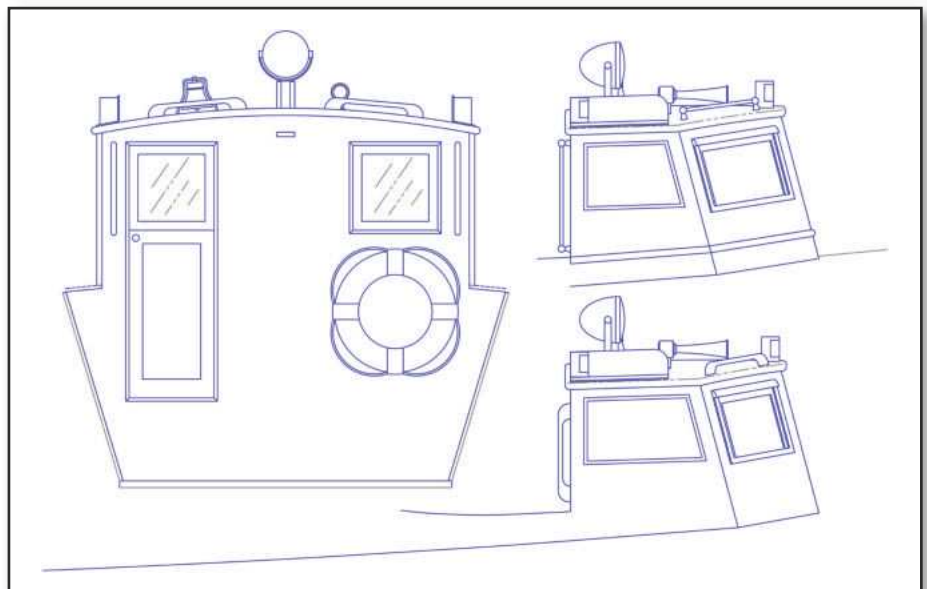
A library of common parts

Learning your basic CAD drawing skills in this way can be used to provide a library of common parts that can be used again and again in your future designs. Motors, couplings, propellers, servos, batteries, deck fittings or anything else may all be drawn in their respective three views, given an 'insertion point' and saved as 'blocks' under a coherent naming scheme such as servo top, servo side and servo end. They can then be called up or inserted into a drawing when required, appearing with their insertion point at the cursor position. Your CAD software will likely have come with libraries of commonly used parts, such as fasteners or electrical symbols.

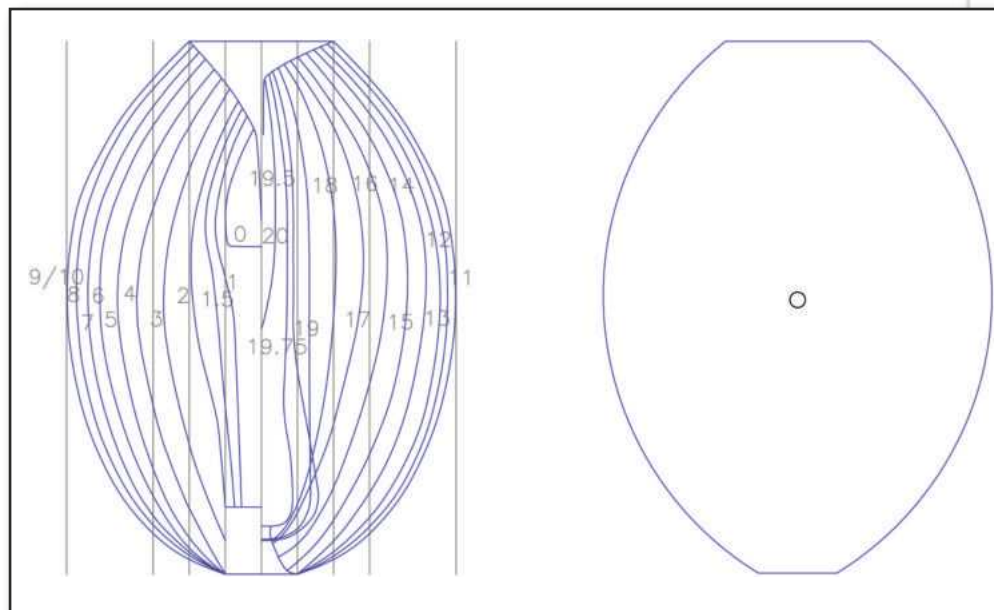
Never draw anything twice

Because CAD geometry can be infinitely copied and manipulated, it gives rise to one of the basic tenets of CAD – never draw anything twice. This applies to not just a whole component but even when drawing it, if there's some basic symmetry. A friend, Alan, provides a good example with his drawing of a ship's wheel. There are to be six or eight identical handles, but he knows he only needs to draw one. Furthermore, the handles have been turned on a lathe, so are symmetrical

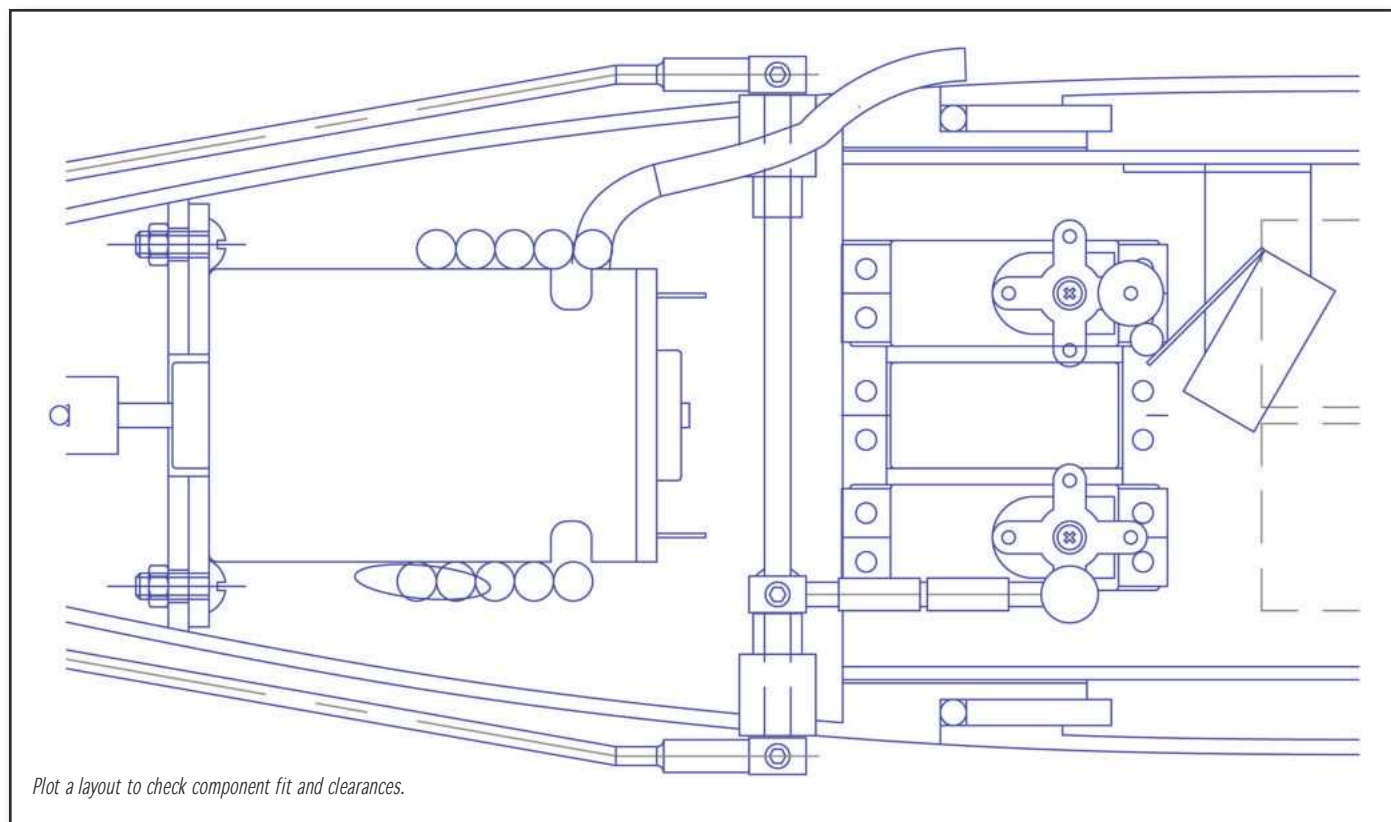
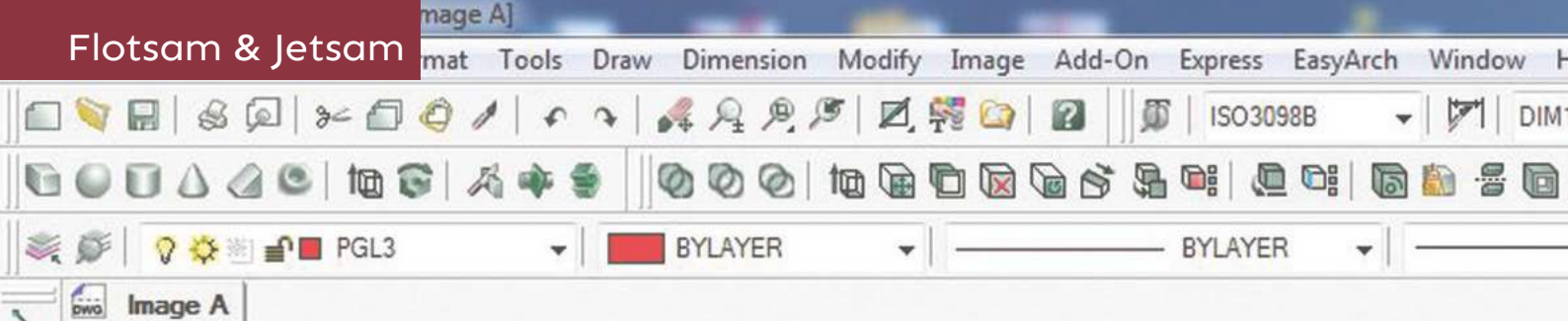
Change the scale in a moment without loss of resolution.



ABOVE: Derive auxiliary views to aid construction.



Instantly calculate area, perimeter, centre of buoyancy and other physical properties of complex shapes such as a submarine hull.



about their main axis. So, he only has to draw half a handle and, likewise, half a spoke. This geometry is MIRRORING on the principal axis to create a complete handle and spoke, then ARRAYED around some concentric circles to complete the ship's wheel. The wheel can be saved as a block in a library and the SCALE command used to change its size to suit different models if necessary.

Tracing a drawing

CAD software may be used to trace a line drawing found in a book or magazine (subject to copyright) to take advantage of its unique abilities. A good clean scan of the line work is required, and this is imported into the CAD program as a bitmap image on its own layer. Layers are another feature of CAD that allow associated line work to be on their own layer, or overlay, of the main drawing and turned on or off to be made visible as required. An example would be an electrical layer showing wiring.

The scanned image is set in the background, scaled to the desired size of the model and then the tracing begun. It's not just a matter of duplicating the lines on the original drawing, for they're likely to be fuzzy and somewhat vague, and neither straight or parallel where required to be because of drafting errors and distortions produced

"Once you've experienced how a CAD program can benefit your model making, you won't want to be without one"

by the various reproduction and printing processes used in the making of the printed page. So, it's a matter of interpreting the line work, straightening up lines and correcting errors as you go to produce an accurate drawing. Only one half of the plan view needs to be traced of course, and MIRRORING this over to the other side often highlights deficiencies in the original drawing, for its two halves rarely match exactly.

Once traced, the CAD drawing may be scaled up or down in an instant without loss of quality. This is because the vector shapes are defined mathematically and therefore not subject to pixilation like a photograph or bitmap image, even if you zoom in to a thousandfold magnification.

Plotting frames

Having traced the hull lines, you can project the hull sections to produce the frame outlines at the required intervals (a knowledge of ship's drawings is obviously still required). This

is an example of deriving component parts from the drawing. The OFFSET command alone is almost worth the cost of a CAD package, for you can now set the intended hull thickness (e.g., 3.5mm) and instantly have the frame re-drawn that much smaller to provide the internal frame outline. Frames may be accurately printed on an inkjet or laser printer at home and stuck to ply for rapid cutting to size.

Summing up

Larger CAD drawings may be printed at a local printing outlet at very reasonable cost for up to A0 prints (1188 x 840mm). A DXF file can also be produced that will enable you to have intricate parts cut by laser or CNC router. Drawings can be sent electronically (the file size is small) or converted to other formats such as PDF for viewing without CAD software. You can establish the area, volume, centre of buoyancy or other property of complex shapes with just a couple of clicks of the mouse. You can work with imperial or metric units, measure plotted angles or, as a following article will show, produce a 3D model and have parts 3D printed. But a word of warning... Once you've experienced how a CAD program can benefit your model making, you won't want to be without one. ●

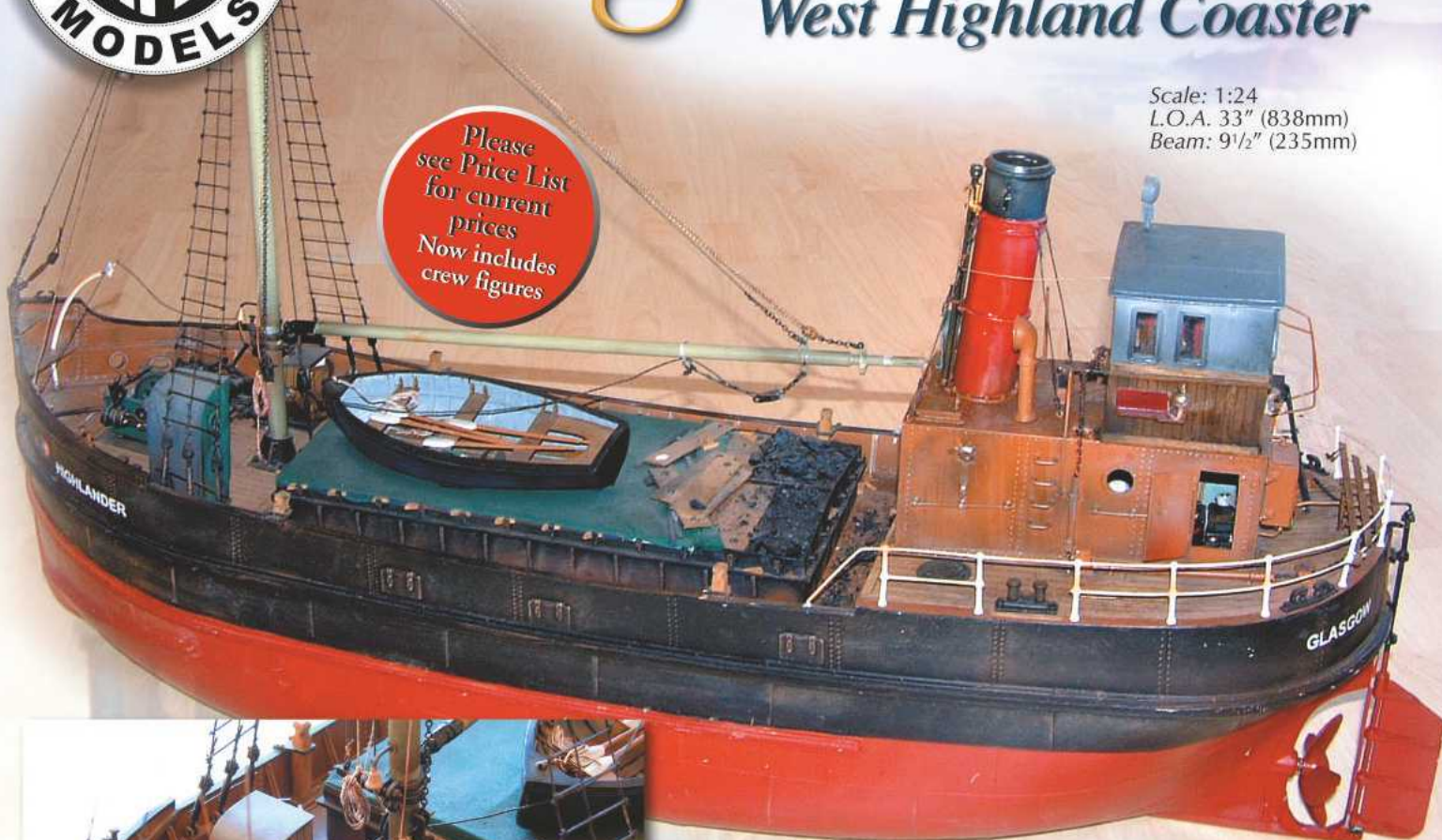


Highlander

West Highland Coaster

Scale: 1:24
L.O.A. 33" (838mm)
Beam: 9 1/2" (235mm)

Please
see Price List
for current
prices
Now includes
crew figures



A representative model of a 66 foot West Highland Coaster, usually referred to as the "Puffer".

All external plating and riveting of the Hull and Superstructure is faithfully portrayed and the kit to build this magnificent model is complete of all materials, plus full size plan and instruction booklet.

This is a true enthusiasts model allowing omissions or additions as the builder chooses but always keeping the feel and charisma of the well loved but now long gone prototype.

Highly suitable for steam or electric propulsion and giving a true feel of the subject on the water.



1

True Colours

Warminster Boat Club member **Mike Payne** tackles this fascinating, and far from black and white, subject from a modeller's perspective...

With time and experience should come knowledge. The only snag is that having had a lot of time, my head is now full of all sorts of extraneous recollections, most of which have been dredged from external, and now sadly unremembered, sources. I can't, therefore, claim the following as original thought, just an accumulation of vaguely applicable data which might be useful to some of you.

In the beginning...

This whole idea for this feature started because both I and another club member decided, quite independently of each other, to build a model of *HMS Bulldog*. Mine was built from a Deans Marine 1:96 scale kit, while his was based on a 1:48 scale Mountfleet Models fibre glass hull. As things progressed, there evolved a debate over the correct colour for the funnel and main mast. We knew what it should be at full size but by comparing varying web pictures of the original with the results on our respective models it became clear that neither looked right in the quoted shade. Not only that but what appeared correct in one scale looked incorrect in the other.

I can recall from my pre-model boat building days, when I dallied with 1:72 scale model aircraft for a while, there was a great furore about paint colours. Original paint chips were much treasured and specialist paint producers claimed to be able to match the original colours reliably. I have no doubt they could, but no-one seemed to care about scale effects.



By this I mean when you look at a large-scale model it might appear as it would if the original was perhaps only a few metres/yards away from you. A small-scale model, on the other hand, even when sited as near to you as its larger-scaled counterpart, will more likely appear as if viewing the 1:1 prototype from a distance of about 100 metres/yards, with all the attendant reduction in visible detail and, I would argue, attenuation in its colours.

If you're not convinced, find a familiar bright object, a UK post box is a useful example, being (mostly) bright red. Up close it is strikingly bright and very red, but walk away a distance and look again. I will leave you to draw your own conclusions, but I've expanded upon the argument below under the subhead Atmospheric colour.

In the case of my tiny *Bulldog* I think I had a different problem. The overall intense white of the superstructure was visually overpowering the yellow/buff shade of the funnel casing and mast, making them lose the yellow tint clearly evident on the original. This was probably due to reflected light (more on this later). Eventually, therefore, I used Humbrol No. 154 Insignia Yellow. It's a far brighter shade than the original but, to me, it looks a lot better. This does, however, contradict what I've written directly above about scale effects (see **Photo 1**). You win some, you lose some, but look at the apparent tonal difference between the leading and trailing edge of the funnel.

My fellow club member has used a more subdued tint but to equal effect (see **Photo 2**) on his still in build model, airbrushing



“The larger the scale, the closer to the original your colour shade needs to be, whereas the smaller the scale the more likely it is adjustments will be required”

with Humbrol No.7 Buff gloss, a hue very much closer to the officially cited colour. In my opinion, this validates the scale colour debate: the larger the scale, the closer to the original your colour shade needs to be, whereas the smaller the scale the more likely it is adjustments will be required.

Is colour that important?

Well, I think it is; not just the paint but the colour itself. Apart from providing protection from the elements, it ties together the mishmash of wood, metal, paper and plastic the model is constructed from into a cohesive identifiable whole and it can be used to convey meaning.

I remember when I was still a mere sapling spotting a real jewel of a miniature, probably at a Model Engineers Exhibition. In a sea of uniformly grey but superbly modelled warships was a small frigate (or destroyer perhaps) set into a moulded seascape, which was entitled “At the going down of the sun”. Appropriately, it wasn’t Naval grey: one side was very dark and subdued as if in

deep shadow, while the other was a glowing orange-pink. All these years later I can still envisage it. I recall thinking at the time what a very clever presentational variation it made, as although small in such august company it certainly stood out. Older now, I suspect it had a very different meaning for whoever constructed it. (See ‘For the Fallen’, a poem by Robert Laurence Binyon (1869-1943).

Colour can also, however, indicate detail which may not actually be there; for example, the rippling often seen on hard used hulls, particularly warships. This is difficult to replicate on a model hull but can be suggested with careful shading. Then, of course, there’s the whole field of weathering.

I know that in most cases it’s sufficient to get out a brush, spray can or perhaps an airbrush and start painting with whatever colour is appropriate. Particularly for those models expected to put up with the rigours of the lake, though, it is worth making a note of which specific colours/hues go where (by make and identification number) to aid the inevitable repair. Such things as shading or blending are rarely needed nor, from my observations, applied.

So, is there any need to get excited about what’s normally a straightforward process? Probably not, until the kind of problem demonstrated by our two *Bulldogs* arises. Scratch builders normally rely heavily upon photographs, and I believe understanding colour as we see it helps in identification and replication.

If I may be permitted another observation... On the full-size RNLI Severn Class Lifeboat there’s a panel right at the stern on each side immediately below the main deck. When viewed from the side and at mid-distance in almost any light this looks to be a distinctly lighter blue than the main hull, which we all know it is not. The only question perhaps is, do we replicate that effect or not, and how would our fellow modellers react if we did?

One further, and personal, point... If possible, I avoid using pure black on a model because it tends to look too harsh; rather I use a very dark blue grey. If you are using paints sold primarily for artists, the colour is known as Paynes Grey – purely a coincidence!

What is colour?

At the risk of boring you, I have cobbled together much of what I have gleaned...

- In theory, any colour can be mixed from a set of three Primary colours, i.e., red, yellow and blue, plus black and white (not technically colours).
- Mixing two primary colours together will produce the Secondary colours of orange (red + yellow), green (blue + yellow) and violet (red + blue).
- A Tertiary colour is one Primary colour mixed with one Secondary colour.



This striking image of the Finnish Hamina class missile boat Torino serves well as an example of how colours can change depending on how they are treated and reproduced. ABOVE: The original and unaltered photo. BELOW: Here the photo has had all colour information discarded converting it into a mono or 'black and white' image.



- A Tint is a colour plus white
- A Tone is a colour plus grey (white + black)
- A Shade is a colour plus black.

Colour characteristics

All colours have certain characteristics, as defined below...

Hue

A circular range from red, red-violet, violet, blue, blue-green, green, yellow-green, yellow, yellow orange, orange, red-orange and back to red.

Value

A range of greys equally graded by eye from white to black

NB: Value 4 is not a mix of 60% white paint and 40% black paint, it's white paint with just enough black added to LOOK just lighter than a mid-grey, whereas Value 5 should LOOK halfway between white and black.

Contrast, intensity or chroma

The brightness or dullness of a colour. For simplicity, let us consider a scale from A through to E: the brightest colours in a view will be A, while the dullest will be E.

Colour notation

Given practice, you can describe any colour in a specific view using the above scales. If we describe a nearby door, for example, as red, 1, A (hue, value and intensity) we are describing a door which is bright red and one of the prominent colours in that view. A door

further away could be described as yellow, 3, D; now, although yellow, a bright colour, in this notation it's less vibrant (contains more grey) than the red door and so looks quite dull.

Temperature

Colours in the red through orange to yellow range are said to be warm. The violet through blue to yellow-green range of colours are said to be cold.

Transparency

The amount by which a colour obscures the colours behind it. For example, a semi-

0	1	2	3	4	5
White	10% Black	20% Black	30% Black	40% Black	50% Black
	6	7	8	9	10
	60% Black	70% Black	80% Black	90% Black	Black



ABOVE: The same images but now with the effect of a warming photo filter at a setting of 40%. BELOW: The image after adding a cooling filter at 40%. With the exception of the first image in this sequence of four, three were altered in the graphic software PhotoShop to illustrate the different effects, however these effects could have been chosen by the photographer at the time the photograph was taken.



transparent red will appear pink if painted on a white background but dark red if painted on a black background.

Permanency

Some pigments (colours) are unaffected by age or exposure to light and are said to be permanent. Others will fade at varying rates and are called fugitive. This is unlikely to affect a model (apart from some clear varnishes, which yellow over time) but the full-size vessel being modelled may well have faded paint.

Atmospheric colour

The effect made on colour by distance from the viewpoint. Let's return to our bright red door... If two doors had been painted exactly the same colour but one is further away than the other, the one further away would look more subdued than its twin because of the distance. This effect is more pronounced as distance increases. This is particularly true of landscapes, where the distant hills, although actually green, will look to be blue or perhaps grey.

“Colour can be affected by a near neighbour. This is particularly true for glossy surfaces”

Reflected colour

Colour can be affected by a near neighbour. This is particularly true for glossy surfaces. If we return to our red door, for example, if it had a white surround some red might be reflected in the white and some of the white might be reflected in the red.

Colour and photographic references

The chemical photographic process leads to some odd visual effects both in monochrome pictures (black and white) and in colour. You may have no choice but to rely on photographs; so, you need to remember that the picture in front of you was shot by a photographer who, in all likelihood, was trying to get a good photograph rather than

a strict historical record. Modern digital photography is perhaps even more prone to deception, as exposure, contrast, highlights, shadow, saturation, temperature, tint, etc, can all be modified by anyone using easily accessed software.

For example, camouflaged aircraft photographed in monochrome often appeared to be painted in colours having widely varied tonal values. The British World War II colours of brown and green appeared distinctly different and obvious, poor camouflage indeed, whereas in fact the tonal values were deliberately kept very close, breaking up the visual outline without drawing attention, which of course was the intent. Note, however, that the stark splinter camouflage sometimes used on ships deliberately did the opposite to confuse the outline when viewed through a periscope.

Similarly, colour photographs often have a blue cast that modifies the whole picture, making the blues stronger and reducing the intensity of the other colours. Sometimes the cast is obvious but often it is not. If you're

looking at a subject which had blue pigment as part of its overall original colour mix (blue is one of the Primary colours, of course) be very careful when deciding what colour to paint your model.

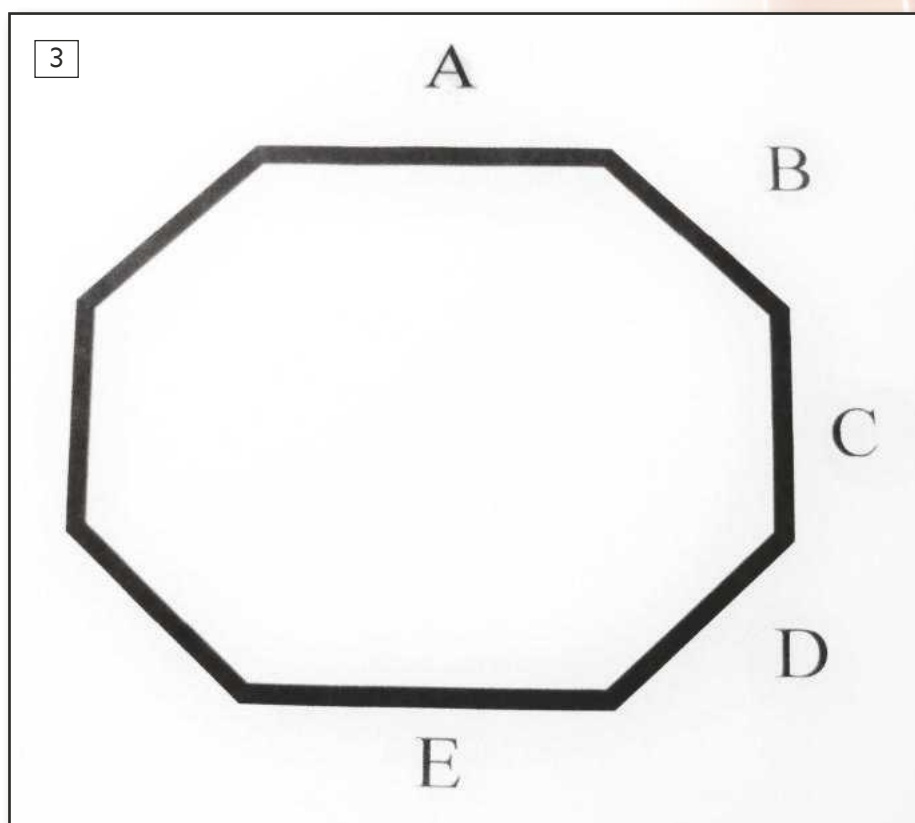
Highlights and shadow colour

To explain the effects of highlights and shadow, let's take an octagon (see **Photo 3**, although you will have to imagine this in 3D) in a uniform colour (any colour) as an example. When we look at it, the colour of each face will be modified by its angle to the light. If we assume the light is directly above, Face C will appear closest to the real colour. Face A (a highlight) will be lighter than C; Face B will be darker than A but lighter than C; and Face D will be in shadow and therefore appear darker than C but not as dark as E.

In practice uniformity can be achieved by painting Face C, adding a little white to the mix and painting Face B, then adding a little more white and painting face A. Similarly, by adding black, Faces D and E can be coloured. This requires practice, however, because the changes in value may be very slight and it's the change in value, more than a change in colour, you wish to achieve. Remember, value is how the colour appears; you normally need more white paint to go from Value 3 to Value 2 than black paint to go from Value 3 to Value 4.

This is true for all shapes. Each face of the octagon will be a different colour notation from its neighbour; there may only be a tiny difference but there will be a boundary between them. If the shape is round, then, for example, the colour in the centre of Face C will blend and lighten uniformly toward the correct colour for the centre of Face B. In the same way, the colour between in the centre of Face C and the centre of Face D will uniformly darken toward the correct colour for the centre of Face D. This is how a painter can represent a curved surface on a flat painting and it works well for models, too, particularly those in the smaller scales where size prohibits the formation of real highlights and shadows.

To see how it works, it's worth looking in good sunlight at a full-size car painted silver (or light grey). You know the car is painted all over with the same colour paint but look hard at how it appears. Note how the silver appears lighter or darker in different places and how much change in value you can see. Next, try the same exercise with a light (white) car and a dark (black) one. You will probably see far less change in value. A light car will have few obvious highlights but many shadows, whereas a dark car will have many highlights but few shadows. The nearer the car, the more change will occur, and cars painted with colours in the mid-value range



will generally only appear to have a few highlights and shadows.

Alternatively, paint any shaped object (a complex shape such as a bust or wig stand if you can find one) with matt white paint and then, once dry, place it on a dark or black cloth in a dark room. Using a torch, light it from one direction, perhaps from above, and see where the highlights and shadows fall. See how this changes when you move the light to one side, and again when you illuminate from as low a point as possible. You'll find the whole appearance of the object seems to change.

In practice, the use of solely white or black to provide highlights and shadows is neither easy nor sometimes appropriate. For example, adding black to red (a shade) will provide a reasonable shadow, but if you add white to the red (a tint) you'll get pink, which is not a highlight of red. To highlight red you need Crimson (which you may have to buy as an additional colour) or sometimes a very pale yellow.

To reduce chroma you might mix a tone of the basic colour (basic colour + grey) before you start the highlight or shadow process. You will find that the larger the number of colours mixed to form the desired hue, the more the chroma will reduce. Bright colours will start to look diminished or even grey, which can be either an advantage or a problem. Shadows can be produced by adding grey (white + black) or blue, if you wish to reduce the chroma.

An alternative method of shading

I have attempted above to describe the direct colour approach, which works well, but there is a different method, which I've tried with limited success. The theory is fine, and I have seen some superb examples at exhibitions, so I suspect my lack of skill is the problem, not necessarily the process.

Firstly, paint the model matt white to show up any faults, because this method is difficult to repair halfway through. Once you're satisfied, leaving the highlights white, shade the model in matt grey, increasing the value in the shadows. Continue over the model until you're entirely happy and then leave the whole thing to dry. You should have something that looks a bit like a black and white photograph but without any real detail. This forms the shaded undercoat.

You can try this with a computer if you have programs as Photoshop. Firstly, create your monochrome image complete with shading. Then, using the paint tool, add a new layer over the image of, say, 5% red. The result will be a red image with shading and repeating the exercise will give an impression of what I mean.

The top colour is applied to the model as a translucent wash. Prepare some colour to a slightly lighter value than the final colour required. Mix a small amount with sufficient clear varnish to cover the area to be painted until you have a mix which is almost transparent but with a hint of the final colour. Apply that coat and let it dry. If

4



“A useful tip here is to use oil-based paints for your base colours, and then, once dry, apply your shading with an acrylic (water-based) paint; that way, if you’re not satisfied with the result, the shading can usually be removed before it dries without damaging the base colours”

more colour is required, apply another coat of the translucent wash and repeat until a satisfactory result is achieved. A useful tip here is to use oil-based paints for your base colours, and then, once dry, apply your shading with an acrylic (water-based) paint; that way, if you’re not satisfied with the result, the shading can usually be removed before it dries without damaging the base colours.

This method seems particularly effective where the model has two or more main colours. You can see the overall grey shading through the different translucent colours and the whole effect seems more coherent than had you tried to paint the separate colours plus their shading. I suspect this is all a matter of skill and judgment. Try it and see how you get on. It’s all about finding your personal preference and develop a system that gives you the results you’re trying to achieve.

5



Nailing my colours to the mast!

I suspect not many of you will have reached this point, having decided that printing the above wasn’t worth the ink! For most marine modellers that may well be true. The application of colour in its pure form, that is unshaded, etc, is our norm, and I’d be the last to accuse anyone of getting the hue incorrect. However, most of us will at some time have

looked at a finished model and wondered why it doesn’t look quite like the photograph of the original we used as a reference point. Perhaps this epistle may cast some light on the subject.

On the subject of light, you might like to compare the tones on the real Swanage lifeboat (see **Photo 4**) with those on my scratch-built version of the Exmouth Shannon, painted I might add, in unshaded colour (see **Photo 5**). ●

Fir after conversion to diesel propulsion and with a new bipod mast and hydraulic derrick crane. Note the former cowl vents have been replaced by the short mushroom type. Also shown is the tapered protective sheathing under the rubbing strake, in line with the open bulwark forward.

“The free plan included in this issue represents the ship as she was originally built”



The fabulous *Fir*

In terms of historic lighthouse tenders, this classic is a real beauty... **Jim Pottinger** recounts her story and shares some illuminating hints and tips for those of you intending to make use of this month's free plan

Originally designed as a coastal lighthouse tender for the U.S. Lighthouse Service, and constructed as Yard No. 194 by her builders, the Moore Drydock Company of Oakland, California, *Fir*'s keel was laid down on January 7, 1937. She

Technical specifications

LOA 174ft 8.5

Beam 31ft

Displacement 885 tons

Construction and machinery

Fir very strongly constructed, with narrow spaced frames especially reinforced forward and aft and with ice belt protection at her waterline. Much use of teak, mahogany and brass work was incorporated in her outfitting.

Initially *Fir* fitted with 2-triple expansion reciprocating steam engines, with steam from two Babcock & Wilcox water tube boilers, achieving 1,000 horsepower. She was re-engined during 1951 with two Fairbank-Morse diesel engines with reduction gears, providing a combined horsepower of 1,350 BHP. In 1982 her original derrick and electric winch were replaced by a 30,000 lb hydraulically powered derrick crane suspended from an A-frame type mast. With these conversions a few alterations were made, such as cowl vents, etc, on upper deck.

N.B. The free plan included in this issue represents the ship as she was originally built.



“After being de-commissioned in 1981, she was, in 1992, given the designation National Historic Landmark”

LEFT: A view of Fir under way, with her original derrick.

was launched on March 22, 1939, but by July of that same year the Lighthouse Service had been absorbed by the U.S. Coast Guard and *Fir* was therefore subsequently commissioned as a U.S. Coastguard Cutter on October 1, 1940. Later in World War II she was assigned to the U.S. Navy and armed with machine guns and depth charges.

Re-classified in 1965 as U.S.C.G. (United States Coast Guard) tender WLM 212, the primary duties assigned to *Fir* were maintaining aids to navigation, transportation of lighthouse keepers, provisions and fuel and water, etc.

In May 1988, as the U.S.C.G.'s longest serving cutter she was appointed 'Queen of the Fleet', with her hull numbers painted in gold. After being de-commissioned in 1981, she was, in 1992, given the designation National Historic Landmark.

After lay-up in Seattle, she was towed to the U.S. Admin. (MARAD) facility at Suisun Bay to join the myriad of other ships laid up there, until, in 2002, she was moved to the Liberty Museum in Sacramento, California and subsequently, the following year, to Rio Vista, California. During proposals and after failed plans for restoration, she was moved several more times until in the spring of 2017 when she was purchased by The Lighthouse Project LLC. Work by the volunteers of this Virginia-based group dedicated to restoring *Fir* continues to be ongoing.



A port side under way view; at this time the black of the hull was carried higher up the hull.

PHOTOGRAPHS COURTESY OF:

The Coast Guard Historians Office

The Columbia River Maritime Museum, Astoria

The National Maritime Initiative

A modellers' guide...

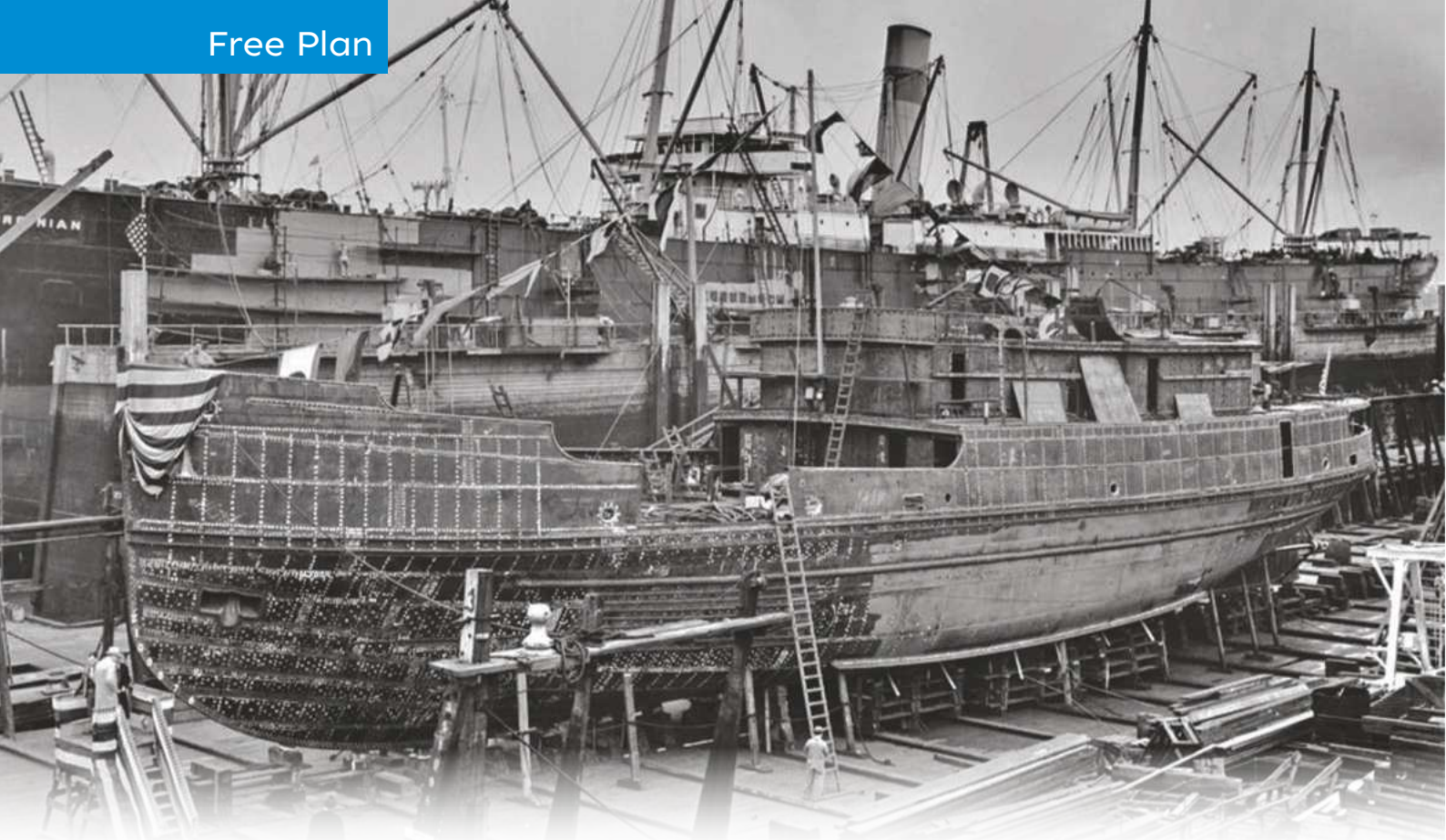
The lines show a hull which should be fairly simple to construct, not having any drastic changes of section or awkward curves. As illustrated, the vessel had twin screws; when modelling her, however, there is the option of modifying the keel at stern to incorporate a cut out that will house a single propeller if preferred.

Additionally, the long superstructure can be made removable for easy access to the inside the hull when installing a power plant; although it should be noted that the hull is relatively shallow.

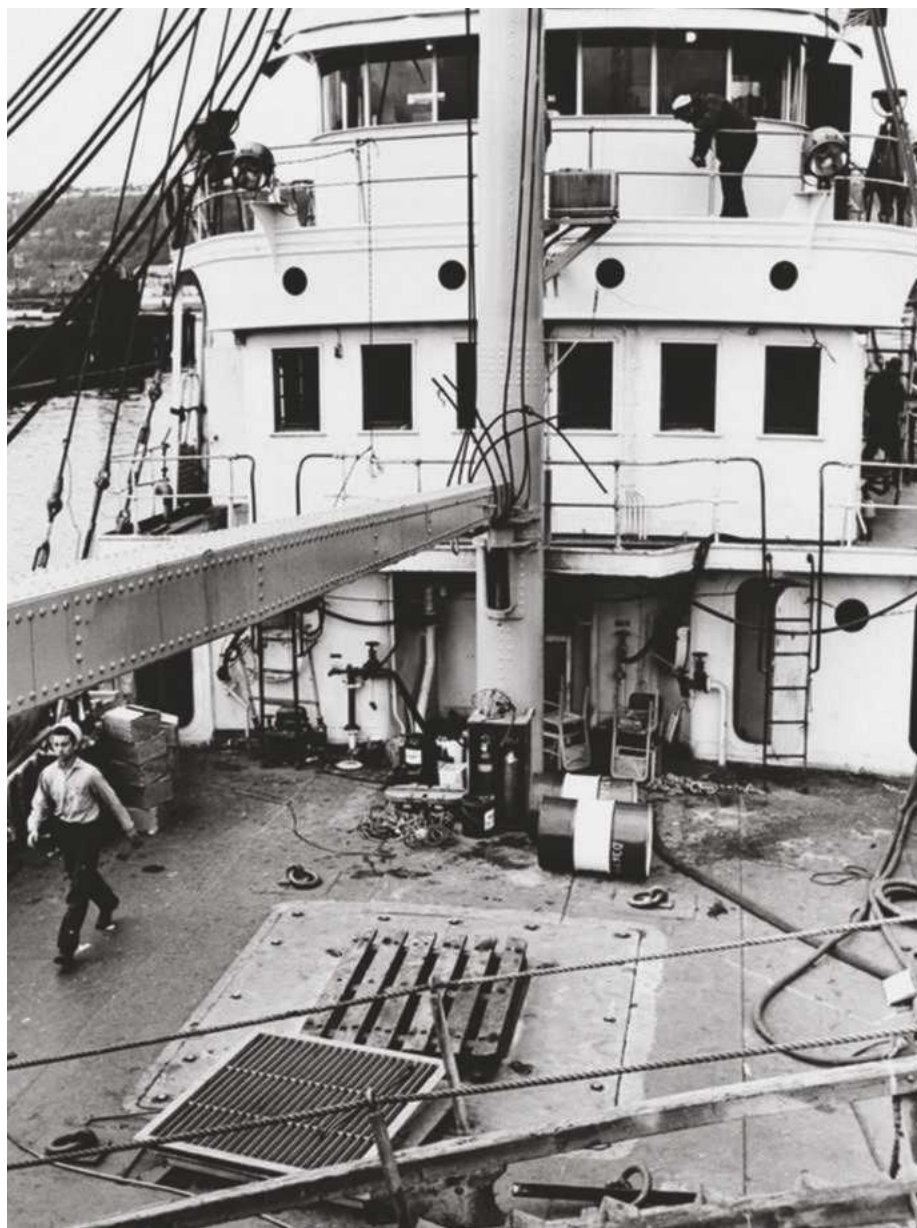
Note the vertical knuckle section all round of the hull shell plating below the bulwark level, which provides seating for the heavy rubbing strake, and, also, the half round protective bars



A starboard side view, again with original derrick.



ABOVE: Ready for launch; again, the closely spaced frames are prominent. BELOW: Possibly taken when alterations were being made to fit new derrick crane and bipod mast; the original winch has been removed in this shot. Also, the original hatch opening appears to have been closed off. This gives a good view of the bridge front.



on each side, which extend to well below the waterline parallel with the hinged section of bulwarks on the forward well deck.

The arrangement of deckhouses and superstructure merits some study as there are a few rather quirky features. On Sheet 1 of the plans is shown the outline of the lower superstructure, which sits on the main deck. The sections at X and Y on same sheet illustrate the relationship between the lower superstructure of the hull's deck and deckhouse above. Also featured is the bulwark stanchion design. Access to the lower superstructure outboard passageways is by way of entrance doors forward and aft on each side. Note the slight tumblehome of hull upper sides evident in sections X and Y.

I have not included the anchor windlass as when the ship was built this was situated below the forecastle deck, hidden in plain view, but I have incorporated the vertical capstan mounted on the forecastle deck.

The upper deckhouses and wheelhouse have their tops projecting slightly out from the side casings walls. I am not sure the purpose of the curved plating on top of the lower superstructure and below the wheelhouse sole on the forward end, which has circular deadlights all round (see section A-A of the plan and my profile drawing), as it doesn't seem to be part of either; I can only assume it was an illuminated ceiling area of the main saloon below. Section B-B shows the after end of the wheelhouse, cowl vents and engine room skylight.

The original derrick was of a rectangular section rigged with both heavy and light lift purchases. I have included a separate suggested detail of the original hoist winch within the plan.

All the guardrails are of the type with round bar stanchions, having ball sockets for the rails to pass through.



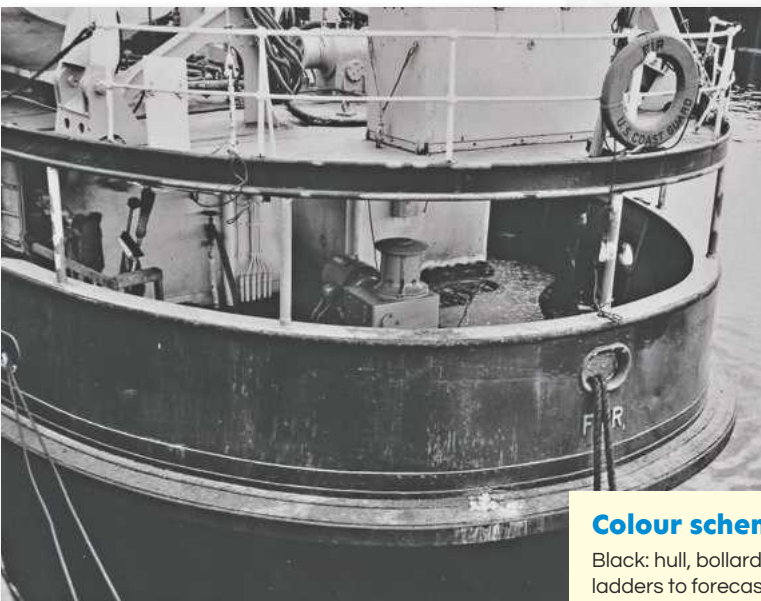
ABOVE: Under way, when steam propelled as new.

The lifeboat davits are of the quadrant type, where the davit is pivoted at the foot and the head pushed, and boat, outboard by means of a fixed screw turning in a captive swivel nut on the davit proper, see separate detail.

All external doors on the deckhouses are of varnished wood, but the ship bore several paint schemes and as a background to the number 212, so, should you decide to take on this build, the choice of finish will be yours. All I would ask is please do send in some photos of your completed version of *Fir* for inclusion in the Your Models section of this magazine! ●



ABOVE: Stern while under construction. Note the especially close spacing of the frames indicated by the pattern of the rivets on the shell plating, and also the propeller extended tubers and supporting brackets. The rubbing strake keep plates have been fitted but not the rubbing stake itself yet.



ABOVE: Stern showing the capstan, pivot at foot of port boat davit and heavy rubbing strake around the stern.

Colour scheme

Black: hull, bollards, capstan forward, eye plates on deck, hatch coaming sides, decks, ladders to forecastle deck, steel decks

Red: hull underbody.

White: deckhouses, number, inside of bulwarks, lifeboats, sides down to top of bulwarks.

Dark cream: funnel (with a black top)

Dark cream: mast and derrick, vents, skylight, lifeboat davits

Dark varnish: external doors, ladders on upper decks, the wood framing around square windows

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.

The Trnio part of the Hamina class of Finnish Missile boats.

"From the onset of this mini project, I was cautioned about powering up the motors while coupled to a dry shaft..."

Waterjet propulsion - Part 2

Dave Wooley continues his first foray into installation and operation of model boat waterjet drives



ABOVE: Spraying the inside of the hull flat red: all part of the preparation.

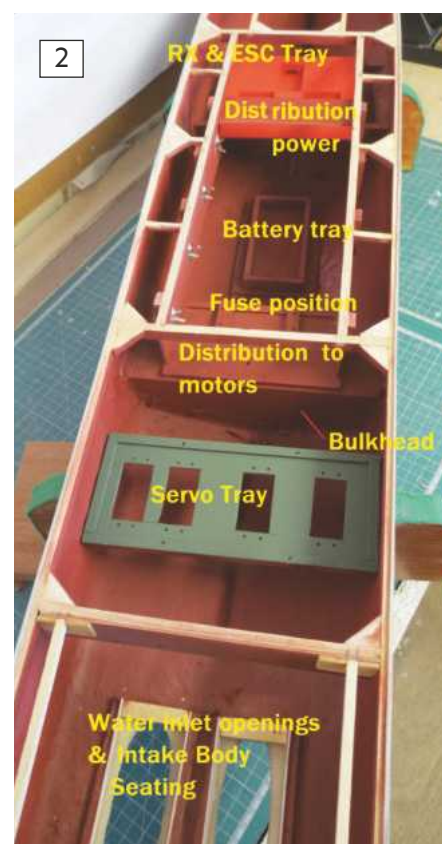
Last month I provided an introduction to the origins of hydraulic drives for ships and smaller vessels and how they function, before moving on to look at things from a hands-on modelling perspective and the preparation necessary when fitting water jet drive into a grp hull. This month I will be further expanding upon that preparation and explaining how I installed the water jets, radio RX, electronic speed controllers and servo controls in my 1:48 scale Finnish missile boat *Hamina*...

Fitting out the hull's interior

Having settled for the location of all the various internal fittings, it was time to give the interior a coat of Halford's red primer paint (see **Photo 1**) as, having given the matter some forethought, I wanted to isolate the various functions within the hull with different colours for ease of identification within the context of this article (see **Photo 2**).

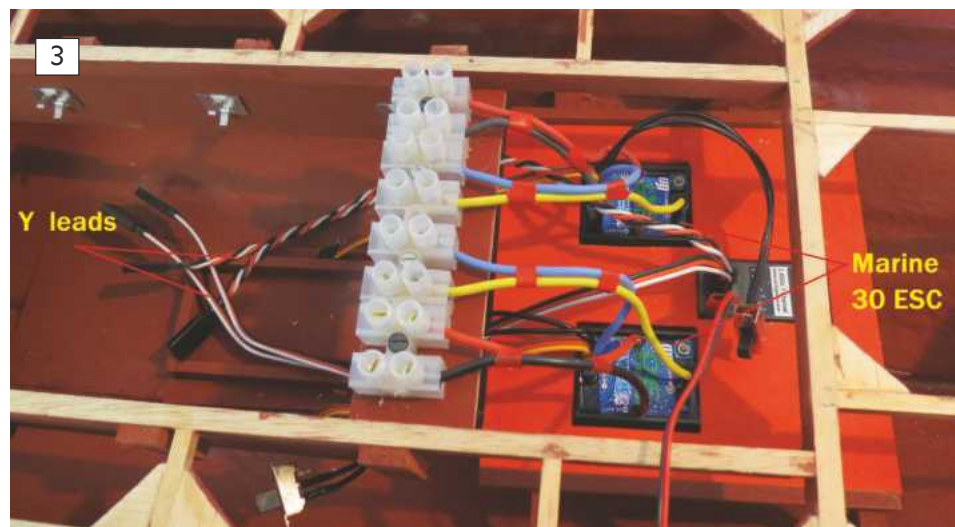
It's worth noting that prior to spraying the interior I taped over the top of the bearers to ensure that when adhesive was applied to the underside of the timber deck it would adhere to the exposed timber of the bearers once the tape was removed.

My first task after coating the inside of the hull was to install the two Mtroniks Marine 30 electronic speed controllers. My choice of these type of ESC rests with the fact that they can be set at forward only. Also set into the tray was the receiver, soon to be replaced by the F14 RX, as I wanted to use the dual stick arrangement on the F14. Just to the left of the picture here (see **Photo 3**) you'll see some very handy wire ties (available from the Components Shop) used to keep all those lengths of wiring tucked conveniently into a tidy loom.

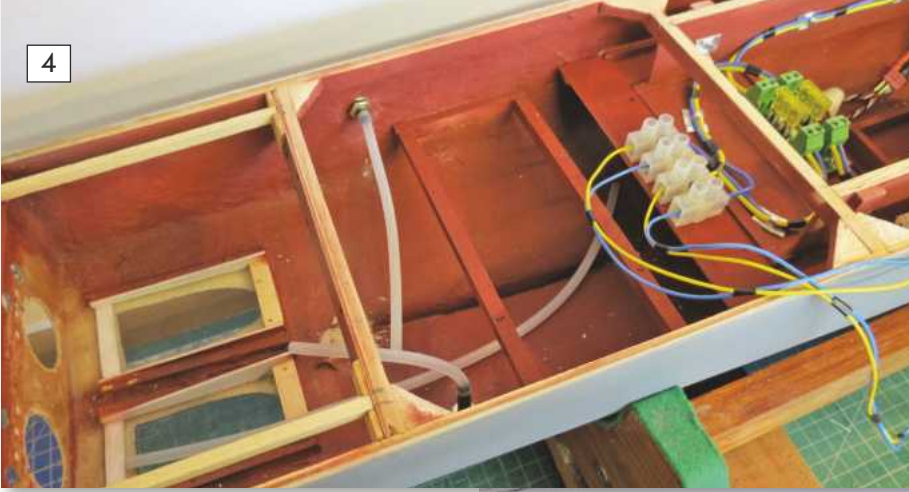


ABOVE: Colour coding each part of the hull's interior.

BELOW: Installing the two Mtroniks Marine 30 ESCs and RX into the tray.



4



“This sealant does not set hard but remains flexible”

As mentioned last month, I'd kept the intake body of the jet drive removable. The space surrounding the inlet opening, formed into a sort of mini coffer dam (see **Photo 4**), would, I knew, assist when fixing and sealing the intake body to avoid unnecessary leakage later. At this stage, a start was made on tracing the water cooling pipes.

Setting the speed controllers & motors

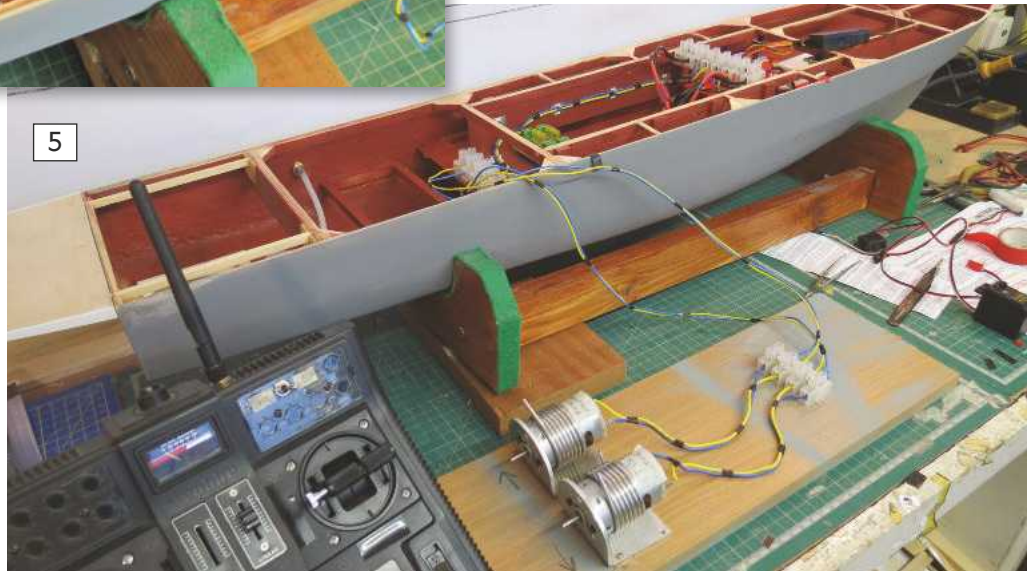
From the onset of this mini project, I was cautioned about powering up the motors while coupled to a dry shaft. The reason this should be avoided is that maximum throttle cannot be engaged unless the combined water jet unit is immersed in the water. OK, so the ESC can be set up at the lake side, but personally I was not keen on that approach. So, I disconnected the two motors from the impeller drive shaft and transferred these to the bench. Here I was able to set each ESC to maximum forward thrust without risking damage to the impeller shaft and bearing – slightly Heath Robinson, but the method and result was sound (see **Photo 5**).

Fixing the inlet body into place

Before I could progress any further with connecting the servos to their linkages, and thus to the jetavator, the inlet body and motor combination needed to be fitted into their respective water duct openings and the flange on the outlet seating ring slotted through the transom opening.

Halfords Black Silicon Sealant was gently squeezed from the nozzle and evenly spread around the inside of the water inlet opening (see **Photo 6**). This was also applied around the flange of the seating ring that fits against the inside of the transom, directly followed by the same application to the underside of the

5



6



ABOVE: Halfords Black Silicon Sealant is carefully directed around the inside of the water inlet.

RIGHT: Sealant is also applied to the underside edges of the intake body.

7



inlet body/motor combination (see **Photo 7**). Everything was firmly fitted, but not forced, into place through the transom and over the duct opening. It's worth noting that the setting time for this sealant is approximately 15 minutes.

Next, using the small screws provided, the stator bowl was fixed onto the transom and through to the seating ring. The same fixing was added to the base of the inlet body (see **Photo 8**).

Finally, the hull was inverted, with the sealant filling the gap between the edges of

the opening and the underside of the inlet duct (see **Photo 9**). I should point out that this sealant does not set hard but remains flexible.

Linkages

Prior to installing the linkages and servos, the openings through the transom needed to be made water secure. I did this by fitting rubber seals which are concertina-like; these allow free movement of the linkages from the servos through to the Jetavator while at the

BELOW LEFT: To ensure not only a good seal but a firm one, the intake body is screwed to the base and transom as indicated with screws provided with the water jet unit.

BELOW RIGHT: Inverting the hull, sealant is also applied around the inside of the inlet duct.

8



9





ABOVE: The four linkages have their own flexible sealing rubber rings that fit through the transom. BELOW: The fully installed and working servos and their respective linkages.



same time providing a good watertight seal (see **Photo 10**).

While fitting the linkages, some additional issues that needed to be dealt with came to my attention... The original port servo was not working fully due to a slipping gear, so that had to be replaced. I also realised the linkages activating the reverse plate within the jetavator required a second support just forward of the transom, as they appeared to be too flexible for the reverse application on the jetavator. All the linkages at the servo end, however, are now fully adjustable (see **Photo 11**).

On the water trials

Even though the first on the water trials would be for hull and hardware only, there remained some trepidation. With no previous experience of waterjet drives, for this project I'd had to rely on the advice given by fellow modellers and a lot of 'on the job' learning.

All I could do, therefore, was to abide by the rules – starting with no running the motors dry but all the usual drills of system testing prior to launch – and hope for the best. I'd taken my handy fold-away impromptu bench, perfect for the job, but I perhaps should have been less cavalier regarding my TX radio transmitter (see **Photo 12**)!

As with all model boats, regardless of what they represent, checking for leaks before powering up, especially when you have two gaping holes in the bottom of the hull, is always recommended (see **Photo 13**). So,

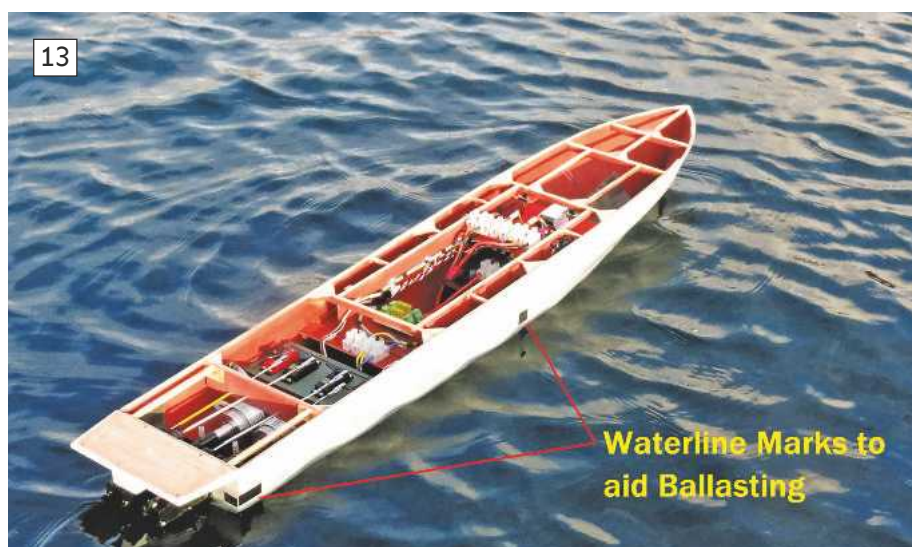
having done that, and with the rules of this still new-to-me discipline very much at the forefront of my mind, I then double checked that at least 50% of my model's jetavator was indeed below water, just as it would be on the original Hamina missile boat (see **Photo 14**), and, thus, the impellor and the inlet duct were also immersed. Finally, holding the hull firmly in position and gently applying power until full thrust had been achieved, I was rewarded with a satisfyingly impressive result (see **Photo 15**).

Water cooling

I made mention in Part 1 of my confusion as to where to install the pickup for the water cooling, thinking that this would be sited beneath the hull. I'd missed the obvious: it's actually fitted to the top of each stator bowl in the form of two brass nipples. I became aware of this as water started being forced out of these nipples when 50% of power was applied. The outlets are sited on either side of



ABOVE: Following a change of R/C to the F14 this project was ready for the water. BELOW: Assessing the hull for ballast and trim but remembering the golden rule of jet drives: at least 50% of the jetavator must below water.





ABOVE: The Jetavator some 50% immersed on the full-sized Hamina. BELOW LEFT: With the Jetavator partially immersed, Dave powers up to check out what his drives can do. BELOW RIGHT: The water cooling as connected to the small inlet nipples on top of the stators.

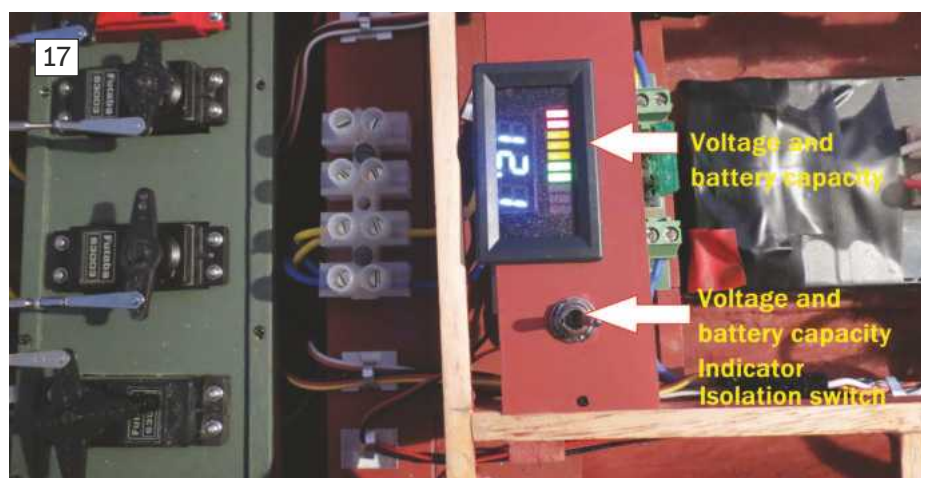


the hull above the waterline (see **Photo 16**).

As this project is not just a learning curve for myself, I wanted to collect as much information about the performance of the various batteries as I could in order to determine with confidence which type is the most useful. I started with a series of gel cells, from 12v 3.3Ah through to 12v 10Ah, and even dual cells to suit independent motor control – for example, two 6V 2.3Ah and two 12V 5AH NiMH cells. To assist, I installed a digital voltage meter and capacity monitor, as loads and performance are quite different from traditional propeller shaft drives; this can be isolated and switched on immediately after a run to gather information (see **Photo 17**).

More on the water trials

Returning to the lake, I wanted to assess the water drive consumption and performance. So, I installed a 12v 3.3AH gel cell using just one Mtroniks Marine 30 forward only ESC and adding a further 2Kg of weight, part of which



The first run with a fully charged 12v 3.3Ah gel cell proved a little disappointing in regards time on the water, which Dave felt possibly indicated a higher level of discharge than anticipated. He, therefore, used a 12v 7.2 Ah gel cell to establish the drop in voltage under load and the level of the capacity after 15 minutes running time and consequently feels more runs using different types of batteries are necessary in order to gain optimum results for this hull jet drive combination.

18



ABOVE: Turning to port or starboard his set-up is responsive, with no loss of power, but in the near future he intends to check out the results that can be achieved by using the two speed controllers, thereby giving independent thrust to each jet drive.

19



ABOVE: The hull attitude for the Hamina class missile boat at about half speed. BELOW: The model at about 50% thrust, giving a reasonable comparison to the full-size Missile Boat.

20



21



ABOVE: The superb 1:12 scale waterjet-powered Shannon class lifeboat, based on the RNLB vessel Anthony Kenneth Heard operating out of Rhyl. RIGHT: The type of reverse bucket fitted to the model is close to that seen here on the full-size craft.

22



“With smooth acceleration, turns were amazingly tight for the length of the model, which, as per the original design, sits slightly down aft in the water when moving at speed”

was right aft, the remainder right forward. With smooth acceleration, turns were amazingly tight for the length of the model (see **Photo 18**), which, as per the original design, sits slightly down aft in the water when moving at speed (as a comparison point, see **Photo 20**). Of course, when the superstructure is added there will be some adjustment to be made but I'm quietly pleased with the results so far (**Photos 19-20**).

Other examples

Although to keep things hands-on I've so far focused on my experiences with Hamina, I feel we should at least look at a few other types of waterjet drive models. I think you'll agree an excellent example of where the installation of jet drive has really come into its own can be seen in the 1:12 scale Shannon class lifeboat, based on the Rhyl lifeboat RNLB Anthony Kenneth Heard, illustrated here (see **Photo 21**). As an additional feature, this model is fitted with controllable trim tabs and a one-piece reverse bucket.

A further example, in the form of a generic LCM (Landing Craft Mechanised), really highlights the value of waterjet drive (or drives plural) for this type of model; not only is it fast and can turn tightly but it's able to operate in very shallow water (see **Photo 23**). It's worth noting that the jetavator used here has similar features to the one I'm using for Hamina, but in order to go astern operates like a one-piece reversing bucket (**Photos 24 and 25**).

Another interesting example I feel is worth sharing is the 1:96 scale Littoral Combat Ship Freedom 1, which is basically a stealth OPV (Offshore Patrol Vessel). While the original has four waterjet drives (see **Photo 26**), the model is fitted with just two forward thrust only jet drives and no reverse bucket. Each steering nozzle is worked to a common linkage, mirroring the method used for controlling two tiller arms on twin rudders (see **Photos 27 and 28**).

I will also finally throw into the mix an example of the Royal Navy's use of waterjet drives, with photographs of the LCVF 5 as fitted to HMS Albion, the design of which has been made into a 1:16 scale plan to suit the Bauer water jet drive (see **Photos 29 and 30**).

Coming soon...

I embarked on this project to build a viable waterjet-powered warship model knowing almost nothing about this method of propulsion; a raw recruit, eager to learn both from others and from my own trial and error endeavours. Now ready to proceed to the next level, i.e., adding the upper work details, I'm feeling much more confident and am



23

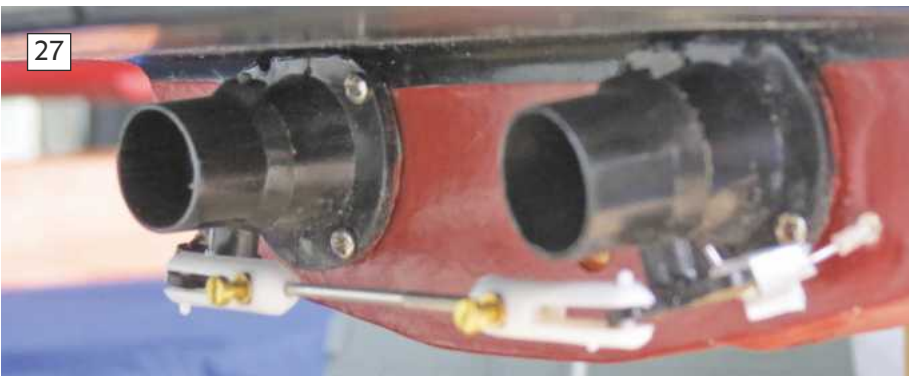
LEFT: This generic styled LCM is fitted with three jet drives, giving very impressive performance.

BELOW: The three jet drives fitted to the LCM differ only from those used in Dave's build in that all the linkages from the Jetavator to the servo are of flexible nylon using a one-piece reverse nozzle.



26

ABOVE: The waterjet propelled 172 scale Littoral Combat Ship, Freedom 1.



27

ABOVE LEFT: Fitted to the Freedom are forward thrust only waterjets. ABOVE RIGHT: The underside of the LCM showing the three inlet ducts, which, interestingly, are not covered by a protective grille. BELOW LEFT: The one-piece reverse bucket fitted to this LCVP 5 (Landing Craft Vehicle Personnel) is slightly different but performs the same task. BELOW RIGHT: A waterjet powered LCVP5 on its davits aboard HMS Bulwark.



24



25



28



29

looking forward to returning Hamina to the water. Watch this space, as her (hopefully successful) maiden voyage as a completed model will feature in the final instalment of this three-part series... ●

With thanks to...

Stan Parkinson of the Hoylake Model Boat Club for his help and assistance with this series.

Sourcing suggestions

KMB (Kehrer Modellbau) markets a range of waterjet drives, decorative parts, materials and technical accessories:
www.kehrer-modellbau.de

Bauer (Germany) produces the Jet 19BM (19mm impeller), as shown in Part 1:
www.bauer-modelle.com

Many different types of drives, both forward only and with reverse buckets, can also be sourced from Amazon or eBay at competitive prices, e.g.: CHENJUAN 1pcs 15mm 26mm 40mm Water Jet Boat Pump Spray: Amazon.co.uk: Electronics 28mm Water Jet Thruster Backward Sprayer Pump Injector for High-Speed RC Boat | eBay

Various types of batteries, wiring, connectors, switches and digital displays are available from The Components Shop:
www.components-shop.co.uk



“As many of you who have tried such a project will know, the shape of the rear end of a puffer does not naturally lend itself to the installation of a steam plant. First of all, the stern is very narrow, leaving little room for the engine, and to get the boiler flue below the model funnel gives you very little room longitudinally...”

Boiler Room

Richard Simpson showcases two splendid and successful examples of steam-powered working model boats...

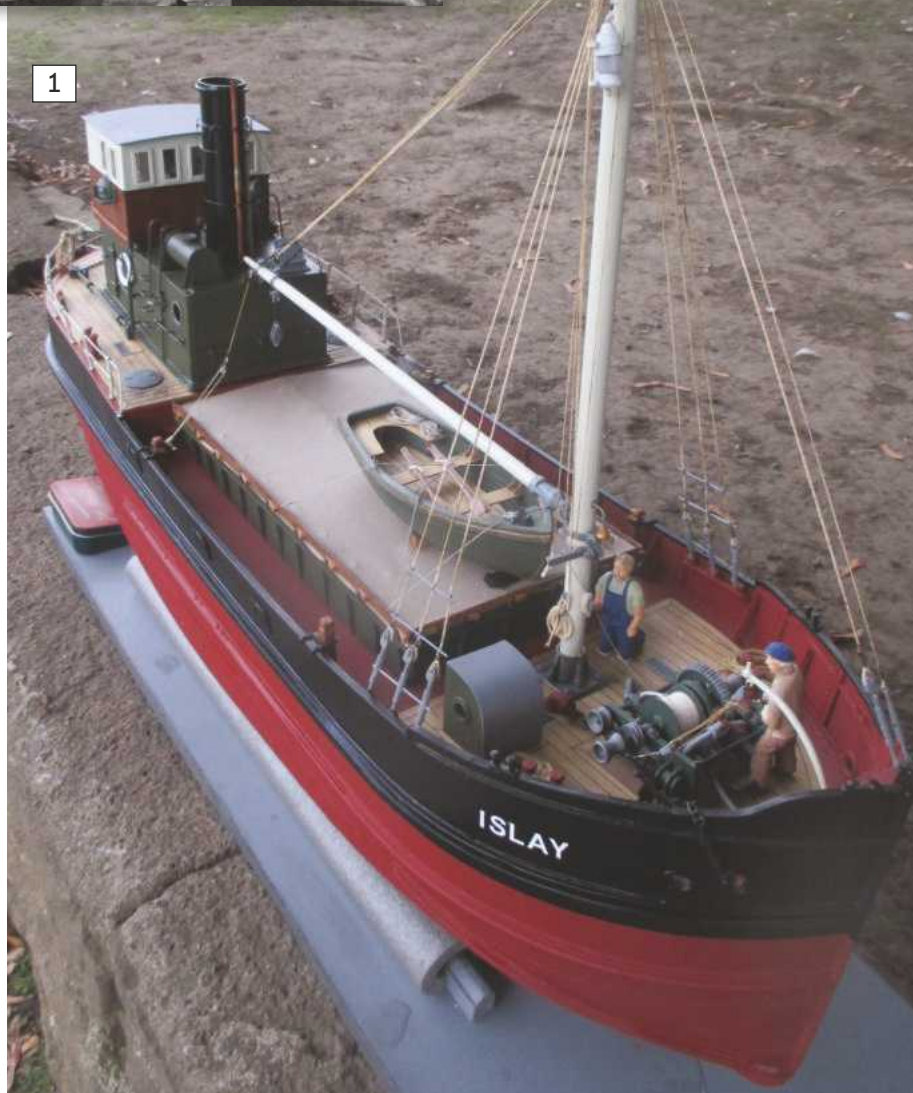
When asked what boiler, engine, propeller and auxiliary bits and pieces will best work with a particular model, I've always maintained it's a question of doing things in the right order: find the model that interests you, preferably an open boat for a first model, then select the propeller required to push it through the water. This will in turn lead you to an appropriate engine and, subsequently, to a suitable boiler and burner to supply it with steam. The auxiliaries are mostly a matter of choice, based on how complex or how simple you want the plant to be in operation.

You may remember in the March (106) and May (107) 2020 instalments of Boiler Room I focused on some particularly successful arrangements put into steam-powered boats by fellow modellers. Well, this month I thought I would share two new steam powered models that have come to my attention, both of which were recently completed and built from currently available kits. One, is a beautiful puffer constructed by Peter Redfern, while the other is an equally tidy build of a Krick Victoria by Tony McLennan.

Peter Redfern's Puffer, Islay

When someone asks me to recommend a suitable model for their first steam project, I will usually suggest they buy a kit that will build an open-hulled vessel. Some novice modellers are more ambitious than others, however, so considering how squeezing a steam plant into the narrow hull of Dean's Marine kit for the Christiaan Brunnings was never going to be easy, this was a brave first attempt choice by Peter Redfern. Fair play to him, though, as she turned out superbly (see Boiler Room 107).

For his next steam project, Peter wanted to push the boundaries even more by putting



Not the easiest of models to put a steam plant into but the rewards are well worth it if you do! A beautiful overall finish has been achieved on this very tidy model.

a steam plant into a puffer (see **Photo 1**). Not only would access be that bit more of a challenge but, as many of you who have tried such a project will know, the shape of the rear end of a puffer does not naturally lend itself to the installation of a steam plant. First of all, the stern is very narrow, leaving little room for the engine, and to get the boiler

flue below the model funnel gives you very little room longitudinally. Peter had always, however, wanted to build a puffer and, now being a firmly committed steam enthusiast, this one simply had to be steam powered. So, having set himself a significantly high bar, it was time to have a look around for a suitable model.

2



LEFT: The Clevedon-supplied engine had to be squeezed back as far as possible, partly by making a bespoke shaft and coupling.

BELOW: Using the vertical boiler it was eventually possible to get the boiler flue in line with the model funnel, saving on complex flue modifications and ease of operation.

After some research it was decided that the easiest model to get into the car and the one which would give him the best chance of getting a steam plant into the hull was going to be one built from the Mount Fleet Models Highlander kit. The original idea was to use a Pendle horizontal boiler with a Stuart Models 'V' twin oscillating engine. This, however, would have meant significant modifications to the boiler flue, with a lot of the boiler being located below the deck between the bridge and the hatch. What's more, the 'V' twin engine configuration was not going to sit back as far as was necessary. As is often the case with these things, a chance conversation with Jerry at Clevedon Steam identified that he had only recently supplied a Libra vertical boiler with an in-line twin cylinder oscillating engine and complete plant to another modeller working on exactly the same project Peter intended to. Consequently, an order was placed and Peter started his build.

To get the engine as far back into the stern section as possible, a bespoke prop shaft, tube and coupling were all made for the model, with the stern tube ending up at the grand total of 38mm long! (See **Photo 2**). The stern area was then strengthened to resist any possible flexing and stiffen the stern tube and the steam plant was mounted onto a wooden base. Further modification of the

3



4



LEFT: Following real practice, the safety valve vent pipe was let out of the model and up the outside of the funnel to enable safe venting to the atmosphere without pressurising the internal spaces of the model.

hull and the rear deck was still required to align the funnel with the boiler flue; however, eventually it all went in, as evidenced in the shot of the finished model (see **Photo 3**). The funnel supplied with the kit was replaced by an aluminium tube to prevent the plastic pipe from warping with the heat and the safety valve vent line was run up the side of the funnel in a prototypical manner (see **Photo 4**).

With a completely enclosed plant, experience dictates that as much ventilation as possible is always the best approach for cooling and for air supply to the burner, so consequently doors and hatches were

10



5



The Borasil firewall material is surprisingly flexible and was easy to fit to the inside of the hull, preventing any possible heat transfer to the hull itself.

deliberately modelled open and the internal surfaces of the boiler and burner area were covered with Borasil, which is an aviation fire wall insulating material (see **Photo 5**). As built, the model used a disposable gas tank, directly feeding the burner; however, Peter originally made allowances for the fitting of an electronic gas control valve, so brackets for fitting the servo and the gas valve were already installed in readiness for this. This has since been fitted, so a Clevedon Steam Electronic Gas valve now controls the burner to minimise use of gas (see **Photo 6**).

With the steam plant in place in the hull, the model was completed with the kit supplied parts, resulting in a very tidy and attractive model (see **Photos 7 and 8**). At this point the model required around 12.7kg of ballast to get her to sit realistically, which also gives her a very scale performance on the water and a total weight of around 27kg. The Libra plant with a 70mm four blade, steam pitch Prop Shop propeller (see **Photo 9**) is a

ABOVE: Everyone loves a puffer but there are not so many who are prepared to put the work in to fit a steam plant. At the end of the day, though, seeing steam come from the funnel gives the model a charm and a character that you just can't get from a motor.

RIGHT: An electronic gas valve, also supplied by Clevedon, saves considerably on gas consumption, significantly reduces the gas cooling effect as the gas is consumed, and prevents the safety valve from lifting when the model is at rest.

6



perfect match for this model and performs faultlessly. The behaviour of the model on the water is extremely realistic, and small waves lap against the hull rather than bobbing the model up and down in an ungainly manner (see **Photo 10**).

Finally, why Islay, and how was the model's paint finish decided upon? Well, during his research Peter discovered that some of the Scottish island whisky distillers purchased their own boats, as they found they could not rely on shipping companies. This led to quite a wide range of vessels, names and colour schemes, with Islay, therefore, being simply representative.

All I can say is that as the Christiaan Brunnings was Peter's first steam project and Islay only his second, I can't imagine what he is going to come up with to further challenge himself next!

8



ABOVE: There is more than enough detail to enable an atmospheric feeling to be achieved, with easy viewing of the internals of the wheelhouse from outside.

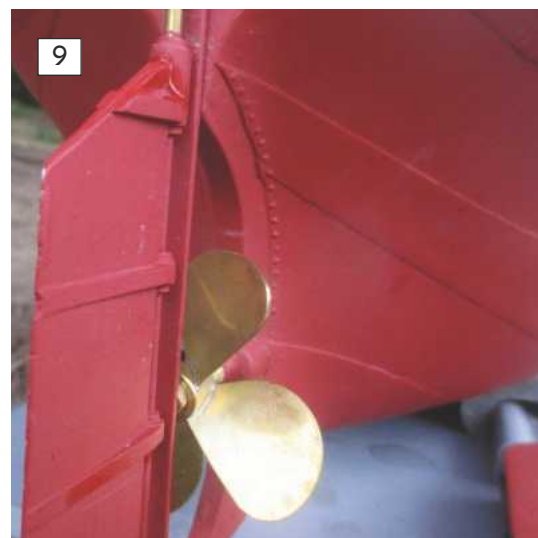
7



LEFT: All the kit supplied parts were used to finish this model, as they are of a high quality, so no enhancements or upgrades were thought necessary.

RIGHT: This Prop Shop supplied 70mm four-bladed brass propeller with a steam plant pitch works perfectly and gives scale performance, with a little in hand for those close calls!

9





The Krick range of kits go together very well and are all tried and tested models. The open hulls allow for easy installation and operation of the plant.



“Krick’s Victoria kit is a particularly good model for a beginner as it presents the steam plant in an open hull, making for easier installation and operation”

Tony McLennan’s Krick Victoria

Next up we have a very tidy example of a Krick kit, the Victoria, built by Tony McLennan, (see **Photo 11**). This particular model started off, as many do, as the result of a purchase made purely on a whim, in around 1981, from a model shop on Deansgate in Manchester. The kit was the one supplied complete with the Krick steam plant and took Tony around 18 months to build. Krick’s Victoria kit is a particularly good model for a beginner as it presents the steam plant in an open hull, making for easier installation and operation (see **Photo 12**), but it also has an enclosed wheelhouse (see **Photo 13**) and a passenger area at the stern where a little bit of detailing and personalisation can be added (see **Photo 14**). Added to that, the 1:10 scale of

ABOVE: The Cheddar Puffin plant is a perfect match for this range of Krick models and provides just the required amount of performance.



ABOVE LEFT: An enclosed wheelhouse allows plenty of detailing and personalisation, which is all easily viewed from the open rear. ABOVE RIGHT: Dolls’ house figures and accessories work well with this 1:10 scale model.



15



16

ABOVE LEFT: The refillable gas tank certainly looks smart and provides more than enough gas for an outing. It also allows the gas tank to match the rest of the installation and look like it belongs there. ABOVE RIGHT: Easy access to operate the plant is always a prime consideration, especially for someone new to the use of steam propulsion. An open hull allows the plant to be on display while enabling fingers to get to where they need to be.



17



18

ABOVE LEFT: A whistle operated by a servo and a spare channel on the radio adds a little bit of life to this model, as well as confirming to everyone that it really is a live steam plant pushing the model around the water. ABOVE RIGHT: An attenuator valve helps to prevent over or under pressurising of the boiler, saving the gas in the small tank and preventing wasted energy going out of the safety valve.

the kit lends itself nicely to the addition of 1:12 scale dolls' house figures and accessories. Sadly, Krick no longer produce the Victoria kit, although second-hand examples, both built and unbuilt, do occasionally surface.

One of the challenges that Tony experienced, however, was that the Krick plant, despite being a slide valve engine and, consequently, frugal with steam, was noticeably underpowered. As a result, around 10 years later it was replaced by a Cheddar Puffin steam plant and refillable gas tank (see **Photo 15**), which has proven to be a perfect match for this model (see **Photo 16**).

Since this re-engining of the model various updates and developments have taken place, with the addition of such items as a whistle (see **Photo 17**) and a Forest Classics'

supplied attenuator valve to save on precious gas (see **Photo 18**). Unfortunately, with the original Cheddar plant being supplied so long ago there was no paperwork with it, so a full boiler hydraulic pressure test had to be completed and the boiler certificated again

for a pressure test. In 2020, the radio gear was removed and updated, and a new safety valve was fitted. All in all, the Victoria works perfectly with the Cheddar Puffin plant and the open access makes for easy operation of everything – ideal for a beginner to steam operated models (see **Photo 19**). ●

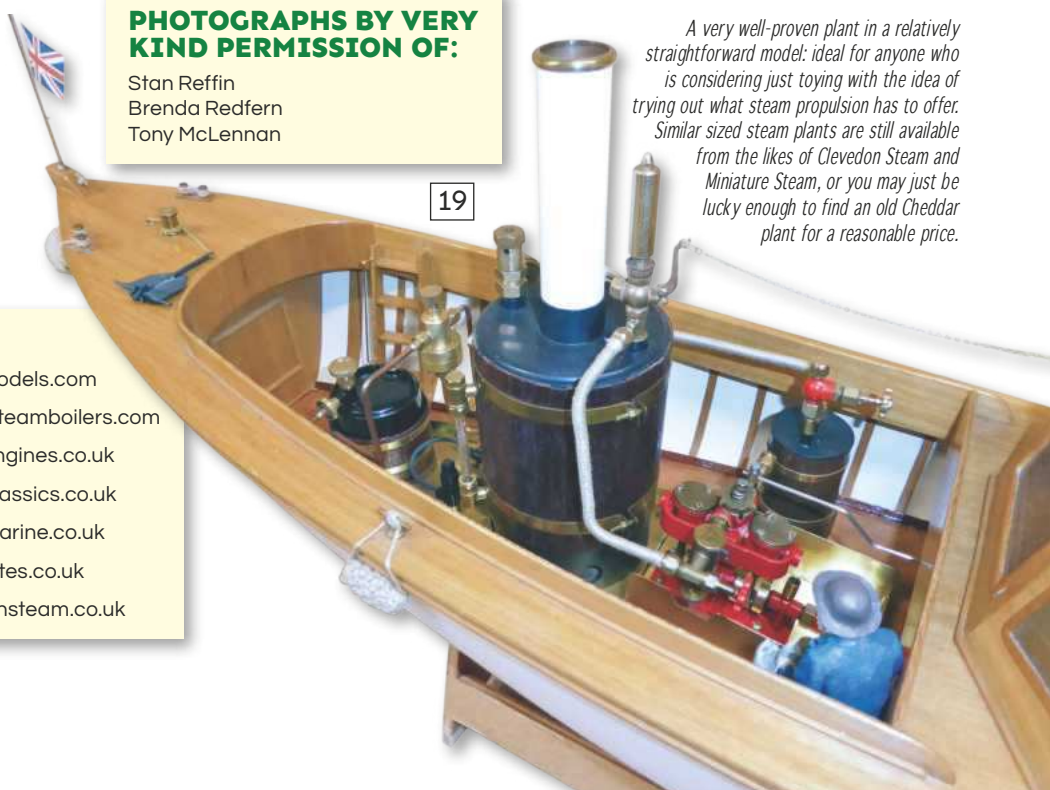
PHOTOGRAPHS BY VERY KIND PERMISSION OF:

Stan Reffin
Brenda Redfern
Tony McLennan

A very well-proven plant in a relatively straightforward model: ideal for anyone who is considering just toying with the idea of trying out what steam propulsion has to offer. Similar sized steam plants are still available from the likes of Clevedon Steam and Miniature Steam, or you may just be lucky enough to find an old Cheddar plant for a reasonable price.

USEFUL LINKS

Stuart Models:	www.stuartmodels.com
Pendle Model Boilers:	www.pendlesteamboilers.com
John Hemmens:	www.steamengines.co.uk
Forest Classics:	www.forest-classics.co.uk
Dean's Marine:	www.deansmarine.co.uk
Blackgates Engineering:	www.blackgates.co.uk
Clevedon Steam:	www.clevedonsteam.co.uk



19

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



www.nylet.co.uk

1932 – 89 years

*The longest established professional
model sailmakers in the world.*

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

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

**Fast
world-wide
mail order
(since 1958)**



Nylet, 38b Winchester Street, Salisbury, SP1 1HG, UK.
Telephones. Workshop: 07474 939535. Office: 01722 239251
Email: frank.nylet@outlook.com *Callers strictly by appointment.*

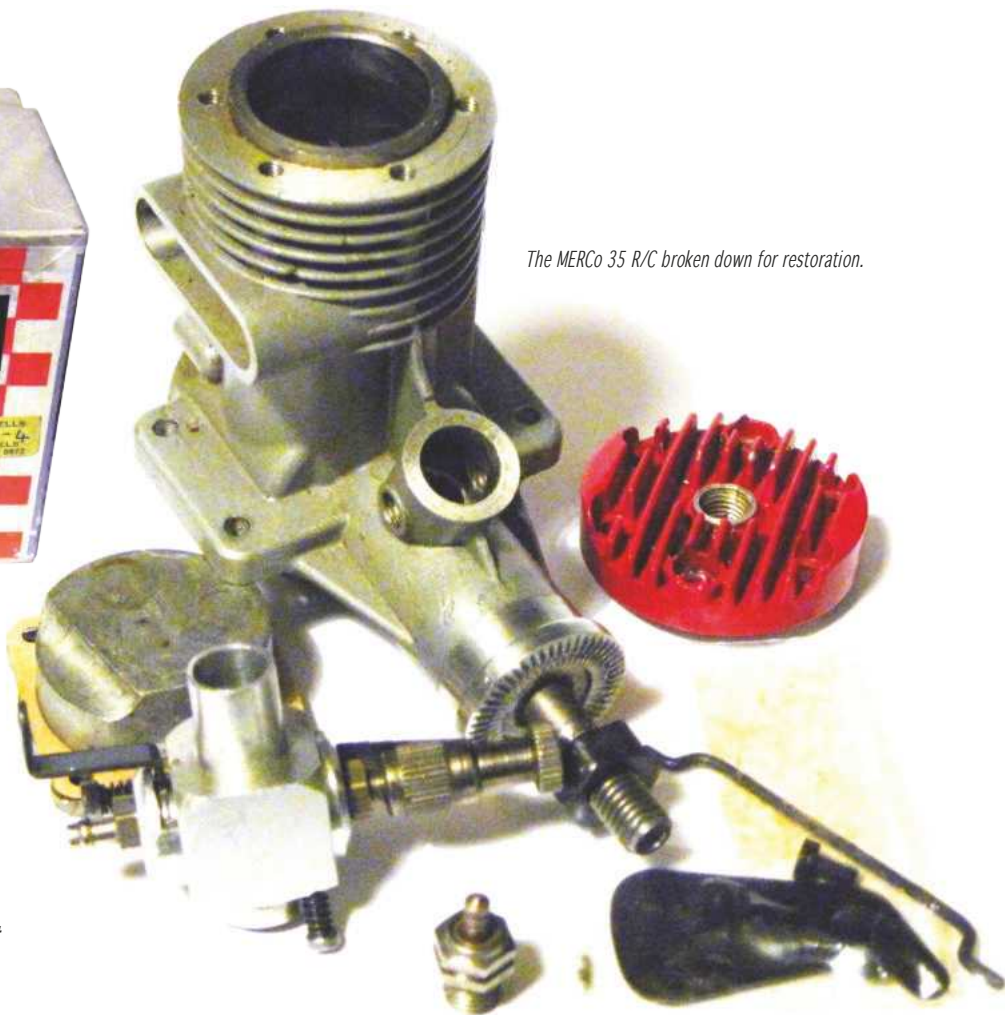
**Fast world-wide
mail order**

PayPal & VISA accepted



Snapped up for £11 40p, Dave's British MERCo 2 stroke R/C aero engine still boxed and in as new but seized-up.

"The vendor had been perfectly honest in stating that the engine had seized, but I bravely reckoned I'd easily sort this out. I was about to be proved wrong!"



The MERCo 35 R/C broken down for restoration.

Go Glow!

Dave Wiggins shares details of his MERCo 35 engine rebuild and points out how it really is possible to put together a very interesting and attractive retro collection on a budget...

Let's talk engines! As luck would have it, I had a straightforward vintage engine renovation on hand when this feature was being planned back in mid 2020; this being a British MERCo 2 stroke R/C aero engine.

The MERCo (an acronym for Miniature Engine Research Company) line was manufactured by D.J. Allen Engineering, starting with a 5cc/'29' sized engine. Design work had been done by a man called Checksfield (I believe). Dennis Allen's London based light engineering factory also designed and built a range of four, small, single-cylinder, 'sports' model diesels of between 1 and 3.5cc capacity marketed as Allen-Mercury (the AM 10, 15, etc), in co-operation with Henry J. Nicholls & Sons, then a well-known model shop in the Holloway Road, London.

Equipped with a simple spray bar/venturi intake, the first MERCo was intended for control line model aircraft 'stunt' (aerobatic) use but, at about the time of its introduction,

multi-channel radio-controlled aircraft were just beginning to 'take off' (sorry, folks!) and an R/C version, with a simple carburettor added, suited this market, being used in (then) well-known aerobatic models like Chris' Olsen's famous 'Uproar'.

Once transistorised reed radio sets (by Orbit 10, F&M and RCS, etc) had achieved reasonable reliability, model aircraft quickly began to grow in both weight and size, so the MERCo was rebored to result in the slightly more powerful engine featured here – the 6cc MERCo '35' R/C.

These first two MERCos shared virtually all parts and this practice was repeated a bit later when the brilliant new MERCo 49 (of 8cc capacity) was again re-engineered to result in the hugely successful 10cc MERCo 61, easily the company's best-selling product. Whether air- or water-cooled, all MERCo's engines were available in marine versions, equipped with nice quality flywheels and water-cooling jackets.

The 35 on test by Ron during 1960...

In his excellent and still useful book *Model Aero Engine Encyclopaedia* (R.G. Moulton for Argus Press – mine is the 1966 edition), the author reviewed our engine thus: "Using front rotary valve induction, with the shaft supported in a plain bearing, and a one-piece crankcase incorporating the air intake, these engines are robust and suitable for all forms of modelling; the 35 being the standard British choice for control line stunt. Radio Control multispeed versions are available using a rotating barrel carb' with air bleed adjustment and a linked exhaust chopper."

By 1966 the MERCo line was so successful that it had virtually become a universal choice in the UK, as the bigger and more capable ball raced and ringed 49/61 duo I mentioned earlier had taken over in both aerobatic and scale aircraft as well as (when water cooled) in R/C power boating.

... and restored by Dave in 2018

I purchased my example of the 35 sight unseen and over the internet, largely on the strength of the almost perfect cosmetic condition, and that, dear readers, is where the good news ended for yours truly!

The vendor had been perfectly honest in stating that the engine had seized, but I bravely reckoned I'd easily sort this out. I was about to be proved wrong!

“Following all this, guess what, guys? I had myself a virtually brand-new engine ready to test run at a much cheaper price than if I’d bought a specimen in full running order”

I began as I always do with a seized engine by reducing it to parts (off with the cylinder head and back cover) and soaking the entire engine in warmed up solvent overnight, coming back the next morning to try to rotate the crankshaft. No dice! To cut a long story short, the engine had, I think, been run just once or twice to ‘see it go’, probably just for fun, but was then put away without any lubrication. Consequently, the piston was effectively glued into the bore by hardened varnish (solidified castor oil), on top of still being very tight as unringed pistons in lapped bores often are when brand new. In the end it took me weeks to free everything up and lap the piston into the bore for smooth running. After that, it was just a matter of reassembling things bit by bit, renewing old gaskets as I went. It sounds easy, but it just wasn’t!

Looking at the three close-up pictures, let’s peek first down into the cylinder where the deflector equipped piston crown can be clearly seen. This is exactly where my example was so incredibly tight – to the extent that, even with the cylinder head off, it was impossible to turn the crankshaft by hand. Using an old-fashioned method beloved of hard up 1950s’ motorcycle fans, I popped some metal polish into the bore and rotated the shaft slowly in my Myford for 30 minutes or so, constantly retesting the fit, until, eventually, I was satisfied enough to move on. I would have liked to remove the crankshaft but found that this wasn’t easily possible, so I was obliged to work as much oil as I could into the bearing via the open crankcase rear and via the carburettor intake mount.

It was, to say the least, slow going, but once everything was turning over smoothly it was eventually time for reassembly. It was here I hit the next snag, a need for new gaskets, of which there are two on a 29/35: one for the head and one for the back cover. By

chance I found a guy in the USA who makes the most amazing range – ICBIM Products.com of Michigan – and the ones he was able to supply were perfect. ICBIM claims to be able to fit any engine if you can send the damaged old gasket or email photocopies or tracings of the same. Computers (CAD-CAM) have made an ‘ache’ of a job easy, and ICBIM’s fits are simply lovely, so my days of tracing and cutting out paper gaskets by hand are now over. Fitting could probably have been done dry, but I like to use a thin smear of blue ‘Hylomar’.

Finally, I could screw the vintage engine back together, using a spot of Loctite on each screw, and move onto assembling the carburettor. This had also seized due to stale fuel but proved a much easier job than dealing with the piston/cylinder.

Following all this, guess what, guys? I had myself a virtually brand-new engine ready to test run at a much cheaper price than if I’d bought a specimen in full running order.

Collecting on a budget

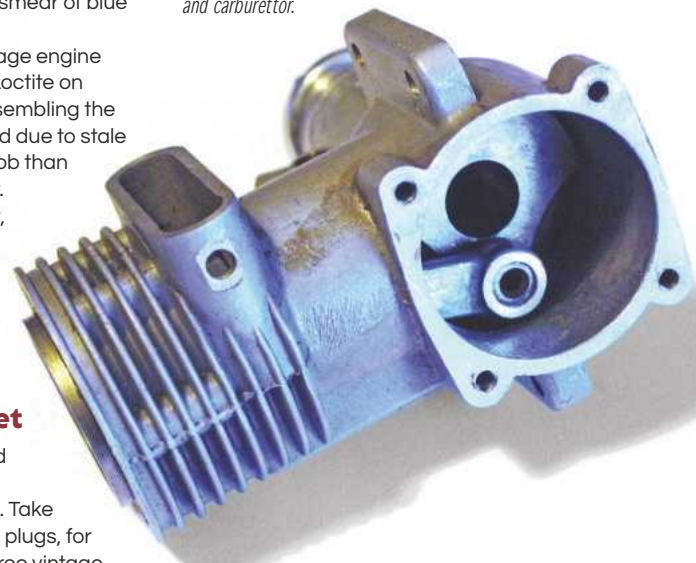
It really is unnecessary to spend ‘megabucks’ in order to collect interesting and attractive items. Take carded miniature glow or spark plugs, for example. Illustrated here are three vintage glow examples made by MERCo, Fireball and Taylor, all bought at prices under a tenner. Plugs such as these could make for a very pretty display in their own right; in fact, come to think of it, I may do just that with mine!

Next month

Content planned for the next instalment of Memory Lane is electronic. Intrigued? Then tune into the October issue to for more... ●



A detailed look at the piston/cylinder, crankcase and carburettor.



The replacement paper gaskets obtained from a specialist manufacturer in USA via the internet.



A trio of vintage Glow-Plugs, both British and American.



Printed kit previews

Hands-on hobby-related product assessments

Considering shelling out for a new kit? On these pages, fellow modellers lift the lid on you what you'll get for your money.

Those in the industry that supports the hobby wishing to send in review samples for inclusion should contact the editor via email at editor@modelboats.co.uk or post samples, together with all supporting information, to **Models Boats, MyTimeMedia Ltd, Suite 25, Eden Hse, Enterprise Way, Edenbridge, Kent TN8 6HR.**

Richard Dyer assesses the latest offerings from JSC...

This month, the Polish card model kit manufacturer JSC makes a welcome return to the pages of Model Boats magazine. Established by

Slawomir Czolczynski in 1991, this Gdańsk-based, family-run, business is probably best-known for its scale model ships (the HMS Sheffield in 1:400 having



originally launched the brand), but the company also ventures into the worlds of aviation and architecture. Indeed, the team at JSC pride themselves on producing quality models of both the familiar and the (very) unusual, with many of the subjects included in the range yet to be offered by other kit manufacturers in either card or plastic!

All five of the recently released new kits detailed below are to a standard scale of 1:400, and all are waterline models. Let's start with JSC's latest rendition of one of the most famous ships of all time, RMS Titanic...

"Interestingly, JSC has taken the opportunity to offer the modeller the option of building either Titanic or Olympic from just one kit"



Titanic or Olympic (1911)

Catalogue number: JSC 82

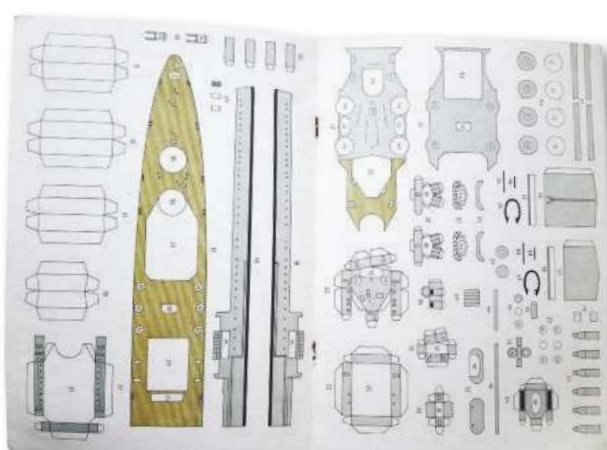
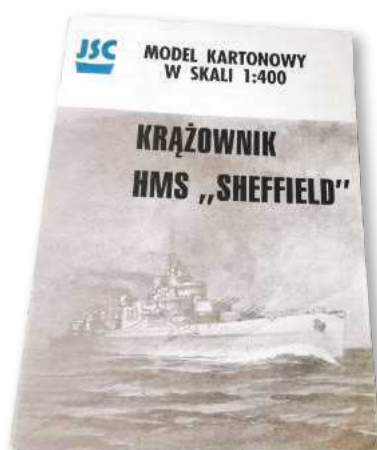
Price: €19.51

Difficulty level: 4

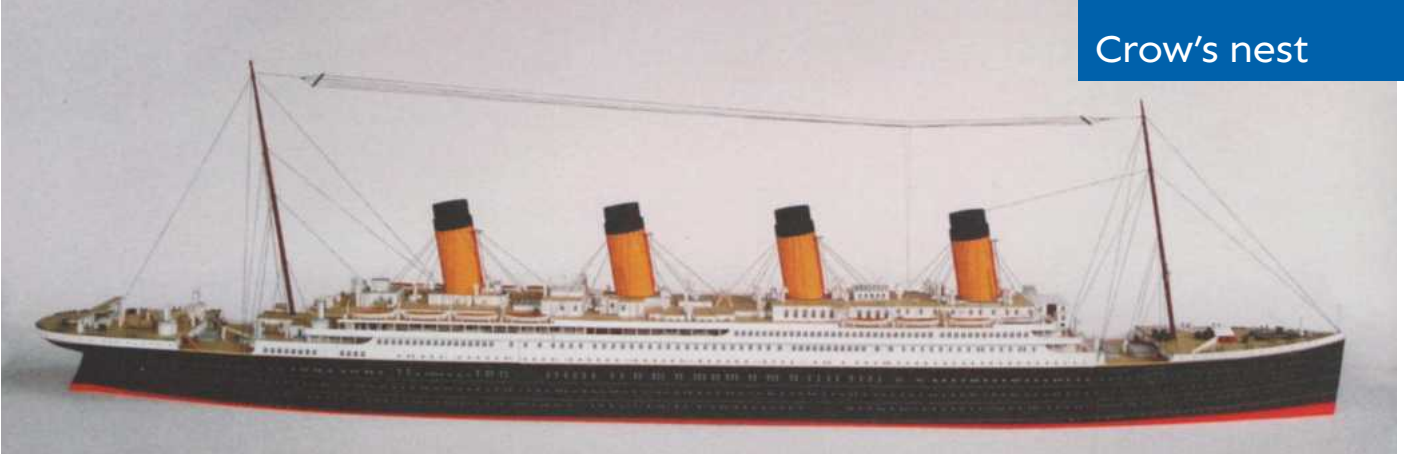
Number of parts: 1,521

Length: 673 mm (26.5 in)

Some of you will no doubt be asking: "Do we really need yet another model of Titanic?" Well, I guess that the short answer is yes. Titanic is certainly an iconic ship and interest in her over the years doesn't seem to have diminished. The tragic loss of life after famously sinking on her maiden voyage has not only gained her a place in history but has also, ably assisted by the



The ship that launched a company! This 1:400 scale model of HMS Sheffield was JSC's first kit. Back in the day the artwork was hand drawn. Image courtesy of JSC.



ABOVE: A view of the completed *Titanic* model. Image courtesy of JSC. BELOW RIGHT: Note how the use of annotation and coded part numbers helps the modeller to distinguish *Titanic* components from *Olympic*.

film industry, given her legendary status. Yes, there have been numerous models, and no doubt there will be more to come, but interestingly JSC has taken the opportunity to offer the modeller the option of building either *Titanic* or *Olympic* from just one kit. This does mean, however, that if you opt to build *Olympic* the completed model will look only subtly different from *Titanic*, as JSC's kit portrays the *Olympic* as she would have looked prior to the sinking of *Titanic*, i.e., sharing the same livery. This, then, begs the question of how easy it would be to become confused about which components belong to which ship. Fortunately, JSC has done the differentiation for us. Any component that is specifically intended for use on, say, the *Olympic* will bear that ship's name in bold print – naturally, in a discreet location. Likewise, the component number will be followed by the letter 'O'. So, by way of an example, when it comes to deck parts 78, these will be marked 78O for *Olympic* and 78T for *Titanic*. This, coupled with the written instructions (in Polish and English, as is the case with all the models mentioned here) and along with the CAD constructional diagrams, should enable a trouble-free build.

The kit comes with a small set of laser-cut parts. JSC does, however, also produce additional bespoke detail sets for its *Titanic/Olympic* model. These include laser cut bench sides, ladders, davits, and anchors. There is a separate laser cut set for the internal framework of the model at an extra cost of €8.18. This set is a repeat of what already comes as printed parts in the standard kit, but with the obvious advantage of being accurately laser cut. This saves the modeller time and ensures a stable frame to build on. JSC also produces cast resin parts to replace and improve upon the 2D card components already supplied with the kit. These

resin replacements include two sets of lifeboats and a set of 40 ventilator cowls. Such items are particularly difficult to replicate from printed card stock, especially at such a small scale, but at least JSC recognises this and offers modellers the option of an alternative.

Transatlantic liner *Carpathia*

Catalogue number: JSC 415

Price: €12.60

Difficulty level: 2

Number of parts: 597/741

Length: 420 mm (16.5 in)

Continuing on with the *Titanic* theme for a moment, here we have a model of transatlantic liner *RMS Carpathia*. The *Carpathia* was made famous due to her involvement with the rescue of some 705 passengers from the stricken *Titanic*. On receiving an SOS signal from *Titanic*, *Carpathia*'s Captain Arthur Henry Rostron gave orders to proceed to *Titanic*'s aide in the fastest possible time. Indeed, in order to gain as much speed as possible Captain Rostron gave orders



to cut the steam supply to the cabin heating system. It's interesting to note that in her attempt to reach the *Titanic*, *Carpathia* achieved a higher top speed than at her shipyard trials. Despite this, however, it took her over three hours to reach the scene, by which time *Titanic* had sunk. *Carpathia* then conducted a four-hour search and rescue mission, taking on survivors. Onboard

Carpathia her passengers and crew gave assistance, food and comfort to the frozen survivors as best they could. Among the survivors rescued by *Carpathia* was socialite and philanthropist Margaret Brown, better known to us today as "The Unsinkable Molly Brown". I don't know if it's my imagination, but I am sure I can see Molly in one of the lifeboats in the painting that illustrates the cover of the kit!

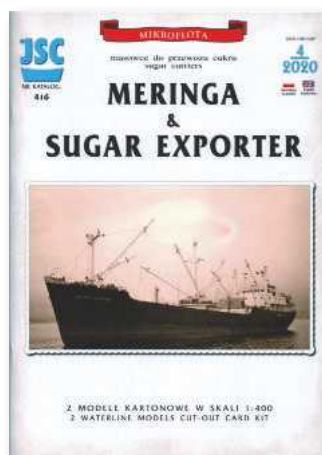


The Carpathia. Image courtesy of JSC.

“For the more experienced, JSC also offers an extra detail set of laser-cut parts for this ship and, as with its Titanic/Olympic kit, there are also sets of replacement resin lifeboats for sale at an additional cost”

The majority of the components in this kit are printed in colour on card stock, with one page of smaller items – mast and rigging templates, as well as flags and pennants – printed on paper. The kit also contains laser cut parts from a thicker card that provide deck and frame supports for the internal structure of the model. This is a great addition and can help keep the shape of the hull straight and true. I've noticed that JSC is adding laser cut sheets like this to its more recent kits and I hope this practice continues.

If you're new to card modelling, but have general modelling skills, I think you'll find this model of Carpathia will make an enjoyable and not overly taxing project. For the more experienced, JSC also offers an extra detail set of laser-cut parts for this ship and, as with its Titanic/Olympic kit, there are also sets of replacement resin lifeboats for sale at an additional cost.



Sugar carriers Meringa & Sugar Exporter

Catalogue number: JSC 416

Price: €13.80

Difficulty level: 2

Number of parts: 202/443
(Meringa), 276/477 (Sugar Exporter)

Length: (Meringa) 313mm (12.3 in) / (Sugar Exporter) 268 mm (10.5 in)

Meringa was launched on June 2, 1958. This model depicts her as she was under the ownership of Hull Investments Ltd during 1978-79, before she was finally sent to a scrapping facility in 1993.

Sugar Exporter was launched on September 19, 1955. In 1982 she sank after an explosion while five miles off Cebaco Island, Panama while attempting to make the passage from New Orleans to Nicaragua with a cargo of white maize. The model depicts Sugar Exporter as she appeared in her last years of service in the colours of Silvertown Services Shipping Co. Ltd.

One of the things I like about JSC as a manufacturer is the

diversity of its subjects, from legendary liners to commercial bulk carriers. Here the modeller is presented with two different ships (albeit both cargo carriers) in the one kit. JSC recommends you “cut and separate the parts for each ship from the sheets to avoid mistakes”. This is good advice and having a couple of envelopes to hand to keep things in order might be a good idea too.

In addition to the colour-printed card and paper stock, the kit also contains two smaller, but thicker, sheets of laser cut card providing hull formers for both models. There are also sets of resin lifeboats and ventilator cowls, as well as an extra card sheet of laser cut details that can be purchased separately from JSC at www.jsc.pl.

With a difficulty level of 2 and the possibility of two models from the one kit, this one may prove popular with the novice or as a challenge to the younger modeller. I can see this kit being purchased as a ‘buddy build’ project, or perhaps by parents/grandparents wishing to introduce a child to a new hobby. Either way, at €13.80 (about £11.76) for two models it's hardly going to break the bank.

“I can see this kit being purchased as a ‘buddy build’ project, or perhaps by parents/grandparents wishing to introduce a child to a new hobby. Either way, at €13.80 (about £11.76) for two models it's hardly going to break the bank”



Steel screw-steamer Californian

Catalogue No: JSC 417

Price: €9.00

Difficulty level: 2

Number of parts: 433

Length: 355 mm (14 in)

Returning yet again to our Titanic theme, here we have a model of the steel screw-steamer Californian. The Californian was launched in 1901 and made her maiden voyage, departing Dundee and bound for New Orleans, from January 31 to March 3, 1903. The Californian



The completed waterline models of Meringa and Sugar Exporter. Image courtesy of JSC.



A view of the completed Californian kit. Image courtesy of JSC.

“The compound curves of a ship’s stern are not the easiest to replicate in a card model, so to have these parts duplicated offers the modeller a practice run or second chance!”

mostly carried cotton; however, in addition to her cargo she also had provision for 47 passengers. Although obviously dwarfed by ships like Titanic, the Californian still offered her paying passengers a high standard of travel. She boasted electric lighting and smoking and dining rooms fitted out with fine quality wood paneling and furniture. What is the Californian’s connection with Titanic? Well this is an interesting story in its own right, and one that is explained in JSC’s potted history of the ship. The model is supplied with additional laser cut sheets, one for the construction of the lower hull and a much smaller sheet containing two small external supports for the open-air bridge. As this particular ship is smaller than Titanic or the Carpathia, JSC’s designer has taken full advantage of any extra space on the A4 pages to add spare/duplicate components. This is always good for the modeller and in this kit the parts of the stern have duplicated. The compound curves of a ship’s stern are not the easiest to replicate in a card model, so to have these parts duplicated offers the modeller a practice run or second chance!

At a difficulty level of 2 and with the inclusion of some spare parts, this kit offers the newcomer a model hard to resist and priced at just €9.00 it’s a bargain. The more experienced may well want to add the laser cut detail set, resin lifeboats and ventilator cowls to further enhance their model.



SD14 General Purpose Ship

Catalogue number: JSC 418

Price: €13.80

Difficulty level: 2/3

Number of parts: 383/766

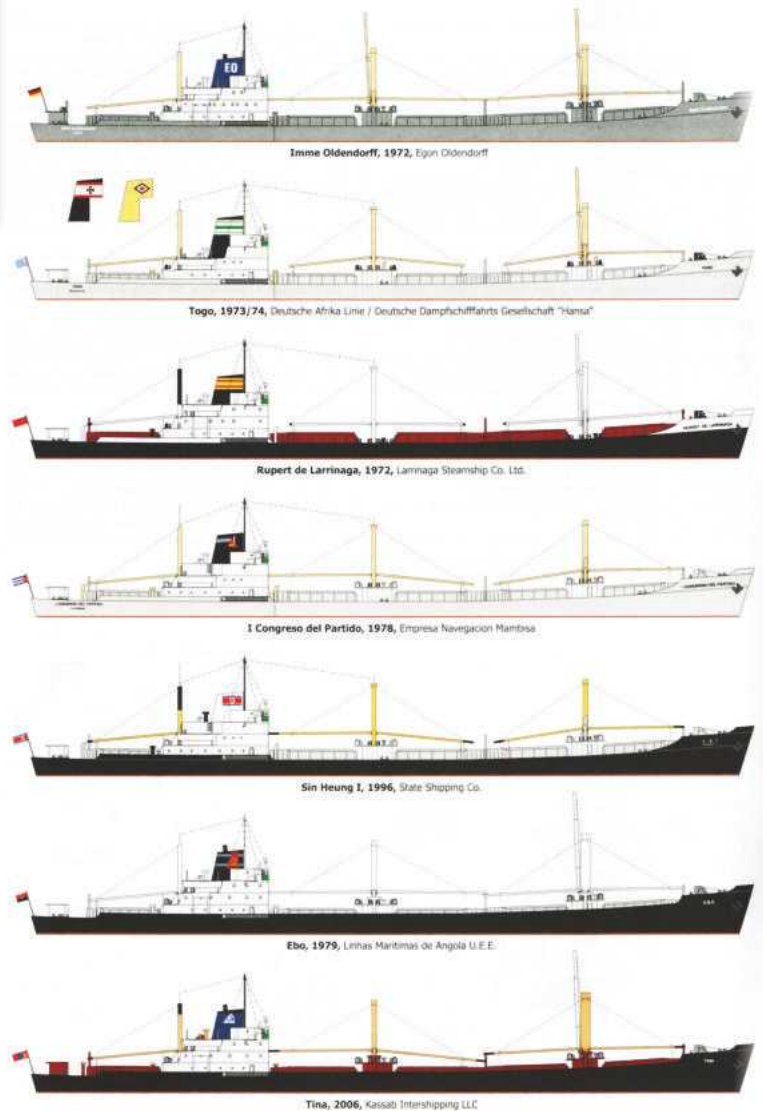
Length: 353 mm (14 in)

Last but by no means least is catalogue No. JSC 418. This kit builds into a model of a SD14 General Purpose Ship. The SD14 General Purpose Ship design can be traced back to World War II, when transportation of goods on mass was vital and a design that could be quickly manufactured to replace vessels sunk was a necessity.

Of the five kits previewed here this one wins the prize for having the longest title, as JSC present the modeller with a choice of not one, not two, but seven build options in one kit! These are: Imme Oldendorff, 1972; Togo, 1973/74; Rupert de Larrinaga, 1972; I Congreso del Partido, 1978; Sin Heung I, 1996; Ebo, 1979 and Tina, 2006. One of these, the ‘Togo’, offers a further choice of three different funnel colour options, too! If you want choice and build options with your card models, then look no further!

The basic kit comes with two sheets of laser cut card parts to reinforce the hull, and as with most of JSC’s models there is always the option to add some extra or

“As JSC present the modeller with a choice of not one, not two, but seven build options, if you were to buy this kit, which ship would you choose to model?”



The seven livery types offered in the SD14 General Purpose Ship kit. Note the Togo’s funnel options.

enhanced detail from one of the bespoke sets sold separately.

Although JSC gives this kit a difficulty level of 2/3, I think I personally would’ve given this one a solid 3 due to the number

of parts and options. I’m not saying that JSC hasn’t done its best to make it clear which parts belong to which ship but, with seven different options and with some of them sharing common



“The card and paper stock that each model is printed on is of a very high quality; testimony to this is that all the very fine detail, such as text on ships’ nameplates, numbers, company logos, doors, and portholes, is clearly visible even at 1:400 scale”

components, in my opinion this one is not for the novice. In the hands of a more experienced card modeller, however, this should be a relatively easy build. If you were to buy this kit, which ship would you choose to model?

Folding up...

The five models previewed here were developed and published by JSC over the last 18 months, during what have been, and still are, difficult times to say the least, so it's good to see that despite this JSC has continued to produce great quality card kits. What a great way to celebrate your 30th anniversary, JSC! As previously mentioned, all five kits are to a constant scale of 1:400, and all are waterline models. I think that 1:400 is an ideal scale if you intend to build

a collection of themed vessels. An obvious group is *Titanic* with *Carpathia* and the *Californian*; indeed, JSC sell these three as an 'SOS Save Our Souls' set (Ref. BAT 002) – the set offering a whopping 25% saving on buying all three kits as individual items. Or why not buy two examples of the 'Titanic/Olympic (1911)' kit (JSC 82) and display the two sisters side by side? In fact, if JSC is reading this, how about designing new kits for *Olympic* in her wartime livery and *Britannic* as a hospital ship? These paired with the *Titanic* would make an impressive trio! But I digress... All the kits supplied for preview not only share commonality in scale and their waterline configuration but in quality too.

Each model comes with a potted history of the ship and step-by-step written

build instructions in both the Polish and English languages. The written instructions are supported by clear CAD style drawings showing main sub assemblies of the build. Where necessary JSC also provides 1:1 scale templates to aid the modeller in the construction of additional components, such as the masts, spars and rigging. For those who want to go the extra mile. A line art general arrangement of the subject also helps with the positioning of any rigging, while part number annotation aids with the location of individual components and sub-assemblies.

The card and paper stock that each model is printed on is of a very high quality; testimony to this is that all the very fine

detail, such as text on ships' nameplates, numbers, company logos, doors, and portholes, is clearly visible even at 1:400 scale. The colours are bright where they need to be and the colour registration is spot on.

To conclude, it would be remiss of me not to give a shout out and my compliments to JSC's main designer Bartosz Czołczyński for his expertise in getting everything to fit on each page, let alone designing components that actually build into fine static display models. Likewise, praise goes to Grzegorz Nawrocki for his evocative original paintings; these adorn the covers of kits JSC 82 and JSC 415. Great work, gentlemen! I look forward to seeing what else JSC has in store for us just over the horizon! ●



FACTS AT YOUR FINGERTIPS

Company: JSC
Product: Card model construction kits
Scale: 1:400
Hull type: Waterline
Website: www.jsc.pl

AMAZING SAVINGS!

6 issues for £20



Saving **42%**



Saving **30%**



Saving **37%**



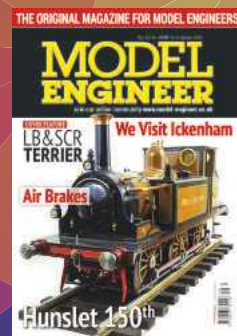
Saving **33%**



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.

Your Letters

Got views to air or information to share?
Then we want to hear from you!



Letters can either be forwarded via email to editor@modelboats.co.uk or via post to **Readers' Letters, Models Boats, MyTimeMedia Ltd, Suite 25, Eden Hse, Enterprise Way, Edenbridge, Kent TN8 6HR.**

ROYAL NAVY FLAG USEAGE

With my ex-Royal Navy Chief Communications Yeoman's hat on, I would like to reply to Mike Purser's letter in the August issue.

Her Majesty's ships and submarines will fly the Union Jack underway on the following occasions, along with an ensign aft and dress ship masthead ensign:

a. When acting as Royal Yacht Escort [day and night for the duration of the duty]. Mike's seagull sketch reflects this.

b. When a royal personage is embarked (day and night, while they are embarked), the masthead ensign may be displaced, and the appropriate royal standard or personal flag may be flown instead;

c. When underway in the vicinity of a port or roadstead between

sunrise to sunset/evening colours on dress ship day Accession Day/ Queen's official birthday, etc).

These dates are standardised in the Queen's Regulations for the Royal Navy. Additional dress ship days are ordered by the Yeoman of the Admiralty on behalf of the Fleet Commander.

With regards to HMS Dainty in dry dock not flying the Union Jack, this is because she is "out of routine". When a ship or submarine enters a dry dock for refit, she will signal to the local area Flag Officer to go out of routine. Several clauses can be chosen, such as not dressing overall (dressing lines) or not flying the Union Jack. An ensign is normally flown from the masthead on these occasions and colours and sunset/evening colours will be conducted from there. If the refit is a lengthy one, then the wearing of colours will

cease while the ship is in control of the dockyard, with the ship's company normally drafted to other duties. At the end of the long refit, the ships company will re-join, the ship will be rededicated or recommissioned, and the appropriate flags and ceremonial will recommence. I must state these are the current rules; however, ceremonial has changed little over the years, so they should apply to Mike's query.

With regards to the ceremony of colours/sunset/evening colours. Colours are 08.00 from 15 February 15 to October 31, and 09.00 from 1 November 1 to February 14. Flags are hauled down at sunset. Once sunset reaches 21.00 or later, then evening colours are conducted at 2100.

Hope this helps!

IAN DUKE
VTS SUPERVISOR
LONGROOM REPORT
CONTROL PLYMOUTH
EX-CHIEF YEOMAN
(1978-2006)

Thank you so much for this fascinating and very comprehensive explanation, Ian! Ed

I am afraid that I am compelled to make a comment regarding an email from Mike Purser in the August issue. I am, as you know, ex-Royal Navy and I was in the

executive branch, so I am in a position to comment. I have no intention of insulting anyone but feel I need to put the record straight. There neither is, nor ever has been, a flag called the Union Jack.

It does not exist. There is one called the Union Flag, however, and only the Royal Navy is allowed to fly it.

There are two flag poles on a warship. The ensign staff at the stern, which flies the white ensign at sea or when attached to land, and the jack staff at the front of the ship, which flies the Union Flag only when attached to land either by being alongside the wall or at anchor. That's the only time it can be called the Union Jack.

The one exception for the Union flag to be flown at the jack staff while at sea was when serving as escort to the then Royal yacht with the Royal family embarked.

If the Union Flag is seen flying at a yard arm of a ship (this is sometimes seen at the mast in H.M.S. Nelson in Portsmouth) it implies that a Courts Marshall is in progress.

I hope that nobody takes offence, but the people need to know the truth.

DAVE WATSON
EMAIL

I'm sure no offence will be taken, Dave. Letters such as yours are just what these pages are all about. Many thanks for the clarification. Ed

MAY I MAKE SOME OBSERVATIONS?

I enjoy the magazine very much but feel I must correct a couple of errors that crept into the May 2021 issue (I live in Australia, hence the delay in emailing you).

Firstly, in the excellent Flotsam & Jetsam series, I noticed

Cockatoo Island has apparently shifted! It is west (not east, as specified) of the Harbour Bridge, near where they used to anchor ammunition barges. While in the article regarding The Cigarette, in the paragraph regarding hull

construction you advise people buy ply sized 4-inches by 1-inch, whereas those figures relate to metric measurements.

MARTIN KELLY
EMAIL

Thanks for setting the record here, Martin. I would imagine that these errors crept in during my edit rather than being the respective contributors' mistakes. Sincere apologies for any confusion caused. Ed

CALDERCRAFT KIT CONCERN

I recently purchased a Caldercraft 'Milford Star' kit from a reputable UK dealer, (not e-Bay). Three months into the build I am totally frustrated and disappointed by the appalling quality of the kit. The plan (not full-size) and the instruction manual have so many

errors one could easily think they were from different kits. There are inaccuracies in the parts, some are short of the required quantity, some are completely missing. Materials which should be wood have been substituted with plastic (mast booms). The actual kitting by

the manufacturer is very poor for the price of the kit. I could go on...

I have been modelling for over 50 years and this kit takes the biscuit! Is it me, or have other modellers had similar problems? I have expressed my concerns to the dealer but so far have had no response.

DENZIL MONIS
EMAIL

I am sorry to hear this, Denzil, and given your years of experience as a modeller I think your question is a very fair one. So, let's throw it open to your fellow t readers and see if anyone else has experienced the same frustration with this particular kit. Over to you, chaps!

Ed



wonder if one of your readers would be able to help?

I attach a few photos of this pretty galleon in its current sorry state, plus one that was taken many years ago before the damage was done.

AMANDA MOWER
EMAIL

*I think it's lovely you are trying to honour your grandfather's memory in this way. Here's hoping someone reading will be able to offer some assistance; if so, I'll be delighted to forward their contact details on you. **Ed***

LEFT: One of the charming galleons built by Amanda Mower's late grandfather. Sadly, since this photo was taken, she has fallen into a rather sorry state (see below).



GRANDAD'S GALLEON

I don't know if you can help me but my grandfather (who passed away in 1992 at the grand age of 94) was a great modeller. He made several steam engines and, more relevant to my appeal for assistance, three beautiful galleons. I am now in possession of a couple of these, and one is particularly in need of repair. The hull is in pretty good condition, but the rigging and masts are badly damaged. My sister and I would love to return this to as close to its original state as possible. I have, however, struggled to find anyone willing to take this restoration project on, so I





WACHT AM RHEIN TUG

I purchased the Deans Marine kit for this 1848 steam tug, based on a vessel once used on the Rhein, back in September 1996, but it was not until lockdown that I finally found time to start the build. Modelled to a scale of 1:32, with a length of some 37-inches, and weighing in at just over 4lbs, her hull is of glass fibre. She has a vac-formed boiler housing, W/M fittings and running gear. I also purchased a motor and brass prop from Dean's.



As with all Dean's kits, this can be constructed purely from the contents in the box and you'll still have a great model, or you can add items to your heart's content to really make the build your own.



In total, it took me 18 months to complete this project (at my leisure, I should point out – not working on the model full-time). I now thoroughly enjoy sailing her on our lake at the Swiss Cottage Model Boat Club in Shoreham by Sea.

FRED ELLIS
EMAIL

What an elegant vessel she is, Fred. Gut gemacht! You've done a marvellous of building, detailing and finishing her. Ed

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



ROLL UP, ROLL UP...

I thought you might like to see my build of the 'The Cigarette' offshore racer from the plan in the May 21 issue of Model Boats.



Although Ray Wood kept his build straightforward for his grandsons to sail, I felt the model had more potential. I therefore embarked on a slightly more detailed build. Having searched the internet for pictures of the original *Cigarette* racer, I was able to add further detail, although I altered the scale slightly to accommodate the required crew of three and obtained vinyl decals from the excellent Callie Graphics.

Drive wise, I replaced a brushed 540 motor with a 3536 1450kv brushless, which required some re-engineering of the motor mount and two deck hatches rather than three. Powered by a 7.2v lipo, the performance is swift with the hull on the plane and it's so much fun to drive.

Inspired, I am now going through my back issues to find yet another subject for my next build.

STEVE FISHER
EMAIL

What a great spin on Ray's plan, Steve. I bet she draws loads of attention on the water! Ed



THE DONKIN'S DISPLAY

My husband David Donkin has had Model Boat magazine for many years and has made lots of the models. He is a trained Graphic Designer and then started to make models for advertising companies and well-known book publishers. Sadly, he has now lost a lot of his sight, but I

thought you might be interested in sharing some of his work in the magazine, which ranges from models built from plans in the magazine to pop-pop boats and pond yachts, to some fun ones for he recently made for our grandchildren.

SUSAN DONKIN
EMAIL

Thanks so much for sharing examples of David's wonderful work, Susan. I love the way you have some of these models displayed and wall mounted. Ed

ABOVE & BELOW: Just some of David Donkin's wonderful work on display in his family home.





SEVEN ATLANTIC

I've recently retired from being a commercial diver (40 years) and I was the first diver ever to get pressurised up in the saturation system on the 7 Atlantic Diving Support Vessel when she was first built. Indeed, I stayed with her for the next ten years. Unbeknown to me until recently, my

son's father-in-law, Bob (Norquay) – a vet by profession, based on the Orkney Isles – spent seven years scratch building a 1:500 scale model of 7 Atlantic for me. Sadly, he never visited the boat as he was always frightened that he would 'give the game away'. Instead, he took all scale sizes from plans and photographs.

Being such a quiet and unassuming person, it wouldn't even occur to him to submit photographs of the finished build for inclusion in the magazine. Despite being an amateur modeller, however, the model is nothing short of museum quality, and I feel it really deserves to be seen by other enthusiasts, so I've decided to send you some pictures myself!

I know the base was carved from one piece and was calculated to show the vessel doing 14 knots. The handrails were individually cut from paper and hairspray was used to stiffen them.

The only artistic licence Bob took was in the maritime flags that she is flying. Alpha has a dual meaning, showing that the vessel is on a speed trial, which the base has been carved to represent.

Sierra and Lima are for me (Stevie Ley).

STEVIE LEY
EMAIL

Wow! What a superb build and what a wonderful gift. Bob really has thought of everything and that superbly sculpted base really sets the model off beautifully. Talk about hiding your light under a bushel! This would make a fantastic feature length article, although I appreciate Bob probably has his hands full with his day job. Ed





ANOTHER COMMENDABLE CMB

I was interested to see Richard Simpson's pictures of the 1:24 scale Thornycroft 55 ft CMB (Coastal Motor Boat) constructed by the late Keith Heyes in last month's issue. I attach a picture of my own version, built and finished in accordance with the same article and plan. The only seeming difference between the two is our choice of wood stain! Having sailed mine at the Beale Park Boat Show, I must agree with

Richard that she's a bit slow using the suggested power train. I still have the magazine, plan and various tracings and construction notes. Keep up the good work!

ROGER PICKETT
EMAIL

You've done a super job on her, Roger. Many thanks for sharing! **Ed**

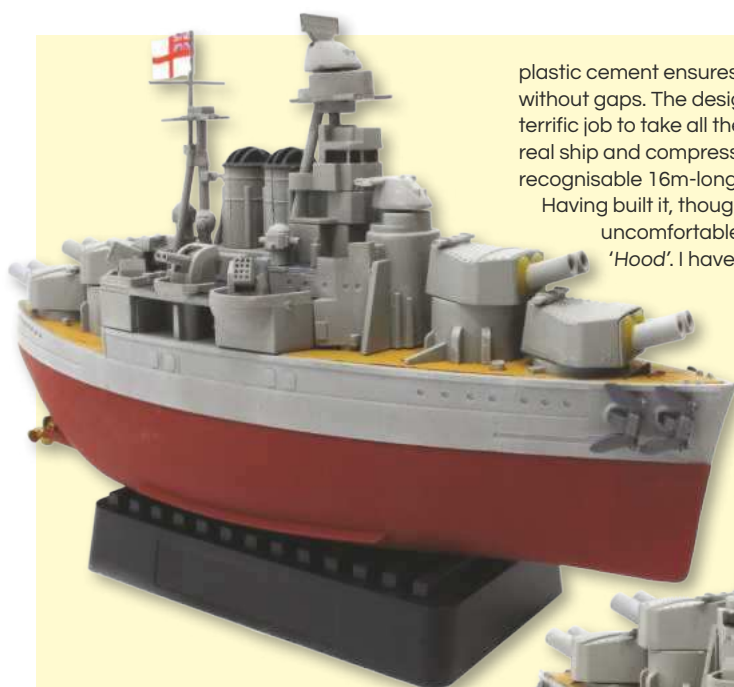
plastic cement ensures parts assemble without gaps. The designer has done a terrific job to take all the features of the real ship and compress them down into a recognisable 16m-long version.

Having built it, though, I'm a little uncomfortable with a cartoon 'Hood'. I have, therefore, left the

name off for the moment until I can come up with something more appropriate – 'Troutbridge' [as per the ship from the radio sitcom *The Navy Lark*], perhaps?

PHIL PARKER
LEAMINGTON SPA

I love this! An alternative name suggestion for this tubby little ship (from Richard, MB's designer) is "Pud" instead of 'Hood'! **Ed**



A BIT OF A LARK

My father has been building a radio-controlled model of *HMS Hood* for the last couple of years, so when I spotted this caricature version from Meng, I knew I had to have a go at it!

The plastic kit is designed to clip together without glue, and thanks to self-coloured plastic, you don't even need to paint it. Of course, it looks better with paint, and a little



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
- Mastng 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

anticsonline.uk

MASSIVE RANGE OF SHIP MODELS 01453 377030
info@anticsonline.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.

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

IN 1/24TH, 1/32ND, 1/48TH,
1/72ND, 1/96TH, 1/128TH

TEL: 01822 832120

FAX: 01822 833938

WESTWARD MOULDINGS LTD

Australia's Premier Maritime Hobby Shop



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

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

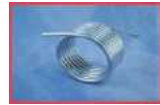
E-mail: paul@makeamodelboat.com



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



**CUSTOM
3D
PRINTING**



www.mantua-model.co.uk

179 Dedworth Road Windsor Berks SL4 4JN

Tel: 01753 856321

For all your modelling needs.

Model ship and boat specialist - Radio Control.
All types of wood - Lime - Walnut - Mahogany
Spruce - Balsa - Ply

Distributor for Mantua Model of Italy

Mantua Sergal and Panart model kits fittings and accessories

fast mail order service

Tugging Ahead.....with

MOBILE MARINE MODELS

MODEL TUGNOLOGY.....at its Best

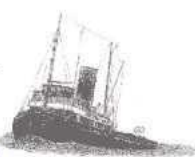
tel: 01522 730731

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



**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

Next month in **model Boats**

In our October issue, on sale from September 24, 2021, be sure not to miss...



● Cereal thriller

How the crafty use of cardboard was employed to create this simple but gorgeous sailing boat



● Plastic magic!

A 1:72 scale Airfix kit-built Severn Class Lifeboat motorised



● Ships' lifeboat dauids

A modellers' guide to differentiating between the different david types

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 October issue, which goes on sale at all good newsagents from September 24, 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.....

.....

.....

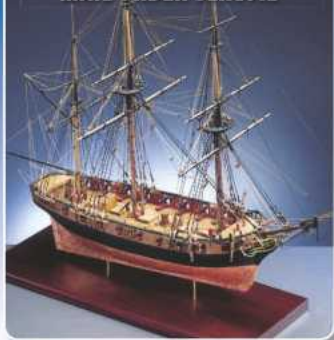
Postcode.....

Telephone number.....

If you don't want to miss an issue



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



CORNWALL MODEL BOATS

www.cornwallmodelboats.co.uk

Highfield Road Industrial Estate, Camelford, Cornwall PL32 9RA

Telephone: **01840 211009**

MAIL ORDER ONLY

FREE UK SHIPPING ON ORDERS OVER £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**

NEW!

**IN STOCK
TURK MODEL BOATS.
CAD CUT WOODEN
MODEL BOATS**

Aerokits

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

Amati

Bellezza Italian Sports Boat	£125.00
New! Bismark	£493.00
Fifie Scottish Motor Fishing Vessel	£224.00
Riva Aquarama - Italian Runabout	£279.00
Sexy Lady Riva Type Launch	£160.00

Aeronaut

Capri Sport Boats	£129.95
Delphin Fishing Boat	£108.95
Jenny 1930s American Motor Boat	£124.99
Jonny Harbour Tugs	£440.00
Kalle Harbour Tug	£159.98
Nunberg Nattleship with Fittings	£249.95
Scharnhorst Battleship with Fittings	£419.95
Torben Modern Hamburg Tug 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

African Queen	£182.00
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
White Star Motor Boat B570	£114.00
Zwarte Zee B592	£240.00

Caldcraft 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
Sovereign of the seas Lifeboat	£50.9

Dumas Chris Craft Radio Controlled

Big Swam Buggy Airboat Kit #1505	£150.40
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	£349.00
Chris Craft 24' Mahogany Runabout #1230	£387.00
Commander Express Cruiser 1954 #1244	£353.00
Chris Craft Racer 1949 #1249	£248.15

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 Commuter Boats

Chris-Craft Commander Express Cruiser 1954	£220.00
Dumas Trojan F-31 #1205	£168.25
Dumas Typhoon	£388.99

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 Bullet V2 ARTR 2.4Ghz	£189.95
Bullet Version 3 ARTR 2.4Ghz	£247.49

Mad Flow F1 Brushless ARTR	£189.95
Mad Shark brushed RTR	£131.39
Dragon Force 65 V6 Yacht ARTR 2.4Ghz	£169.99

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
New Maquettes Le France	£600.00
La Jocelyne 300 Tonne Barge	£282.00
Le Marsouin Trawler	£279.00

Occre Static Models

Boats/ Trams /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
Occre AEC Bus	£94.94
Occre London Tram	£115.00
Occre Adler Locomotive	£110.00

Panart Static & R /C Kits

Pro Boat Impulse 9 V-Hull RTR	£70.97
React 17-inch Self-Righting Deep-V Brushed RTR	£98.99

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
Dusseldorf with fitting kit	£329.00
RO-Marin Paula III	£149.92

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

New to CMB TURK Model Boats!!!!

Modell-Tec Conny Nordic Fishing Boat 1:25	£218.00
Follabuen Nordic Fishing Boat 1:25	£254.00
Oselvar Faring 1:15	£102.00
Panderma (Bandirma) Ferry 1:87	£74.00
Bosphorus Cutter 1:50	£40.00

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
CURTISS JN-4D JENNY, 1917	£332.50
Trailways Allerton Steam Pumper Fire Eng	£719.95

Matchstick Kits

Trams. Buses, Rockets	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

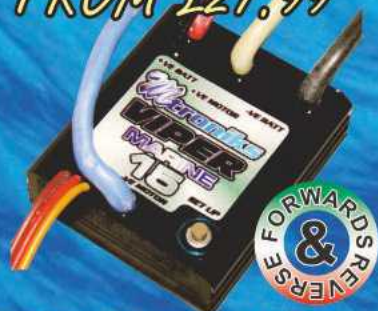


No Relays or moving parts!

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

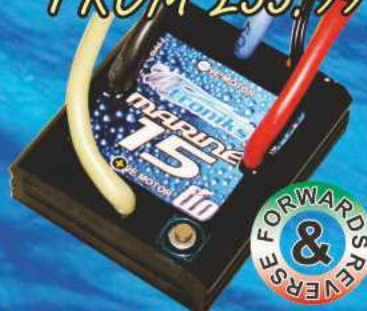
FROM £27.99



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