



MINI PLAN
FOR A CHEAP, EASY-TO-BUILD
LANDING CRAFT MODEL INSIDE!

model Boats

www.modelboats.com

October 2023

Vol.73 No.875

HMS HOOD

Just one of the latest Gerry
Westenberg masterpieces
showcased in this issue

CIAO BELLA!



The challenges presented by this
1960s' *la dolce vita* design classic

**SCALE COLOUR,
SOUND & SPEED**

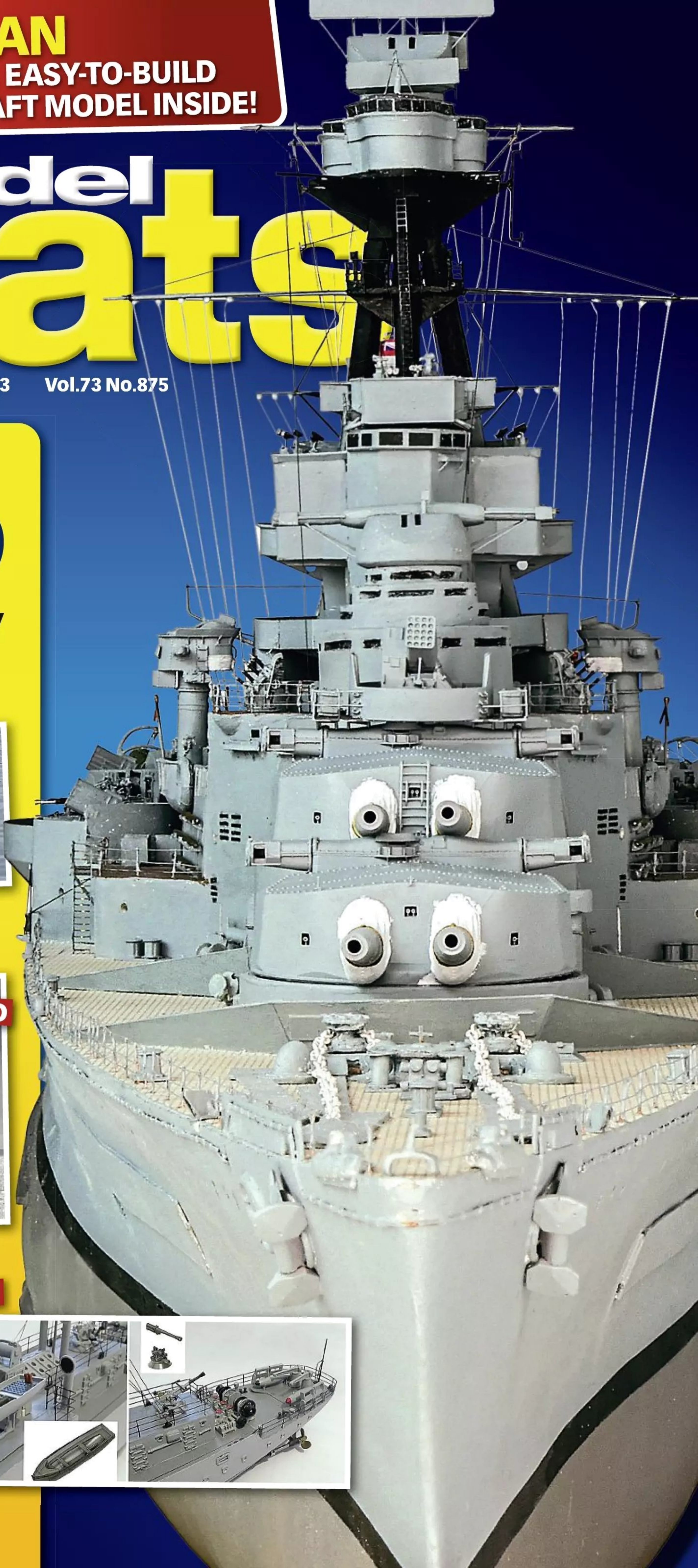


Going the distance in 'keeping it real'

BATHURST CLASS CORVETTES



The Royal Australian Navy modelling
options for your World War II fleet





**WE MADE
THIS FOR
THE UK**

Since 1958 - 65 Modelkits



Built in 1925-1926 for F.T. Everard & Sons at Great Yarmouth, the "Will" was the last of four 280 ton barques. The ship was built with a hull of steel and was used by the Everard family for over 40 years for coastal navigation along the Eastern coast of England, the islands and the English Channel.

In 1982, command of the "Will" was taken over by Northern Europe's youngest and according to the press, prettiest captain, the then 24-years old Sue Harrison, who two years previously had received her master's certificate.



601 Will Everard
Wooden hull 1:67
L. 58 W. 12 H. 49 cm
(in factory stock)

**BUT TAKE A LOOK AT OUR FULL RANGE AT
BILLINGBOATS.COM**



No retail sale

[facebook.com/billingboats](https://www.facebook.com/billingboats)

See all 65 models at BillingBoats.com

Contact us at service@BillingBoats.com

Dealer list here: BillingBoats.com/distributors

Billing  **Boats®**

The Pioneering Budget Building System®

The Kits you Can Buy in 5 Stages

also available as FULL KITS including electric lights



Lady Jan



Rosegarth



Lady Wooses



Damen Stan Tug 1605



Norton Cross



Canning



Brackengarth

Just a few from the full range of Britain's Leading Model Tug manufacturer

Tugging Ahead with

MOBILE MARINE MODELS

Model Tugology..... the driving force

The Boat Shed... Ingham Cliff, Lincoln LN1 2YQ.... 01522 730731

Factory Visits Welcome
Full colour Catalogue £6



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

2023 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 £13.50 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.



A selection of **ACCESSORIES** see our website for details



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



MISS ENGLAND



VOSPER 73ft

LATEST RELEASES



M.C. AQUARIUS



45ft Admirals barge



MUSICIAN



NEW FAWN

EDITORIAL

Editor: Lindsey Amrani

Senior designer: Michael Baumber

Designer: Fran Lovely

Illustrator: Grahame Chambers

Publisher: Steve O'Hara

By post: Model Boats, Mortons Media Group,
Media Centre, Morton Way, Horncastle, Lincs LN9 6JR
Tel: 01507 529529 Fax: 01507 371066
Email: editor@modelboats.co.uk

CUSTOMER SERVICES

General Queries & Back Issues
01507 529529 – Monday-Friday: 8.30am-5pm
Answerphone 24hr
help@classicmagazines.co.uk
www.classicmagazines.co.uk

Archive enquiries: Jane Skayman
01507 529423 jskayman@mortons.co.uk

ADVERTISING

Advertising Sales Executive: Fiona Leak
flea@mortons.co.uk Tel: 01507 529573

By post: Model Boats Advertising,
Mortons Media Group, Media Centre, Morton Way,
Horncastle, Lincs LN9 6JR

PUBLISHING

Sales and Distribution Manager: Carl Smith

Marketing Manager: Charlotte Park

Commercial Director: Nigel Hole

Publishing Director: Dan Savage

Published by: Mortons Media Group Ltd,
Media Centre, Morton Way, Horncastle,
Lincs LN9 6JR

SUBSCRIPTIONS

Tel: 01507 529529 – Mon-Fri: 8.30am-5pm
Enquiries: subscriptions@mortons.co.uk

PRINT AND DISTRIBUTIONS

Printed by: William Gibbons & Son, Wolverhampton
Distribution by: Seymour Distribution Ltd, 2 East
Poultry Avenue, London, EC1A 9PT.

© Mortons Media Group 2022
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 Mortons Media Group, Media Centre, Morton Way, Horncastle, Lincs LN9 6JR UK. The US annual subscription price is 89USD. 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.



contents

10 Compass 360

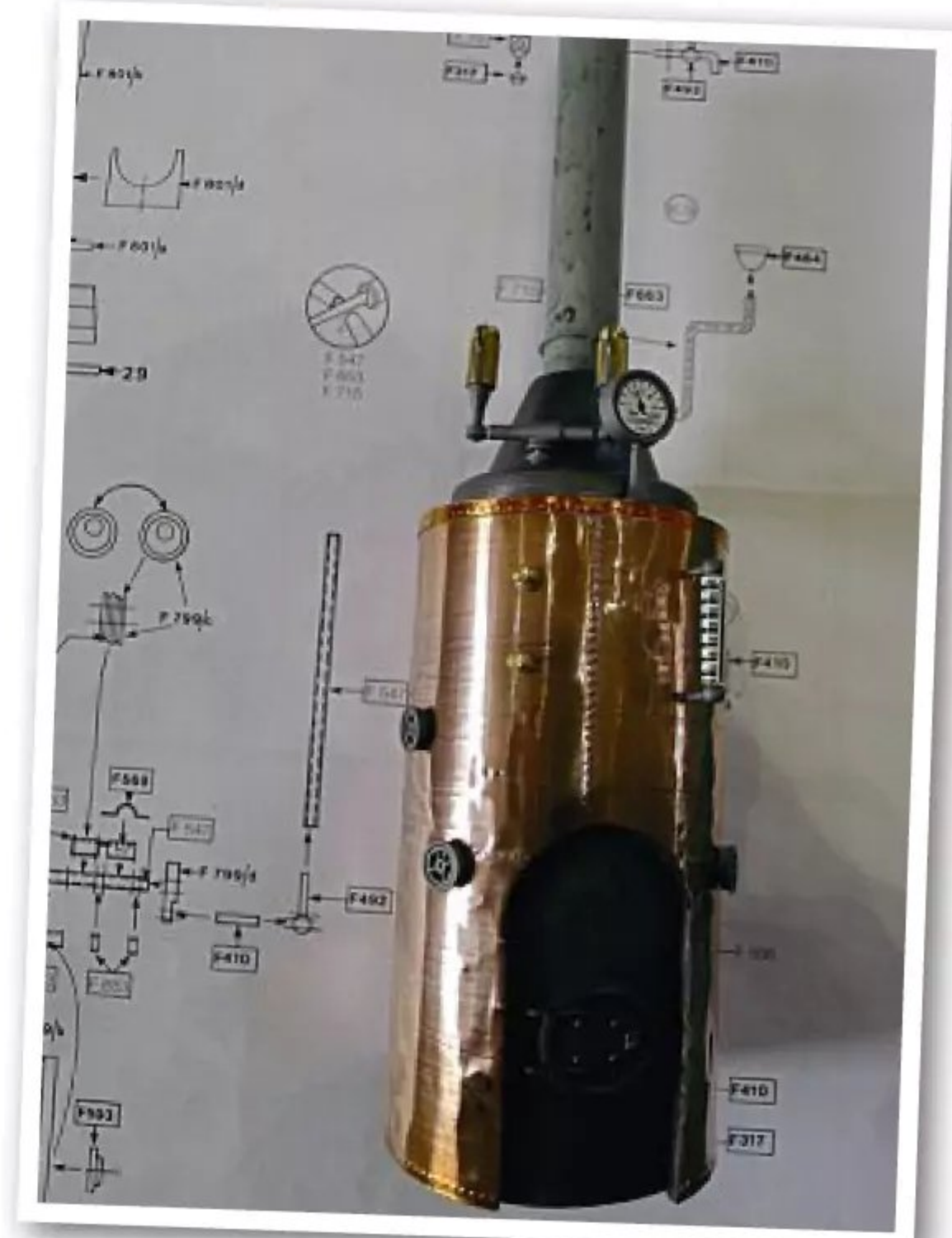
A round up of the latest hobby/
industry news

12 Gerry Westenberg masterpieces

David Nicolson, Publicity Officer for the HMAS Perth (I) Memorial Foundation Inc, updates us on the extraordinary work of this talented Australian modeller

16 Ciao bella!

Barry Lalonde takes on the challenge of modelling Riva Aquarama, the classic 1960s' Italian runabout that leaves no hiding place for mistakes!





24 Flotsam & Jetsam: Bathurst Class Corvettes

John Parker tells the story of these general-purpose vessels designed and built in Australia during World War II, and considers the options for open to prospective modellers

30 Save money with a subscription!

Check out the latest print and digital deals and get your favourite magazine for less, delivered directly to your door!

32 Landing Craft Mini Plan

Glynn Guest provides instructions his easy-build design that lends itself to either being kept nice and simple or modified and detailed to suit your own particular spec

42 Scale colour, sound & speed

Peter Koch-Osborne on going the distance in 'keeping it real'

44 African Queen, Part 2

Richard Simpson shares his thoughts on the finished build of this Billing Boats' kit aimed at the 'advanced beginner'

52 Paddling in the deep end

Warminster MBC member Mike Payne shares the discoveries made and lessons learnt during an ambitious project that didn't go quite according to plan



56 IC Powerboating Basic Build, Part 2

Derek Owen shows us how to complete a very simple racing hydroplane outrigger-style boat

60 Boiler Room

Richard Simpson explains the many benefits of learning how to tap a thread, along with some best practice advice, tips and tricks

66 Your Models

More of your brilliant builds showcased

71 Your Letters

Views aired, info shared and successful club events celebrated

74 Next Month...

Just three of the reasons why you won't want to miss the November issue of Model Boats

WELCOME TO THE OCTOBER 2023 ISSUE OF MODEL BOATS...

If you're looking for inspiration for your next modelling project, there are plenty of options to consider in this month's issue; these range from easy, economical builds to those that are likely to really challenge even the most ambitious amongst you.

If you're a regular reader, you will be aware that we only include a free full-size pull-out plan in every other edition (and next month's is a real cracker – see p. 74). Turn to the feature starting on p. 32, however, and you will find, courtesy of Glynn Guest, a mini (in-pagination and run over the double page spread in the centre of the mag) plan for a simple but very effective-looking landing craft model. Like so many of Glynn's designs, this can be used as a quick, straightforward way of achieving a more than acceptable starter model, yet one that equally lends itself to all sorts of super detailing or modification possibilities. So, if you do decide to give it a go, please send in some photos of your finished build.

I am always amazed by how cleverly you manage to adapt and put your own personal spins on the free plans included in the mag – two excellent examples of which are included in this month's Your Models section (along, of course, with lots of other impressive work – and, I think you'll agree, John Webber, in particular, so deserves to be saluted for his build of *Titanic*, see p.66, and the six years of sheer courage and determination in the face of real adversity this magnificent model took to complete).

There are so many different dimensions to this hobby. Modellers are historians, craftsmen, engineers, innovators, artists, etc, but also wonderful storytellers – so please keep sharing yours!

Enjoy your read!
Lindsey





**NEW
RANGE!**

LIPO BATTERIES:

7.4v 650mah - £7.50
7.4v 850mah - £9.50
7.4v 1300mah - £12.99
7.4v 1800mah - £14.99
7.4v 3200mah - £24.99
11.1v 1300mah - £15.99
11.1v 1800mah - £16.99
11.1v 2200mah - £16.99
11.1v 2800mah - £29.99



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

MICROZONE SUPER SPECIAL OFFER!

6 CHANNEL RADIO
RADIO INCLUDES RECEIVER
RRP £59.99
OUR PRICE £39.99!



Additional Receivers Available!

8 CHANNEL RADIO
WITH LCD SCREEN.
RADIO INCLUDES RECEIVER
OUR PRICE £59.99!



LARGE RANGE OFF HIGH QUALITY

7.2 VOLT BATTERY PACKS

2000MAH - £11.99
3000MAH - £15.50
3300MAH - £15.99
3800MAH - £19.99
4000MAH - £22.99
5000MAH - £26.99

Lead Acid Batteries

6 VOLT 1.0 AMP - £4.99
6 VOLT 1.3AMP - £4.99
6 VOLT 3.4 AMP - £6.50
6 VOLT 4.5 AMP - £5.99
6 VOLT 7 AMP - £7.99
6 VOLT 12 AMP - £11.99
12 VOLT 2.3 AMP - £8.99
12 VOLT 3.2 AMP - £9.99
12 VOLT 4.5 AMP - £9.99
12 VOLT 7 AMP - £12.99
6V JELLY CHARGER - £9.99
12V JELLY CHARGER - £9.99

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 £25.!

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
MAX KINGMAX HOBBY CO., LTD



NEW HORIZON 30 INCH HARBOUR TUG BOAT RTR

COMES READY TO RUN WITH
ELECTRONICS AND RADIO GEAR
HAS A OPERATIONAL WATER PUMP!
REQUIRES 11.1V BATTERY & CHARGER
RRP £489.99
OUR PRICE £449.99

Futaba



FUTABA T6L
2.4GHz 6 CHANNEL
RADIO INCLUDES
R3106GF RECEIVER
OUR PRICE
£99.99!



FLYSKY FS-I6

6 Channel Computer
radio with a ton of
features and setting
adjustments!
Includes receiver
Only £54.99!
Additional RX £16.99

NEW DUAL CHARGER FOR LIPO'S & MORE



Charges most batteries
including Li-PO, NiMH,
Lead Acids & More!
1-6s LIPO's, 1.2v - 18v NiMH
2-20v Lead Acid's

Our Price Only £92.99!



SHARK BRUSHLESS ESC'S

NEW RANGE OF BRUSHLESS ESC'S. DIFFERENT
AMPS AVAILABLE FOR MOST MOTORS

20AMP - £19.99 30AMP - £21.99
40AMP - £24.99 50AMP - £56.99
60AMP - £43.99 80AMP - £55.99

SUPER STRENGTH METAL GEARED WATERPROOF SERVOS! INCLUDE FITTINGS & METAL ARM!

20KG - £13.99
25KG - £14.99
30KG - £17.99
35KG - £24.99
60KG - £29.99



Waterproof

Marine Speed Controllers

NEW RANGE WITH LOW PRICES!

10A 4.8-12v ONLY £30.99
15A 6-12 V ONLY £30.99
15A PLUG N PLAY 6 -12v - £30.99
15A 12-24 V ONLY £31.99
25A 6-12 V ONLY £41.99
25A PLUG N PLAY -12v - £41.99
40A 6-12 V ONLY £52.99
J PERKINS 50AH ESC - £37.99
RADIO LINK 90A ESC
(ALSO LIPO SAFE!) **ONLY £29.99!**



BRUSHLESS SPEED CONTROLS

MTRONIKS G2 HYDRA 15A BRUSHLESS
RRP £49.99 - NOW £44.99
MTRONIKS G2 HYDRA 30A BRUSHLESS
RRP £59.99 - NOW £53.99
MTRONIKS G2 HYDRA 50A BRUSHLESS
RRP £84.99 - NOW £72.99
MTRONIKS MICRO SWITCHER - £19.99

NEW DE-108 8 CHANNEL
RADIO IDEAL FOR MODEL BOATS!
Proportional channels, 4 on the sticks with 2
on dials and 2 switches. Battery indicator for
handset and boat batteries!



SPECIAL OFFER - £29.99!



Li-Po Batteries at Great Prices

7.4v 1000mah - £11.60
7.4v 1300mah - £12.99
7.4v 1600mah - £14.99
7.4v 2200mah - £15.50
7.4v 3900mah - £29.99
11.1v 1000mah - £15.50
11.1v 1300mah - £18.50
11.1v 1600mah - £19.99
11.1v 2200mah - £19.50
11.1v 3900mah £43.99
11.1v 5000mah - £48.99

SERVOS

POWER 3KG STANDARD - £4.99
OR SPECIAL OFFER 2 for £8.00!
NEW! FUTABA SU300 DIGITAL - £18.50
RADIANT 3.5KG BB WATER RES - £10.99
FUTABA 3010 6.5 TORQUE - £23.99
FUT 3014 WATERPROOF - £24.99
HITEC 325 BALLRACE - £19.99
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 BALLRACED £7.99
**SAIL ARM, WINCH &
SPECIALIST SERVOS**
HITEC 785 HB SAIL WINCH
WITH FULL ROTATION DRUM
OUR SPECIAL PRICE £36.99
HITEC 765BB SAIL ARM
WITH 12 CM LONG ARM
OUR SPECIAL PRICE £36.99
FUTABA HIGH VOLTAGE DIGITAL
S-BUS SERVO SU400 - £34.99
HITEC HS 805BB SAIL ARM HUGE
WITH 20KG TRQ £37.99



SUPER SERVO SPECIAL!

METAL GEARED
15KG HI-TORQUE SERVO
Standard Size
Fits All Brands

ONLY £9.99!

OR 2 FOR £14.00!



NEW LOW PRICES!



DRAGON FLIGHT 95 V2

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 £379.99

Our Price £339.99

RTR RRP £429.99

Our Price £384.99

NEW DEALS ADDED DAILY ON WEBSITE!

01865 848000 WWW.HOWESMODELS.CO.UK

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

NEW RADIO LINK ESC!

90A WATERPROOF ESC!
WORKS WITH NI-MH AND LI-PO BATTERIES!



OUR SPECIAL
INTRODUCTIONARY PRICE
ONLY £29.99!

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

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

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

Diameter: 28mm - Length: 38mm

Hydra 15A Combo - Only £61.99

Hydra 30A Combo - Only £71.99

Ideal Replacement for 380 - 400 Motors

Hydra 50A Combo - Only £128.99



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 £39.99 OUR PRICE **£36.99**

30A - RRP £52.99 OUR PRICE **£47.99**

50A - RRP £68.99 OUR PRICE **£61.99**



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 - £11.50

£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



HENG LONG SALINA

FINALLY BACK IN STOCK!
READY TO RACE. INCLUDES POWER
8.4V BATTERY WITH CHARGER.
LENGTH OVER 70CM!

ONLY £79.99!

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



Proboat PCF Mark I 24

Swift Patrol Craft RTR!

Ready to run model from Proboat.
Fitted with Spektrum electronics which include SLT3 3 channel transmitter & Spektrum ESC!

24in Length x 7in Beam

RRP £379.99

Our Price

Only £329.99!

Requires 11.1v Battery with EC3 connector and suitable charger



FANTASTIC NEW RANGE OF BRUSHLESS MOTORS!

IDEAL UPGRADES FOR 385 AND 540 SIZED BRUSHED MOTORS!

FROM 2300KV TO 6100KV!

PRICES FROM £13.99!

ALSO AVAILABLE WITH ESC'S AS COMBOS! CHECK WEBSITE FOR BEST DEALS AND PRICES!

JOYSWAY DRAGON FORCE THE NEW VERSION 7!

Length 650mm Height 1338mm
The very popular DF65 yacht now updated to the V7!

Available Ready to Run with 2.4GHz radio or ARTR (no radio)
ARTR RRP £234.99

Our Price £209.99

RTR RRP £284.99

Our Price £249.99

Electric Motors

385 5-POLE £3.99 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 £25.99

MFA TORPEDO 850 £25.99



FTX MORAY SPEED BOAT

SELF RIGHTING SPEED BOAT! READY TO RUN FROM THE BOX AND YOU CAN RACE MORE THAN ONE TOGETHER! CAPABLE OF SPEEDS OF 30KM/H!

ONLY 35CM LENGTH - GRAT FUN!

ONLY £39.99 EACH!



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 £3.99



NEW! UDI SUPER SPORT SPEED BOAT

FAST READY TO RUN SPEED BOAT WITH FLASHING LED LIGHTS! FANTASTIC FUN! SELF RIGHTING!

LENGTH - 42CM - WIDTH - 12CM

RRP £79.99 - OUR PRICE ONLY £69.99!

UDI ARROW BRUSHLESS SPEED BOAT

READY TO RACE! SPEEDS OF 40MPH!

LENGTH: 63CM!

EVERYTHING INCLUDED

IN THE BOX!

RRP OF THIS BOAT

IS £259.99!

OUR SUPER PRICE

ONLY £179.99!



Also available in RED!



Miniature Steam Pty Ltd

Specialist Producer of Model Marine Steam Plants
FREE Postage for Orders AU\$500 and over During 2023



Powerful MSM Steam Plants for *Reliable* Long Runs



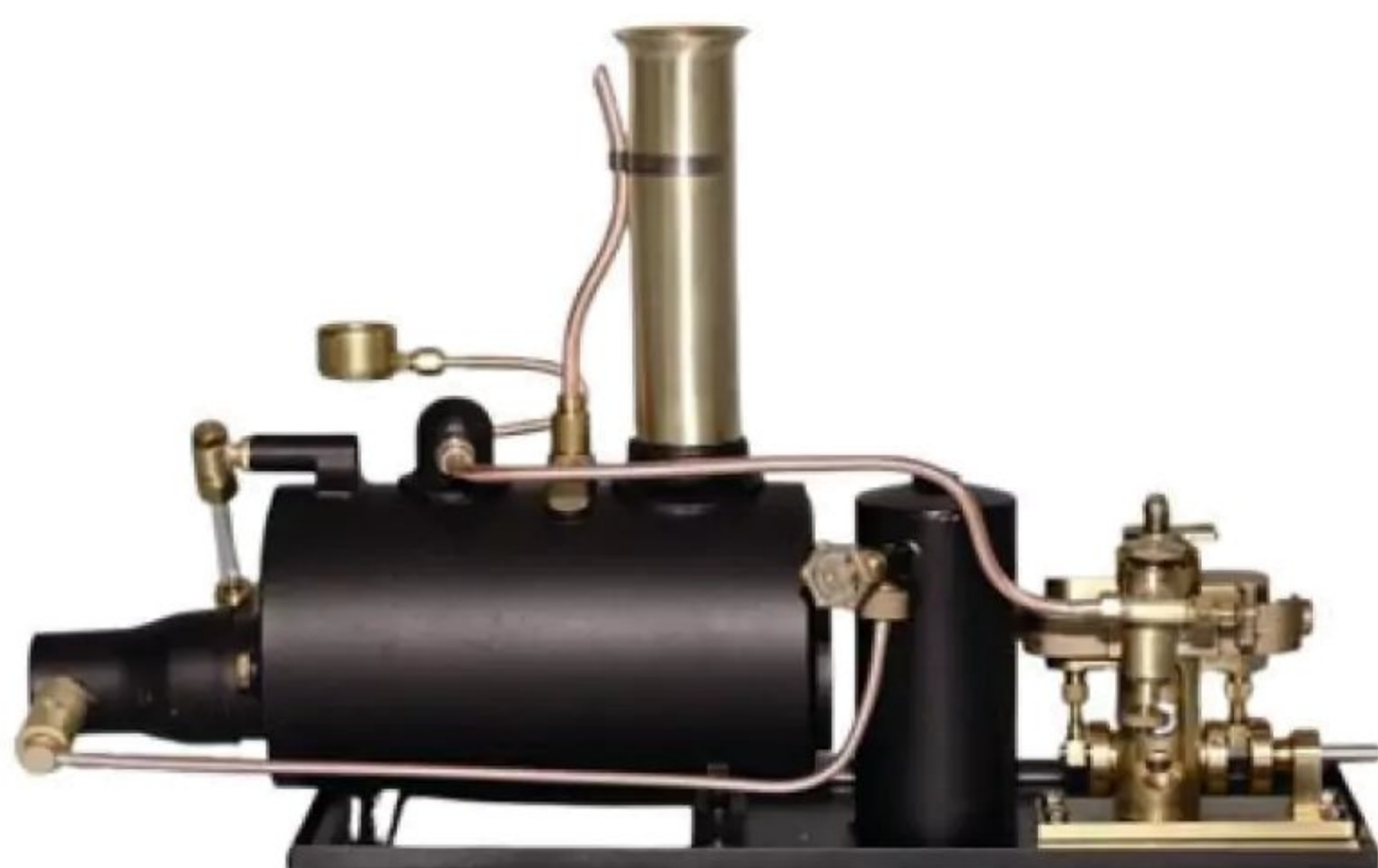
Powerful 3" Boilers with the Avon twin cylinder oscillator.
Complete with Refillable Gas Tank, Oil Trap & Lubricator.



Also all accessories - ready to run!

Can also power a whistle – optional extra.

Powering boats up to 1200 mm long.



Our website: www.miniaturesteammodels.com

Our email: info@miniaturesteammodels.com

MODEL BOAT BUILDER

Find us on Facebook

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

SECURE ONLINE ORDERING

info@sarikhobbies.com 01684 311682

sarik hobbies

The store for the model builder

Marguerite
Bristol Channel Pilot Cutter
By David Alderton. One of the handful of surviving Bristol Channel Pilot Cutters.

Plan DAP008 £12.50
GRP Hull DAH008 £121.00
SAVE: Plan & Hull Set DASET008 £129.50

SHORT KITS

Barb's Boat SET3550 £96.00
Chouette SET2560 £138.00
Etoile Jet Bikel SET2324 £99.00
Fairley Huntress 23 SETMB2131 £78.00
Fairley Huntsman SETMM680 £82.00
Fishing Boat Orca (from 'Jaws') SET2463 £148.00
Higgins Hellcat Torpedo Boat SETMM2056 £78.00
HMS Crane SET3524 £53.00
HMS Embling SETMM2055 £66.00
HMS Temerity SETMM2094 £69.00
Mariner US 80' Tow Boat SET3532 £92.00
Meteor SET2407 £44.00
Nimbus Mk3 SET3133 £81.00
Pilot Boat SET3062 £90.00
Riva Aquarama 1:12 SET2552/LG £79.00
Riva Aquarama 1:24 SET2552/SM £37.00
SG&K 22" Gentlemen's Runabout SET3509 £41.00
SS Noggund Steamship SETMM2057 £39.00
Star Baby SET3295 £111.00
Strathclyde 70 Wee Nip SET2966 £61.00
SV Sunbeam Solar Ferry SETMB2141 £99.00
Thames Lighter SET3552 £39.00
UTE Workboat SETMM2079UTE £63.00
Thames Barge Veronica SET3584 £116.00
Thames Lighter SET3552 £40.00
Tid Tug (T.I.D. Class Tug) SET2447 £98.00
USS Bodega Bay SETMAGM2010 £147.00
Vosper MTB SETMM2062 £72.00
Vosper MTB379 SET3505 £117.00
Wild Duck SETMM2127 £121.00

PLAN & HULL SETS

Baikal SETMM1331 £49.00
Bluebird Of Chelsea SETBM1449 £48.00
Brave Borderer FG SETMM609 £81.00
Breeze (Pilot Cutter) FG DASET006 £138.50
Burutu & Bajima Tug SETMM1339 £49.50
Celia May Steam Launch SETMM1429 £51.00
Cormorant V112 SETV112 £39.50
Egret Tug SETMM1417 £57.50
Forceful Tug SETMM129283 £79.00
Galway Hooker FG SETSH2022B £134.00
Grand Banks Schooner SETMM962 £99.00
Guardsman ABS SETMM1330 £44.00
Harbour Defence Motor Launch SETMM1356 £48.00
HMS Embling SETMM2055 £66.00
Ibex (Brixham Trawler) FG DASET004 £132.50
Katie (Gaff Rig Pilot Cutter) DASET001 £112.00
Keenoma Tug SETMM1322 £50.00
Lady Ma FG DASET002 £81.00
Liverpool Lifeboat SETMM1448 £106.00
Manx Nobby DASET005 £142.50
Marguerite FG DASET008 £129.50
Moorcock 1:24 FG SETSH2023B £159.00
Paddle Tug Lulonga SETMM1465 £55.00
Pilot 40 SETMM1444 £54.00
Pilot Cutter 'Hilda 2' FG DASET003 £148.00
Revive Static Sail SETMM1275 £104.00
Shirley Ann SETMM1422 £46.50
Smit Nederland Tug SETMM1409 £49.00
St Cervia Thames Tug SETMM567 £99.00
St Louis Belle Paddle Ship SETMM826 £92.00
Submersible Submarine SETBM1426 £32.00
Thames River Tug Plaudit SETMM1453 £56.50
Topsail Schooner SETMM909 £93.00
Tyne Lifeboat SETMM1390 £55.00
Victoria Steam Launch SETMM1368 £39.50



Many RC & Static Kits now available

1000s OF MODEL PLAN DESIGNS

EXTENSIVE RANGE

Model boat plans to keep any builder busy
Scale Boats & Ships
Sailing Boats & Yachts
Easy to Build Boats
Engineering
Competition Boats
Hovercrafts

Hydroplanes
Straight Runners
Submarines
Unconventional
X-List Plans



WOOD RANGE
Balsa, Ply & Spruce

FREE UK DELIVERY
on orders over £150



Vosper MTB379

An ideal RC Model boat for beginners or for a relatively quick building project with a Laser Cut Wood Pack

Plan MM2062 £15.50
Laser Cut Wood Pack WPM2062 £51.00
Additional Wood Pack AWPMM2062 £15.00
SAVE: Short Kit (Set) SETMM2062 £72.00



Strathclyde 70 Wee Nip Sailing Yacht

A modest, cost-effective, and simple rig

Plan & Article MAR2966 £16.00
DVD DV504 £8.00
Laser Cut Wood Pack WP2966 £44.00
SAVE: Short Kit (Set) SET2966 £61.00



Tools, Accessories & Supplies

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

ZAP
Perma-Grit Tools
Zangston Carbide Abrasives

VISA Mastercard PayPal Find us on Facebook

www.sarikhobbies.com

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

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

Airbrushes.com

TOTAL
CONTROL™

iwata

ALL-STAR
VERSATILITY™

ABSOLUTE
PRECISION™

Hi-Line BH

Eclipse CS

EFFORTLESS
COVERAGE™

SCAN ME

Custom Micron
Takumi

Neo for Iwata
CN

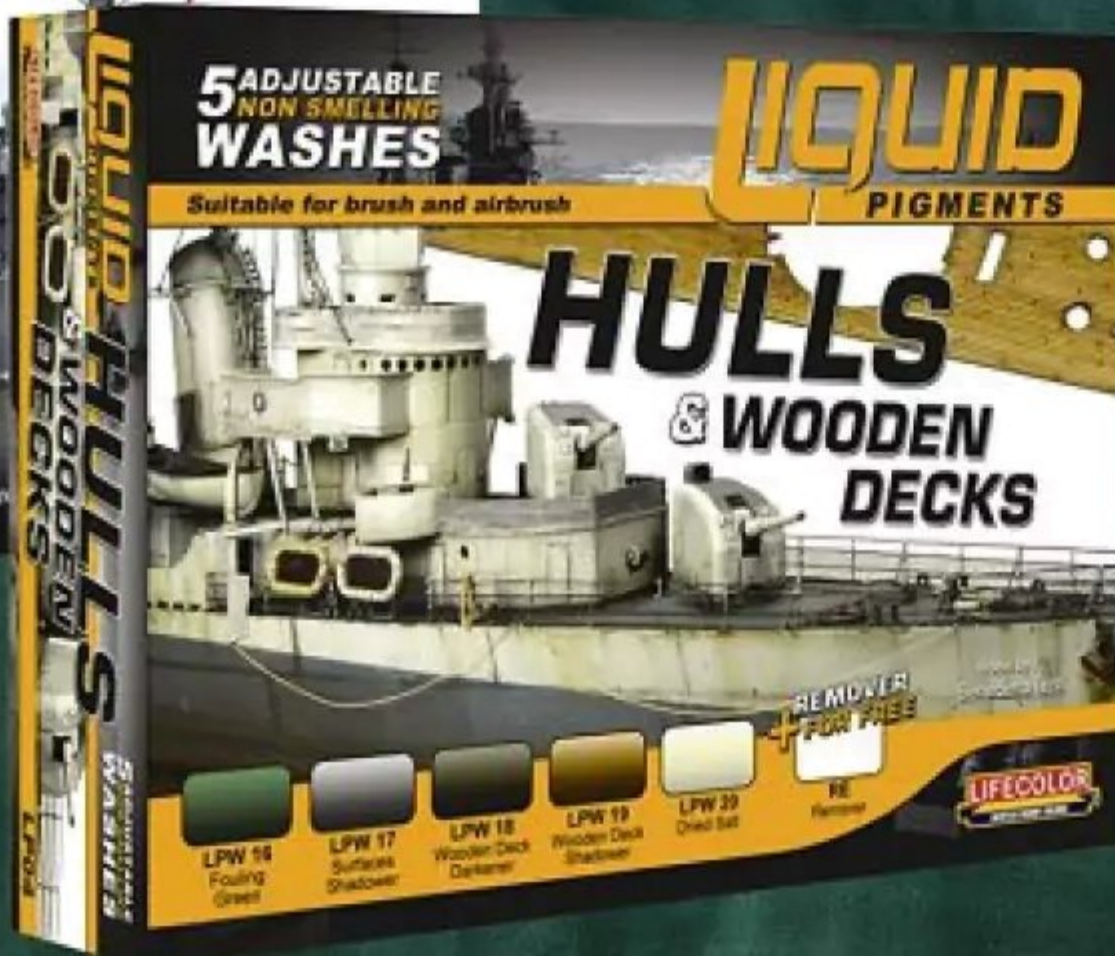
From extreme detail spraying to maximum coverage, you can easily find the perfect **Iwata airbrush** to cover your specific needs for any project.

LIFECOLOR

ACRYLIC HOBBY COLORS



SCAN ME



Sets, Colours, Washes & Pigments

SPARMAX



SCAN ME

Quality Sparmax Equipment

LIQUID
PIGMENTS

BADGER

SPARMAX

MODEL
CRAFT

DARKSTAR
MOLTEN METALS

www.Airbrushes.com

01903 767800

sales@airbrushes.com

Compass 360

If you have a news story for these pages, please contact the Editor, Lindsey Amrani, via e-mail at editor@modelboats.co.uk

OUT AND ABOUT

Model Boats on the Lake

From 10am to 3pm over the weekend of September 16/17, you will be able to see the Schooner Radio Control Group in action on the lakes at Leonardslee Lakes & Gardens, Brighton Road, Horsham, West Sussex RH13 6PP and enjoy on water demonstrations of a whole range of R/C model boats, yachts, steamboats and warships. Admission will be free of charge to Leonardslee Members, although Garden Entry tickets will be required for non-members (charged at £14.50 for adults and £6.50 for children – family tickets are also available). These tickets, which can be purchased online at www.leonardsleegardens.co.uk include free parking and a buggy shuttle service designed to enable visitors with limited mobility to access the lower gardens and lakes.

- GRADE I LISTED WOODLAND GARDENS
- FREE SHUTTLE BUS FOR VISITORS WITH LIMITED MOBILITY
- FREE ENTRY TO THE DOLLS' HOUSE MUSEUM



MODEL BOATS ON THE LAKE

Rushden Historical Transport Society
Charity No: 285535

MODEL WEEKEND

16th - 17th September
10am - 4pm

Model Railways, Cars, Boats, Live Steam 0 Gauge, Pacer Train Rides, Buffet Carriage Refreshments

Tickets
Adult - £5
Child - £3
Children under 4 - Free
Buy on the day or prebook at www.ticketsource.co.uk/rhts

Rushden Station, John Clark Way, Rushden, Northants, NN10 0AW
www.rhts.co.uk 0300 302 3150 [facebook](https://www.facebook.com/rushdenrailwaystation) [instagram](https://www.instagram.com/rushdenrailwaystation) [youtube](https://www.youtube.com/rushdenrailwaystation)

RHTS Model Weekend

September 16-17 will see the Rushden Historical Transport Society hosting a Model Weekend at Rushden Station, John Clark Way, Rushden, Northants NN10 0AW. As well as the model railway displays and demonstrations, there will also be various other model exhibits, including boats, along with Pacer Train rides and refreshments served in buffer carriages. Admission will be charged at £5 for adults and £3 for children (although children under 4 will be admitted free of charge) and tickets can either be purchased on the day or in advance at www.ticketsource.co.uk/rhts

The BIG St. Albans Model Show

The BIG St. Albans Model Show, organised by the St. Albans & District Model Engineering Society, will be returning to Townsend Church of England School, High Oaks, St Albans AL3 6DR over the weekend of September 24/25 this year.

Open from 10am to 5pm on both days, visitors to this family friendly event will be able to enjoy radio-controlled boat demonstrations (with the invitation to get hands-on with some of the 'have-a-go' models on the water) and static model boat display stands, take a steam train ride, see big Tamiya radio-controlled trucks in action, drive the electric ride-on train or operate a large-scale radio-controlled Tiger tank. There will also be drones, hot air balloons, model steam lorries, Meccano models, model railway layouts and many other exhibits and attractions.

Those wishing to attend can either pay at the gate (by card or cash) or buy tickets in advance online (thereby taking advantage of a £1 discount on adult tickets) at <https://www.ticketsource.co.uk>. The organisers advise there will be ample free parking, plus light refreshments will be available throughout the day.

THE BIG ST. ALBANS MODEL SHOW

www.stalbansmes.com

St Albans & District Model Engineering Society presents

MODELS THAT MOVE

23rd & 24th September 2023

TOWNSEND CHURCH OF ENGLAND SCHOOL
HIGH OAKS, ST ALBANS, AL3 6DR

10am - 5pm FREE PARKING. MODEL TANKS.

FREE TRAIN RIDES. HAVE-A-GO BOATS. HOT AIR BALLOONS
TRACTION ENGINES. STEAM LORRIES. MODEL RAILWAYS
DRONES. MECCANO. LIVE STEAM TRACK. CLUB SHOP
TRADE STANDS. REFRESHMENTS. TAMIYA TRUCKERS

OUT AND ABOUT

The Southampton International Boat Show

This year's show is scheduled for September 15-24 at Mayflower Park, Southampton SO15 1QF (the show entrance will be located by the West Quay Shopping Centre).

From 10am to 6pm on all days (other than Sunday, September 15, when things will wrap up at 5pm), visitors will be able to view over 300 boats moored on the show's purpose-built quay and take in everything

else the leisure marine industry has to offer, ranging from paddleboards to superyachts, kayaks to catamarans, and all the products and services in between. Bookings are now being taken online at <https://ww2.theticketsellers.co.uk/>, with a variety of ticket options. Up to two children will be admitted free of charge with every adult ticket purchased.



BUY THE BOOK

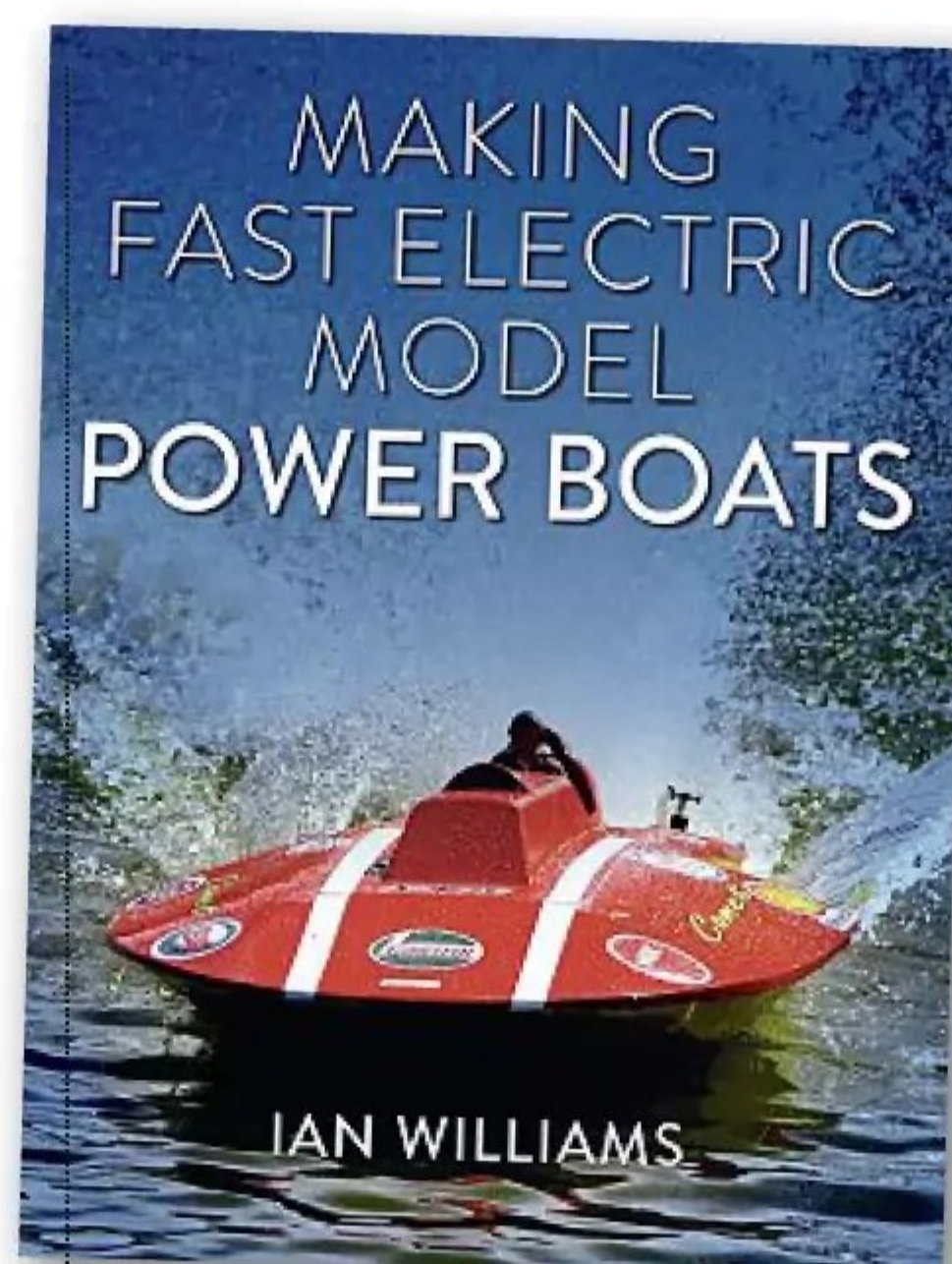
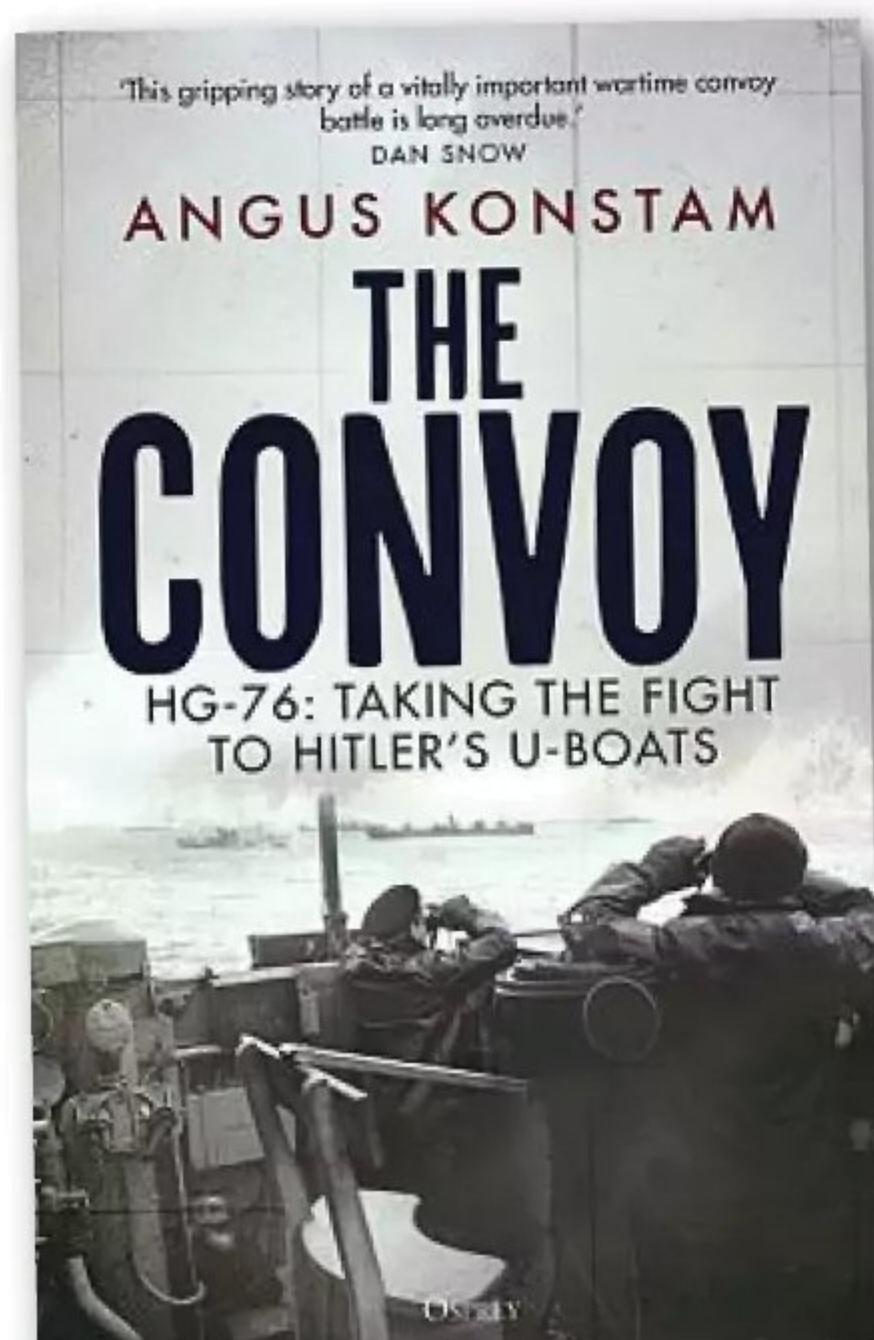
The Convoy

HG76: Taking the Fight to Hitler's U-Boats

Penned by former naval officer and historian Angus Konstam, this new title from Osprey Publishing (ISBN 978147 2857682), scheduled for release on documents the role played by HG-76, Commander Johnnie Walker and his crew in protecting a convoy of merchant ships making the perilous journey from Gibraltar to Liverpool during December 1941. Drawing on reports and accounts from those on both sides of the conflict, The Convoy

explains both the technical and tactical developments that would see the Allies go on to win the Battle of the Atlantic.

Scheduled for release on October 26, 2023, at an RRP (Recommended Retail Price) of £22.50, a special discount of 10% will be applied when pre-ordering via the publisher's website at www.ospreypublishing.com. Alternatively, you can advance order directly from your local bookstore by quoting the ISBN referenced above.



Making Fast Electric Model Power Boats

Penned by Ian Williams (PR Officer for the FE section of the MPBA), this new paperback (ISBN 97807 1984 2597) covers all aspects of fast electric boating. Priced at £16.99, it can now be ordered from www.crowood.com or via all good bookstores.

PRIZE DRAW WINNER ANNOUNCEMENT

Catch of the day!

Congratulations to Dr Peter Hollands of Huntingdon, Cambridgeshire, the lucky entrant drawn in our August 2023 issue Billing Boats' 1:60 scale Rainbow cutter kit prize draw.



CLUB NEWS

Helping to save lives

They say every picture tells a story and we think this one is worth celebrating! Captured here is Pat Reffin, KMBC (Kirklees Model Boat Club) Secretary, presenting a cheque for £265.50 (the proceeds of fund-raising activities at the club's July 9 Open Day topped up by personal donations made by its members) to the Mirfield branch of the RNLI.



Gerry with some of his models on show at the WA Shipwrecks Museum.



Yet more masterpieces from Gerry Westenberg

David Nicolson, Publicity Officer for the HMAS *Perth (I)* Memorial Foundation Inc., provides an update on the extraordinary work of this talented Australian modeller...

Back in March 2019, *Model Boats* ran an article entitled 'Builder in Residence' covering the work of Gerry Westenberg and the prodigious number of models he has produced. The good news is that the output continues, and more significantly, his work has become the subject of three very successful exhibitions put on by the West Australian Shipwrecks Museum. The last one, in 2023, had over 120 models on display. The next one is scheduled for 2025 and will feature even more of his creations.

All of Gerry's models have been photographed in high resolution and have been the subject of three books. Although printed in limited numbers, these have been well received by local enthusiasts.

Gerry's ships are all hand crafted and to the same scale, that is 1:192, or 1 inch to every 16ft. They are predominantly made from balsa, but Gerry has been making more

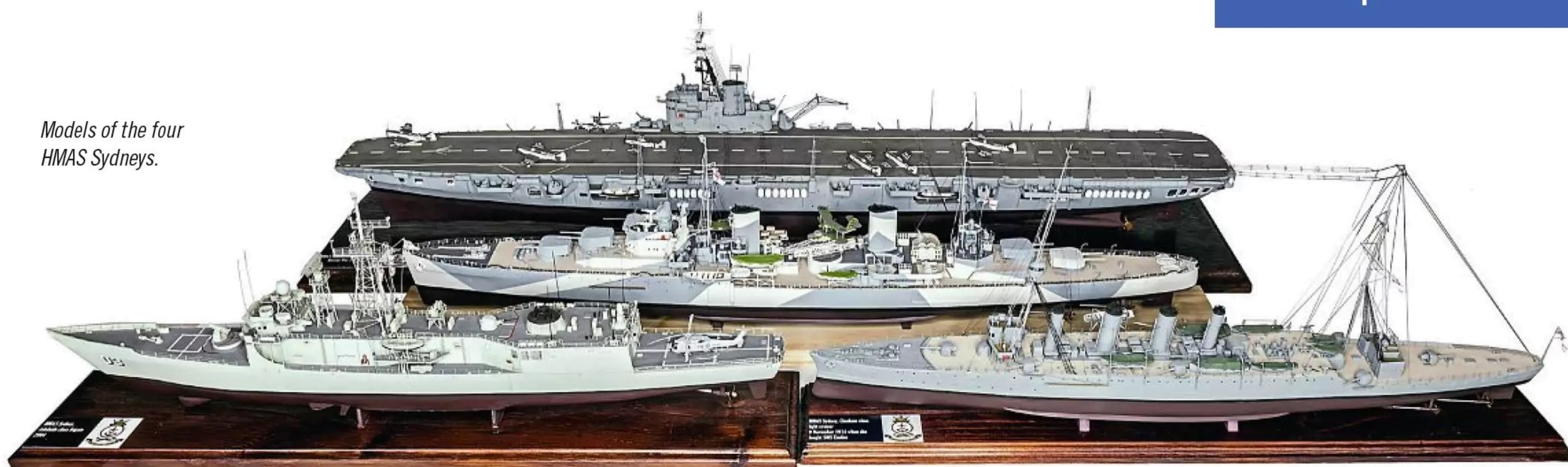
use of high-resolution 3D-printing for the small and repetitive details. This not only reduces the build time but also gives an even more detailed result. The plans are sourced from various outlets and have become one of his biggest headaches, since they are often at odds with reality. Construction when working from these plans frequently needs to be modified when photographs of the subject are found.

HMAS *Sydney II*

In November 1941 Australia suffered its greatest naval loss when HMAS *Sydney II* was sunk with all hands as a result of an engagement with the German commerce raider, HSK *Kormoran*. Because there were no Australian survivors and the government-imposed secrecy surrounding her loss, all sorts of conspiracy theories sprang up about her demise, including being sunk

by a Japanese submarine rendezvousing with *Kormoran* to off load secret military technology! Eventually, in March 2008, David Mearns and his team discovered the wreck at a depth of 2500 metres off the West Australian coast. Gerry has used detailed underwater photographs to build a model of how she looked on the seabed the day after her sinking. To build the 'wreck', Gerry first constructed a complete hull and then systematically destroyed it in line with the images available from the discovery team. This unique diorama is on permanent display at the West Australian Museum, now known by its Aboriginal name, *Boola Bardip*. He has also built all four of the Sydneys, which includes an aircraft carrier, a destroyer and a frigate. To complete the story, Gerry has built a model of the raider HSK *Kormoran*, which is on display in the West Australian Maritime Museum.

Models of the four
HMAS Sydneys.



“To build the ‘wreck’, Gerry first constructed a complete hull and then systematically destroyed it in line with the images available from the discovery team”

The Fremantle 1942 diorama

Gerry's most ambitious project to date is a diorama showing the submarine base located in the Fremantle harbour, Western Australia, and how it looked in 1942. At that time, it was the largest such facility in the Southern Hemisphere, with submarines from the Netherlands, UK and the USA. The diorama features eight submarines, two mother ships, a tanker and three additional tenders. Also fabricated, by referencing historical photographs, are several quay-side cranes to add authenticity to the scene. The complete display measures 2 x 0.7 m and took approximately three months to build. In keeping with Gerry's other models, everything is scaled to 1:192. This has been purchased by the WA Museum for permanent display.

Submarines

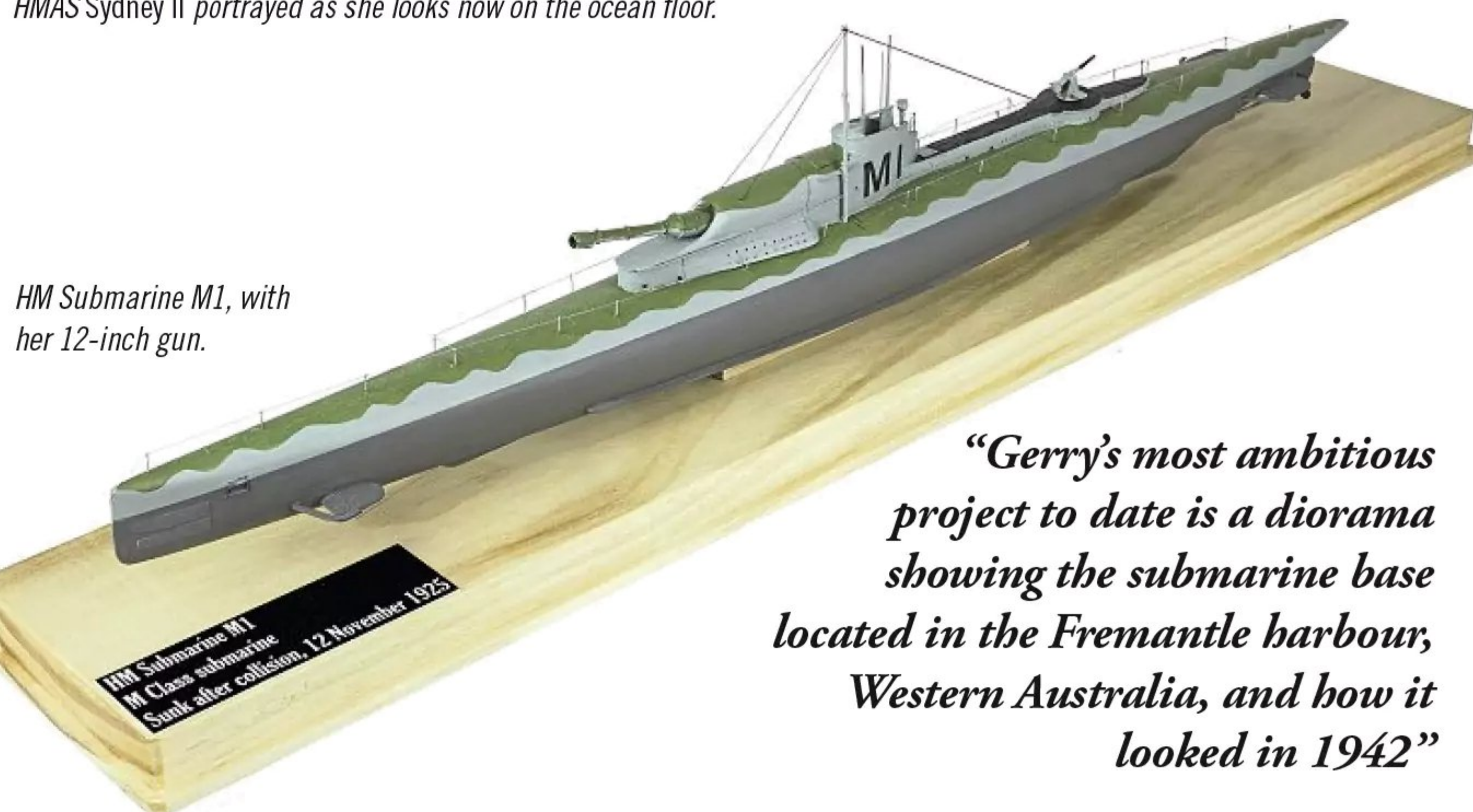
At the time of writing, Gerry has built 23 submarines, plus the eight in the diorama mentioned. The earliest is the HMS *Holland I*, which was the first submarine commissioned into the Royal Navy. His latest, and biggest, captures the 15,900-ton HMS *Vanguard* commissioned in 1993.

No one could accuse the Royal Navy of not being innovative with its submarine designs; witness the ill-fated steam powered 'K' class and the Bazar M1 with its 12-inch gun. Gerry has modelled both curiosities, but M1, built in 1917 and intended to be a 'submarine monitor', must be the most extreme. Designed to fire her gun while semi-submerged, she needed to surface to reload.

Gerry's diorama of the
submarine base in
Fremantle Harbour,
1942.



HMAS Sydney II portrayed as she looks now on the ocean floor.



HM Submarine M1, with
her 12-inch gun.

“Gerry's most ambitious project to date is a diorama showing the submarine base located in the Fremantle harbour, Western Australia, and how it looked in 1942”

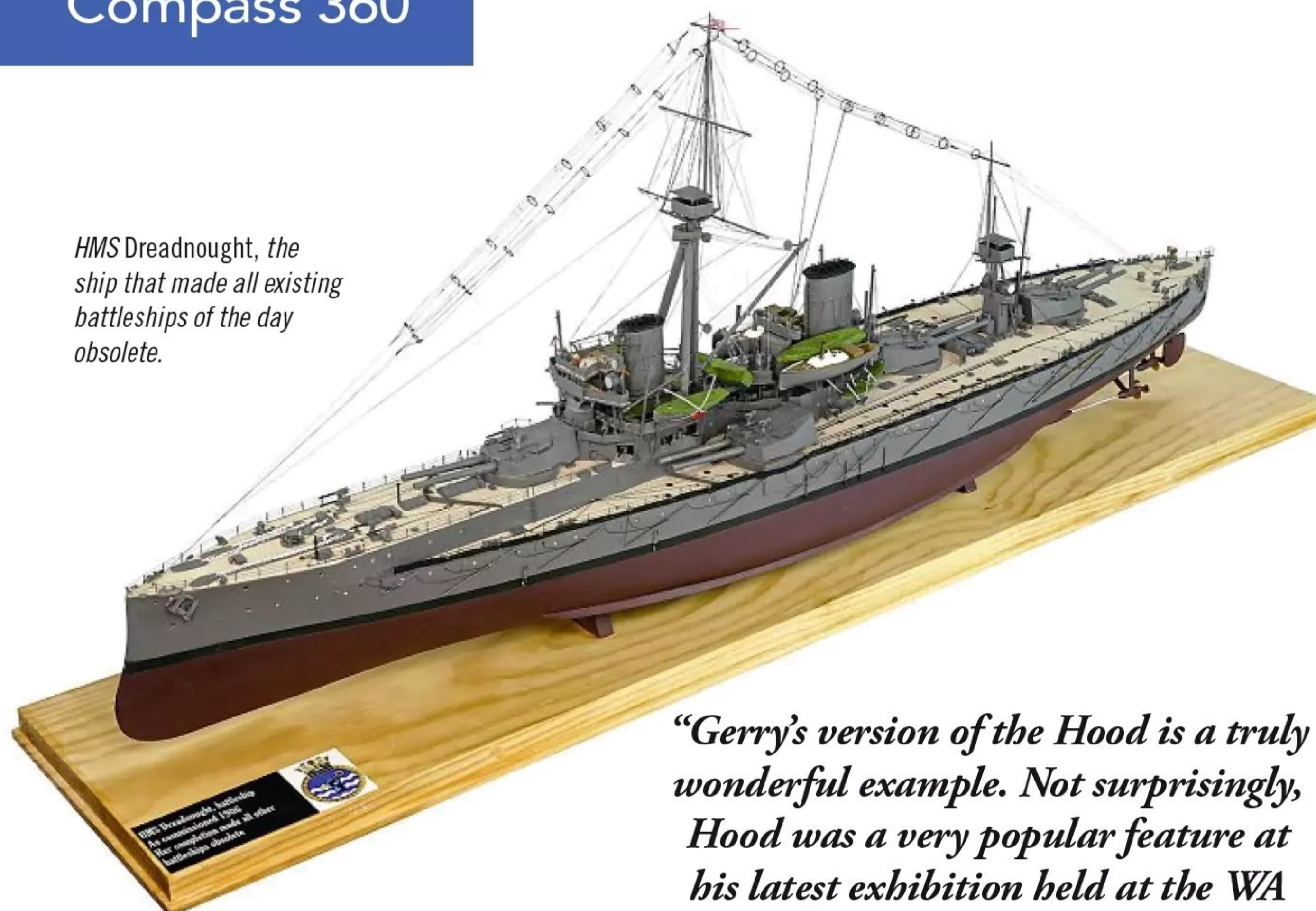
She was sunk with all hands when she was struck by a Swedish ship while submerged, her massive gun being ripped away by the collision. A diving team found the wreck in 1999 at a depth of 73 metres.

HMS Dreadnought

Built in 1906, *Dreadnought* changed the naval landscape for ever. With her main battery being only 12-inch guns and being powered by steam turbines which gave her

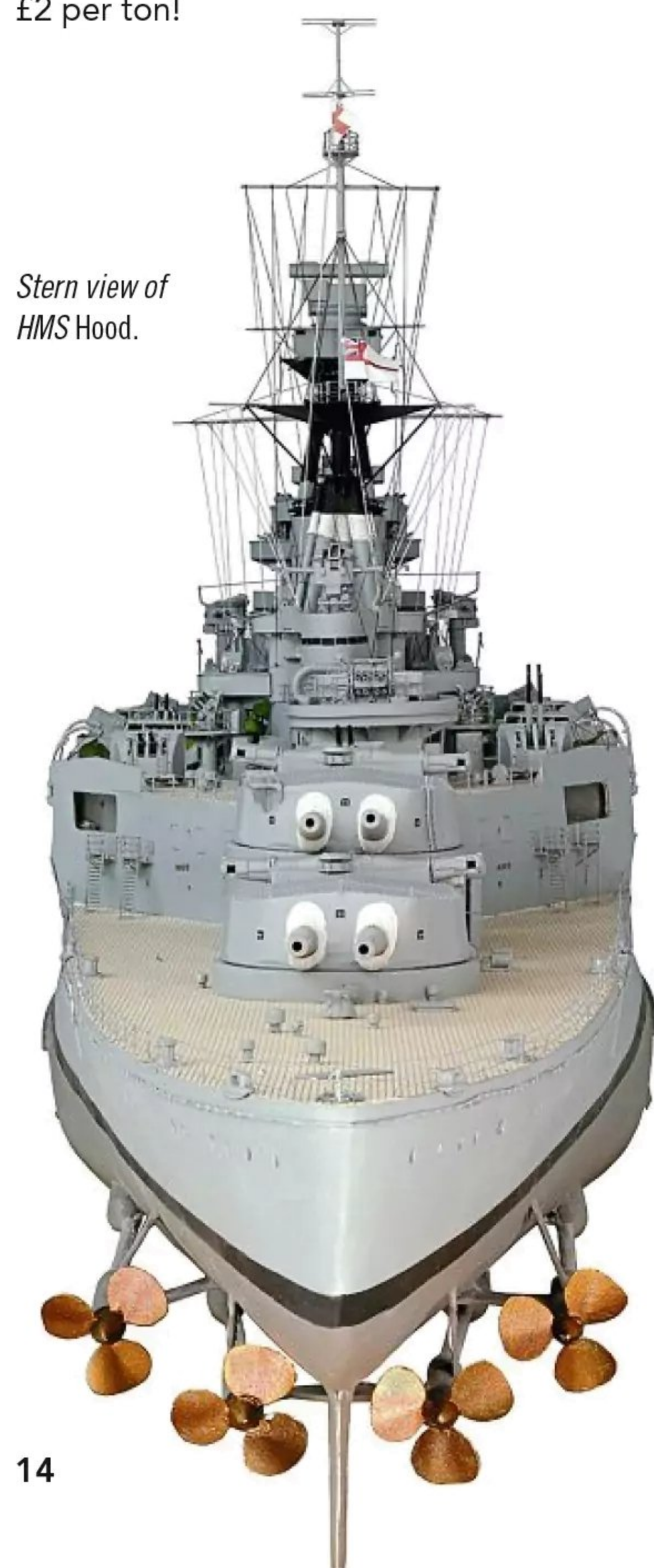
reliable high-speed cruising, she rendered all other battle ships obsolete at a stroke. Gerry's model captures the raw power she must have exhibited to all who saw her when commissioned in 1906. Her armament consisted of five twin 12-inch turrets, 27 single 12-pdrs and five torpedo tubes. The idea of having all the main guns with the same calibre came from the Italian naval architect Vittorio Cuniberti. The concept gave a number of advantages, including

HMS Dreadnought, the ship that made all existing battleships of the day obsolete.



“Gerry’s version of the Hood is a truly wonderful example. Not surprisingly, Hood was a very popular feature at his latest exhibition held at the WA Shipwrecks Museum in 2023”

standardising on ammunition and, most importantly, improving on spotting the fall of shot. Her other revolutionary feature was the fitting of turbines instead of the traditional triple expansion reciprocating steam engines. This allowed for better high-speed reliability and less vibration, which was now essential for gun directors to make use of the increasing gunnery ranges. *Dreadnought’s* other claim to fame was that she the only battleship to sink a submarine. This happened in 1915 when she rammed the *U-29* while on patrol with other ‘dreadnoughts’ in the Pentland Firth, north of Scotland. She was eventually sold for scrap in 1921 together with several other warships for £2 per ton!



Stern view of HMS Hood.

HMS Hood

There are three ships that even those who are not maritime enthusiasts know: *HMS Victory*, *Bismarck* and *HMS Hood*. I must admit to having models of all three in my collection of 43 ships! They have been favourites of model builders across the world and Gerry’s version of the *Hood* is a truly wonderful example. The scale of 1:192 makes this model an impressive 4½ ft (1.37m) long.

HMS Hood, launched in 1918, was the biggest warship in the world until a new generation of battleships were built in World War II. Arguably the most aesthetically pleasing ship on the high seas, she was literally the flag ship for the British Empire between the wars. Armed with eight 15-inch guns and with a top speed of 32 knots, she graced the newspapers wherever she went. All this came to an end at the hands of *Bismarck* and the heavy cruiser *Prinz Eugen* on May 24, 1941, when she was lost with all hands, save three, at the Battle of the Denmark Strait. Revenge came on May 27 that year when *Bismarck*, after being damaged by a torpedo, was eventually cornered and sunk by a collection of Royal Navy ships, with a large loss of German lives. More books and magazines have told her story than any other ship in history.

Being one of Gerry’s latest models, he has made good use of high-resolution 3D printed fixtures, which has added significantly to the finished result. Not surprisingly, *Hood* was a very popular feature at his latest exhibition held at the WA Shipwrecks Museum in 2023.

Bow view of HMS Hood.

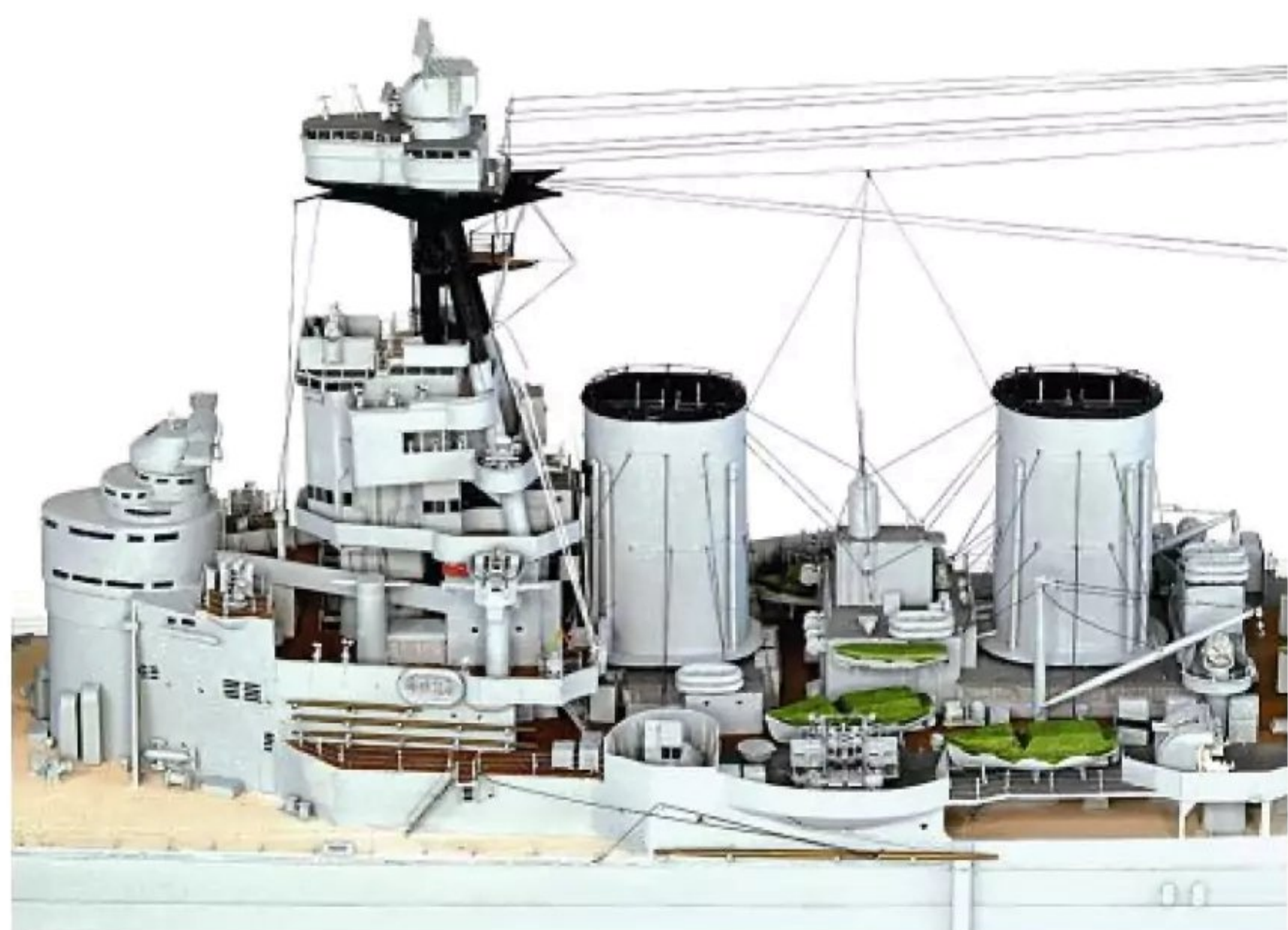


Great Eastern

One of Gerry’s most impressive models is the *Great Eastern*. Designed by Isambard Kingdom Brunel in 1859, the original was 692 ft (211m) long, a length only exceeded in 1901 by the *RMS Oceanic*. In overall dimensions and weight, she wasn’t matched until 1913. The *Great Eastern* was the maritime marvel of her age, although never the commercial success her owners had hoped for. Brunel saw her being able to monopolize the British trade with Asia and Australia. Since she was six times the size of any existing vessel, the idea was that the *Great Eastern* would be able to accommodate the shipping of way more goods on a single ship than the competition could. This, however, was not to be, since she was too wide to go through the Suez Canal, thus necessitating her route to Asia be via the Cape of Good Hope, which was

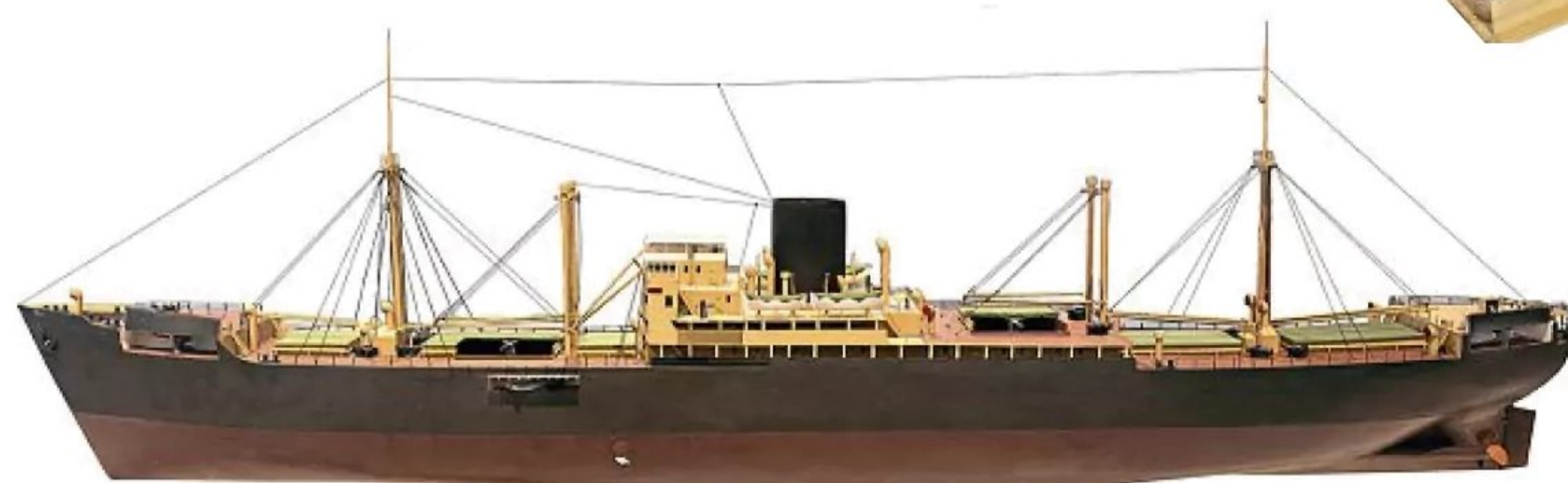
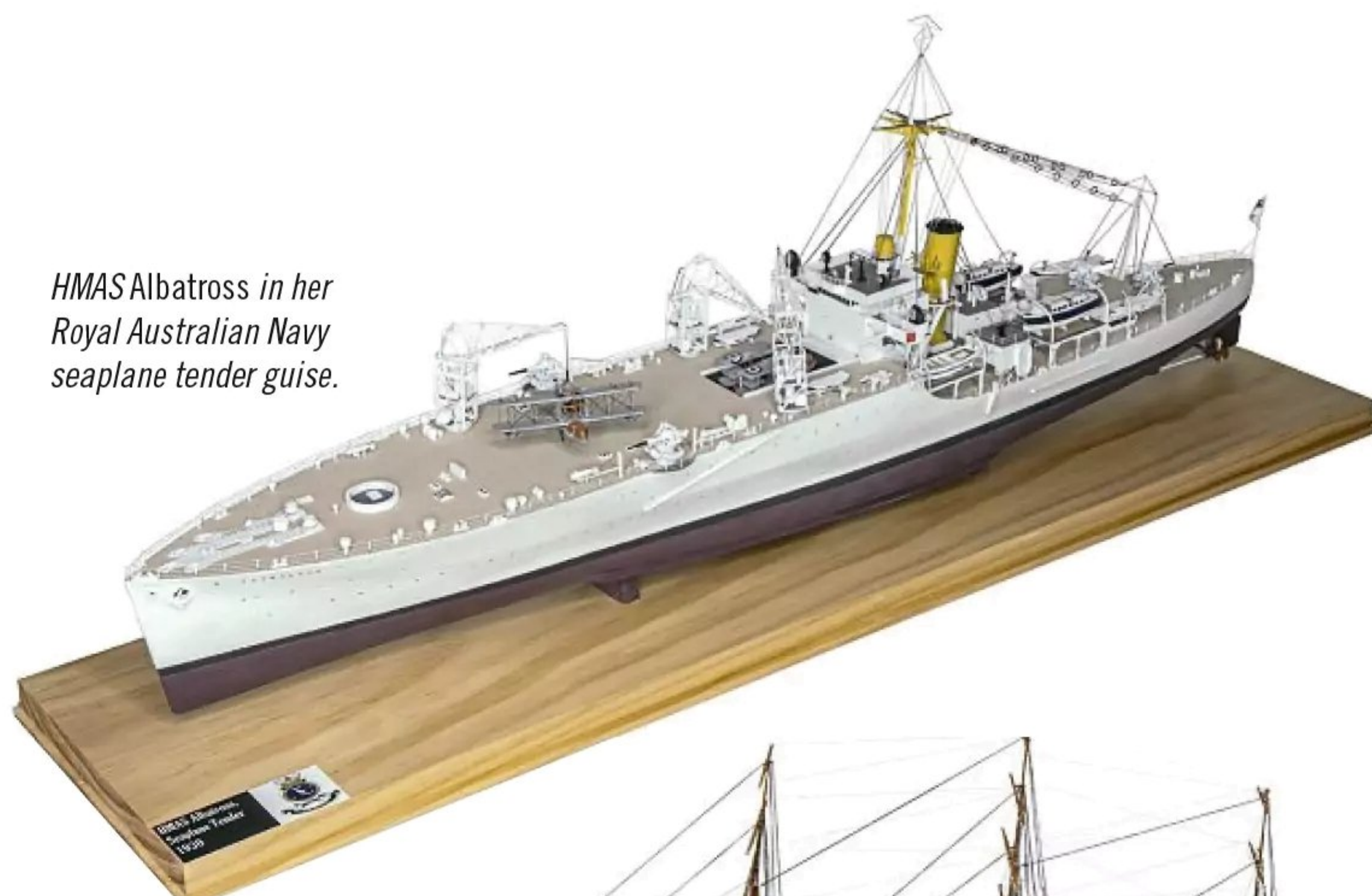


HMS Hood mounted on her display board.



A close up of the mid-section of HMS Hood, notice the fine detail of the deck fittings.

HMAS Albatross in her Royal Australian Navy seaplane tender guise.



The German raider Komoran. Note the disguised gun mounts and torpedo tube.

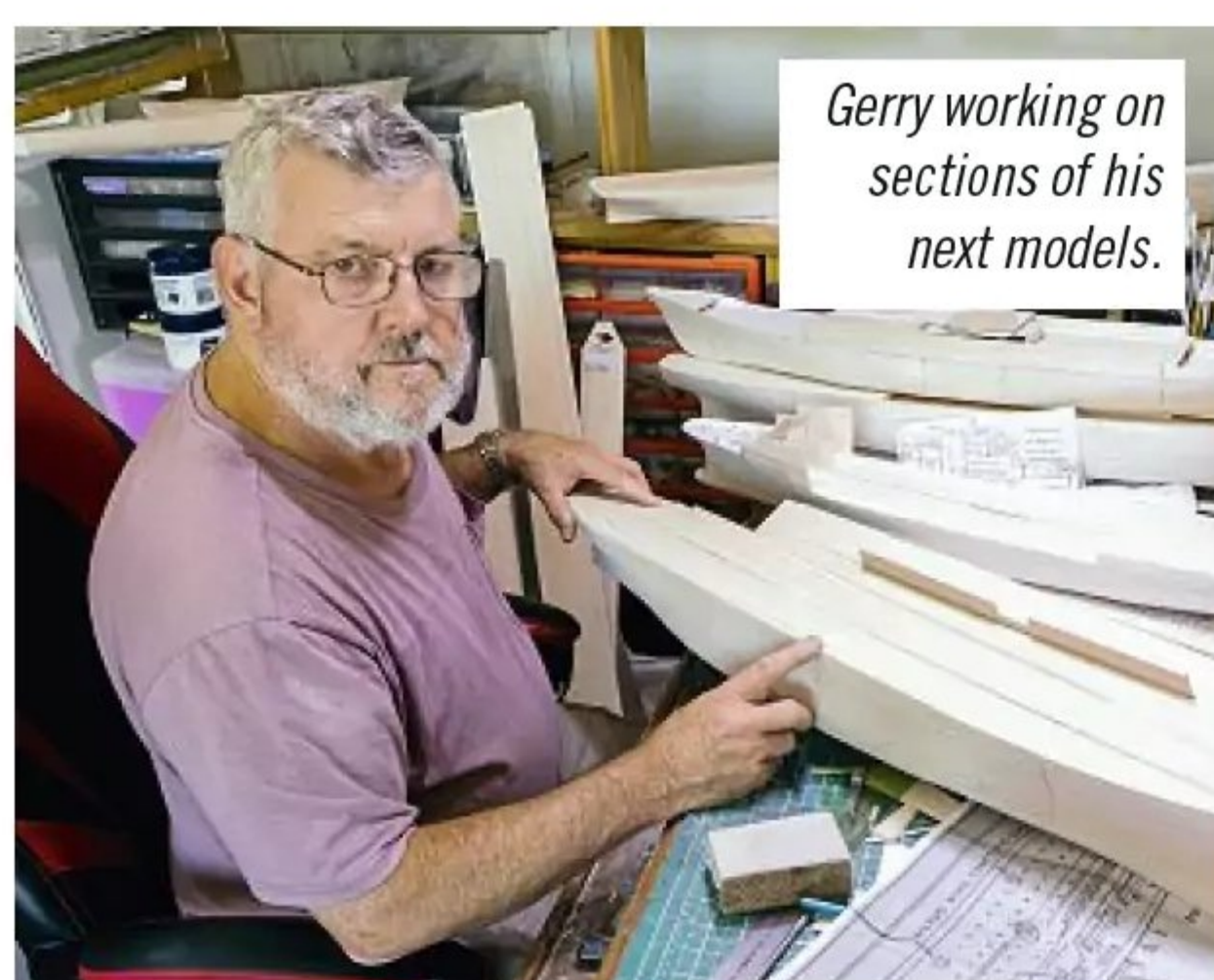


A broad side view of the Loch Ard, an iron hulled clipper ship.

“Gerry currently has seven more models under construction, in varying degrees of completion! A number of these will be completed for his 2025 exhibition”

simply uneconomical. Her great size and the relatively crude steam engines resulted in sails being added to the paddles and screw propulsion, but, ironically, it turned out that these sails couldn't be used at the same time as the steam engines due to the hot exhaust gasses from the multiple funnels. The highlight of her career was as a cable layer. In 1866 she successfully laid a cable from Sheerness in the UK to Newfoundland. Other cable laying tasks were completed in the late 1860s. With the advent of specialist vessels, she was refitted as a liner, but, again, commercial success alluded her. The great ship was eventually broken up in 1890.

At 3 ft 7 inches (1.1m) long, and with her six towering masts, five funnels and those enormous paddle wheels, Gerry's model makes a significant impression. Added to these features, the complex rigging makes for a magnificent model. The straight through deck from stem to stern must have been a delight for those passengers 'taking a turn round the ship'.



Gerry working on sections of his next models.

HMAS Albatross

The HMAS Albatross was built in Sydney, Australia, as a seaplane carrier for the Royal Australian Navy in 1926. Due to lack of funds because of the depression, she was laid up in 1933. The Australian Government, however, was able to get the Royal Navy to take her over as part payment for HMAS Hobart. As part of the Royal Navy, she had an interesting career based in Freetown and was used for patrol and convoy duties in the Southern Atlantic and then in the Indian Ocean. In World War II she was then converted to a 'Landing Ship (engineering)' in support of the Normandy landings. During this deployment she was torpedoed and returned to England for repair, after which saw service as minesweeper depot ship. After the war, and several changes of hands, she was renamed *Hellenic Prince*, converted to a passenger liner and used to transfer refugees from Europe to Australia. Her career ended in 1953 when sold for scrap.

The model provided Gerry with several challenges, not the least of which were the two aircraft and the cranes. The result, however, is a very pleasing and interesting model.

Sailing ships

Although most of Gerry's models are 20th century naval vessels, he does occasionally turn his hand to sailing ships. His latest exhibition featured Drake's galleon HMS Revenge, the top mast schooner Glasgow and the iron hulled clipper ship Loch Ard. The Loch Ard was built for the Australia run, with her maiden voyage in 1874. On her last



Local historian Wes Olsen taking a critical look at the Great Eastern model at the 2023 exhibition.

trip she floundered on the coast of Victoria in 1878 with only two survivors. The area where she was wrecked is now known as Loch Ard Gorge.

Gerry's model is very impressive, especially the attention to the rigging detail and the deck fittings.

More to come!

Gerry currently has seven more models under construction, in varying degrees of completion! A number of these will be completed for his 2025 exhibition to complement the already finished 120 plus creations.

It is worth quoting from the foreword in Gerry's latest book provided by The Honourable Kim Beazley AC, a Minister for Defence in an earlier Australian Federal Government and retired Governor of Western Australia: "Gerry is an unsung Australian national treasure. His enthusiasm for the perfect modelling of maritime craft, particularly naval vessels, is unique..... This superb collection needs to go into our (Australian) record. If a lot can be taken off his hands, his wife will be very happy." ●

"The most stylish boat of all time"

RIVA AQUARAMA

Barry Lalonde takes on the challenge of modelling this classic 1960s' Italian Runabout that leaves no hiding place for mistakes!



The Riva Aquarama was an easy subject choice for me as a modeller. After all, over the years, this classic Italian Runabout has been described by many as "The most stylish boat of all time". Designed by Carlo Riva and built by the Italian yacht builder Riva from 1962 onwards, it shared the same sort of status amongst the rich and famous on the French and Italian Riviera's as the sports cars from prestige marques, such as Ferrari, in its day. So much so, high spec static display models of it would be displayed by wealthy individuals and establishments in the same way other works of art would be. How, then, could I resist?

There are numerous photographs to scroll through and video footage to watch for research purposes. Indeed, it was while browsing YouTube that I came across a piece of film documenting the restoration of the 'Riva Aquarama Lamborghini'. The extremely high quality of the workmanship, from the glass-like varnish finish of woodwork to all the gleaming chrome, only further convinced me that I needed to try and reproduce all this in model form – a tall order, I know! What skills I have are in woodwork, not metal work, or upholstery, so initially I wasn't sure how I was going to manage these aspects as the build as I progressed. I just felt that here was a subject worthy of devoting my time to.

Plans and planks

Before I could even make a start, though, I first needed to get my hands both on a set of plans and some wood of a much higher quality than I would usually source from my local D.I.Y. store. After scouring the internet, I found two sets of plans for a Riva and ordered what I deemed to be the best looking one. On arrival, my son kindly 3D checked these plans for accuracy and then finely tuned them for me. As for the wood, I managed to purchase an old teak table from a local auction site. Admittedly, the tabletop was just chip board with a veneer covering, so of no use to me, but the table frame was just what I needed, and so was



"The most stylish boat of all time"



promptly cut down into 3mm planks. While I had previously made a few model boats using the plank-on-frame method, the planking on these had then been covered with paper or filled and painted over it. With this boat there would be no hiding place for any mistakes in my woodwork. The finish required was just varnish, so any blemishes would be visible for all to see. The length of hull I settled on for the build was 78cm, which was in part dictated by the length of planks that I had available. Although happy with this at the time, having now finished the model I can't help but wish it was a little larger.



Keel and frames

For a change, I thought I would make the keel out of pine instead of my usual 'go-to' plywood. My thinking was a pine keel would be easier to carve into the correct angles for the acceptance of planking against it. I also decided to build the boat the right way up rather than working on it while inverted and secured to a base board, as is my usual practice, as I wanted to be able to run my eye over the craft as it grew so I could be sure all remained true. Later, I realised there's a reason why most people build their model boats upside down, as I struggled to accurately align all the frames. When I started to fit the stringers, it quickly became evident that two of my frames were far from perfectly situated; something I managed to correct. Unfortunately, I didn't discover a third frame could have been better positioned until it was too late. Another lesson learnt!

Stringers and planking

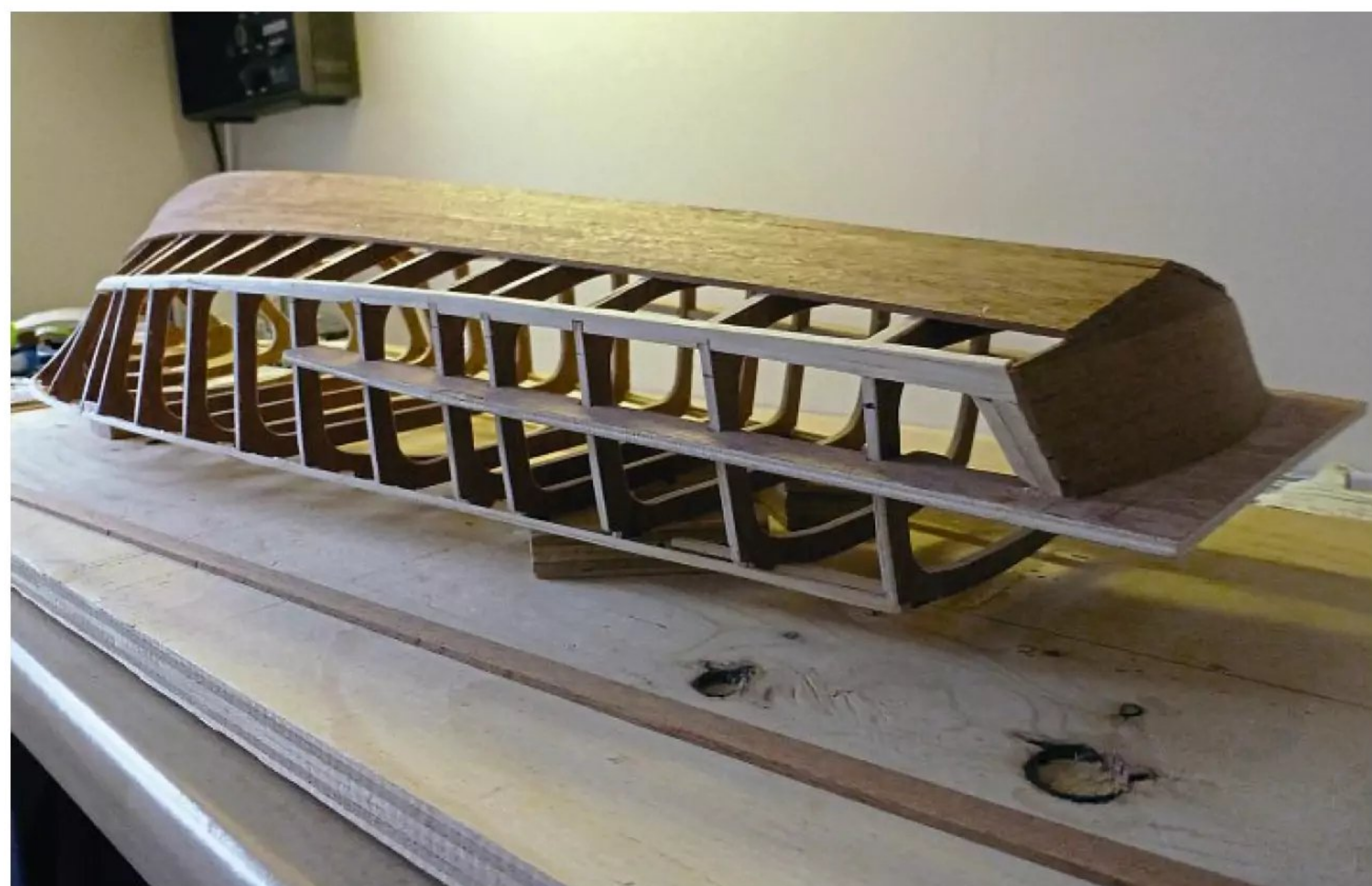
Once the stringers were fitted to the chines on the lower hull and the deck beams were in place, I removed the hull from my building board. On some of the stringers I had made numerous cuts into the inner surface to enable me to bend them around the curve at the bow without putting too much strain on the length of wood. The planks that I had cut from the teak table frame were 27mm wide x 3mm thick, so I decided that all my planks would be 7mm wide. Before cutting them into strips, though, I marked three lines across each of the planks. I did this so that even if my cutting wasn't perfect, there would be a good chance the individual planks would sit together nicely once these three lines were matched up. To ease myself into a routine, I began at the bottom, as these initial planks would be out of sight once the hull had been completed.



Laying of the keel and frames with the boat upright.



Planking begins on the bottom.



The stern quarters, rubbing strake and transom platform.

Stern quarters, rubbing strake and transom platform

I decided to fit the stern quarters, rubbing strake and transom platform at this stage. All in one piece, this was quite large piece of 'U' shaped wood that would tie into a number of the after frames and gives structural support to the rear of the boat. For this I opted to use 5mm thick plywood, cut oversize so I could trim and shape everything once I'd finished planking.

Installation of electric motors

Once this planking had got up to just below the stern rubbing strake on one side, I decided to fit the two motors, shafts, couplings and both rudder tubes in the hull while I still had the access to align everything. I also tried encircling the motors in a rubber strip, hoping to make them quieter in operation. Unfortunately, this idea didn't achieve the result I'd hoped for.



Installation of the two electric motors, shafts and rudder tubes.



Covering the boards around the deck edge.



The blocks of wood fitted on the transom corners would be carved to blend in with the planking at a later stage, thus giving the ends of the planking a surface to butt up to. I also wanted my boat to have the split transom, with a walkway running from the rear cushioned area to the swim platform; some models of Rivas do not include this.

Planking continues

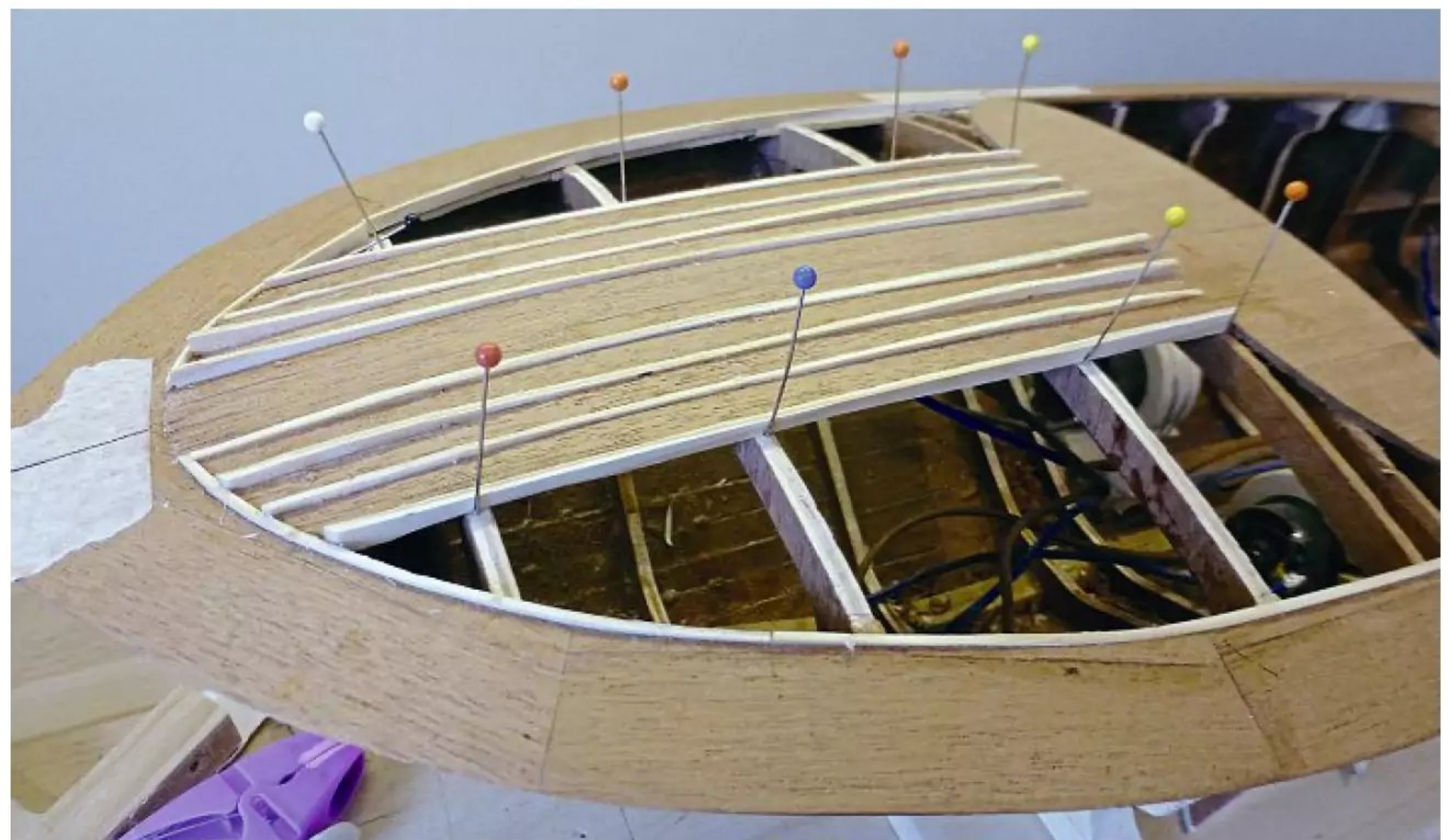
With most of the internals now taken care of, I was able to complete planking the sides and around the deck edge.

I used a method I'd never tried before when planking a foredeck. Here, I split the foredeck into two halves, with a teak strip running up the centre line. I then installed the pine around the perimeter of the two halves and alternated teak and pine across each area within that perimeter. The pine planks I fitted on edge, while the teak planks I laid flat. I did wonder whether this would be difficult to trim on completion but, using a sharp knife and sandpaper, all went well, and I was really pleased with the finish.

The two small areas of the deck at the stern were given the same treatment as the foredeck.

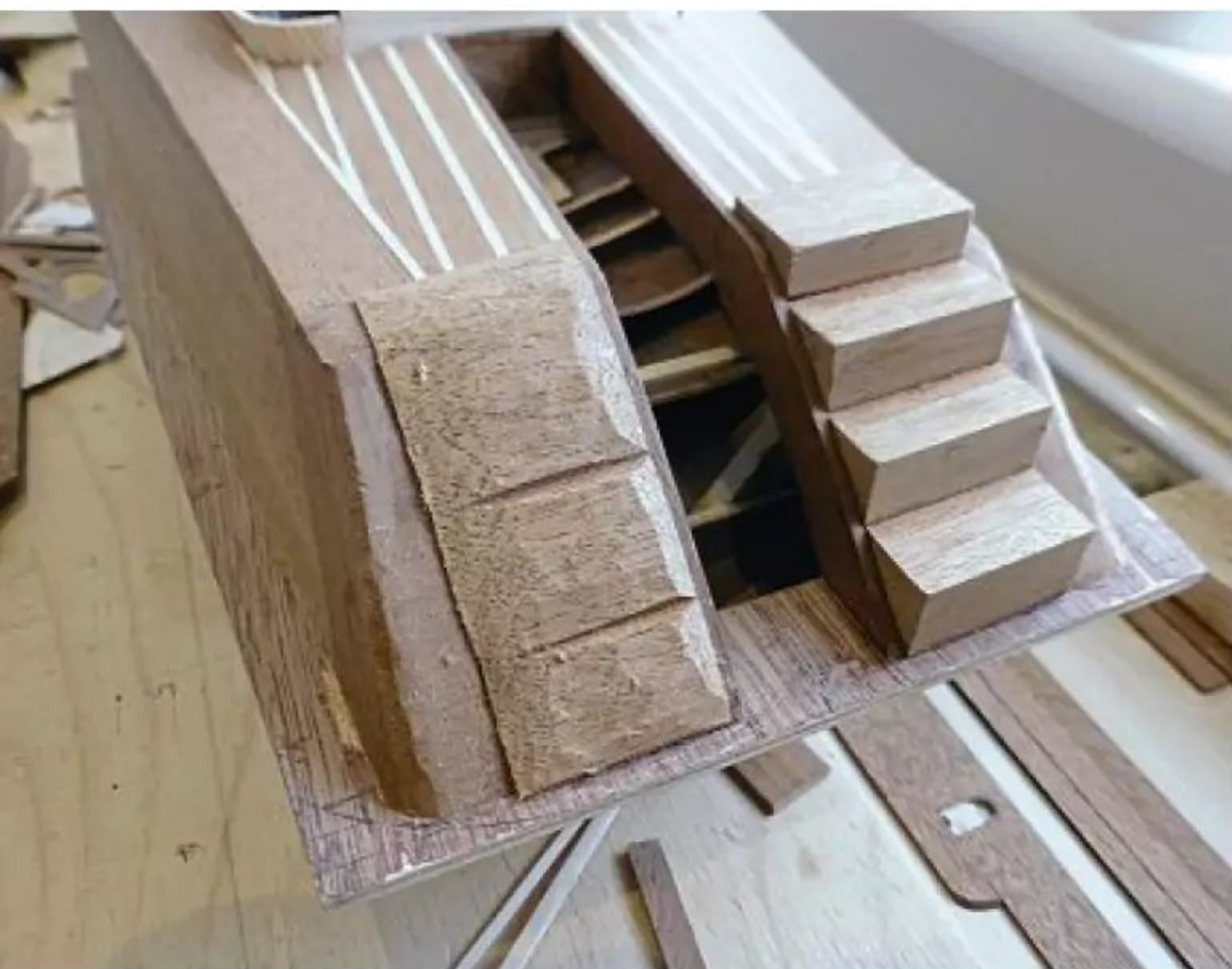
Blocks of teak were glued in to fill the stern quarters, then carved down and sanded to form a curve around the transom corners, so they blended into the side planking, rear decks, and walkway.

With all the planking and the transom finished, I could at last shape the rear rubbing strakes and bathing platform, getting rid of the excess material I had left until this stage.



Planking the foredeck with teak and pine.





Blocks of teak were glued in to fill the stern quarters, then carved down and sanded to form a curve around the transom corners, so they blended into the side planking, rear decks, and walkway.

Deck openings

The cockpit and rear cushioned area (covering the engines on the real boat) were going to be difficult. Unsure I could do justice to the upholstered seating and cushioned area, I decided to construct frames that would fit tightly inside the deck openings as a starting point. The framing for the rear cushioned area was made from very thin wood, so initially it felt very worryingly fragile; once complete with 'cushions', however, the whole assembly reassuringly became much sturdier. I rounded the corners off all the wooden 'cushion' panels and did the same with the padding I applied around them. Happily, once suitably painted they really looked the part.

The cockpit area was made in the same way, although I used teak for the framing of this area. This proved a very time-consuming aspect of the build, as I had to create individual bucket seats with back rests for the driver and front passenger, as well as forming a bench-type seat across the rear; the latter being made up in individual segments which on completion were then all glued together.

I have to say I was pleasantly surprised by just how effective my solution to 'upholstering' proved.



The deck openings, frames and seating.

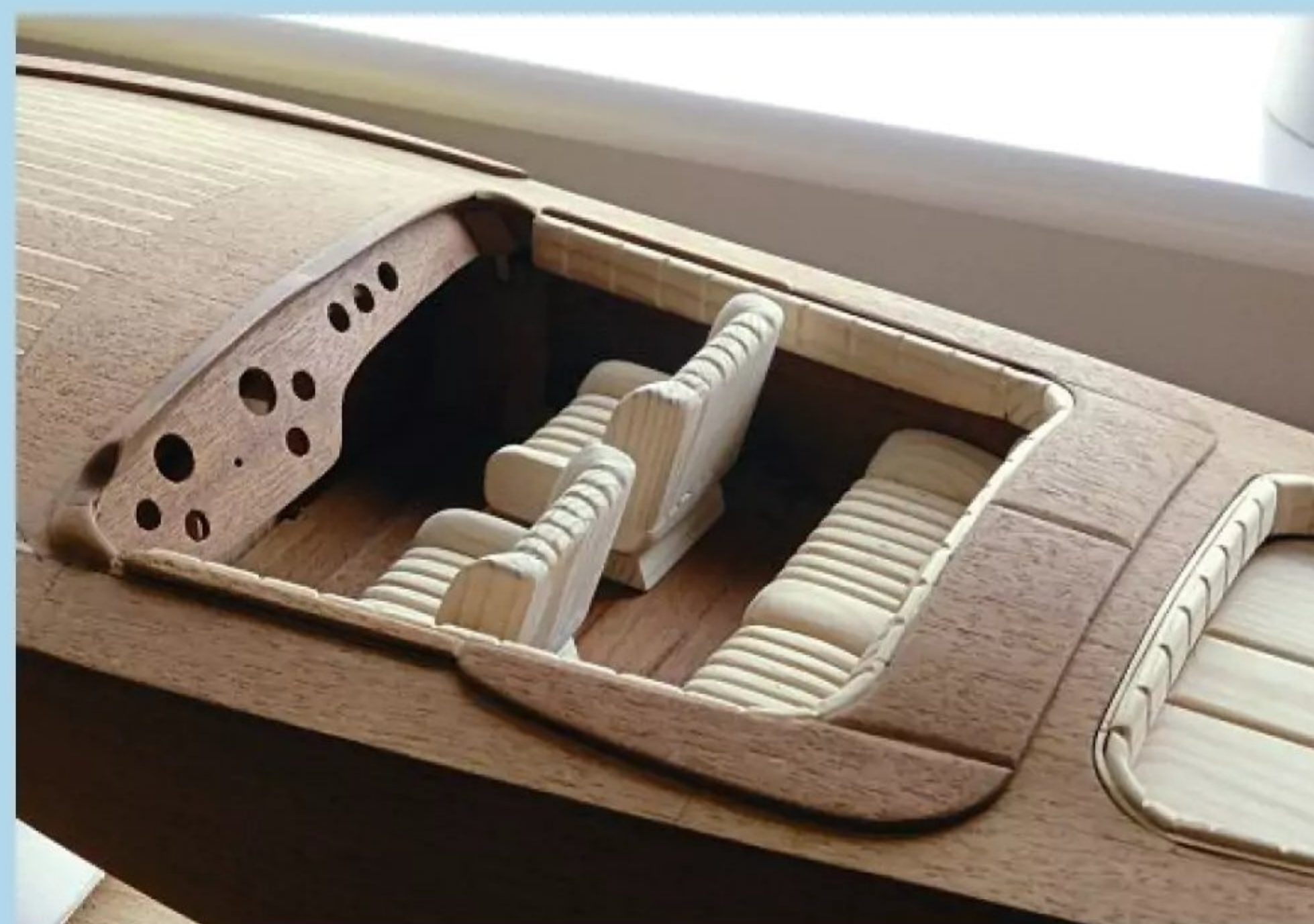


Dash and cockpit surround

Making and fitting the dashboard and dash shroud above it came next. I decided to simply cut out holes for the gauges and slot some black card in behind them, before trimming with some silver paint. The steering wheel was made at a later stage. The front cockpit has a padded surround at the back behind the rear seats, which I believe hides a cover for the cockpit, although I don't think I have ever seen a boat with the cover up.

Admiring Riva's naked form

Even at this stage of the build, with the boat still devoid of paint, varnish, or trimmings, it was already starting to look magnificent: a real testament to how well the lines drawn by the Riva's original designer have stood the test of time. And, without wanting to blow my own trumpet, I was proud of how my own woodwork had exceeded the expectations I'd had at the outset of the project.



The dash and cockpit surround.

The beautiful craft with its wood yet to be varnished.



The windscreen

Modelling the Riva's windscreen proved a challenge. I started with the base for the frame in which the screen would sit, crafting this in two halves from wood. Next, using cereal packet cardboard cut-outs, I began making trial windscreen templates. Finally, after lots of experimentation to achieve the correct shape and fit to the base, I had myself a pattern that could be used with confidence. Once the actual clear plastic screen for the model had been cut and was in situ, the upper screen framing was added and then painted silver to complete the look.

Painting and varnishing

I rather liked the model in its still unvarnished guise, but that's not the finish anyone familiar with Rivas would expect. I actually lost count of how many coats of varnish I then put on – maybe around 18. I know! But after each application, I found myself noticing an odd bit I'd missed or dreaded run, so I just kept going until I was finally happy with the finish. Painting proved stressful, too. I really couldn't afford to get the waterline wrong, as if paint were be applied over varnish in the wrong place the situation would be unrecoverable.



Creating the windscreen.

"The most stylish boat of all time"

The painting and varnishing complete.

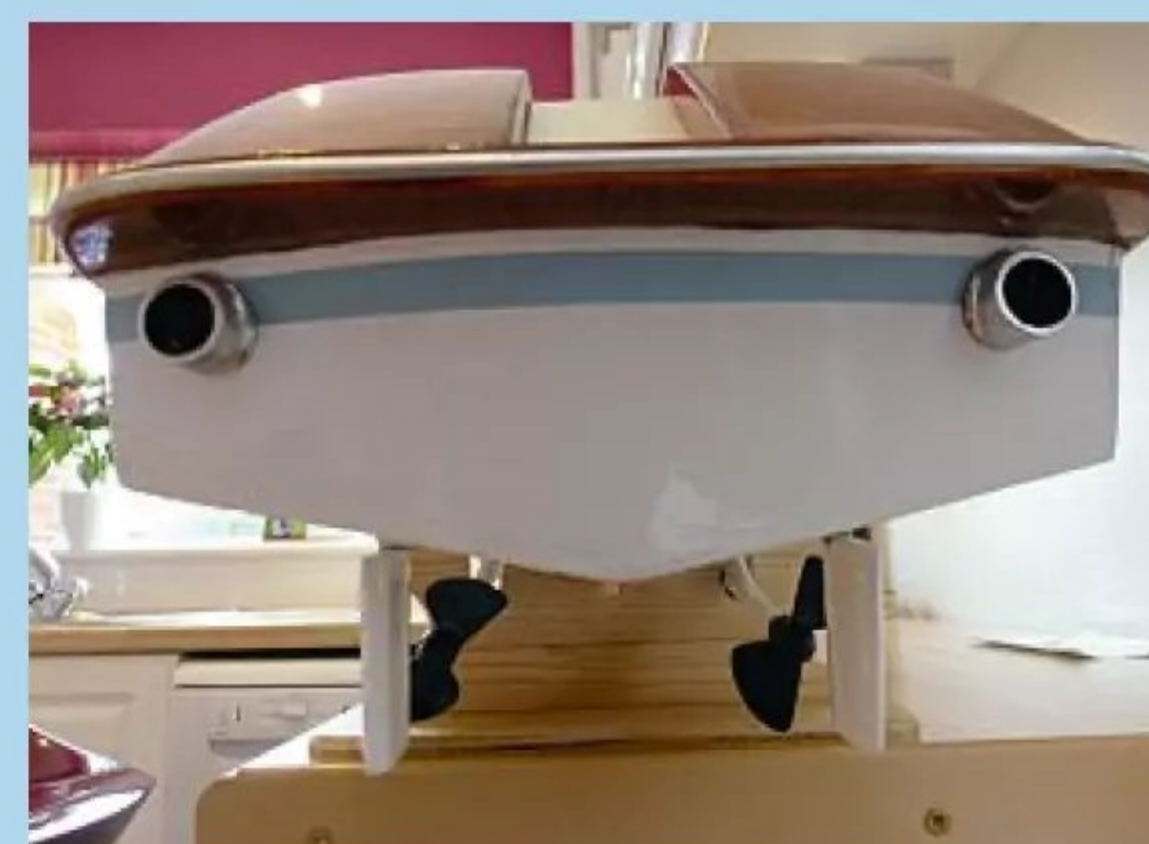


Deck fittings

On the real thing many of the deck items would, I think, have been stainless steel. As I had neither the skill nor the tools to fashion my own metal miniatures (and then get them chromed), some creative thinking would be required! I managed to make some of the bits and pieces required from carved wood, cereal box cardboard and wire and, once sprayed with Humbrol's chrome effect paint, provided you don't look too closely at them, they look pretty credible.

Reproducing miniatures of the long chrome-look rubbing strakes at deck level, though, had me stumped – until I remembered that architects use plastic mouldings to construct models of their building designs. Thanks to the good old internet, I found a site that catered for this practice and placed an online order for some 'D' shaped strips that looked ideal for the rubbing strakes. Although on arrival I discovered that a single strip alone wouldn't be long enough to run from bow to stern, I quickly realised that, although it made the task slightly more fiddly than anticipated, a few of these could be aligned and stuck on, before then being masked off and spray painted. I also needed to represent the shell-like looking air vents along the side of the hull, but while I did have a go at making these myself, due to being so small, I quickly discovered I was unable to do justice to their intricate design, so I had to resort to asking my son to 3D print them. Another challenge was the 'Riva' script underneath the corner of the windscreen on the hull. The cutwater (the sharp point of the bow between deck level and just below waterline, which parts the water along both sides of the hull) was created just with metal foil tape, as, for me, this would have been a difficult piece to make from metal.

Once again, my son also came to the rescue with two 3D printed crew figures to complete the look.



The deck fittings crafted and fitted.





Barry's makeshift flotation test tank.



As the model sat slightly high at the stern, Barry cast four lead weights to fit between the frames slightly forward of the transom.

Flotation test

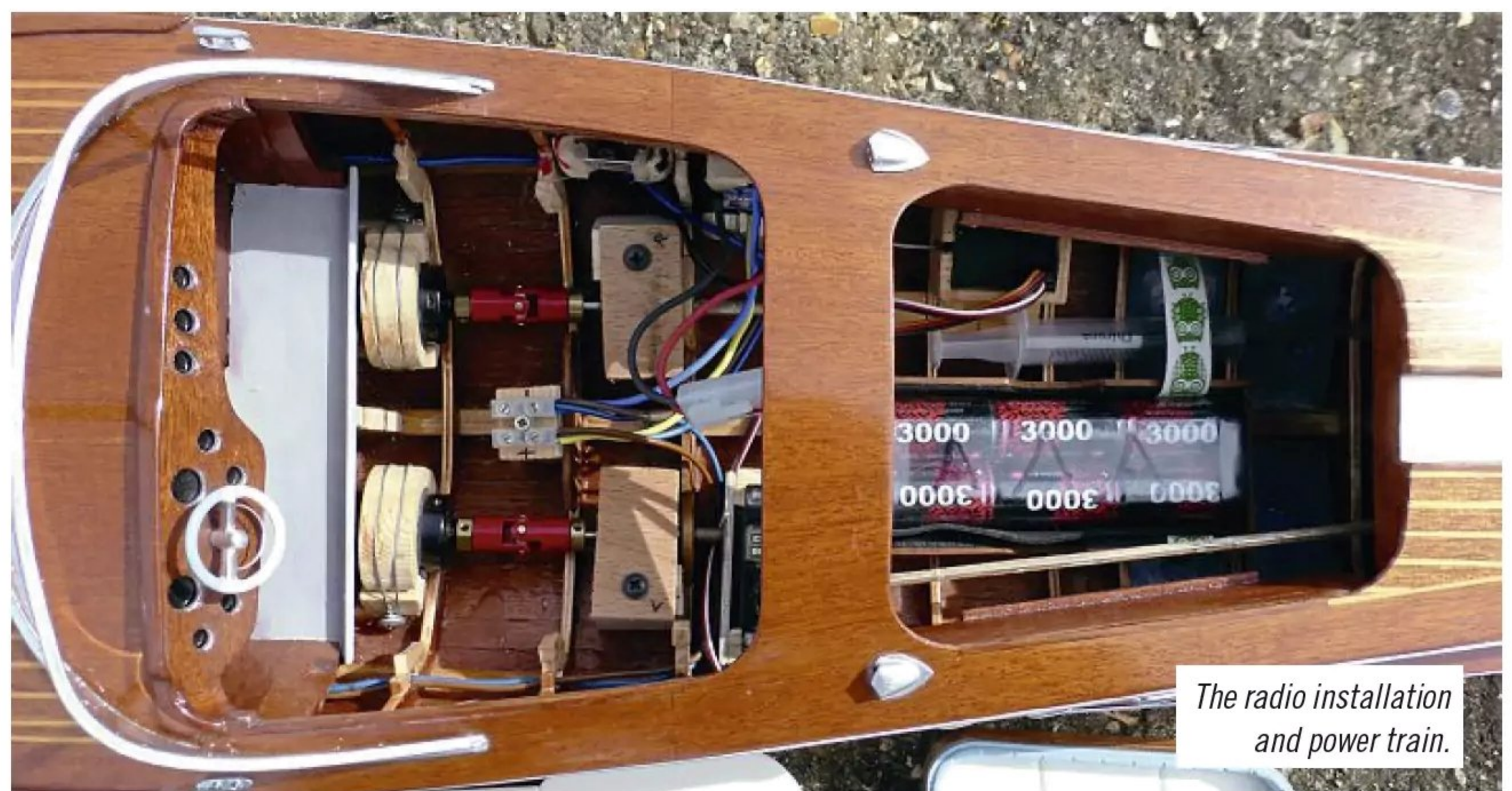
I constructed my own makeshift test tank on the back doorstep using a small quantity of house bricks covered in some sheet plastic. The boat sat slightly high at the stern, so I cast four lead weights to fit between the frames slightly forward of the transom.

Radio installation and power train

I fitted a two-channel radio for control of the rudder and motors. Two medium size electric motors, two prop-shafts and two rudders had been installed. I'd allowed for larger propellers, so I'd angled the prop shafts to suit them but changed my mind at the last minute and fitted two smaller ones instead as I did not want to load up the motors too much. In the past I've had a motor get too hot and burn out, but these smaller propellers proved to be quite adequate for this model. I could, therefore, have aligned my prop shafts closer to the bottom of the hull to get more thrust rearwards instead of downwards.

On the water

The Riva performs well on the water at low speed and her bow lifts easily as speed is increased. She also leans into corners and looks graceful as she goes. She has no spray rails so when breezy her topsides can get wet at times. A flat calm is when she looks at her best, as she rises out of the water and carves her way around the lake. In my mind's eye, on such occasions she's out to impress on Lake Garda in Italy!



Riva reflections

I must admit I have seen better finished Rivas on YouTube and can only marvel at the time that must have been spent on these beauties. I tried some new ideas and techniques, some of which worked, some of which did not. I started the build with the boat upright, which, in hindsight, I wouldn't do again. Likewise, I wouldn't repeat the method I used to secure the electric motors, which didn't make them any quieter. I also have some water finding its way up one of the prop shafts, despite injecting grease up the shafts, so in future I would make more effort to stop that happening, maybe by drilling the prop shafts and fitting an oiler pipe. On the upside, the quality of my planking on the hull and decks is very pleasing. I discovered that

Humbrol chrome paint is a good substitute if metal fittings are not to be used, and my 'upholstered' wooden seating hack worked a treat and really looks the part. So, while this model did take quite a while to build, and well and truly stretched my abilities, I am more than pleased with what I've managed to achieve. She is a good looker both as a static display model and when she's on the water. Her classic lines are still as attractive today as she was when first penned in the 1960s.

I think I could easily be tempted to make a larger version of Riva, using the knowledge that I have gained from building this one, but I really, really must finish a model that I started 48 years ago, as I've been putting this off for so long and time is running out! ●



BATHURST CLASS CORVETTES

John Parker tells the story of these general purpose vessels, designed and built in Australia during World War II, and considers the various options open to prospective modellers

The Bathurst class corvette was, in terms of shipbuilding, Australia's main contribution to the Allied war effort. A total of 60 vessels were built by Australian shipyards, with four going to the Royal Indian Navy and the rest to the Royal Australian Navy (RAN). This vessel was simple and quick to construct, cheap and well suited for building by an embryo Australian industry. Above all it provided versatility at a time when there was a great shortage of ships, demonstrating an ability to perform in the role of minesweeping, convoy escort, anti-submarine warfare, coastal survey and even, following Japan's entry into the war, shore bombardment and troop transportation.

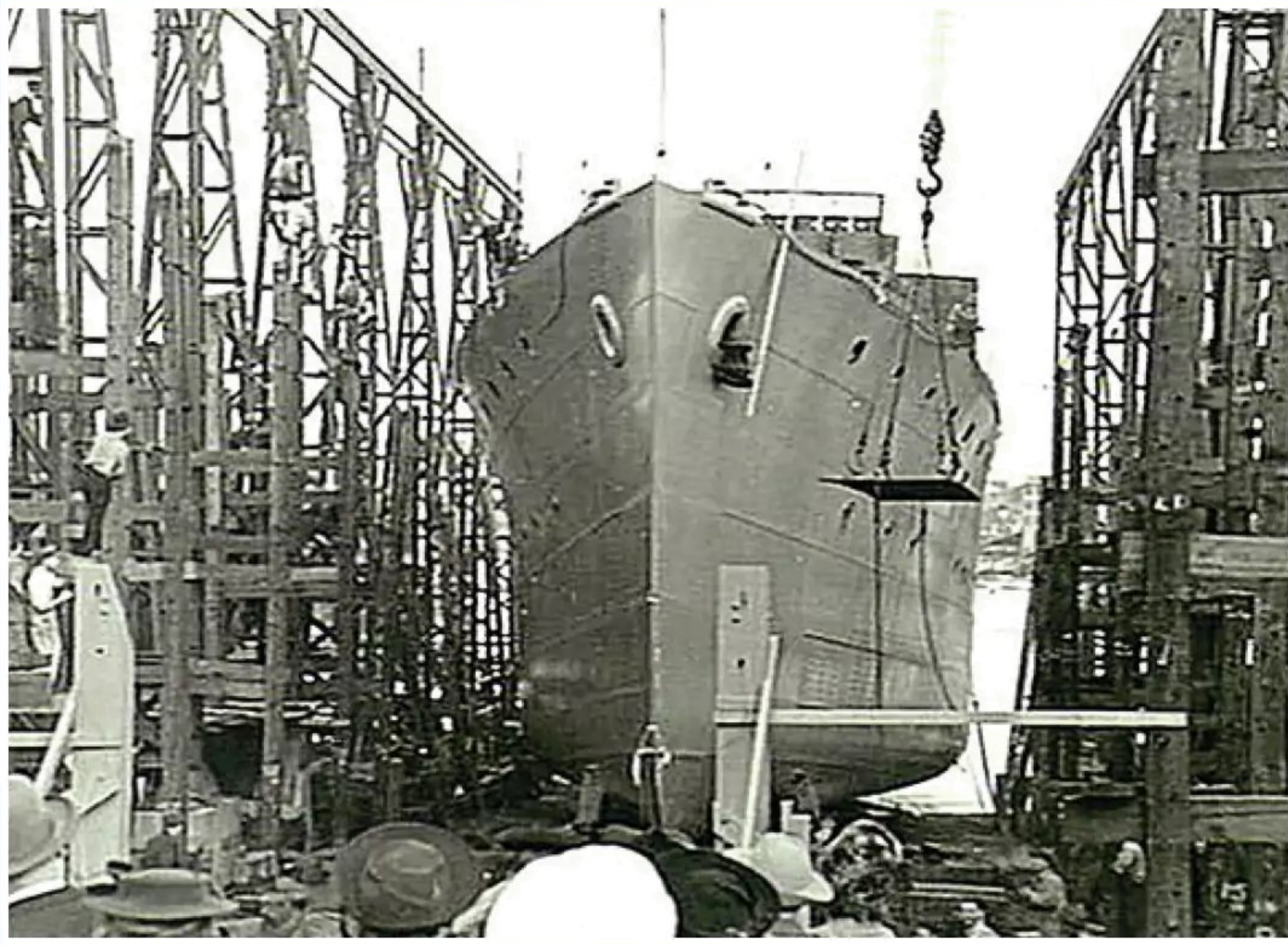
Design

The Bathurst class was designed by the RAN Directorate of Naval Engineering as a development of the Local Defence Vessel first proposed in 1938 when war looked imminent. It bore some resemblance to the British Bangor class minesweeper but was a little larger. HMAS Bathurst, the first of the class, was laid down on February 10, 1940, at Cockatoo Island (see Flotsam and Jetsam, May 2021 issue) and was named after an Australian regional town, as were all the subsequent RAN ships of the class.

To provide the necessary capabilities, a 186ft by 31ft (56.7m x 9.5m) hull was settled on, with a standard displacement of 733

tons. Two triple-expansion steam engines of 1000HP each, chosen for their suitability for building by smaller engineering companies, provided a speed of 13 knots – rather less than the already modest 15 knots that had been hoped for. The equipment fit varied as the war progressed but typically consisted of two depth charge throwers and 2-4 depth charge chutes for up to 40 depth charges; a Type 128 anti-submarine Asdic; surface/air warning radar; mine sweeping gear for contact and magnetic mines, a 4" (102mm) main gun and three 20mm Oerlikon anti-aircraft guns. The aft Oerlikon was later upgraded to a 40mm Bofors. 160 tons of fuel oil provided a range of 2,600 nautical miles at 10 knots.

"It bore some resemblance to the British Bangor class minesweeper but was a little larger"



HMAS Warnambool moving down the slipway at Mort's Dock, Sydney, May 1941 (AWM 007363).



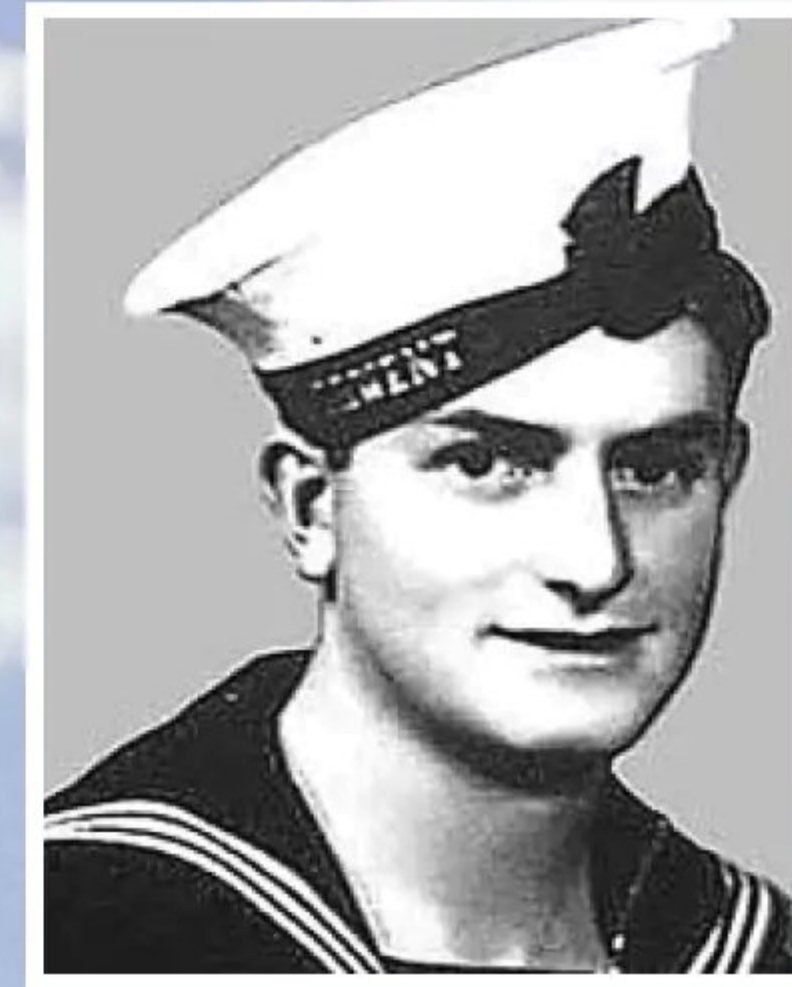
Gun crew drill on HMAS Cowra (AWM 109986).

Into service

Young recruits, some of whom had never even seen the sea before, along with a complement of more seasoned officers and seamen, went to war in these corvettes, which took them to far-flung theatres of war from the Atlantic and Mediterranean to the Pacific. The ships earned respect for their design and construction, the operational effectiveness of their crews, and performance in minesweeping, escorting and many other roles, often unglamorous but nonetheless essential. Only one of their number was lost

due to enemy action, but it provided a proud footnote in the history of the RAN.

HMAS Armidale was attacked by 13 Japanese aircraft on December 1, 1942, and had no hope of remaining afloat after being hit by two aerial torpedoes and a bomb. Eighteen-year-old Ordinary Seaman Edward 'Teddy' Sheean was seen to be hit in the back by enemy fire but, perhaps sensing that his wounds would prove fatal, proceeded to man the aft 20mm Oerlikon, firing at the enemy aircraft, bringing down at least one of them and distracting their attention from the



Left: The courageous 'Teddy' Sheean (AWM044154).

Below: HMAS Castlemaine against the backdrop of the Melbourne skyline





survivors in the water. He was still firing when the waters closed over him and the Armidale. For his bravery he was eventually awarded a posthumous Victoria Cross in 2020.

The war didn't end in 1945 for the corvettes, as they were kept busy clearing the thousands of mines all around the Pacific that still were a hazard to shipping, one of them, the Warrnambool, succumbing to a mine as late as 1947. When they finally came home, they were put into reserve and then broken up or sold off. One or two went to civilian buyers; one, the Whyalla, was shipped 2 km inland to become the centrepiece of the Whyalla Maritime Museum, and eventually only one, the Castlemaine, remained afloat.

HMAS Castlemaine

The museum ship HMAS Castlemaine is moored at Gem Pier, Williamstown, a suburb of Melbourne, Victoria, close to where it was laid down at the Melbourne Harbor Trust

Dockyard on February 17, 1941. Launched by Mrs. R.G. Menzies, wife of the then Prime Minister Robert Menzies on August 7, 1941, the ship was commissioned on June 17, 1942, at a total cost to the Australian taxpayer of £250,000.

The story of how it came to survive is not an unusual one for museum ships. It involved a measure of luck and a 50-year on-going effort by its volunteer workers. The ship was paid off in 1945 and avoided being broken up through being selected to become a training ship at the Flinders Naval Dockyard in 1956. But by 1969, changing technologies meant that her value as a training ship had diminished and the breaker's yard beckoned once again. Happily, the newly named Maritime Trust of Australia was looking for a candidate ship to preserve at around this time and following successful negotiations was gifted the Castlemaine in 1973.

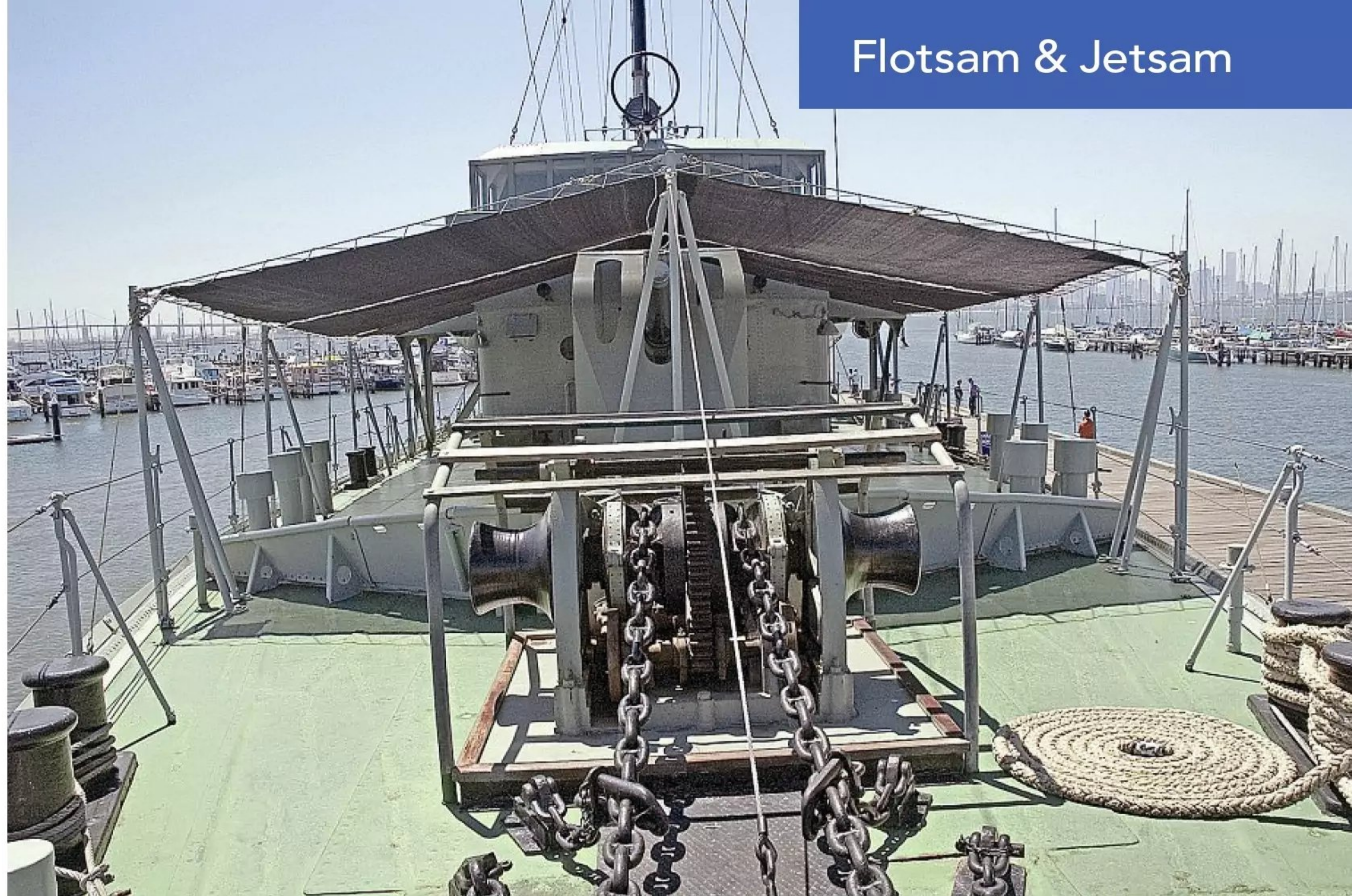
The euphoria of securing a museum ship must have quickly worn off once the state of

the gutted hull had been realised. A decades long program was instigated to not only preserve the remains, but scrounge, barter, or make from scratch all the fittings that had been removed and were needed to make the Castlemaine look like a wartime corvette again. Parts came from as far away as New Zealand and Singapore; a new funnel was constructed; companies donated equipment and services. A major setback occurred in 1993 when the Castlemaine, at a temporary mooring pending negotiations over the use of Gem Pier, suffered an impact from a bulk carrier attempting to berth in high winds. After a spell in dry dock for repairs, however, the ship was able to open to the public again in 1994 while further restoration continued apace.

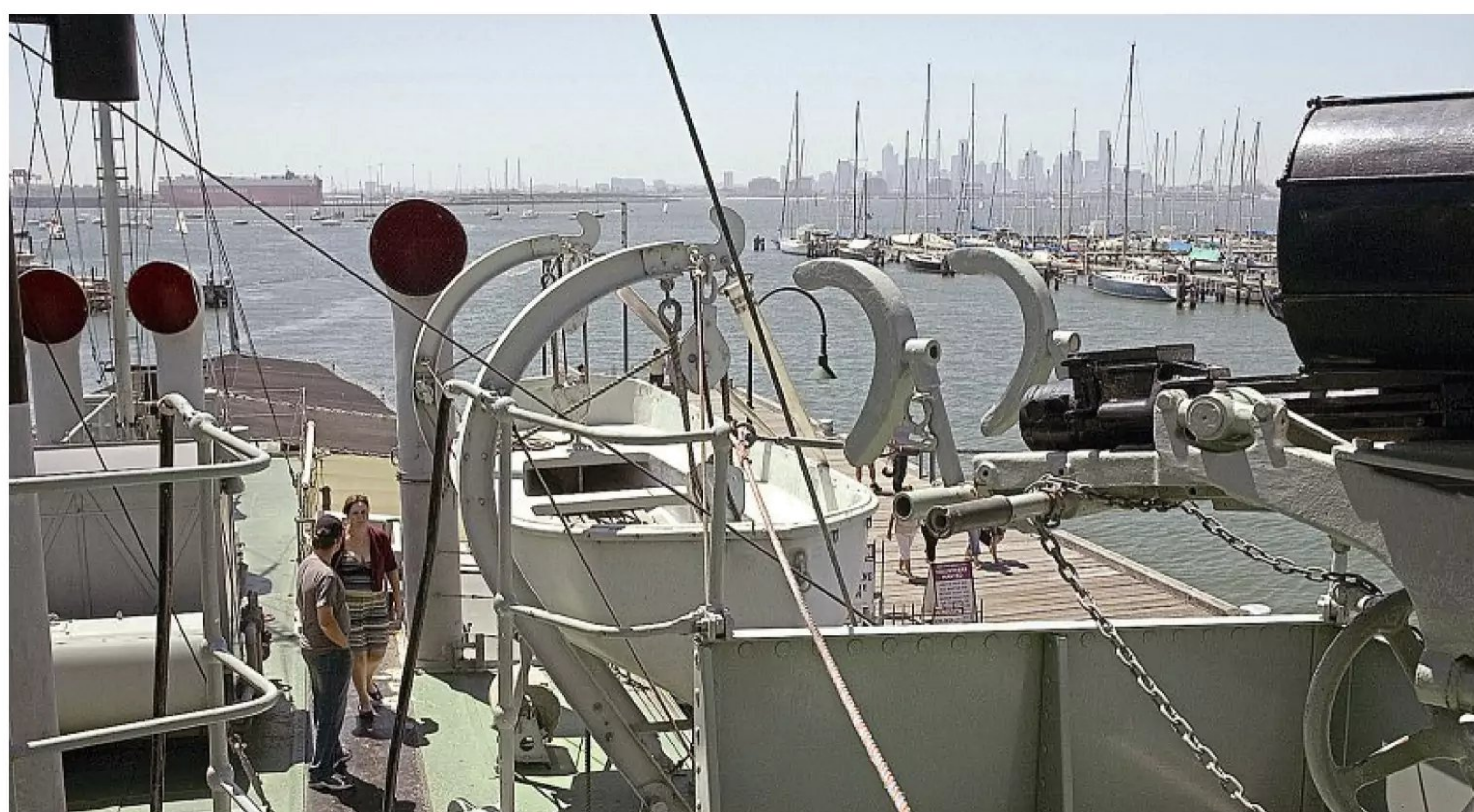
Today the Castlemaine looks the best it has done in a long time, having been the beneficiary in 2004 of a hull clean and repaint in the nearby Tenix dry dock, now sadly closed. It may be visited on weekends

"Only one of their number was lost due to enemy action"

HMAS Castlemaine museum ship



The forward deck and main armament.

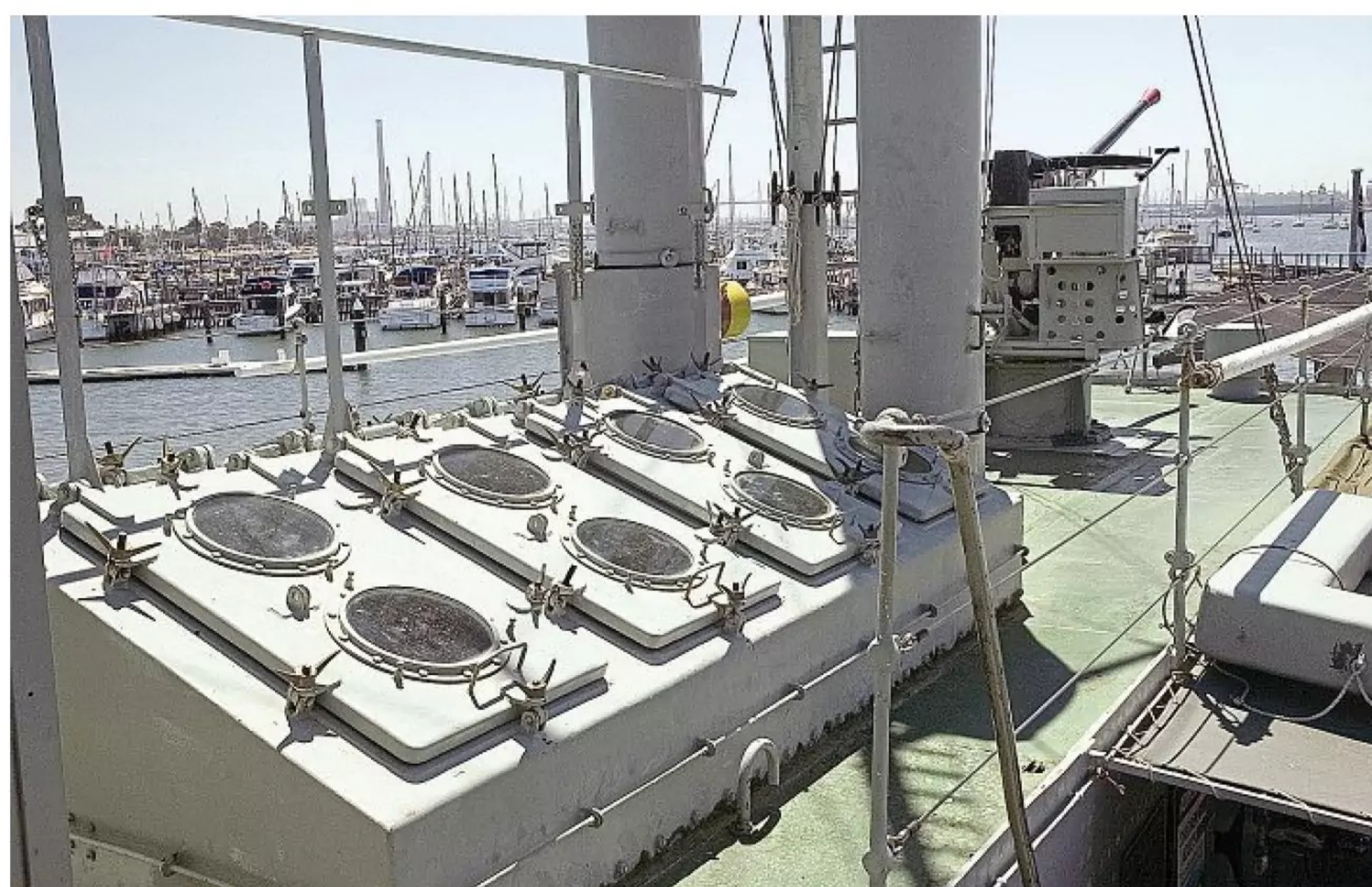


The view over the aft deck.

and public holidays from 11am to 4pm at a cost of \$10 Australian, the only source of revenue it has for its continued preservation. <https://www.visitmelbourne.com/regions/melbourne/see-and-do/art-and-culture/history-and-heritage/hmas-castlemaine-museum-ship>

Modelling a Bathurst class

The prospective Bathurst class modeller is fairly well served. For scratch builders, a detailed plan of HMAS Bendigo to 1:192 scale is available from Sarik Hobbies (No. MAR2229), while a beginner's 1:96 model plan of uncertain origin is listed by Vintage Model Plans. A 1:350 scale mixed media kit for static display is available from Black Cat Models (<https://blackcatmodels.eu/en/royal-navy/301-hmas-castlemaine-bathurst-class-corvette.html>). Moving up to 1:72 scale, this is very popular in Australia with the Task Force 72 organisation and many members choose to build their model on a



The engine house and Bofors gun.

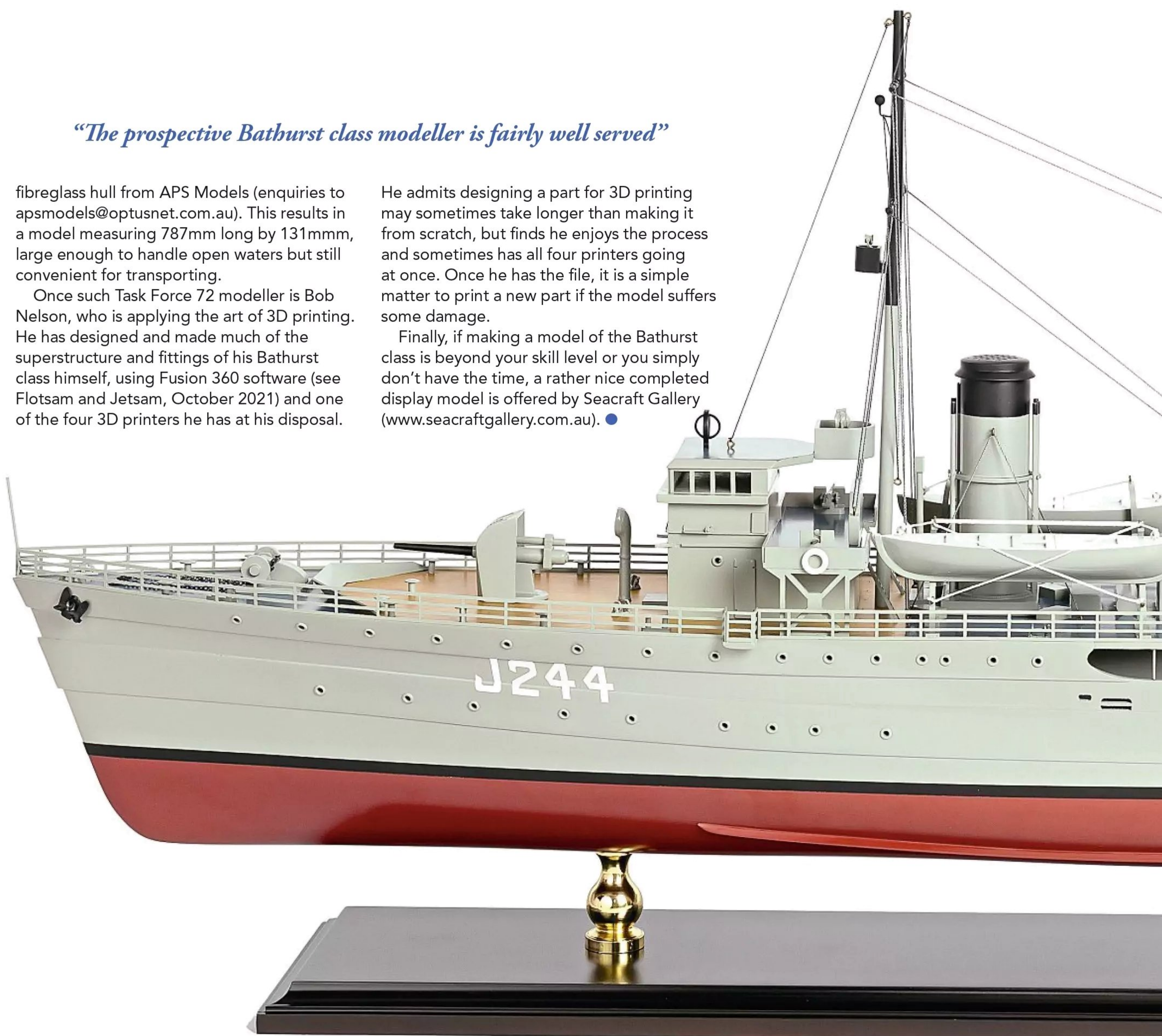
“The prospective Bathurst class modeller is fairly well served”

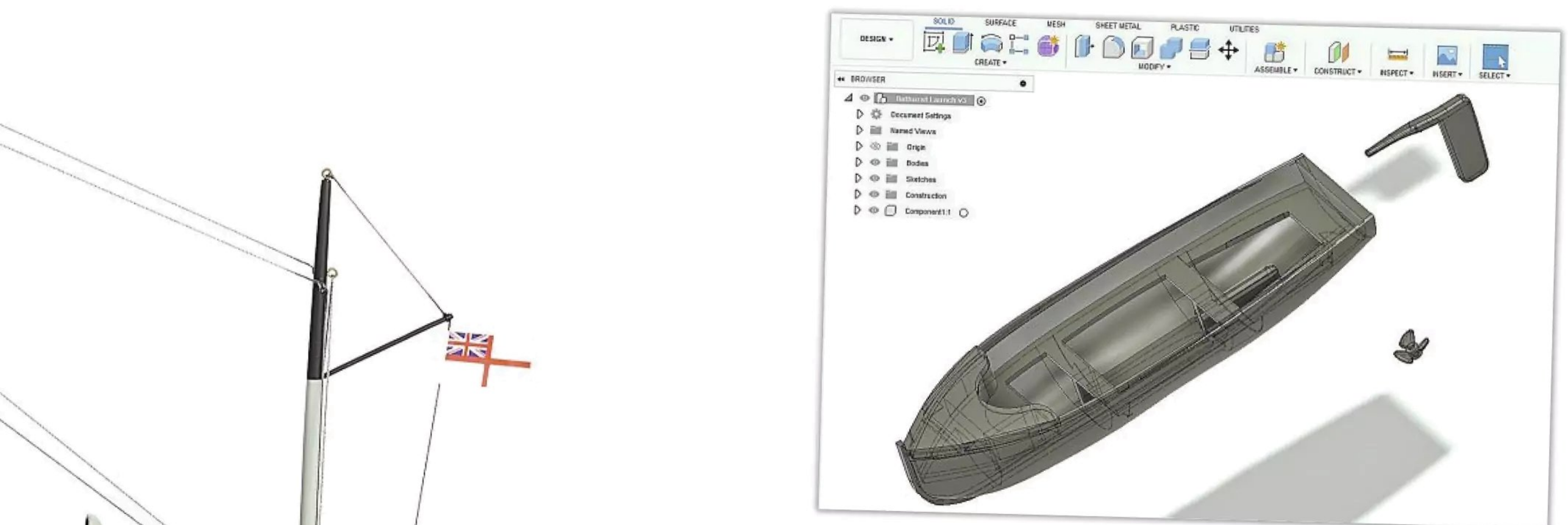
fibreglass hull from APS Models (enquiries to apsmodels@optusnet.com.au). This results in a model measuring 787mm long by 131mm, large enough to handle open waters but still convenient for transporting.

Once such Task Force 72 modeller is Bob Nelson, who is applying the art of 3D printing. He has designed and made much of the superstructure and fittings of his Bathurst class himself, using Fusion 360 software (see Flotsam and Jetsam, October 2021) and one of the four 3D printers he has at his disposal.

He admits designing a part for 3D printing may sometimes take longer than making it from scratch, but finds he enjoys the process and sometimes has all four printers going at once. Once he has the file, it is a simple matter to print a new part if the model suffers some damage.

Finally, if making a model of the Bathurst class is beyond your skill level or you simply don't have the time, a rather nice completed display model is offered by Seacraft Gallery (www.seacraftgallery.com.au). ●

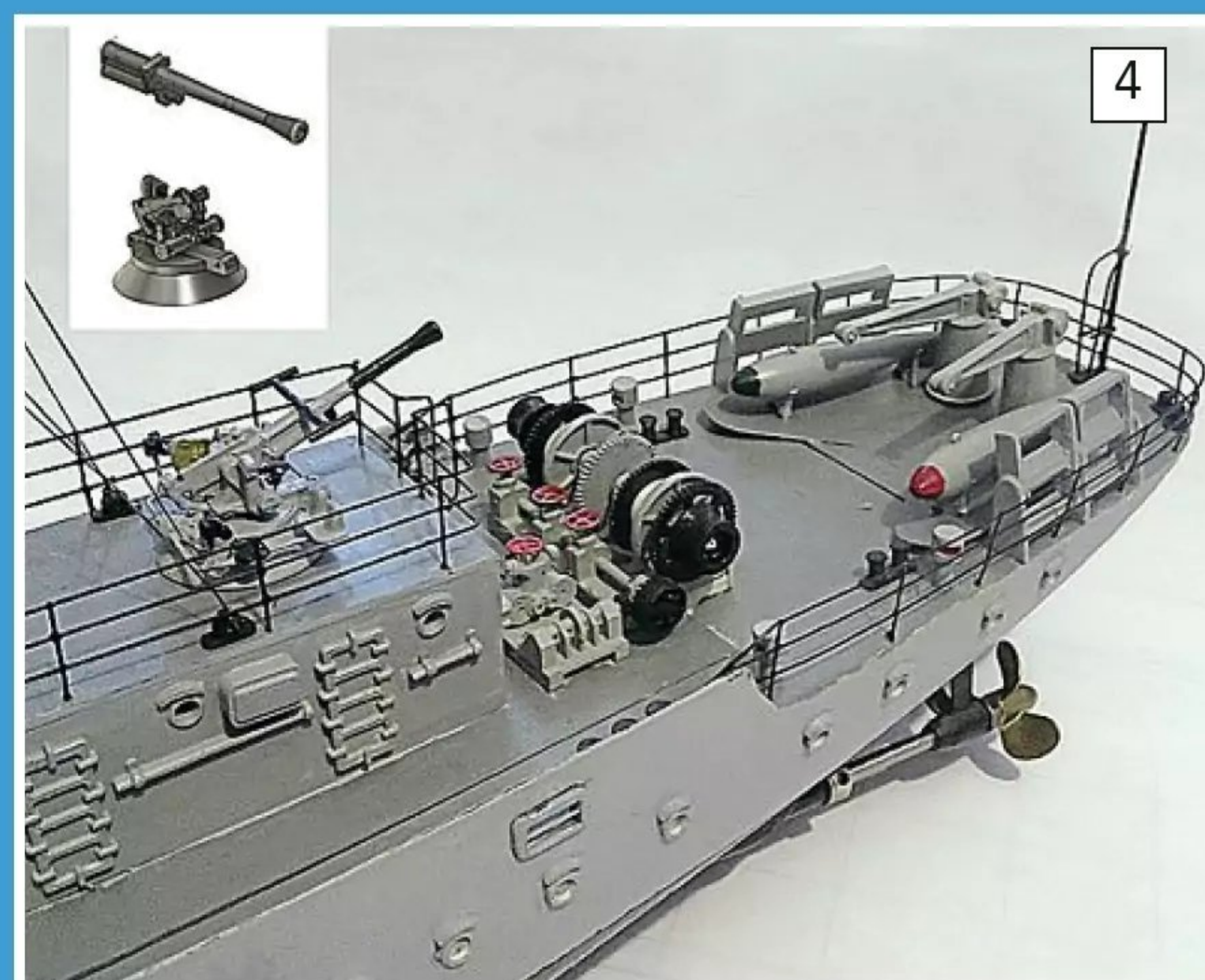




Above: Fusion 360 design for the ship's whaler.

Left: Ready-built model of HMAS Castlemaine by Seacraft Gallery (www.seacraftgallery.com.au).

1: A model of the Castlemaine by 'Mark', spotted lakeside.
2,3,4: Bob Nelson's use of 3D printed parts on his 1:72 model.



model Boats

SUBSCRIBE

Enjoy 12 months for just £50



THREE GREAT OPTIONS TO CHOOSE FROM...

Print only

- Quarterly direct debit for £14
- 1 year direct debit for £50
- 1 year credit/debit card for £55

Print + Digital

- Quarterly direct debit for £16.75*
- 1 year credit/debit card for £62.99*

Digital Only

- 1 year direct debit for £35*
- 1 year credit/debit card for £37*

**Any digital subscription package includes access to the online archive.*

Great reasons to subscribe

- Free UK delivery to your door or instant download to your digital device
- Save money on shop prices
- Never miss an issue
- Receive your issue before it goes on sale in the shops

AND SAVE



www.classicmagazines.co.uk/mbodps



01507 529529 and quote MBODPS

Call 01507 529529, lines open Mon – Fri 8.30am – 5.00pm

TERMS & CONDITIONS: Offer ends 31 December 2023. Subscriptions will start with the next available issue. Direct debit payments will continue on the agreed plan unless you tell us otherwise. To view the privacy policy for MMG Ltd (publisher of Model Boats), please visit www.mortons.co.uk/privacy. Please visit www.classicmagazines.co.uk/terms for full terms and conditions.

A simple Landing Craft

Glynn Guest explains the basic plan of attack, while also pointing out alternative strategies...





Something quick, easy, and economical to build is often a tempting project for all modellers. The less experienced can use it to develop their skills without worrying about it becoming an expensive embarrassment, while for the seasoned modeller, it may provide a welcome break from a more demanding project. I know that halfway through a long build such diversions are often needed to restore my enthusiasm. In addition, the more adventurous types can use a straightforward model design to develop their own ideas.

This model is based on small landing craft used by the armed forces. It features twin independently operated motors that give the model both its steering and propulsion. The prototype was built from balsa wood and card, but other materials could serve as substitutes. The notional scale is around 1:40, which means it could carry an outfit of suitable toy soldiers and/or other military items. However, with the parts being mostly straight edged, it would be easy to enlarge or even modify your build to create a different type of craft.



“With the parts being mostly straight edged, it would be easy to enlarge or even modify your build to create a different type of craft”

Hull design

This was a little different to most model boats I have designed, in that, because of the central well, it had to feature both inner and outer hull surfaces. After a doodling session in the sketchbook, a structure as shown in the cross-section was decided upon (see Figure 1). The outer hull sides would run the entire length of the model, while the inner sides would just run from the bows to the bulkhead. The two motors would fit under the removable well deck, with the R/C gear and battery in the rear compartment.

Material needs

This was a very cheap model to build. A couple of sheets of 1/8 inch (3 mm) balsa supplied the basic hull structure, while card was used for the deck and hull bottom coverings. Card may not be everyone's favoured material for a working model boat, but with adequate sealing this can be made more than durable in small models. I used the backs of some A4 writing pads, around 1/16 inch (1.5 mm) thick, along with a piece of card about twice this thickness for the removable section of the deck.

Two RE 360 motors supplied the power; anything more powerful would have been silly in this model. The propeller assemblies came from the bottom of my spares box, where they may have lain for a few decades! Luckily, modelling component specialist RadioActive can offer a suitable alternative in the form of its one-inch (25 mm) diameter three-bladed propeller and shaft units. My installation used 5-inch (125 mm) long tubes but, if these are not available, the shafts and tubes supplied by RadioActive can easily be reduced in length. A simple rubber tube was more than adequate to connect the motor and propeller shafts.

Building time

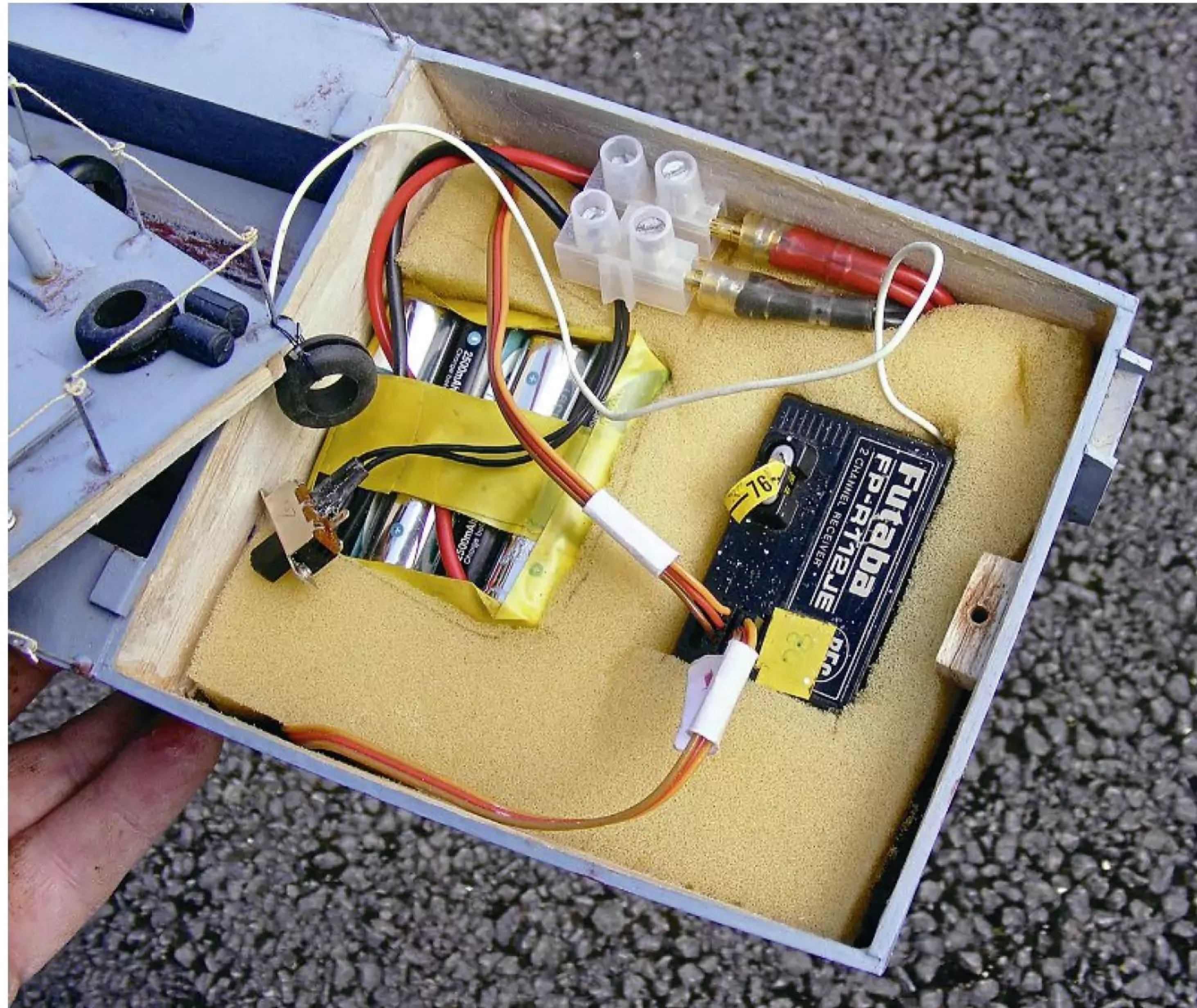
Only eight items need to be cut from the balsa sheets. Although this should not be a long job, care is still needed to ensure they are accurate. I made a simple card template that matched the hull sides as a cutting guide for both the outer and inner hull sides. The two deck support strips can be made from 1/4-inch (6 mm) square or similar.

My plans show a suggested building sequence. You should find this easy, provided all your glued joints are made square and true. The only 'odd' thing might be the suggestion to build the hull framework upside down. This, however, ensures that the deck will be level and, if the parts have been cut out accurately, so will the hull bottom.

“Only eight items need to be cut from the balsa sheets”



Glynn's propeller assemblies came from the bottom of his spares box, but modelling component specialist RadioActive offer a suitable alternative in the form of its one-inch (25 mm) diameter three-bladed propeller and shaft units.



The card decks and bottom are best cut slightly oversize. This allows them to be trimmed to match the hull sides after gluing in place. The deck over the rear compartment, between bulkhead and transom, must be detachable for access to the battery and radio gear. I therefore made a simple balsa frame that could be plugged into this opening and glued to the underside of this deck.

The well deck was just a piece of card, slightly thicker at about 1/8-inch (3 mm). This was cut to fit on top of the support strips. Another piece of card was used to suggest the ramp in the bows.

Motors

Holes were made for the two prop shaft tubes through the hull bottom and bulkhead. These need to be positioned so that with the motors pressed against the hull bottom and inner hull sides (see **Fig 1**) the propeller and motor shafts are aligned. Should these holes require adjusting in size and shape to achieve this, then a little packing with balsa scraps before sealing with glue may be needed. Epoxy, the slow setting type, can create a strong bond between a metal tube and porous card/balsa, provided surfaces are clean and grease free.

Motor installation. With the modest power levels required for this model, anything more powerful than a couple of RE 360 motors would be overkill.

With the modest power levels required in this size and type of model, a simple rubber tube can be used to connect the shafts; the only precaution being to ensure that they will not slip should the propellers become stalled

when full power is supplied to the motors. My motors were simply stuck into the model with a few blobs of one of those all-purpose "sticks everything" adhesives.

A couple of skegs were added above and below the external prop tubes; this was to offer the propellers a little extra protection and help the model's straight running.

Surface sealing

Rather than adding extra details and then struggling to seal the card and balsa, it made more sense to start this job while the surfaces were still bare. A few light coats of your favourite sealant, one of the water-based acrylics or cellulose dope, will work on these card/balsa surfaces: the trick is to start with

"Epoxy, the slow setting type, can create a strong bond between a metal tube and porous card/balsa, provided the surfaces are clean and grease free"

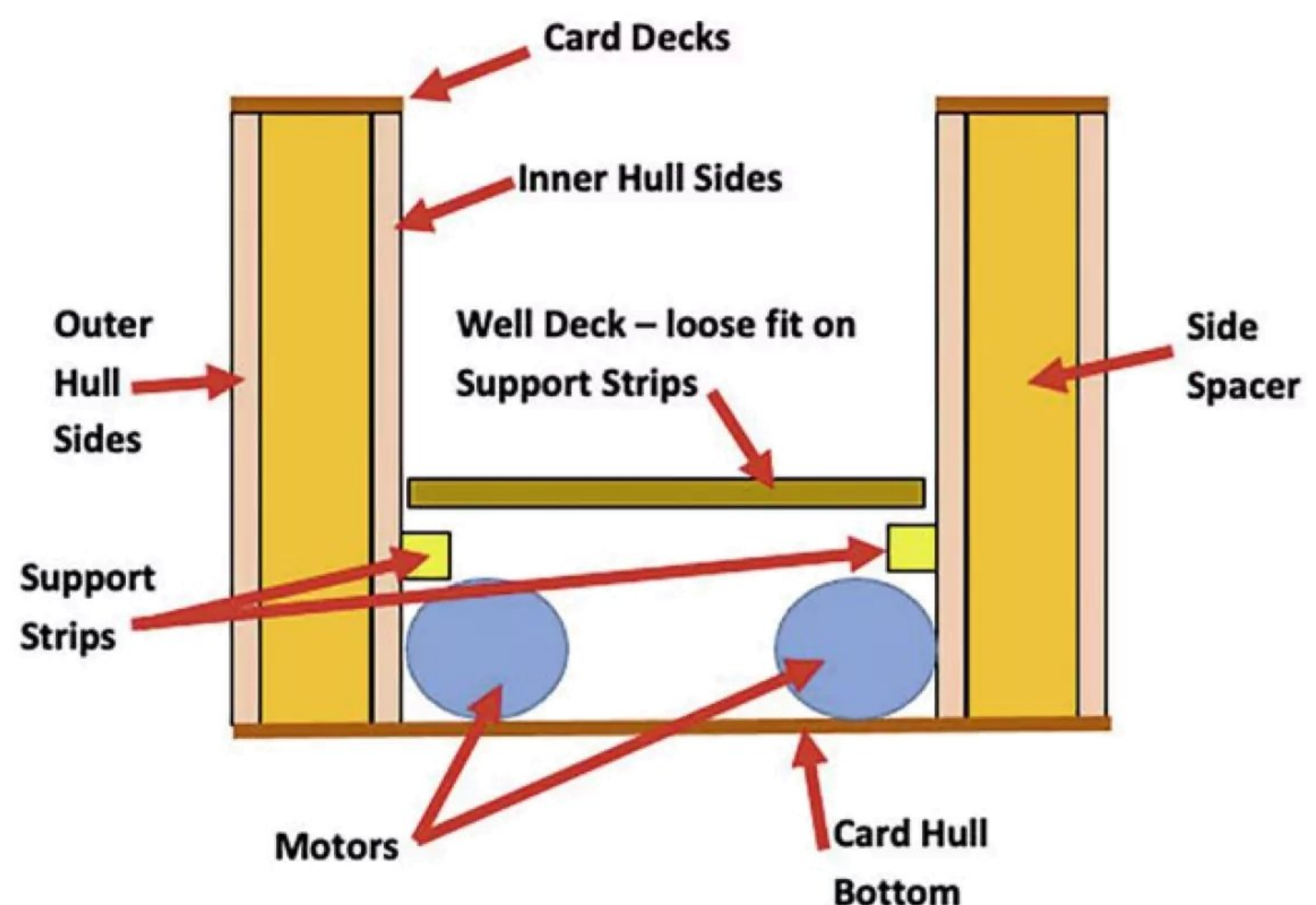


Fig. 1

“To save having to seal these cardboard additions, you could opt to use plastic card”



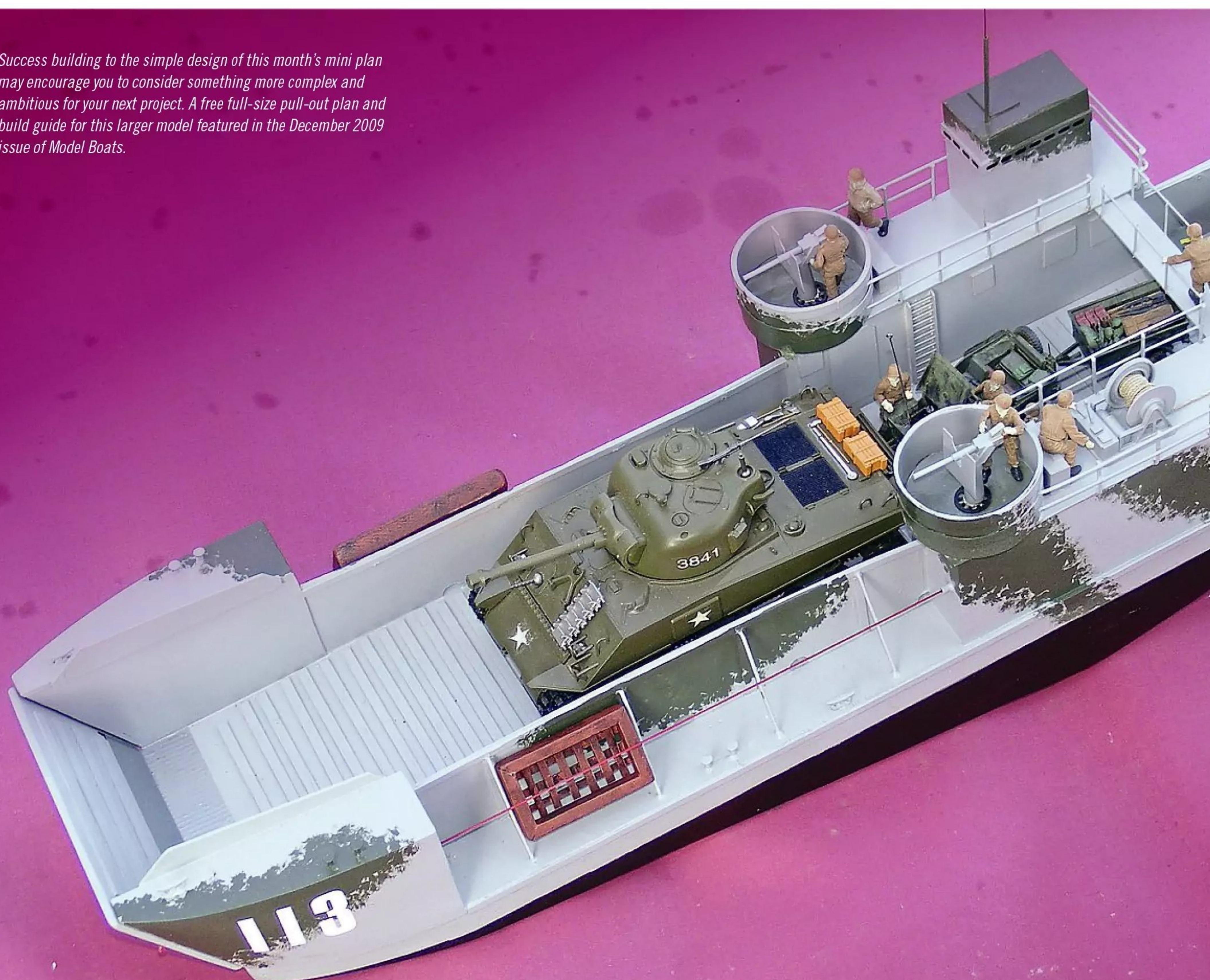
a couple of thinned coats, lightly sanding after each, before then applying a couple of neat coats of sealant. In anticipation of some water splashing into the central well, the inside engine compartment was also sealed.

Details

The full-size craft were hardly elaborately outfitted, so talking about this model's 'details' could be regarded as something of a joke.

Early landing craft often had an unprotected helmsman position – not the best design idea when making an opposed landing. A simple box from steel plate was, therefore, then introduced, and on my model this was made from card. Card was likewise used to suggest the hatches in the deck around the steering position. To save having to seal these cardboard additions, you could opt to use plastic card.

Success building to the simple design of this month's mini plan may encourage you to consider something more complex and ambitious for your next project. A free full-size pull-out plan and build guide for this larger model featured in the December 2009 issue of Model Boats.



“With modern R/C gear, it is no challenge to fit two ESCs, a receiver and battery into this model’s rear compartment”

Rummaging through my ‘bits n’ pieces’ box, a plastic ladder was found. This was about the right scale and could be glued to the transom. Also found was a small cowl vent (which, in the real thing, would have supplied fresh air to the engines).

Some safety rails were fitted around the outer edges of the hull, and no more than short lengths of wire glued into holes and shearing elastic were strung between them. This elastic has the advantage of accommodating any accidental knocks. Like most things, there is a drawback in that the elasticity can disappear after a few years. However, replacing it is no great chore.

Painting

This was another easy job, as you can get away with just grey on the external surfaces. I used a can of grey primer, as this was in keeping with the model’s quick and

economical ethos. The underwater part of the hull was painted black – perhaps not scale, but it does improve the look of many models when sailing.

My model looked a shade too smart for something based upon a hard-working craft at this stage, so a little light weathering was added to the decks and hull sides, while some heavier wear from vehicle wheels/tracks was suggested in the well deck floor.

It still looked a little ‘empty’ though, so some fenders, made from electrical grommets, were tied around the hull – just enough to create the impression of a working vessel.

R/C installation

With modern R/C gear, it is no challenge to fit two ESCs, a receiver and battery into this model’s rear compartment. The ESCs, Mtroniks ‘excellent little 10-Amp MicroViper units, sat on the floor with their power leads passing through the bulkhead to the motors, while the receiver and battery pack, four AA NiMH cells, were installed above them.

Steering

I was going for ‘tank steering’ rather than some complex mixing system. If you have a transmitter with two dual-axis sticks, then the ESCs can just be plugged into the channels that match both sticks’ vertical movement. Fortunately, not having discarded all my 27/40 R/C gear when something new came in, I managed to dig out an old but still working perfectly two-channel outfit. The only problem was that the left-hand stick moved vertically and was perfect, but the

right-hand stick had horizontal movement. Being well out of warranty, I decided to open up the transmitter case and perform a little careful surgery to convert the right-hand stick to vertical movement; this is not a difficult task, but at the same time not something I would recommend to less experienced modellers.

Tank steering can seem a difficult skill to master, but, in fact, it is quite logical with the right mindset. The trick is to imagine that your hands – which, in reality, are on the transmitter – are holding the sides of model. Let’s say you want the model, as you are looking down on it, to rotate clockwise... If you were actually holding the model, you would move your left hand up and right hand down to achieve this, so, remotely, all you need to do is move your thumbs on the transmitter sticks accordingly, i.e., left, up, right, down (see Fig. 2).

The beauty of this method is that it works no matter the orientation that the model has to yourself. This is different from conventional rudder steering when the model is sailing towards you. Here, the rudder stick must be pushed in the opposite direction to that which matches the model’s movement relative to you.

Upping the ante

As mentioned earlier, this design would be simple to enlarge and build with alternative materials. Be warned, though, landing craft models can lead you into more complex areas of modelling, such as adding sound effects and/or even working bow ramps so you can disgorge R/C tanks onto a hostile beach! ●

“Tank steering can seem a difficult skill to master, but, in fact, it’s quite logical with the right mindset”

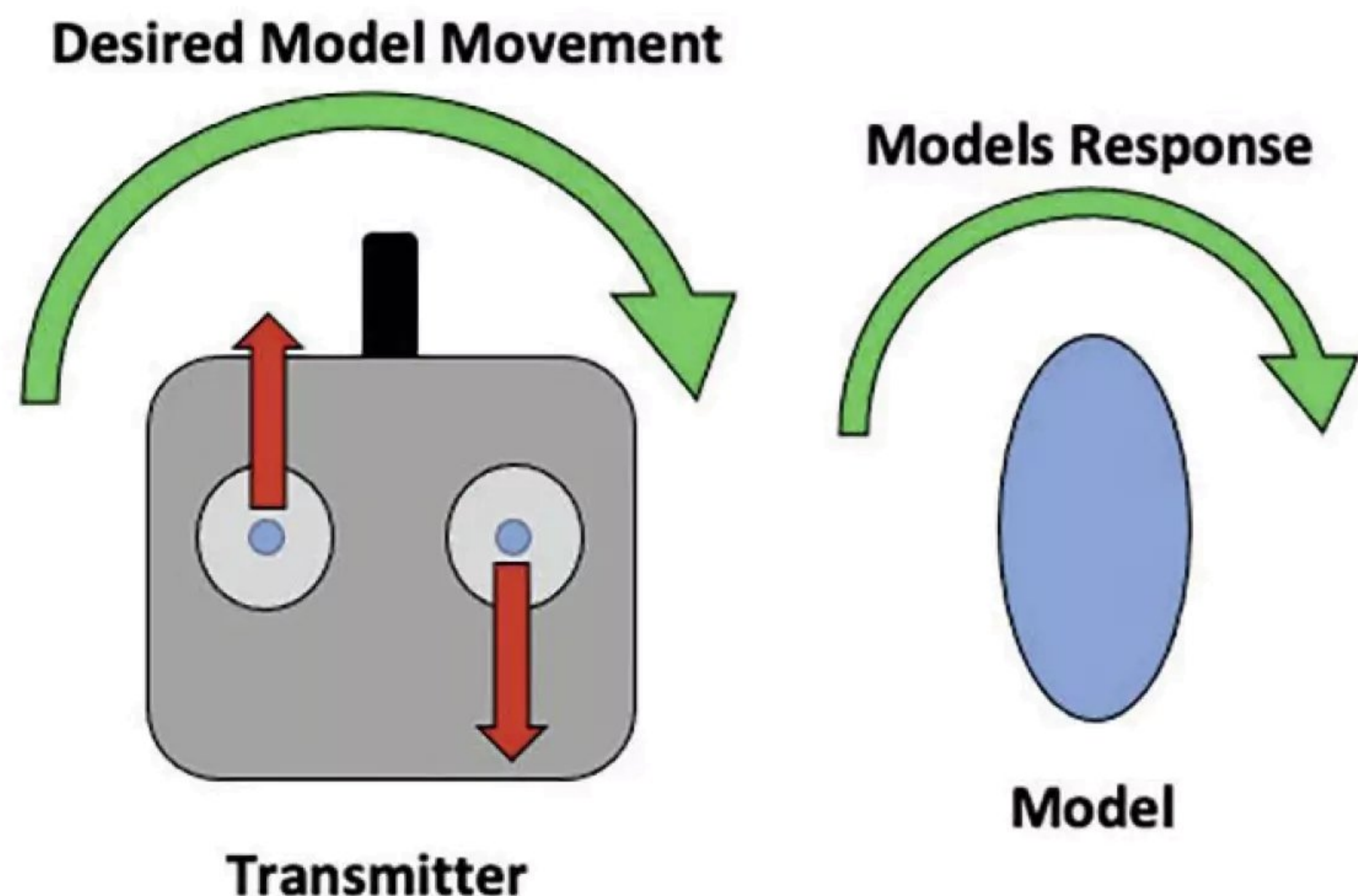
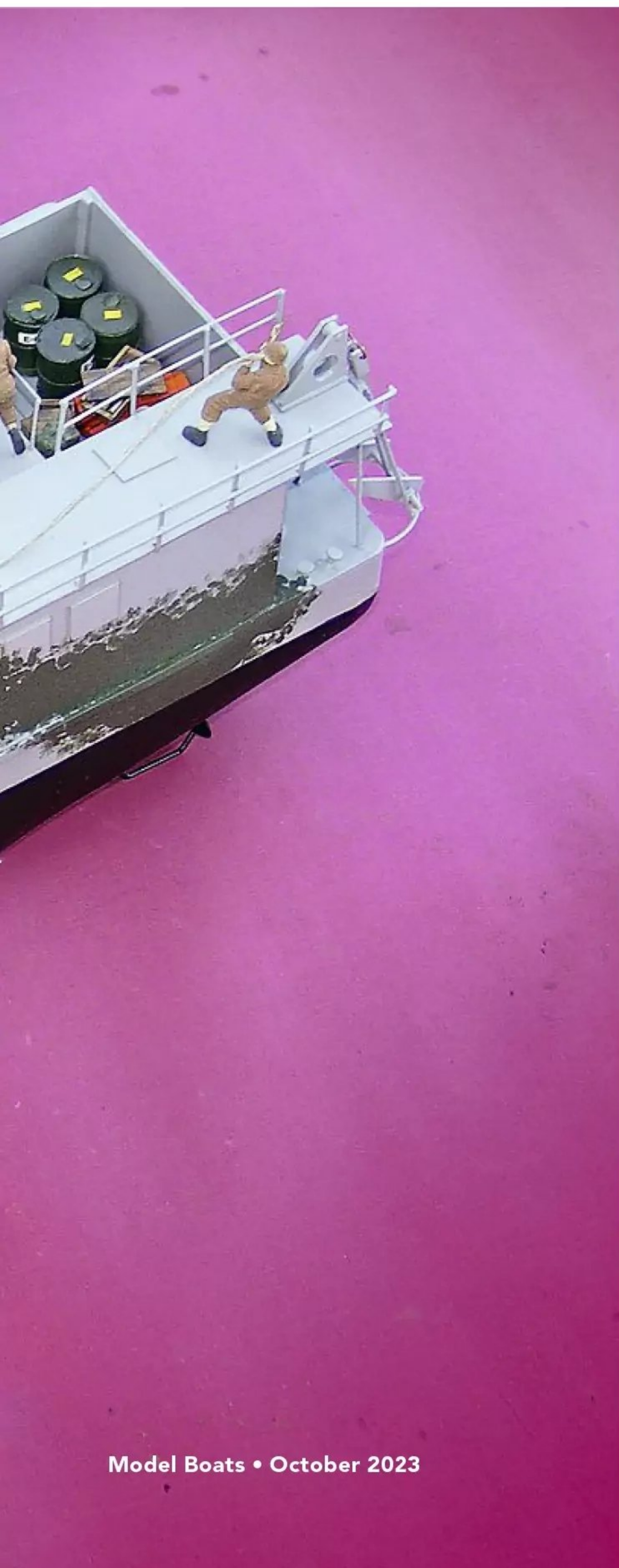
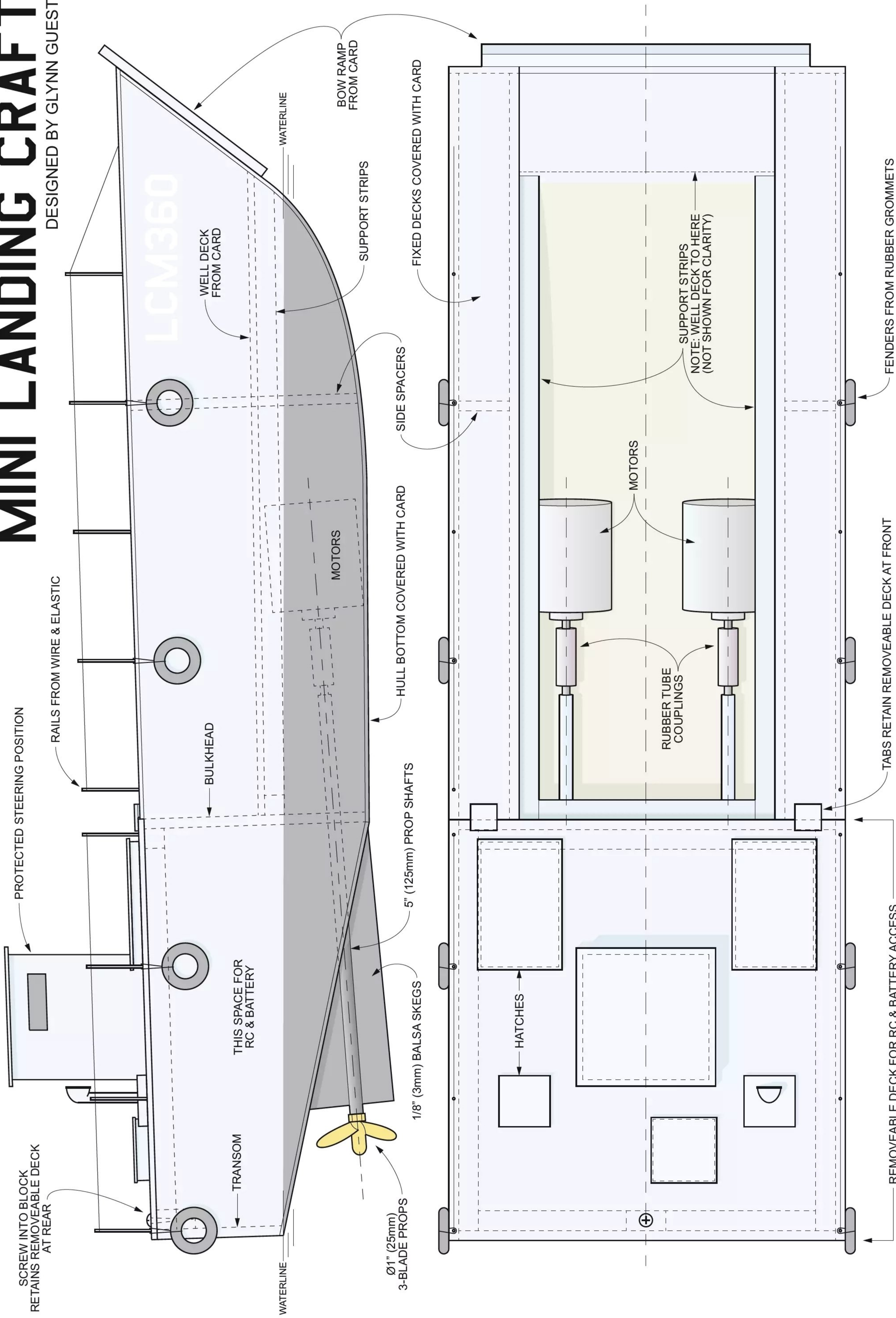
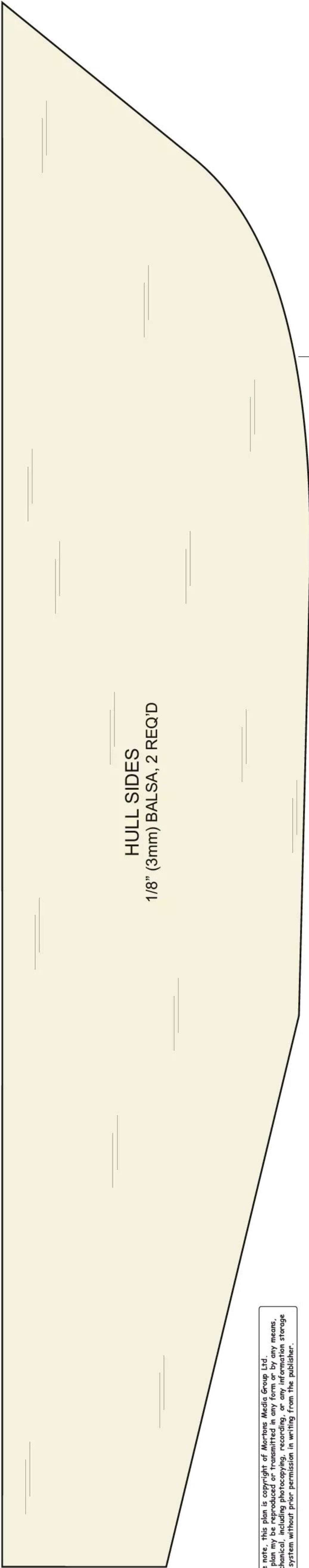


Fig. 2

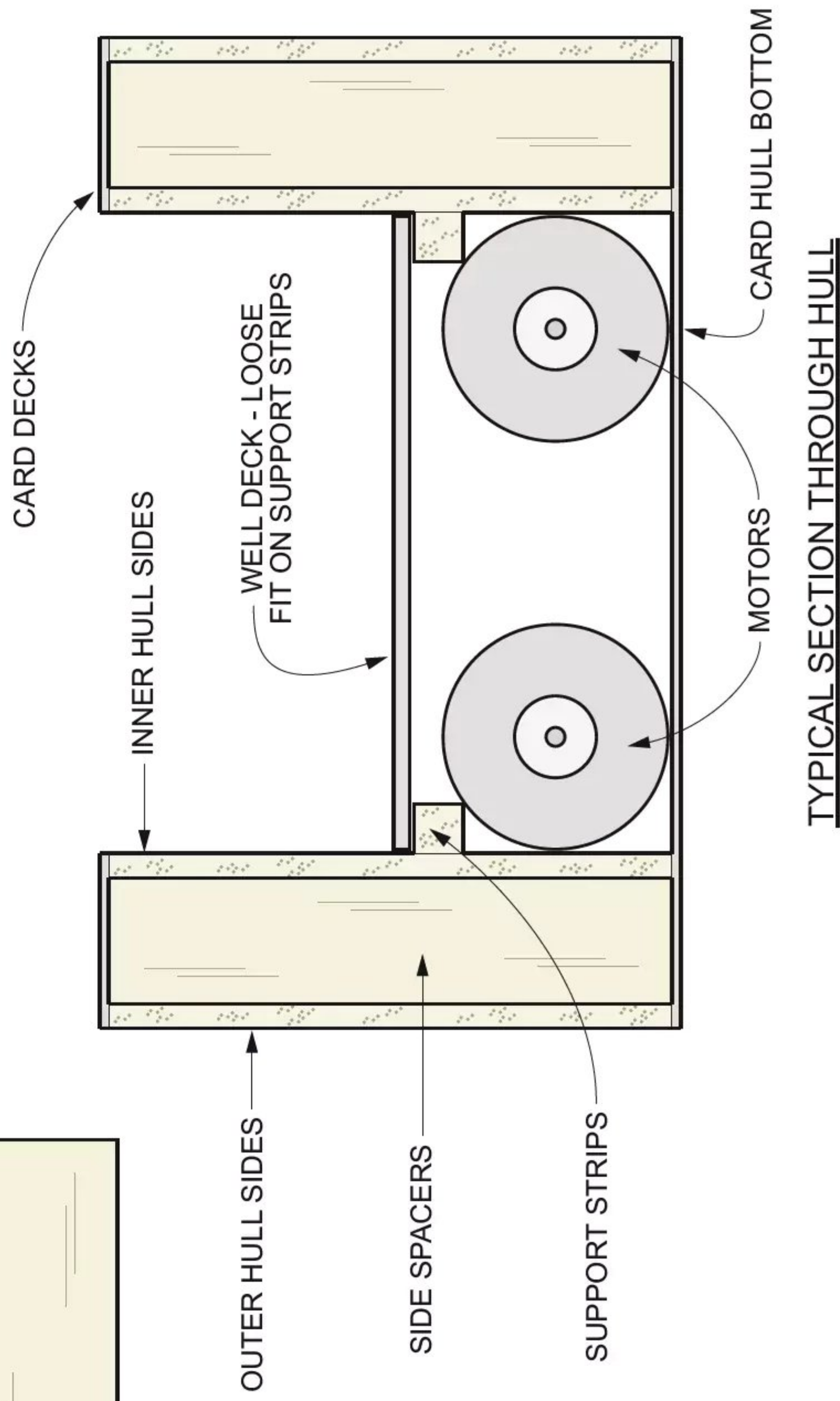
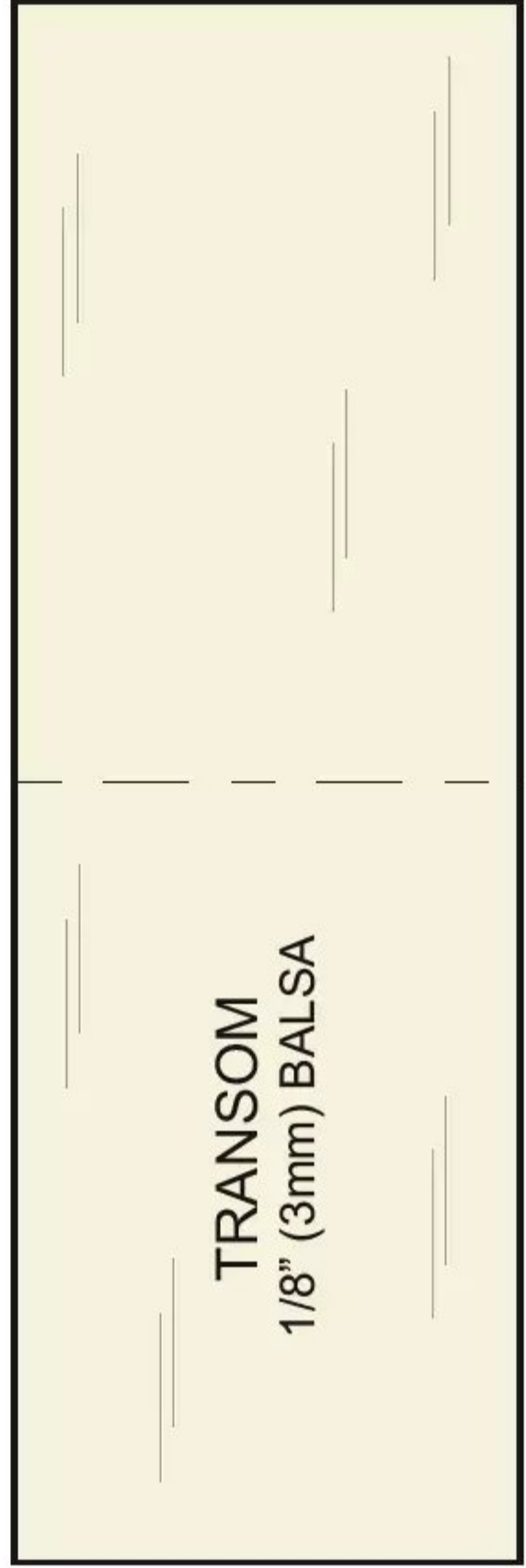
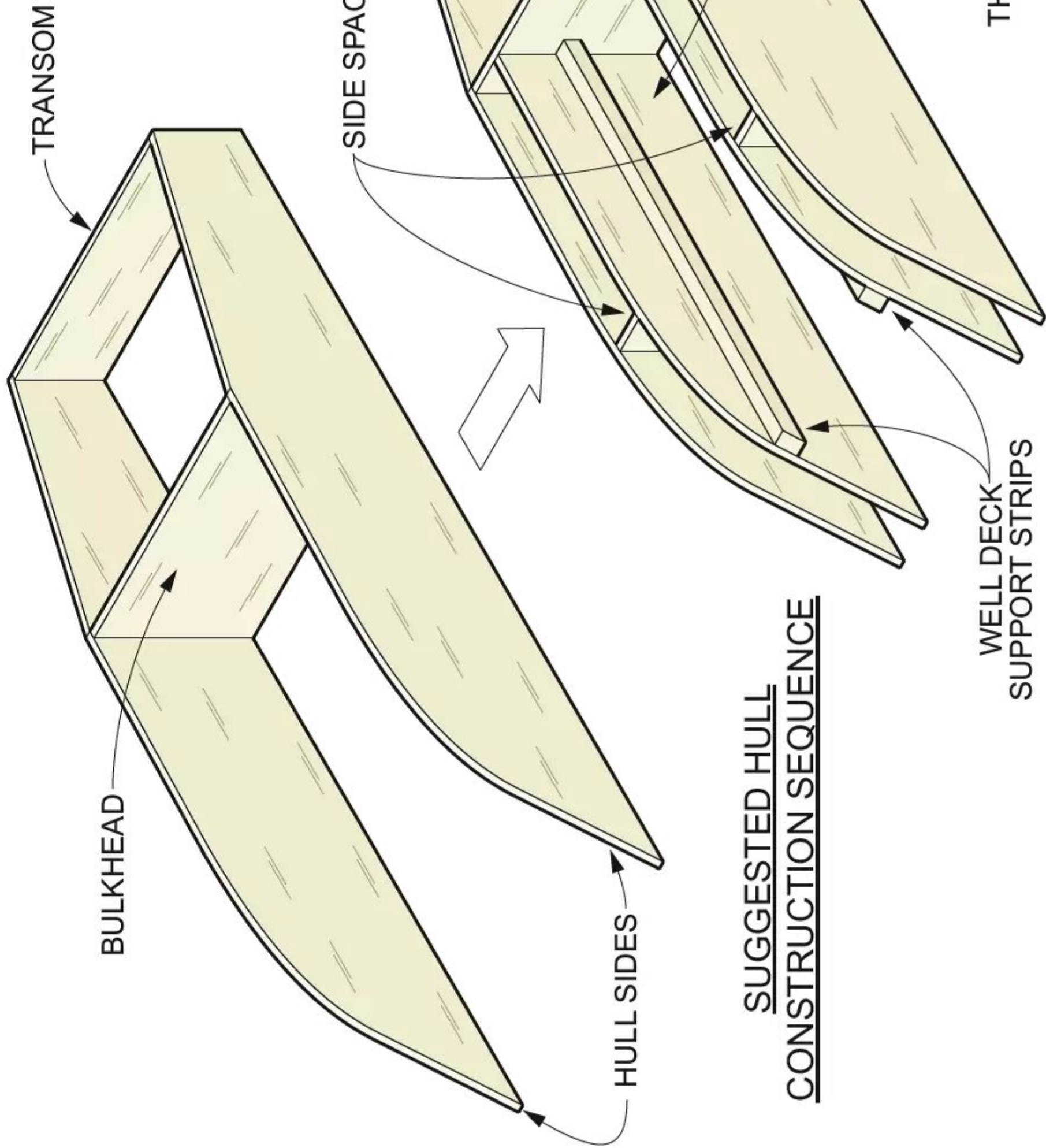
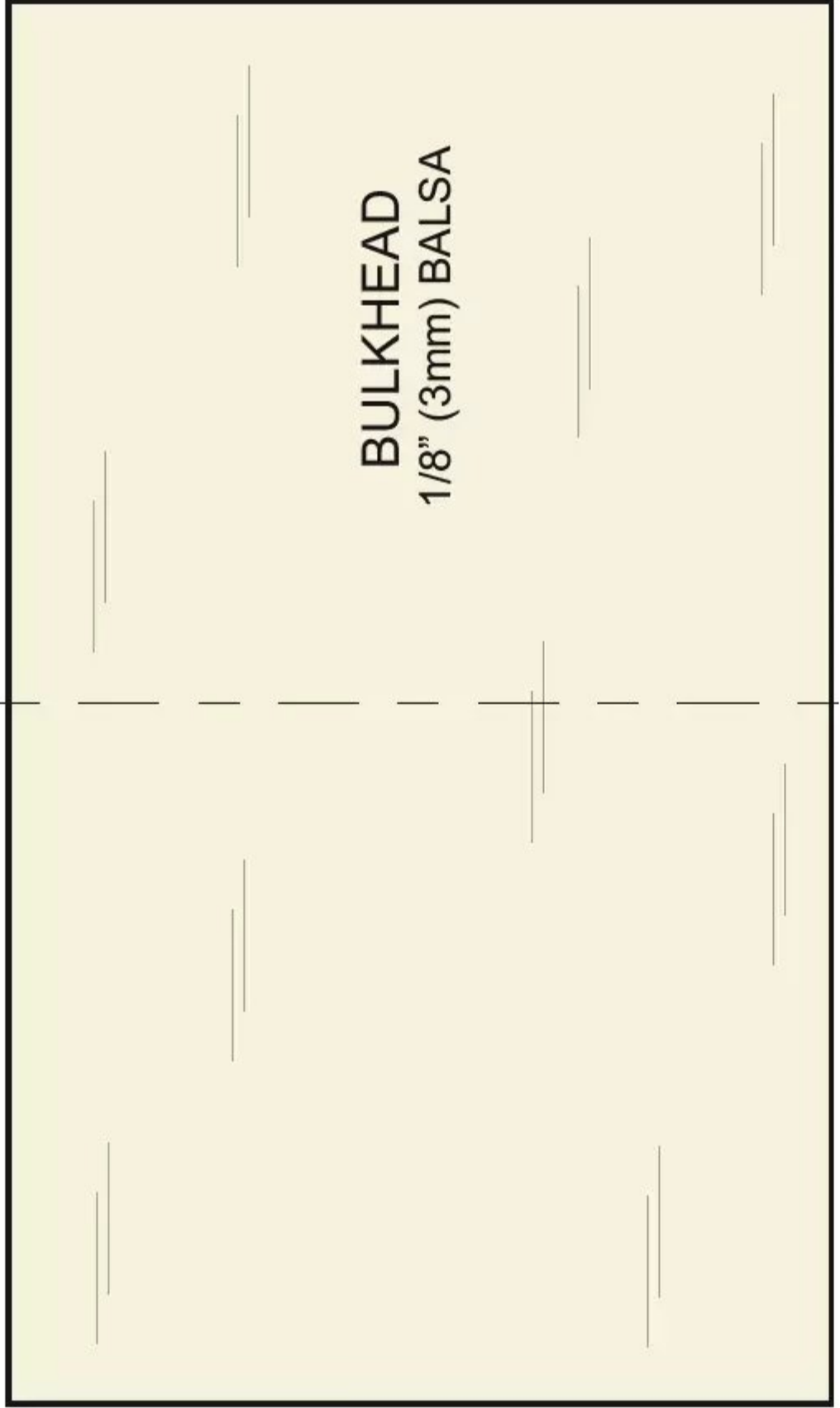
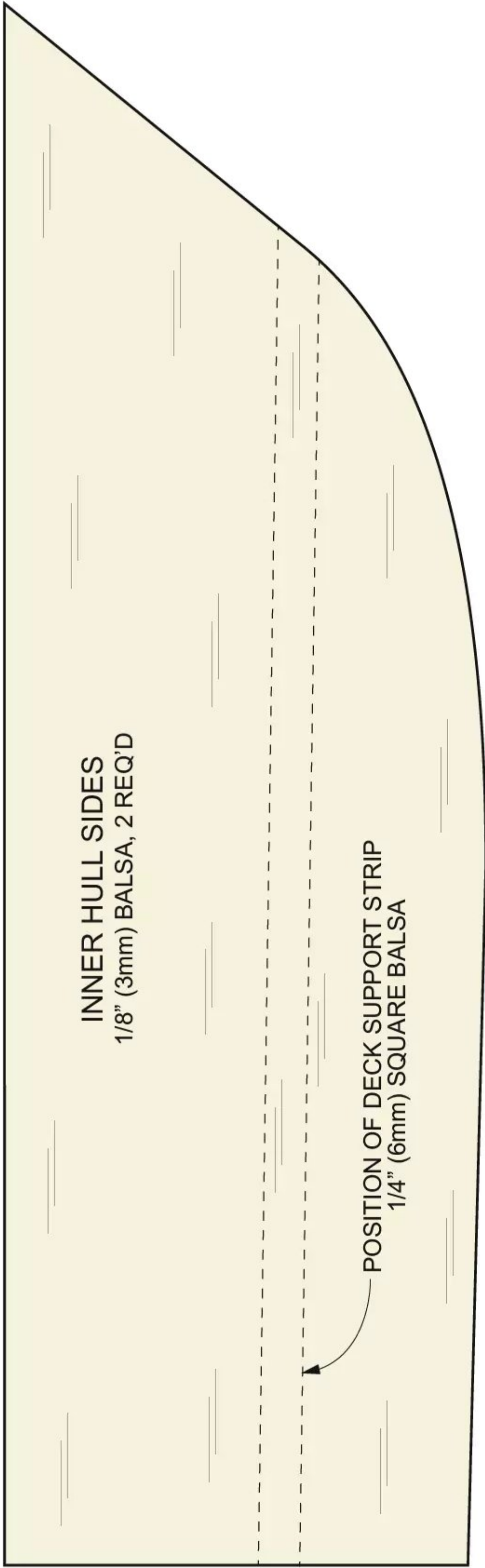
MINI LANDING CRAFT

DESIGNED BY GLYNN GUEST



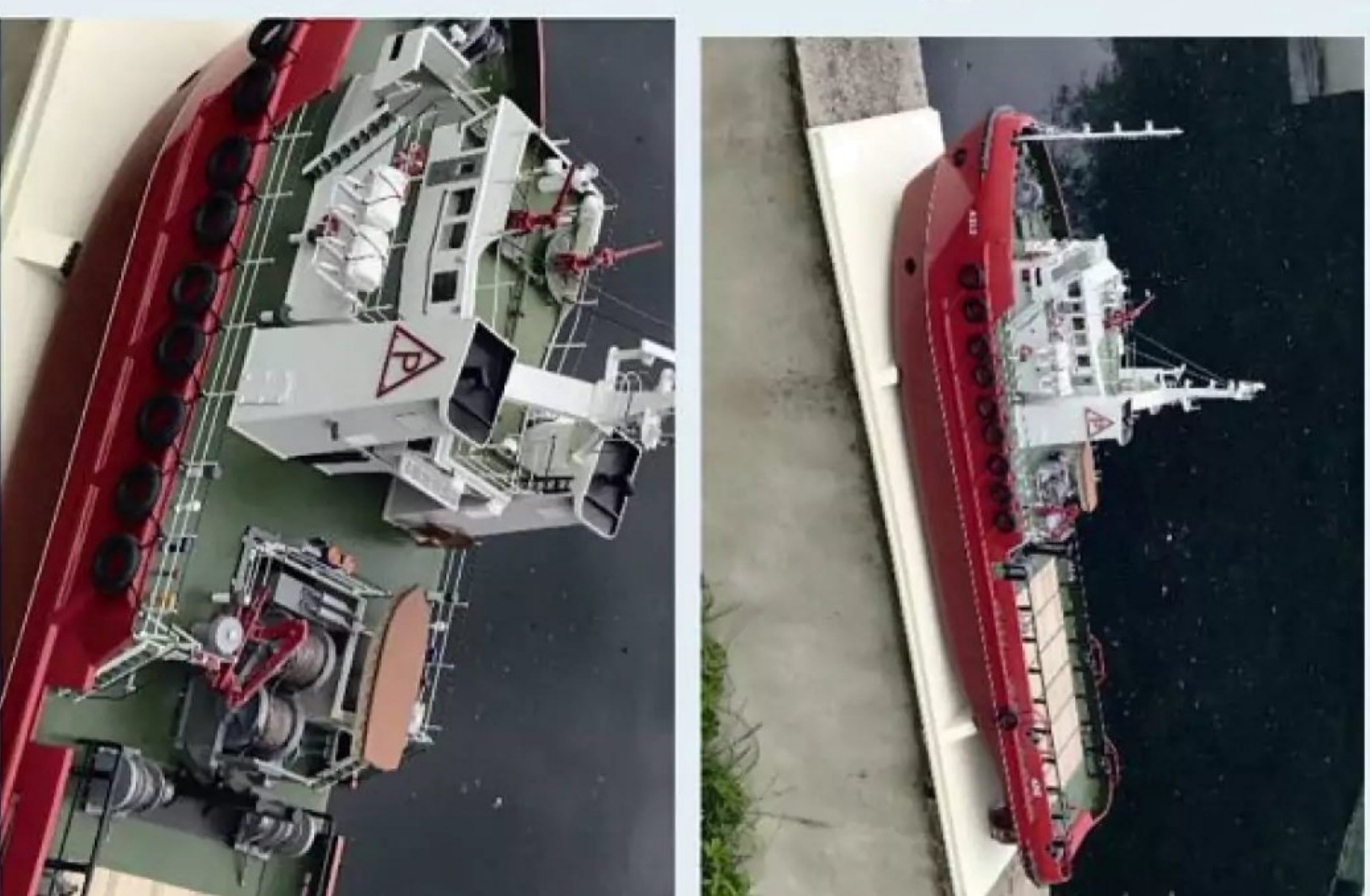


Please note, this plan is copyright of Mortons Media Group Ltd.
No part of this plan may be reproduced or transmitted in any form or by any means,
electronic or mechanical, including photocopying, recording, or any information storage
retrieval system without prior permission in writing from the publisher.





Aziz is
an
Anchor
Handling
tug /
Supply
Vessel.



Built for worldwide
operations to service
and tow drilling units
and support production
platforms Aziz and Arif
were commissioned in
1983 for Prince
offshore Ltd of
Sharjah, United Arab
Emirates.

The kit is to the usual high standards and includes building manual, GRP hull, other materials; CNC cut styrene decks and superstructure, full size plan, resin, and white metal fittings.

Price £425

MOUNTFLEET MODELS



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

www.mountfleetmodels.co.uk

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



Buy on-line or
phone/post
your order

Clarke METAL LATHE

- 300mm between centres • LH/RH thread screw cutting • Electronic variable speed
- Gear change set • Self centering 3 jaw chuck & guard • Power feed

CL300M



£699.00
EXC.VAT
£838.80 inc.VAT

Clarke HYDRAULIC MOTORCYCLE LIFT

- Ideal to bring your project to a convenient working height

FOLDS FLAT FOR EASY STORAGE

PRICE CUT
£499.00
EXC.VAT
£598.80 inc.VAT
WAS £658.80 inc.VAT



450 KG



TIGER 8/260

Clarke MILLING DRILLING MACHINE

- Bench mountable, tilts 45° left & right from vertical
- Table travel 100x235mm
- Table Effective Size LxW: 92 x 400mm

CMD300



PRICE CUT
£759.00
EXC.VAT
£910.80 inc.VAT
WAS £946.80 inc.VAT

Clarke MICRO MILLING & DRILLING MACHINE

- Bench mountable
- MT2 Spindle Taper
- Face mill capacity 20mm, end mill 10mm
- Table cross travel 90mm, longitudinal travel 180mm

WAS £946.80 inc.VAT

Model	Motor	Spindle Speeds	exc.VAT	inc.VAT
CMD10	150W/230V	100-2000rpm	£549.00	£658.80
CMD300#	470W/230V	0-2500rpm	£759.00	£910.80

**Clarke BOLTLESS SHELVE/BENCHES**

- Simple fast assembly in minutes using only a hammer

150 KG
PER SHELF
(evenly distributed)
Strong 9mm fibreboard shelves

350 KG
PER SHELF
(evenly distributed)
Strong 12mm fibreboard shelves

Model	Max. Table Height	exc. VAT	inc. VAT
HTL300	300kg 340-900mm	£419.00	£502.80
HTL500	500kg 340-900mm	£459.00	£550.80

FROM ONLY
£42.99
EXC.VAT
£51.59 inc.VAT

Model	WxDxH (mm)	exc. VAT	inc. VAT
150kg	800x300x1500	£42.99	£51.59
350kg	900x400x1800	£59.98	£71.98

Model	Motor (W)	Speeds	exc.VAT	inc.VAT
CDP5EB	350 / 5		£99.95	£119.94
CDP102B	350 / 5		£115.95	£139.14
CDP152B*	450 / 12		£209.00	£250.80
CDP352F	550 / 16		£339.00	£406.80

Clarke TOOL CHESTS / CABINETS

OVER 50 MODELS IN THE RANGE

• WAS £239.98 inc.VAT

Model	Desc.	exc.VAT	inc.VAT
CTC600C	6 Dr chest	£89.98	£107.98
CTC900C	9 Dr chest	£89.98	£107.98
CTC500C	5 Dr cabinet	£149.98	£179.98
CTC800C	8 Dr chest/cab set	£149.98	£179.98
CTC700C	7 Dr cabinet	£169.98	£203.98
CTC1300C	13 Dr chest/cab	£189.98	£227.98

Clarke DRILL PRESSES

- Range of precision bench & floor presses for enthusiast, engineering & industrial applications

B = Bench mounted
F = Floor standing

FROM ONLY
£99.95
EXC.VAT
£119.94 inc.VAT

* WAS £251.98 inc.VAT

150 KG
PER SHELF
(evenly distributed)
Strong 9mm fibreboard shelves

350 KG
PER SHELF
(evenly distributed)
Strong 12mm fibreboard shelves

FROM ONLY
£42.99
EXC.VAT
£51.59 inc.VAT

150 KG
PER SHELF
(evenly distributed)
Strong 9mm fibreboard shelves

350 KG
PER SHELF
(evenly distributed)
Strong 12mm fibreboard shelves

150 KG
PER SHELF
(evenly distributed)
Strong 9mm fibreboard shelves

350 KG
PER SHELF
(evenly distributed)
Strong 12mm fibreboard shelves

150 KG
PER SHELF
(evenly distributed)
Strong 9mm fibreboard shelves

350 KG
PER SHELF
(evenly distributed)
Strong 12mm fibreboard shelves

Machine Mart

Britain's Tools & Machinery Specialist

65

SUPERTORES NATIONWIDE

**NEW****492 PAGE****CATALOGUE****GET YOUR****FREE COPY!****0844 880 1265****IN-STORE****ONLINE****PHONE****0844 880 1265****Clarke MMA & ARC/TIG INVERTER WELDERS**

FROM ONLY
£104.99
EXC.VAT
£125.99 inc.VAT

Model	Min/Max Output Current	Electrode Dia. (mm)	exc.VAT	inc.VAT
MMA140A	20A-140A	1.6-3.2	£104.99	£125.99
MMA200A	20A-200A	1.6-3.2	£139.98	£167.98
AT165	10A-160A	2.5/3.2/4.0	£219.98	£263.98

Clarke NO GAS/GAS MIG WELDER

- Professional type torch with on/off control
- Turbo fan cooled • Easy conversion to gas with optional accessories



FROM ONLY
£179.98
EXC.VAT
£215.98 inc.VAT

Model	Min/Max Amps	exc.VAT	inc.VAT
MIG106	40/100	£179.98	£215.98
MIG145	35/135	£239.00	£286.80
MIG196	40/180	£279.00	£334.80

GWH7

**Clarke ARC ACTIVATED HEADSHIELDS**

- Activates instantly when Arc is struck
- Protects to EN379
- Suitable for arc, MIG, TIG & gas welding

FROM ONLY
£36.99
EXC.VAT
£44.39 inc.VAT

Clarke CS48 BELT AND DISC SANDER

PRICE CUT
£199.98
EXC.VAT
£239.98 inc.VAT
WAS £245.00 inc.VAT

• Belt sanding can be performed with the belt in the horizontal or vertical position • Includes dust collection bag

Clarke 3-IN-1 SHEET METAL MACHINES

- Bend, Roll & Shear metal up to 1mm thick • Min. Rolling Diameter 39mm • Bending angle 0-90°



FROM ONLY
£299.00
EXC.VAT
£358.80 inc.VAT

Model	Bed Width	exc.VAT	inc.VAT
SBR305	305mm (12")	£299.00	£358.80
SBR610	610mm (24")	£598.00	£717.60
SBR760	760mm (30")	£699.00	£838.80

Clarke INDUSTRIAL ELECTRIC MOTORS

FROM ONLY
£79.98
EXC.VAT
£95.98 inc.VAT

Hp	Speed	exc.VAT	inc.VAT
1/3	4 pole	£79.98	£95.98
1	2 pole	£99.98	£119.98
3/4	4 pole	£104.99	£125.99
2	2 pole	£124.99	£149.99
3	2 pole	£154.99	£185.99
4	2 pole	£189.98	£227.98

• Range of single phase motors suited to many applications • All totally enclosed & fan ventilated for reliable long-term service

FROM ONLY
£99.98
EXC.VAT
£119.98 inc.VAT

CON18LIC
4Ah Li-ion

Clarke 18V BRUSHLESS COMBI DRILLS

FROM ONLY
£99.98
EXC.VAT
£119.98 inc.VAT

• 2 forward and reverse gears

Clarke BENCH BUFFERS/ POLISHERS

FROM ONLY
£99.98
EXC.VAT
£119.98 inc.VAT

Model	Dia. (mm)	exc. VAT	inc. VAT
CBB150	150	£79.98	£95.98
CBB200	200	£94.99	£113.99
CBB250	250	£169.95	£209.95

• For a brilliant shine

Clarke BENCH GRINDERS

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

• Sturdy lower shelf • Durable powder coated finish

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

Clarke 1 TONNE FOLDING WORKSHOP CRANE

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

FROM ONLY
£289.98
EXC.VAT
£347.98 inc.VAT

VISIT YOUR LOCAL SUPERSTORE Open Mon-Fri 8.30-6.00, Sat 8.30-5.30, Sun 10.00-4.00

BARNLEY Pontefract Rd, Barnsley, S71 1EZ	01226 732297	EXETER 16 Trusham Rd, EX2 8QG	01392 256 744	NORWICH 282a Heigham St, NR2 4LZ	01603 766402
B'HAM GREAT BARR 4 Birmingham Rd.	0121 358 7977	GATESHEAD 50 Lobley Hill Rd, NE8 4YJ	0191 493 2520	NORTHAMPTON Beckett Retail Park, St James' Mill Rd	01604 267840
B'HAM HAY MILLS 1152 Coventry Rd, Hay Mills	0121 7713433	GLASGOW 280 Gt Western Rd, G4 9EJ	0141 332 9231	NOTTINGHAM 211 Lower Parliament St.	0115 956 1811
BOLTON 1 Thynne St, BL3 6BD	01204 365799	GLOUCESTER 221A Barton St, GL1 4HY	01452 417 948	PETERBOROUGH 417 Lincoln Rd, Millfield	01733 311770
BRADFORD 105-107 Manningham Lane, BD1 3BN	01274 390962	GRIMSBY ELLIS WAY, DN32 9BD	01472 354435	PLYMOUTH 58-64 Embankment Rd, PL4 9HY	01752 254050
BRIGHTON 123 Lewes Rd, BN2 3QB	01273 915999	HULL 8-10 Holderness Rd, HU9 1EG	01482 223161	POOLE 137-139 Bournemouth Rd, Parkstone	01202 717913
BRISTOL 1-3 Church Rd, Lawrence Hill, BS5 9JJ	0117 935 1060	ILFORD 746-748 Eastern Ave, IG2 7HU	0208 518 4286	PORTSMOUTH 277-283 Copnor Rd, Copnor	023 9265 4777
BURTON UPON TRENT 12a Lichfield St, DE14 3QZ	01283 564 708	IPSWICH Unit 1 Ipswich Trade Centre, Commercial Road	01473 221253	PRESTON 53 Blackpool Rd, PR2 6BU	01772 703263
CAMBRIDGE 181-183 Histon Road, Cambridge, CB4 3HL	01223 322675	LEEDS 227-229 Kirkstall Rd, LS4 2AS	0113 231 0400	SHEFFIELD 453 London Rd, Heeley, S2 4HJ	0114 258 0831
CARDIFF 44-46 City Rd, CF24 3DN	029 2046 5424	LEICESTER 69 Melton Rd, LE4 6PN	0116 261 0688	SIDCUP 13 Blackfen Parade, Blackfen Rd	0208 3042069
CARLISLE 85 London Rd, CA1 2LG	01228 591666	LINCOLN Unit 5, The Pelham Centre, LN5 8HG	01522 543 036	SOUTHAMPTON 516-518 Portsmouth Rd	023 8055 7788
CHELtenham 84 Fairview Road, GL52 2EH	01242 514 402	LIVERPOOL 80-88 London Rd, L3 5NF	0151 709 4484	SOUTEND 1139-1141 London Rd, Leigh on Sea	01702 483 742
CHESTER 43-45 St. James Street, CH1 3EY	01244 311258	LONDON CATFORD 289/291 Southend Lane SE6 3RS	0208 695 5684	STOKE-ON-TRENT 382-396 Waterloo Rd, Hanley	01782 287321
COLCHESTER 4 North Station Rd, CO1 1RE	01206 762831	LONDON 6 Kendal Parade, Edmonton N18	020 8803 0861	SUNDERLAND 13-15 Ryhope Rd, Grangetown	0191 510 8773
COVENTRY Bishop St, CV1 1HT	024 7622 4227	LONDON 503-507 Lea Bridge Rd, Leyton, E10	020 8558 8284	SWANSEA 7 Samlet Rd, Llansamlet, SA7 9AG	01792 792969
CROYDON 423-427 Brighton Rd, Sth Croydon	020 8763 0640	LUTON Unit 1, 326 Dunstable Rd, Luton LU4 8JS	01582 728 063	SWINDON 21 Victoria Rd, SN1 3AW	01793 491717
DARLINGTON 214 Northgate, DL1 1RB	01325 380 841	MAIDSTONE 57 Upper Stone St, ME15 6HE	01622 769 572	TWICKENHAM 83-85 Heath Rd, TW1 4AW	020 8892 9117
DEAL (KENT) 182-186 High St, CT14 6BQ	01304 373 434	MANCHESTER ALTRINCHAM 71 Manchester Rd, Altrincham	0161 9412 666	WARRINGTON Unit 3, Hawley's Trade Pk.	01925 630 937
DERBY Derwent St, DE1 2ED	01332 290 931	MANCHESTER CENTRAL 209 Bury New Road M8 8DU	0161 241 1851	WIGAN 2 Harrison Street, WN5 9AU	01942 323 785

SCALE COLOUR, SOUND AND SPEED

How do you further improve upon the credibility of a meticulously crafted model? It's all about going the distance! **Peter Koch-Osborne** explains...

Although I modelled boats throughout the 1970s, I then got side tracked by model railways, until that is, relatively recently, it became apparent our house simply couldn't accommodate any more railway layouts; my wife is a very tolerant woman! Being familiar, therefore, with both hobbies, it has occurred to me that while the practice and process of weathering model railways has been around for decades, it only seems to have gained popularity amongst the model boating fraternity in more recent years. I stand to be corrected on this, but during the 1970s I weathered a Clyde Puffer, only to have it ridiculed at my local club! Scale colour is, of course, distinct from weathering, but the two are almost inseparable; so, what do I mean by scale colour?

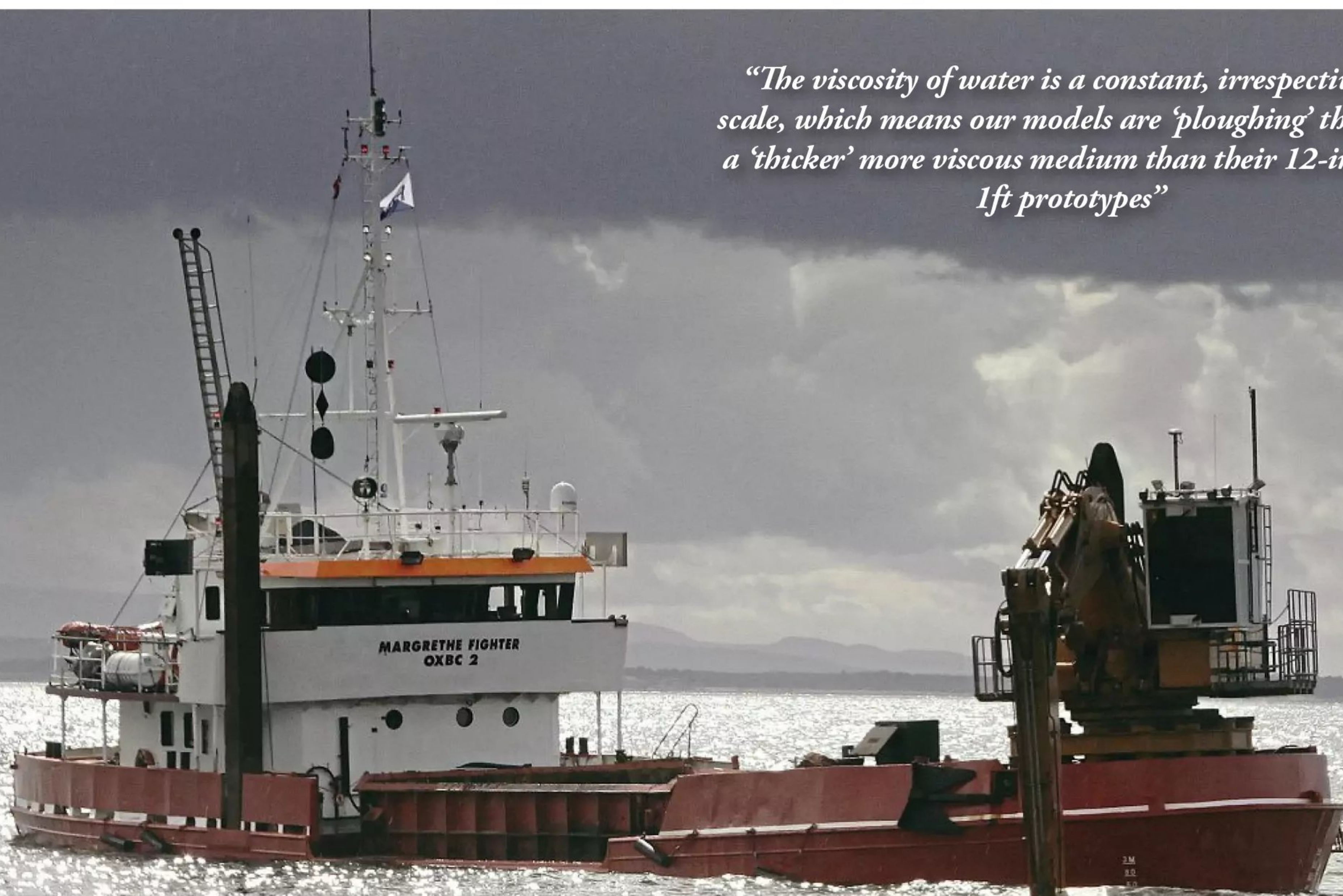
Scale colour

In order to explain this, we need to look at how colours desaturate and attain a grey/blue hue as distance increases. For example, green hills can appear grey/blue, even purple at a distance. Snow can also take on a purple hue. Hard edges 'soften'. As an experiment, take a photo of a distant subject and, using Photoshop or similar, whack up the colour saturation before zooming right in; you will be surprised by how the colours look nothing like those you'd expect to see when viewing the original item or scene at close quarters. Artists call this 'aerial perspective' and they use it to imply distance on a flat piece of paper.

How does this relate to our models? Well, we have to consider the normal/average viewing distance when looking at a model in relation to its scale. For example, if a model

ship is built to 1:200 and is observed from an average distance of, say, 15 metres on your local model boating pond, you are seeing it at a scale distance of 3 kilometres (about two miles). **Photo 1** depicts a large ship at around 3 km, equating to our 1:200 model at 15 metres; **Photo 2** shows a tug at around 500 metres, which equates to a 1:32 model also viewed at 15 metres; while **Photo 3** shows a pilot boat at about 150 metres, the equivalent of a 1:20 model at 7.5 metres (note that none of the photos have any trace of gloss). At distance, all colours will be desaturated and muted. The effect will vary depending on atmospheric conditions, so this is not an exact science. The application of any weathering would also be very subdued as distance increases. How far down this route of authenticity one goes, of course, is a very personal choice.

"The viscosity of water is a constant, irrespective of scale, which means our models are 'ploughing' through a 'thicker' more viscous medium than their 12-inch to 1ft prototypes"





“Artists call this ‘aerial perspective’”

Conversely, when observing a 1:8 scale model closely, say, from 1 metre away - a scale distance of 8 metres - barely any degradation of colour would be observed, but it may be worth considering a satin finish rather than gloss, or even matt rather than satin. **Photo 4** was taken at 5 metres; so, at a typical scale of 1:8 for this type of vessel you would get a similar close-up at 0.6 metres.

Your model, your choice, but an awareness of this may inform your decision as to how far down the road of authenticity and away from the actual fully saturated prototype colours you go.

Scale sound

To comprehend how this can be achieved, we first need to understand a bit about the nature of sound. What follows is the most basic of explanations, so apologies to any acoustics engineers out there!

Air is a rather poor medium for transmitting sound. High frequencies are readily attenuated, distorting sound over distance. As an example, as youngsters we used to demonstrate to ourselves the phenomena of differing sound conductivity at our local sports ground, which had a steel handrail at least 100 metres long. One of us would stand at one end of the rail while the other would hit it sharply with a stone at the other end. Two sounds would be heard: first a sharp sound, followed by a very slightly muffled sound a split second later. This demonstrated two things: firstly, steel transmitted the sound both faster and more clearly and, secondly, the air took out some of the high frequencies over distance and the sound took longer to travel. Please don't try this at home or you may end up with an ASBO!

Water, however, is an excellent transmitter of sound, ask any whale or dolphin; they can communicate under water over huge distances!

Once, while on the shore of the Clyde, I kept hearing a barely audible very low rumble out over the water but could see nothing; I concluded this must have been a passing



submarine. By the same token, loud music is reduced to an annoying 'thump-thump-thump' when partly attenuated by closed car windows or your neighbour's too-thin walls. Only the low frequencies carry through the structure, higher frequencies are easily attenuated.

A model-making friend of mine had an audio module fitted to one of his model railway locos, which even included the sounds of the fireman's shovel. Considering this loco was being viewed on his layout at a scale distance of several hundred metres, though, the relatively high frequency scraping sound would not, in reality, be heard at all.

What has all this got to do with model boats? Well, large ships wouldn't be heard either if spotted at the same scale distance we'd typically view models of them from on our local boating ponds/lakes. As a 1:200 model, the ship in Photo 1 would, at 15 metres, quite obviously not be heard. The craft in **Photo 2**, modelled at, say, a scale of 1:32 would also be inaudible at 500 metres. All that could be heard of the vessel in **Photo 3** at 150 metres would be the wash and (maybe) a low rumble. Smaller craft would be heard, but only in a muffled way. Sound is

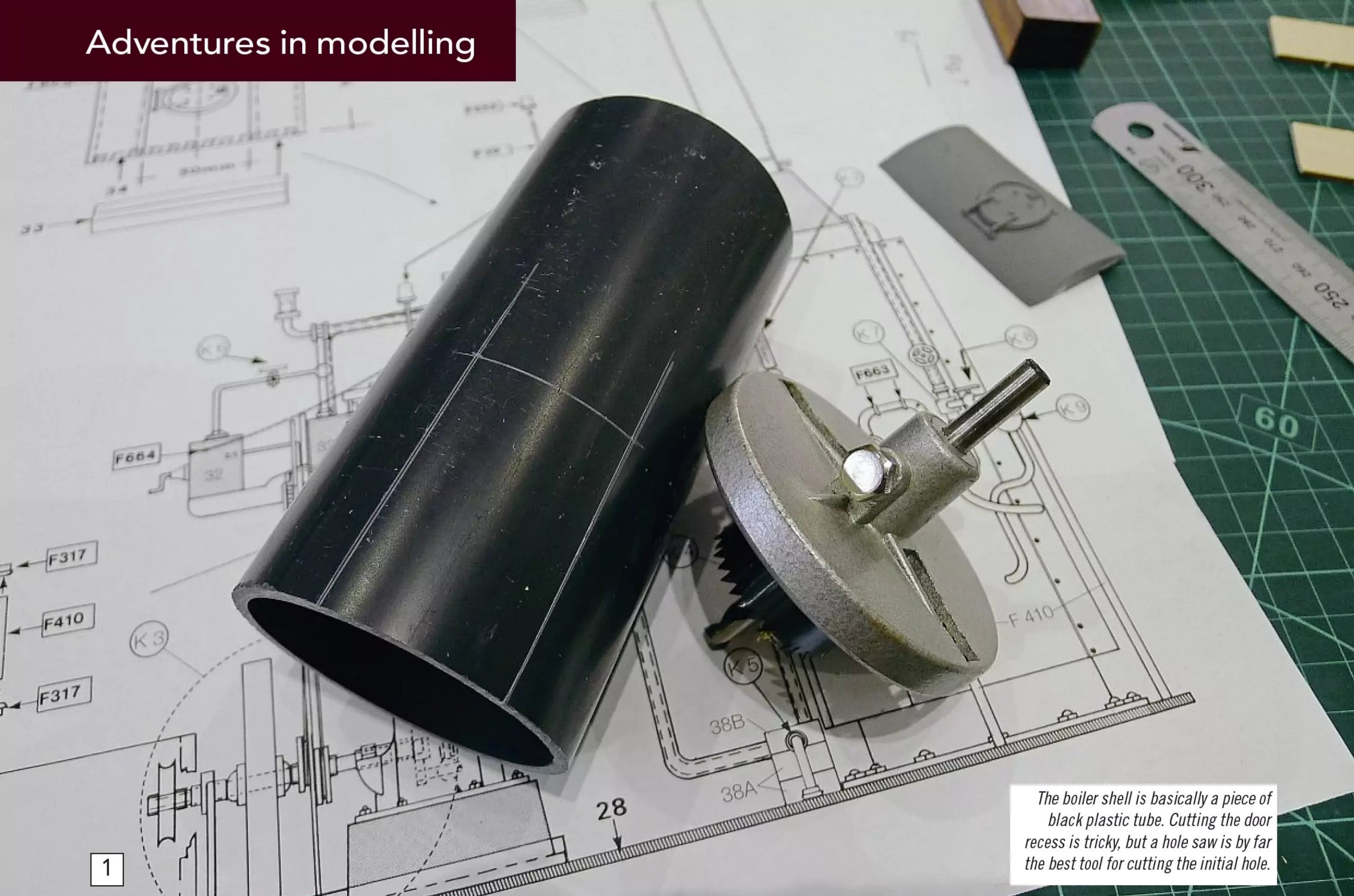
so easy to over-do. The boat in Photo 4 was obviously going nowhere, but this illustrates that a 'sound card' may only be relevant for large scale craft viewed at reasonably close quarters.

I remember a comment in the model railway press by one railway modeller: "There is only so much of the sound of a 3000 hp diesel idling in the back bedroom that one can tolerate!" Clearly, when it comes to sound, less is more, and please keep the frequencies and volume down low!

Scale speed

Finally, a brief comment on scale speed. This can be easily calculated, but there is a problem! The viscosity of water is a constant, irrespective of scale, which means our models are 'ploughing' through a 'thicker' more viscous medium than their 12-inch to 1ft prototypes. The larger the scale model, the greater the discrepancy. A 1:8 model may be equivalent to the full-size craft in something approaching treacle! All we model boaters can hope for is something approaching a scale wash.

Plenty to think about for those seeking ultimate authenticity! ●

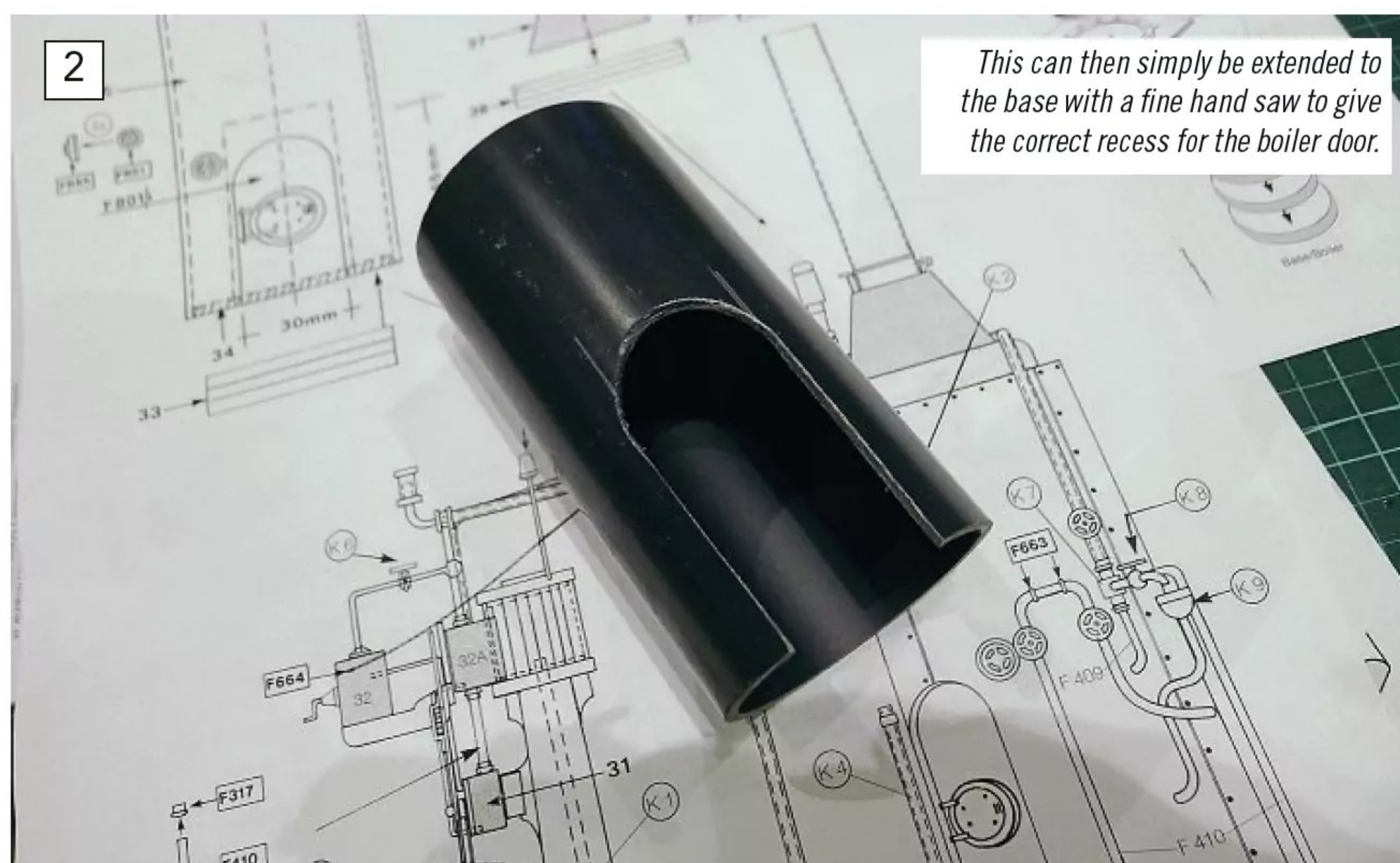


The boiler shell is basically a piece of black plastic tube. Cutting the door recess is tricky, but a hole saw is by far the best tool for cutting the initial hole.

Billing Boats' African Queen

Part two

Richard Simpson completes his build review of this 'Advanced Beginner' kit...



This can then simply be extended to the base with a fine hand saw to give the correct recess for the boiler door.

Having looked at how the hull for African Queen is put together last month, this month the focus will be the installation of the steam plant and the fitting of all the remaining internal bits and pieces. The steam plant comes on its own base, so can very conveniently be assembled outside of the model and then dropped into place once complete. I tackled this in three parts: the boiler, the engine, and finally, all the pipework and fittings.

The boiler

The boiler is nothing more complex than a multimedia kit. The body is a section of pre-cut plastic tube with wooden parts added to it, including the pre-shaped conical top and brass detailing. Copper wire is supplied to make a couple of the parts, such as the hinge pin on the fold down funnel bracket and the banding around the base of the funnel, but



The ply inserts for the top and bottom needed a little reducing to get a good fit and they were dressed up when the glue had set. Two-part epoxy was used for these parts.

“It’s important to get this right, as failure to do so will make fitting the pipework more difficult”

personally I found this too thin to work with. I eventually gave up and used some of my own slightly thicker stock, which made things significantly easier.

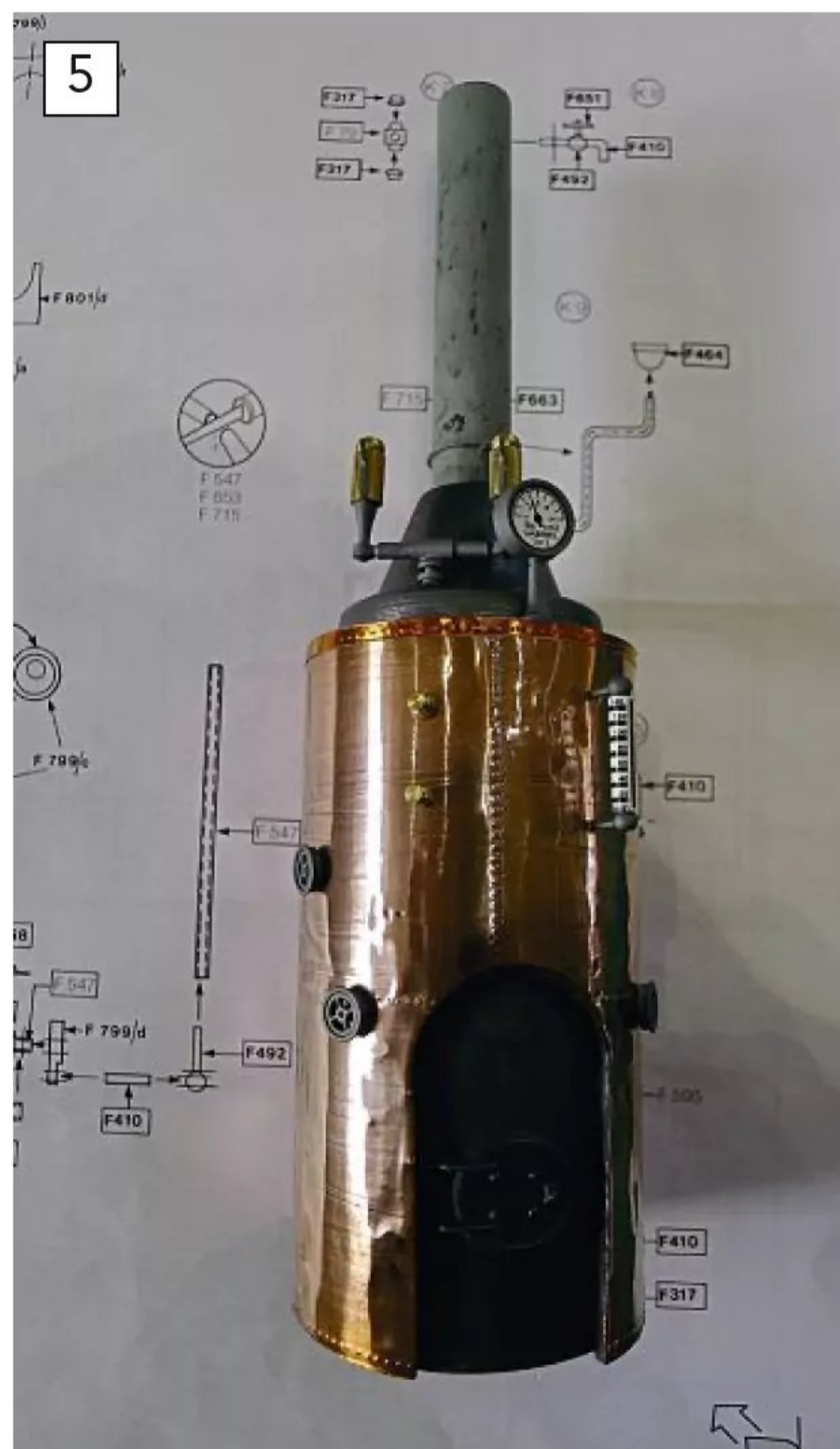
Working out exactly where some of the bits and pieces are supposed to go takes some time, and it can take a while to get everything aligned correctly, too. It’s important to get this right though, as failure to do so will make fitting the pipework more difficult as well. The written instructions give very little assistance with this part of the build, so all the various drawings and pictures must be studied very carefully.

I began work on the main shell by making an opening in a piece of black plastic tubing using a hole saw of the correct diameter, before drilling through at the correct height for the top of the boiler door recess (see **Photo 1**). I then cut downwards with a saw to create the shape of my boiler door recess (see **Photo 2**). This was then filled with the insert piece to give the door detail. The ply inserts for the top and base were sanded to fit and glued in place (see **Photo 3**). The cladding was the supplied copper sheeting, glued around the outside of the boiler and then trimmed away from the door recess (see **Photo 4**).

One thing I failed to note from the drawings was that the supplied pile of panel pins was supposed to be used to make the riveting detail. Because I missed this, I detailed myself by running a ponce wheel along the edge of a piece of copper, cutting the strip off and gluing it to the boiler as a cladding butt joint. I also ran the ponce wheel over the rear face of the copper to



Once the copper cladding had been wrapped around the boiler and the epoxy cured, the recess could be carefully trimmed by running the blade along the edge of the plastic.



Study all the drawings carefully for the location of the various fixtures and fittings.

simulate rivet runs. The conical top was built up with the hinge detail and funnel, painted with Humbrol Metalkote gunmetal and a little weathering was undertaken (see **Photo 5**). With the brass bits and pieces added, I decided that the boiler could look a little bit more realistic, so I painted bare metal areas up with Humbrol Metalkote paint and applied a wash over the entire boiler, followed by light use of a few pigments. The boiler base was glued onto the deck insert and the bolt heads were enhanced with paint and pigments, while the funnel was given a paint chipping treatment and a wash. The complete boiler was then set to one side prior to final assembly (see **Photo 6**).

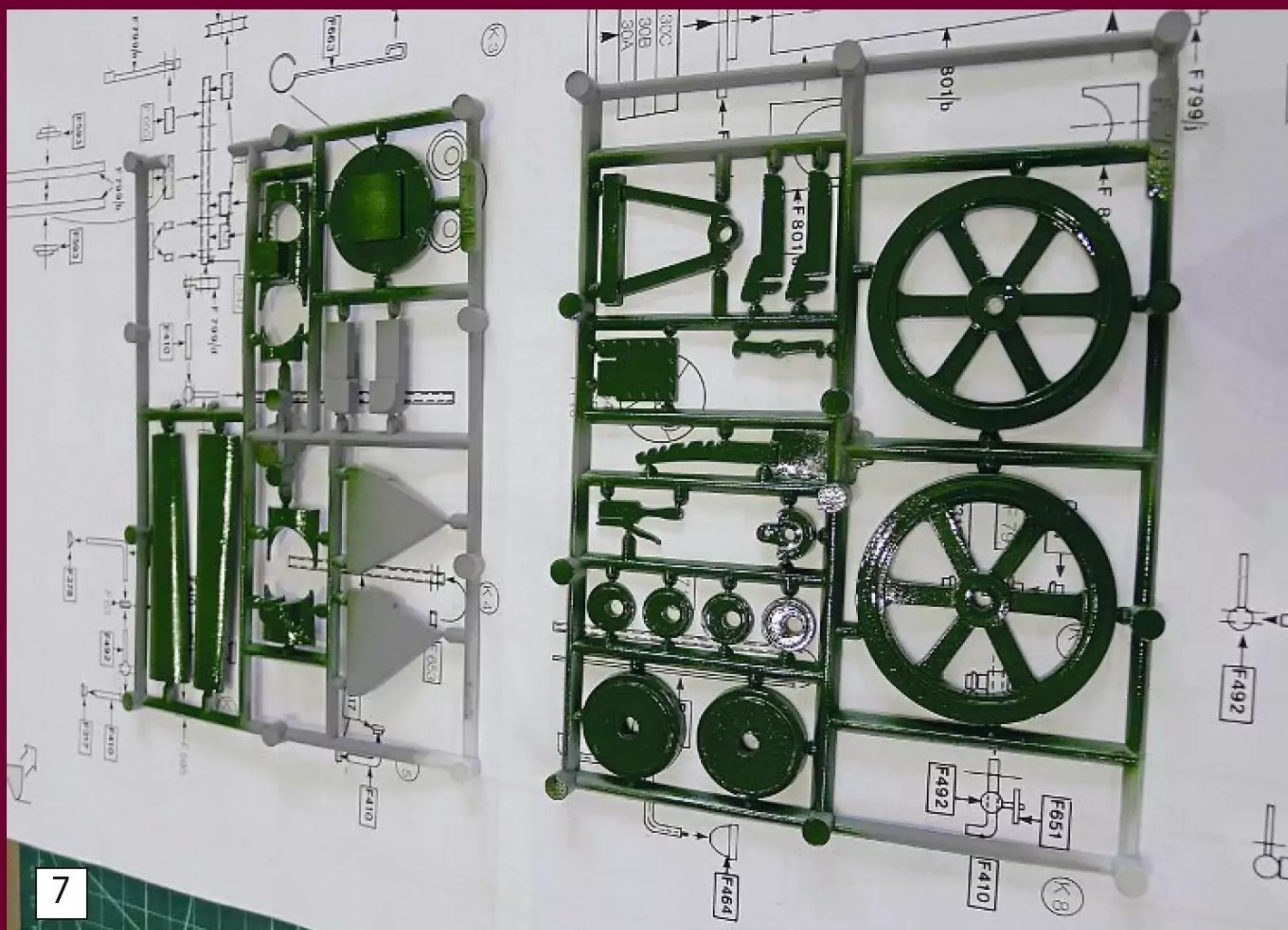


The finished boiler, with a little weathering for added realism. All paints, washes and pigments used were from the Humbrol range.

The engine

The engine was, again, basically a multi-media kit with a polystyrene body (or entablature) and flywheel, laminated wooden bits from which to make up blocks, and a crankshaft made up of an internal brass tube and an external brass tube (cut to short lengths) to mount the various fittings and detailing from brass stock parts. I decided to make the engine in two separate parts: the entablature unit and the running gear (or crankshaft), piston rod, flywheel and bearing assembly. Having done so, the two parts would then be brought together, and detailing added.

The entablature was fairly straightforward,



7 A quick and easy start way to start the finish is to airbrush all the parts while they are on their sprues. This also gave Richard the opportunity to test the Humbrol enamel in his airbrush. This, he is happy to report, went on very well, gave good coverage and resulted in a superb finish.

“By far and away the best tool for this job is a circular saw”

being basically a polystyrene kit. There were no locating lugs though, so everything had to be very carefully assembled, ensuring alignment was taken care of and good strong joints were formed. To facilitate this, the parts were all airbrushed on the sprue, firstly with Humbrol primer and then Humbrol green enamel (see **Photo 7**), so before assembly this paint had to be scraped away from the joint faces (see **Photo 8**). The internal painting was done by brush, and the attachment points to the sprue were all touched up. The valve chest was simply laminated ply, so was glued together with PVA before sitting it on the brackets with two-part epoxy. Once the assembly was complete, with all the green parts brought together, it was put to one side (see **Photo 9**).

The crankshaft assembly proved tricky, and I tripped up here. I had already cut the tube material for the canvas awning stays (produced from same material as used for the crankshaft), and I used the drawing to determine the height of these awning stays. Unfortunately, though, I found I didn't have a long enough piece left to make the crankshaft. Oops! What I needed was two tubes that slid over each other's respective diameters, which, very luckily, I had in my steam fittings stash. They were, however, copper. Never mind, it was all going to be painted anyway.

The crankshaft consists of a central internal tube with various external sections of tube that slide over the outside. These then mount things such as the flywheel, eccentrics and the bearing. The idea of this arrangement is that you can build the engine to rotate by using another slow speed motor. There

is a pulley on the end of the crankshaft and an included drive belt to enable this to be arranged. I decided not to go down this path but to leave the engine as a static piece. The crucial aspect of building the crankshaft is cutting the outer tube perfectly square, to precisely the correct length and with no burr internally or externally on the cuts. This is not an easy thing to achieve. Sawing and filing might be possible, but you would be doing well to file the ends perfectly square while maintaining the required length, and most other cutting tools would leave a burr. By far and away the best tool for this job is a circular saw.

I have mentioned my Proxxon KS230 before, but if you are in any way serious about any form of modelling, I would highly recommend buying yourself one. I know we're talking about a big outlay, but you will have this for life and the cuts it produces and the accuracy it can achieve are way above anything you could hope for with hand tools. With this job it really came into its own. As the standard blade is suitable for non-ferrous metal cutting as well as wood, I simply needed to run the tube through (see **Photo 10**) and finish off with a gentle rub on some fine wet and dry paper. The sleeves I produced slid perfectly over the main internal crankshaft and all the sleeves sat together with hardly a line visible (see **Photo 11**). After this, it was just a case of assembling the various parts, such as the flywheel, the eccentric valve rods, crank and piston rod and the bearing, onto the shaft. I then applied various metallic paints before adding to the entablature. We have an engine! (see **Photo 12**)



8 Standard plastic kit practice is to remove the paint where the parts are to be glued, otherwise the glue cannot dissolve the plastic in order to create a bond.



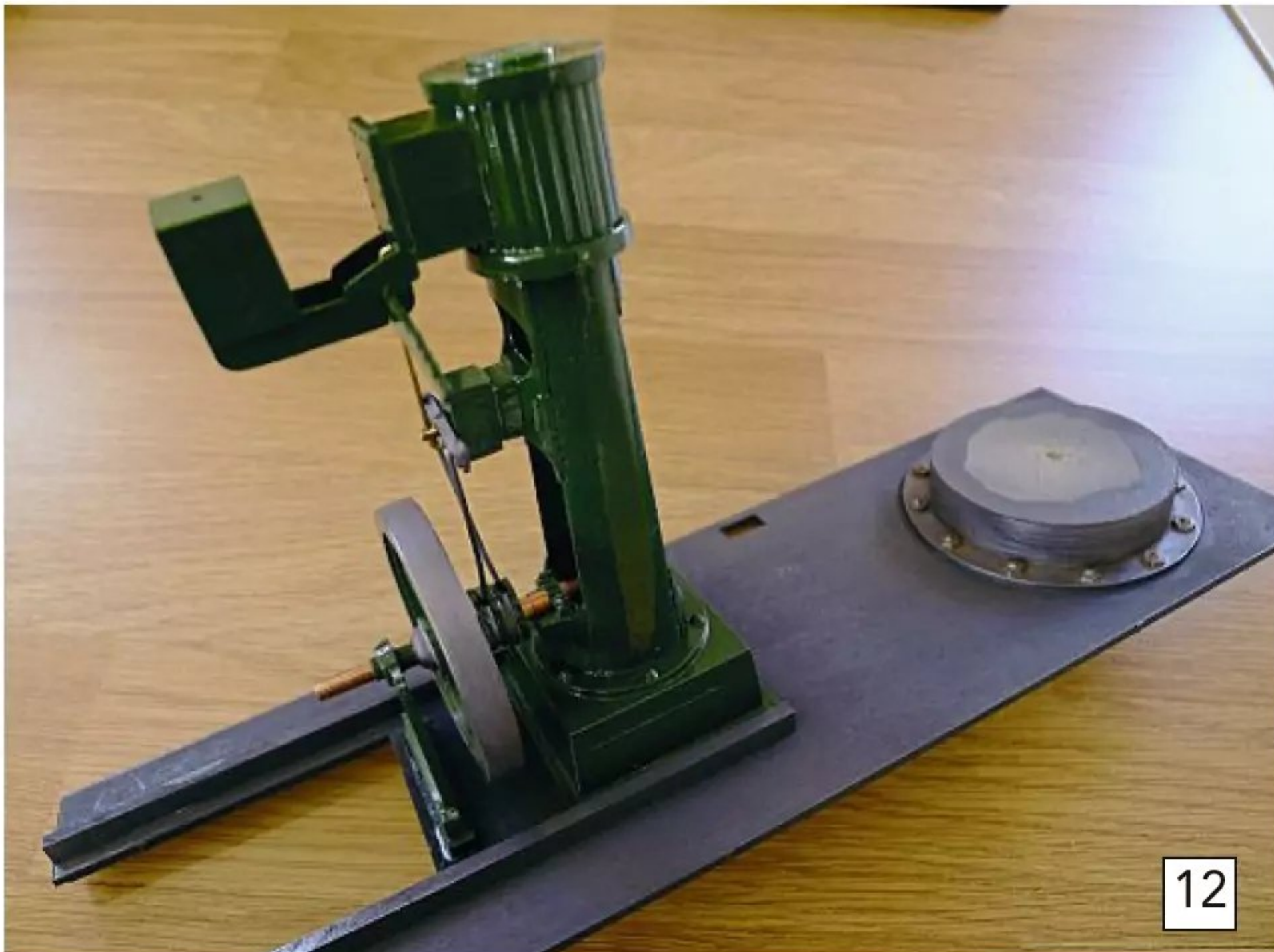
9 The completed engine entablature. The valve chest and other parts, along with the engine base, are laminated ply pieces and the cylinder cover is a supplied brass corrugated tube.



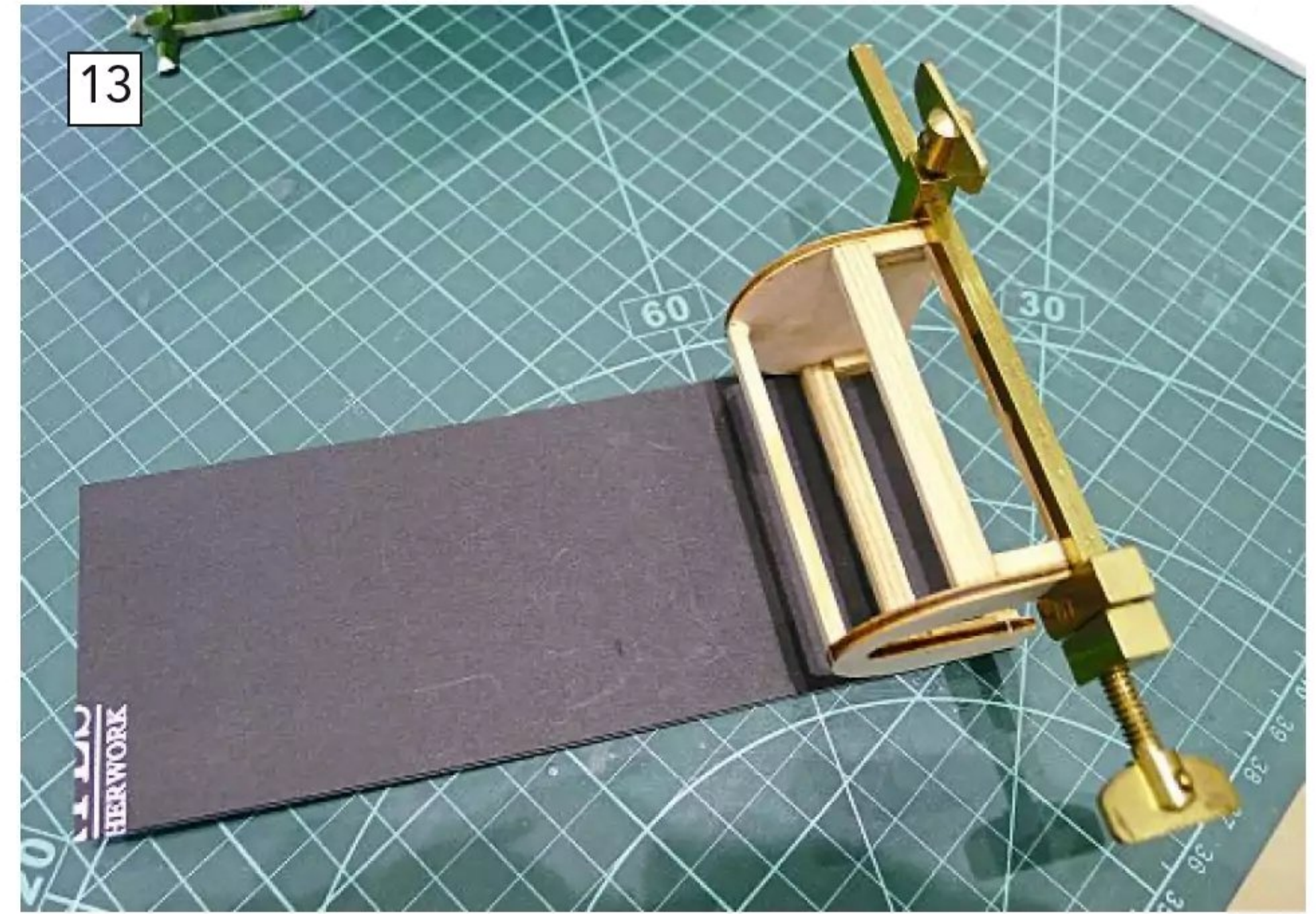
10 The best way to cut non-ferrous metal tubing to give a perfectly square cut and no burr is with a suitable blade in either a band saw or a circular saw. Richard's Proxxon KS230 did this job superbly.



11 The completed running gear with flywheel, valve eccentrics, bearing and crank all assembled onto the crankshaft. The flywheel was dressed up in the lathe for a perfect surface.



Final assembly of the engine on the base between the two bearers. Note the hole cut for the on-off switch and the boiler base in place.



The motor cover used the kit ends but with some stiffening beams for a little more strength. The edge was glued before rolling the frame over, gluing internally and, finally, trimming.

Steam plant assembly

Having the boiler and engine now built, the next step was to put them both together onto the wooden deck insert piece. One thing I particularly like about this model is that all the internal decks simply sit in place and so remain removeable for the easiest possible access to the electronics. A convenience I decided to add was easy access to the on-off switch on the speed controller, as I didn't want to have to dismantle the model to switch it on or off, or to charge the battery. So, I purchased a battery with a separate charging lead that could also be accessed with the decks fitted. The switch was mounted onto one of the frame beams and a neat access hole was filed into the steam plant base. Now neatly tucked away at the side, it is hardly noticeable and yet makes access easy and convenient.

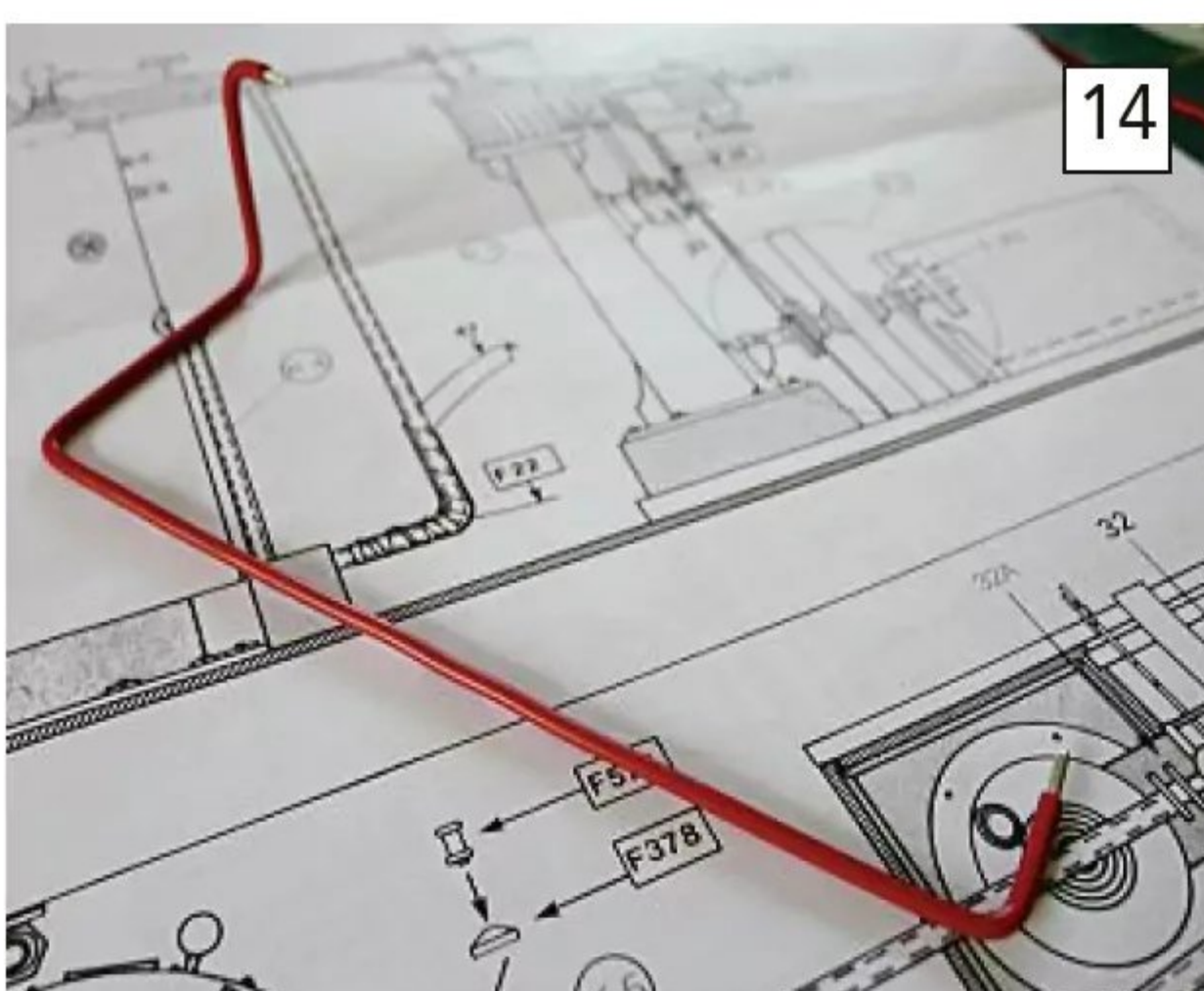
The boiler was glued down to the plinth on the ply base and the engine was also glued down, taking care to ensure that everything aligned and was in the correct position for the motor cover. The motor cover was tackled first and consists of the two supplied end pieces which I joined together with some substantial pine beams. These beams gave a strong backing for a cardboard cover that I glued along one side edge; glue set, this was rolled over, clamped in place and glued internally (see **Photo 13**). The resulting

strong but still light structure was then given a couple of coats of Humbrol Metalkote gunmetal. It was located on the base by a couple of beams that were also extended to form a frame around the engine. With the main parts in place, it was, therefore, time to turn my attention to the pipework.

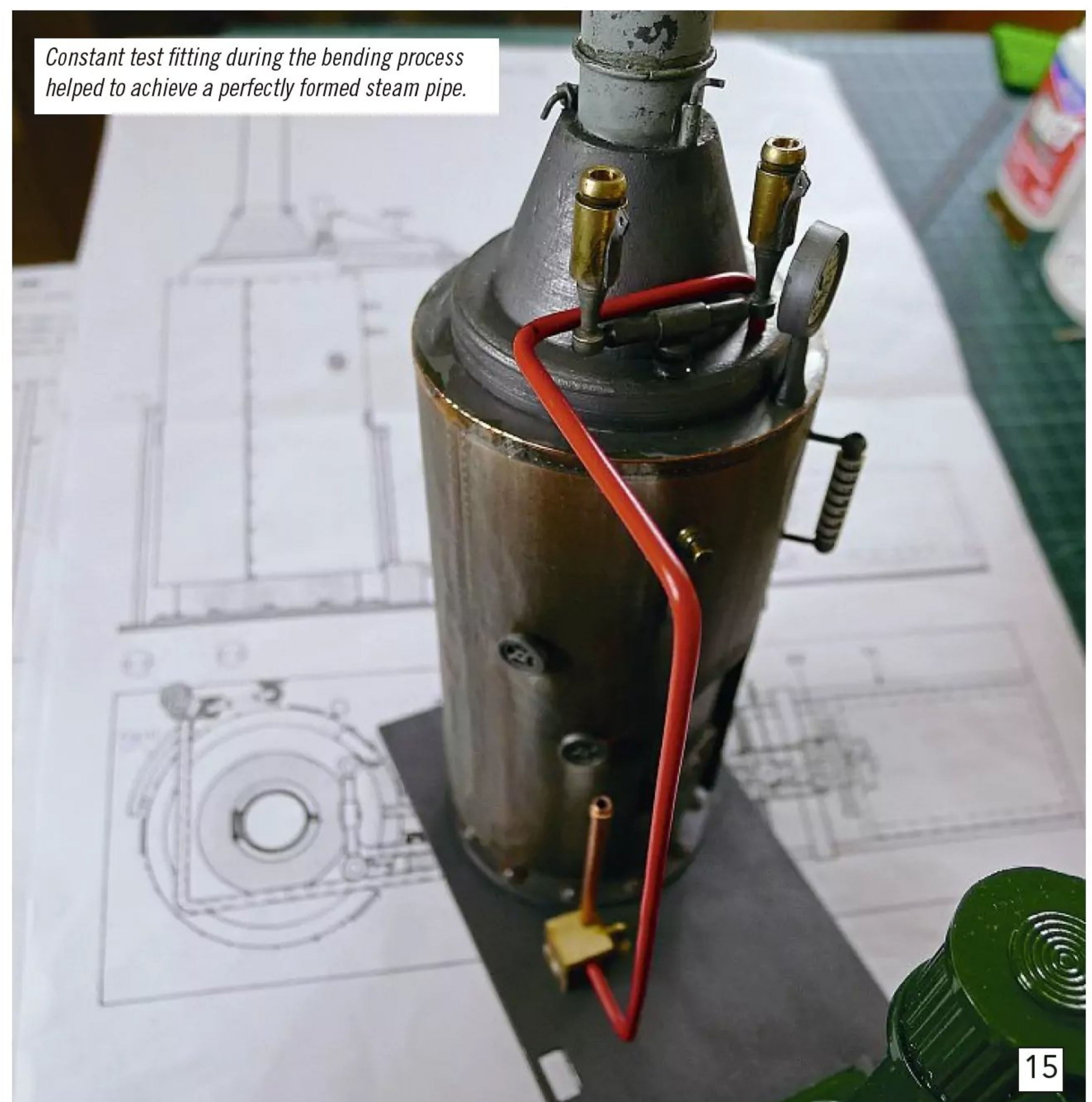
The main steam pipes are made from the supplied single core electrical cable, so my first job was to spend some time removing any kinks and getting it all nice and straight. I then removed a little bit of the plastic sheath

to expose the core and the various parts of the plant drilled to suit the diameter of the core. The bending was all done by hand, referring to the supplied plant plan (see **Photo 14**). It was tricky identifying exactly where the pipes needed to go, but careful studying of the drawing helped greatly, along with frequent pauses to check the fit (see **Photo 15**). Once you have the three main steam pipes made you will find you have just a very short length of cable left. There is no margin for error here.

"There is no margin for error here..."



The pipework was all done from the drawing. It bends easily, but a right-hand bend in the wrong place would be difficult to correct. Care and frequent trial fitting gave good results.



Constant test fitting during the bending process helped to achieve a perfectly formed steam pipe.



The cloth supplied for the lagging is a very loose weave so needs to be handled carefully to prevent excessive fraying. Care and patience paid off. Don't worry about the few stray strands at this stage.

"This kit would serve as an excellent 'build together' teaching project and allow a more experienced modeller to pass on methods, techniques and skills to a younger family member"



Richard is never a great fan of anything bright and white, so the lagging was given a heavily thinned down wash with Humbrol enamel washes.

With the pipes made, the next step was the lagging. The instructions indicate that you cut the supplied cloth into 1cm widths, but this gave quite a thick covering that I didn't like. I therefore decided to cut mine into 5mm widths. Tacking the end with a spot of cyanoacrylate, the cloth was wound carefully round the pipe. A tip here is not to handle the cloth too much or too firmly, as the edges fray very easily. That said, don't worry about the fraying that does happen, as this can be dealt with later. Once the lagging is fitted, the end can again be secured with a spot of cyano glue (see **Photo 16**).

Before I did anything else, my lagging was then given a treatment of brown and black washes, heavily thinned down to around 30% wash to 70% thinners, (see **Photo 17**). Finally, and only after I'd allowed a few days for this wash to thoroughly dry, I dealt with those few stray threads, simply by flicking a flame over the surface to burn them off.

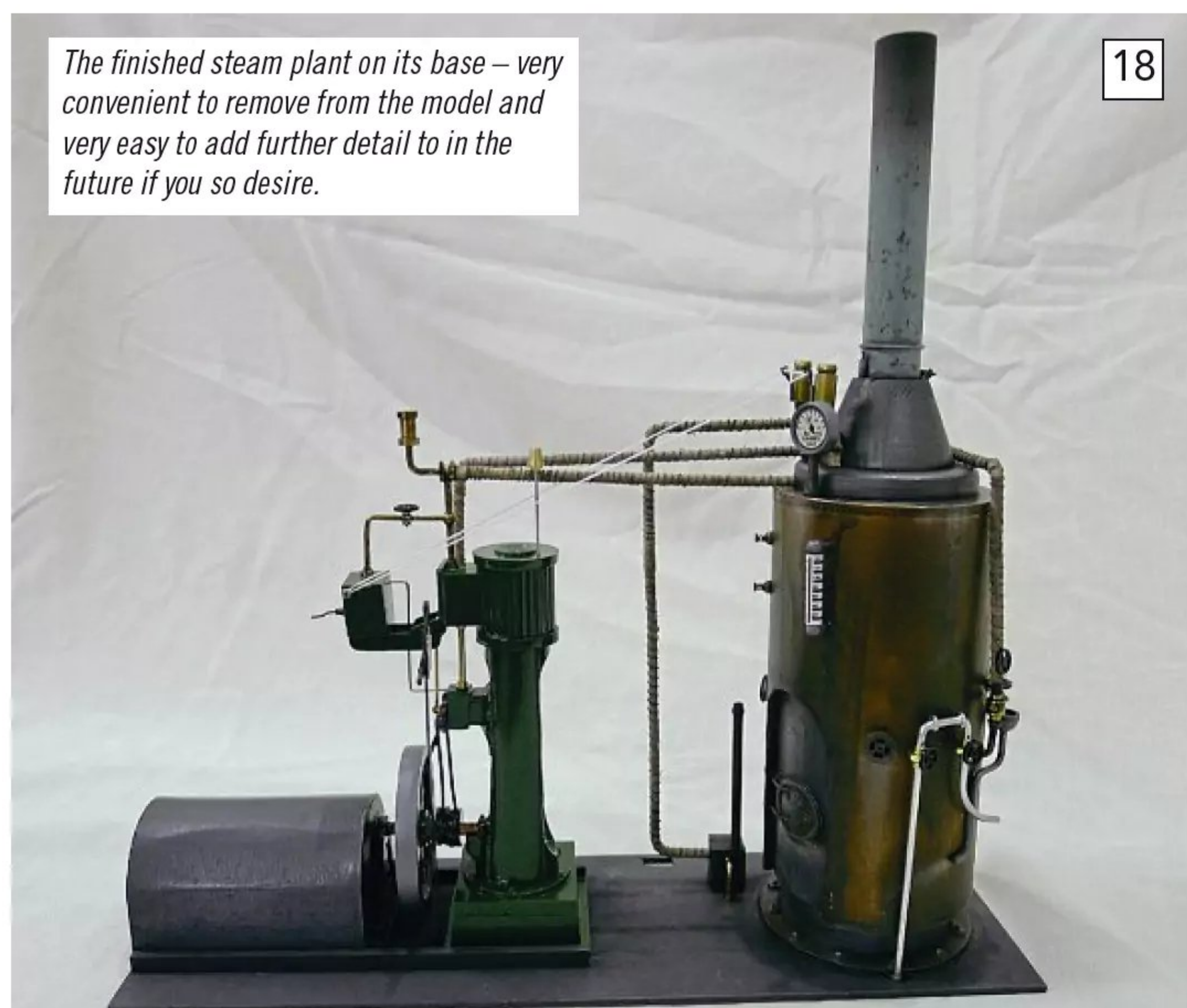
In accordance with the drawing provided, the remaining pipework was bent from the supplied brass rod and all the brass bits and pieces were assembled ahead of being glued to the plant. Most of the fittings were simply glued together, wherever possible using the brass rod to give a little strength. The final assembly was to glue the steam pipes, other pipes, fittings and fixtures in place and then finish off with silver paint for the condensate and drainpipes. I applied a heavier wash over all the brass fittings to give them a patina, while I used a light brown wash over the entire engine. The base I painted with Humbrol Metalkote gunmetal, and a couple of safety valve cords were added (see **Photos 18 & 19**).

Final details

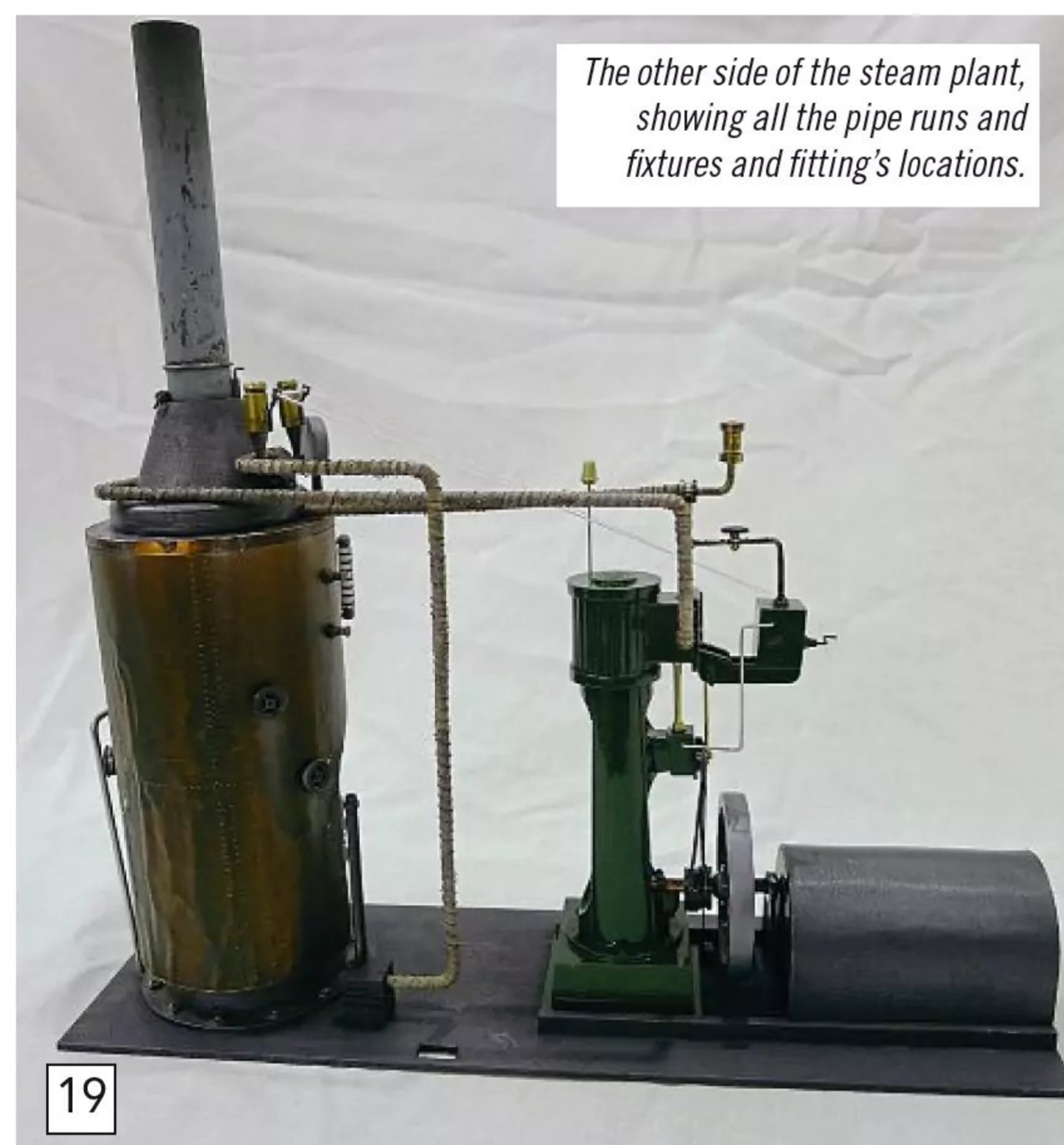
The accessories provided, such as the mast and flag, the gin cases and the gas bottles, all add character to the model. For this review,

I built mine according to the instructions so you can see the result, but I'm sure most of you who decide to build this kit will want to add to the detailing. I built the wood bunker as a separate item to enable easy removal, with a false base so that my charging cable will be accessible without having to remove the decks (see **Photos 20 & 21**).

The awning supports consist basically of four uprights, sat in sockets on the deck, with a bent brass rod located in the tops of the supports. This brass rod needs to be carefully shaped into a series of bends to produce the awning rails. The uprights had to sit on a slightly sloped deck, which would have stuck out at an odd angle had I not done something. On the prototype model the sockets on the deck were glued at an angle, which left an unsightly gap on the outside edge, which I didn't like. My solution was to glue the sockets flat and bend the end of the support to achieve an upright attitude.



The finished steam plant on its base – very convenient to remove from the model and very easy to add further detail to in the future if you so desire.



The other side of the steam plant, showing all the pipe runs and fixtures and fitting's locations.



20

Richard didn't want the bunker glued to the deck, as this would make removing the deck a lot trickier. He also wanted easy access to the charging cable, and a false bottom made this an easy arrangement.



21

The false bottom was then decorated with a mixture of the kit supplied white wood and logs cut from a garden twig to make up the fuel.

The box top picture and the plans all show a red and white striped awning with a scalloped edge. I was a little concerned that hemming a scalloped edge was going to be very difficult, plus, having looked at lots of stills from the movie, I couldn't find any that included an awning. I decided therefore to go for a plain one and to hand its creation over to my great-niece, who is a bit of a dab hand with a sewing machine. I did her a scale sketch to work from, suggested the process and left it with her. She did a cracking job! The awning all slotted together perfectly and really looks the part (see **Photo 22**).

Conclusions

So, what are my final thoughts on this kit? Well, I agree with Billing Boats that this is not really a beginner's kit but more suitable for an 'Advanced Beginner'. Dealing with vac formed plastic is very tricky and needs a lot of careful thought and pre-planning before starting to glue or cut. Glues need to be tested before committing to the kit, and each process needs to be thought through, giving suitable allowance for glue drying times and how long you anticipate assembly and clamping will take.

Having said that, I do think this kit would serve as an excellent 'build together' teaching project and allow a more experienced modeller to pass on methods, techniques and skills to a younger family member (see **Photo 23**).

When the kit finally makes it to the water it is stable and sits high, so it is nice and safe, as well as being slow but steady to operate and manoeuvre. One slightly odd anomaly was that I found my model showed almost no ability to go astern. I would suggest a replacement brass propeller might better do the job (see **Photos 24 & 25**).

If I were making this model for myself (rather than for build review purposes) I would certainly add a lot more detail. It is crying out for figures, and I would treat it to a fairly heavy weathering process to try to get it to look a lot closer to the movie version. Consequently, beyond its use as a training tool, there is huge scope and many hours of enjoyment for the more experienced modeller. I would, therefore, highly recommend this kit for both purposes. ●



22

The awning beautifully machined by Miss Willow Ollier for Richard's build. It makes life so much easier if you have a skilled machinist in the family!



23

Almost 'out of the box' the model builds into a handsome small boat with bags of character and even more potential for figures, further detailing and weathering.



24

On the water the model is very stable, with all the weight right down in the bottom. Steering is perfectly acceptable, and Richard's steering servo and fishing line linkages worked out well.



25

Forwards motion was sluggish, although perhaps just right for a beginner, but astern was non-existent. A close study of the propeller revealed almost zero pitch at the tips, so a replacement propeller Richard is certain will transform the performance.

FAIREY HUNTSMAN



23" 47"



WIDE SELECTION OF FITTINGS



FAIREY HUNTRESS 34"



PILOT BOAT 34" NOW IN STOCK

Bring your plans to life with our
Plan Tracing, CNC & Laser cutting service

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

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

Fancy a Sail in the North West?

Come and meet the **North West Scale Model Boat Club**

We have friendly and knowledgeable members

We sail all sorts of boats such as Electric, Steam, Solar, and Wind power

Sorry no ic engines. Our water is located on the border of Bolton and Chorley.

We meet on Wednesdays and Sundays.



Members from Bolton, Burnley, Chorley, Darwin, Manchester, Preston and Wigan. To name but a few!

Website: www.northwestscalemodelboatclub.com

Or contact the Chairman, Dave on 07810 101416

Blackpool Model Show 2023

October 14-15, Norbreck Castle Hotel, Blackpool

***Boats, trucks, tanks, rock-crawlers, cars & loads more
Indoor boat pool, truck arena, tank battleground
Lots of traders & exhibitors.***

Easy access, free parking.

Advance tickets £7.00 for 1 day, £11.00 for weekend pass

On the door £8.00 for 1 day, £12.00 for weekend pass

**For more information & advance tickets visit
www.blackpoolmodelshow.co.uk
or call 01248 719353**

**Discount accommodation
packages also available.**

***Celebrating 20 years of quality & service, Component-Shop 2003-2023
Come & see us in Blackpool for loads of special
offers, or call us for your free catalogue.***

01248 719353

www.componentshop.co.uk



PS Waverley.

1



PADDLING IN THE DEEP END

Warminster MBC member **Mike Payne** shares the discoveries made and lessons learnt while working on an ambitious project that didn't quite go according to plan...

Reading the PS *Bilsdale* build series by Colin Bishop in the August/September 2023 issues of *Model Boats* shook the dust out of the old brainbox and reminded me of a particular modelling experience from my past.

I would never claim to be a good scratch builder, pragmatic I hope though, and I have built some successful boats, a few of which have appeared in past editions of *Model Boats*. In this instance, however, I ventured into the largely unknown (at least to me at the time) and it did not have the best outcome – something I will expand upon below. That said, was it worth the effort? Of course, it was! The project kept me active, and I learnt a lot, details of which I will share with you here.

Ticket to ride

The story begins back in the early 1980s, when I was still a long-term lone wolf model builder (*i.e.*, before I joined a model boat club and could benefit from drawing upon the experience of others). Although I can no longer remember the exact date, it was on one damp day while walking toward the pier at Clevedon on the Severn estuary that PS *Waverley* hove into sight. For those not familiar with her, *Waverley* is the last remaining sea-going paddler, and this was the first time I has seen her in the flesh, as it were (see **Photo 1**).

Having obtained tickets to ride, a little later that day I found myself leaning on the observation rail looking down upon a spotless engine room (see **Photo 2**), completely mesmerised by the sight of gleaming triple expansion steam engine cylinders sighing away, great lumps of shiny steel and brass turning a gleaming propulsion shaft, with everything sliding and rotating to the sound of flowing water and the plaintive wheezing of what the ship's engineer assured me was the feed pump. Behind me a port through which the maelstrom that is the internals of a paddle box was (barely) visible.

We only went across the estuary to Wales and back but, before the excursion was even over, I knew I had to build her. Fortunately, rain showers had forced the few passengers that day into the saloon, allowing me to take a series of external pictures of the upper decks almost devoid of people. Perhaps it was a portent of things to come, though, that on our return, due to a particularly difficult combination of wind and tide, the vessel had an impressive and loud coming together with Clevedon pier.

I will return to the issues of manoeuvrability later – for now it's suffice to say that from quite early in paddler development, following some apparently spectacular accidents, UK transport regulations required both paddles be fixed to the same drive shaft and rotate together, thus making life much

more difficult for the helmsman, particularly when in close quarters with something solid. The singular exception, as mentioned by Mr Colin Bishop, being the Director Class diesel electric paddle tugs (circa 1957); these were designed with a very low profile and independently controlled paddles specifically to handle aircraft carriers with their large overhanging sponsons, especially in confined waters such as dockyards. I understand this exception required an explicit act of Parliament.

Work on *Waverley* begins

Plans for *Waverley* were duly purchased, and a build programme commenced. The plans as supplied would have produced a model too large and heavy for me to handle, and too big to fit in the car we had back then, so I scaled them down a bit. This initial flurry of enthusiasm slowly produced, after a lot of effort, a curvaceous clipper-style hull (see **Photo 3**), complete with a drive system and even illuminated windows, but without the upper superstructure, although I had started upon some of it. At some point my enthusiasm waned, until, that is, while on holiday in Switzerland I saw the gorgeous lake paddlers (see **Photo 4**, featuring the *Dampfschiff URI*) So, on my return to the UK, it was back to work at the build board until I had a watertight and operational hull to try out.

"I then fell into the worst trap a practical model maker can experience..."

Sizing up the paddles puzzle

Contractor's sea trials on a local river (see **Photo 5**) demonstrated clearly and decisively how successful I had been: let's just say I would have scored myself one out of ten. The hull floated alright but hardly moved, the paddles simply thrashing the water and frightening the fish.

It had to be something to do with the paddles, so I built a simple experimental hull of similar proportions (flat bottomed, slab sided and without paddle boxes) that would allow me to experiment with differing sizes and designs of paddle.

I then fell into the worst trap a practical model maker can experience. My obsession with research, experimentation and problem solving became more important than producing a finished article; as a result, I've never actually completed a paddler. I did, however, carry out lots of trials, covering various ideas, and I believe I have come up with a generic solution.

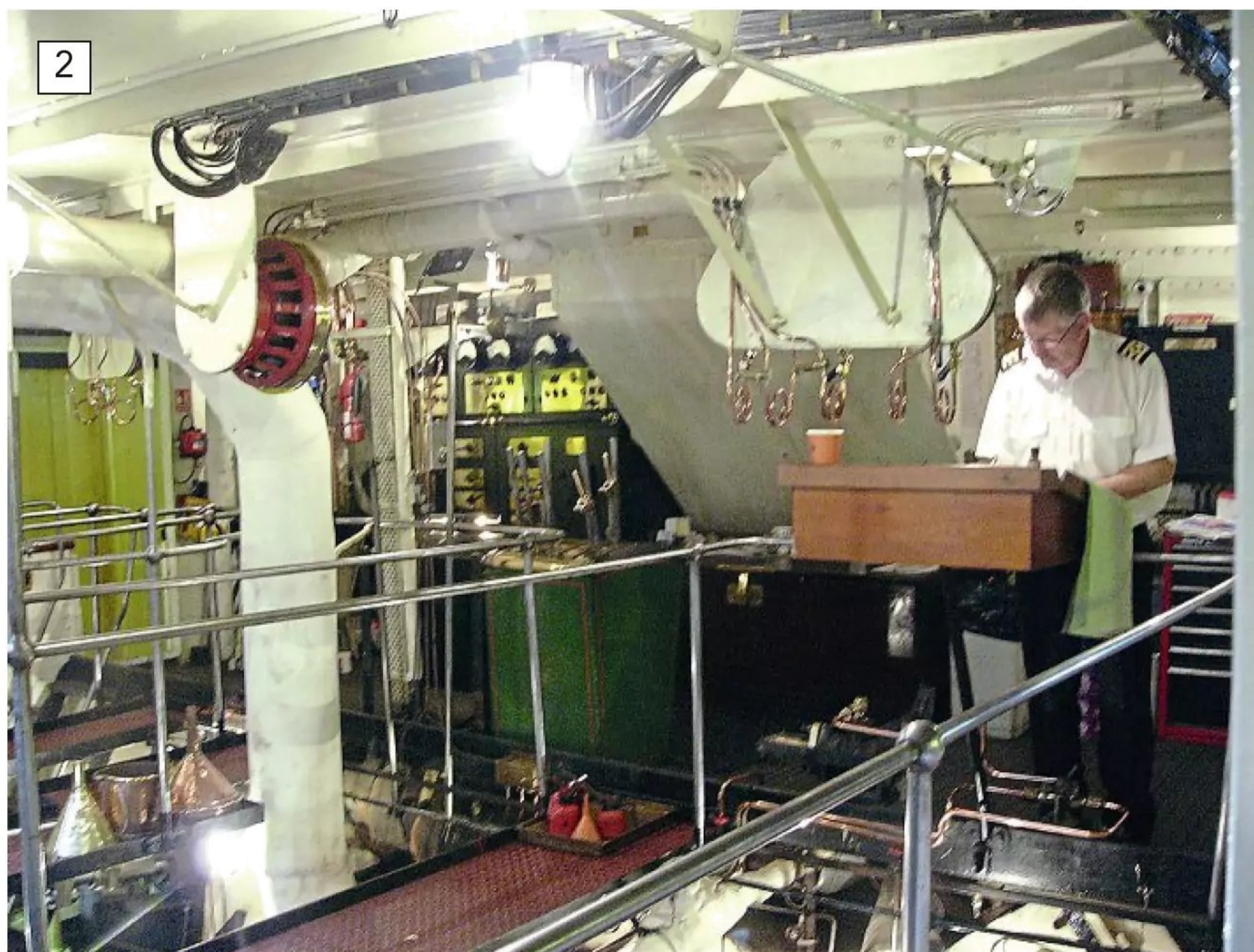
Paddle steamers have a fascination all of their own. Apart from early (1850s era) examples where clearly the transition from sail to power was a whole new experience for naval architects, a cursory examination will break down the full-size European side paddle ship designs into three fundamental shapes:

The long and slender hull with substantial main deck cabin accommodation and short paddle boxes, as typified by PS Waverley

The shorter but equally slender hull, with little upper work other than a bridge, funnel and short paddle boxes, as represented by PS Kingsweir Castle and tugs.

The multi-decked lake cruisers with their slim hulls but diamond shaped main deck plan, as characterised by Dampfschiff Stad Zurich (see **Photo 6**, taken from a seating plan published by the vessel's operator.)

The slightly scaled down from plan curvaceous clipper-style hull constructed by Mike.



PS Waverley's engine room.

The full-size design driver was maximum efficiency from a relatively low power engine.

To me a well-designed model is one which is readily transportable, can be easily handled and works reliably. In this case, bitter personal experience proved that I couldn't just downsize existing plans and build a successful paddler. It wasn't the fault of the plans – evidently there is a minimum size for a successful paddle drive. After a number of practical experiments, many failures, some excellent advice and a few pointers, though, I managed to pull together some rules of thumb that allowed me to produce a viable test model series. So, while clearly successful alternative solutions have been found by other builders, and none of what follows is set in stone, I hope these will prove food for thought if you're considering a paddler project of your own.

Overall, paddlers tend to be both long and wide, making them, as models, difficult to handle. A hull not more than 1.2 metres long and some 0.4 metres wide fits readily into most cars and is just about the limit for easy single-handed transportation on site. An all-up target weight not exceeding 2.5 kg works for me. I recommend you think light at all times, because manifestly miniature paddles are incapable of transmitting much force into the water. This also means it is pointless fitting powerful motors into these models.

Following up a kindly suggestion, my testing proved that paddle wheels with a diameter of 100 mm (4 in), a float width of 75 mm (3 in) and an immersed float area of 1935 sq mm (3 sq in) are about as small as I could get away with on open water with a light wind. These seem to be the minimum limits for a vessel of 2.5 kg. I have tried

"Bitter personal experience proved that I couldn't just downsize existing plans and build a successful paddler. It wasn't the fault of the plans – evidently there is a minimum size for a successful paddle drive"



4

Dampfschiff URI.



several smaller sizes, but they simply rotated and upset the water a bit; I now gather this is something to do with Reynolds Numbers, viscosity, etc, but if anyone actually knows, please get in touch via the Editor. I note that the design for Glynn Guest's paddle tug *Eccleshall* (circa 2014) has fixed blade paddle wheels of similar diameter but half the width, successfully driving a hull of half the length suggested above. Similarly, Colin Bishop's PS *Bilsdale* clearly operates successfully with 89 mm (3.5 in) diameter paddles, but for some reason mine did not.

The floats should just submerge in operation. The number of floats is open to debate, but too many and the water displaced by the first will seriously disrupt the flow around the next float in line. In my experiments, I used eight floats per wheel, and it worked. I suspect any number from five to nine would be equally effective.

Typically, full-size float widths appear to be some 33% (sea) or 50% (river) of the hull's beam. Admittedly, the number of designs I studied was quite low, so this data can't be relied upon as general design rule but will perhaps serve as a rough guide.

Several public arena comments suggest that, as a percentage of the power transferred into the water, the battery amps absorbed by a float feathering mechanism are significant in the smaller diameter wheels without providing a corresponding improvement in thrust. Simple fixed designs for the models mentioned in this article seem to be adequate, unless you want pure scale and/or are a top-class builder. Normal full-size paddle speeds are apparently about 60 rpm, but models must rotate faster, although speeds much above 300 rpm just led to cavitation, lots of froth and no push.

The perforations in the paddle box sides are not just for decoration; they're there to let air in, which will then fill any low-pressure areas generated by the paddles within the box, and to let excess water out. They are, therefore, essential, even in models.

For a working model without independent

paddle control the rudder area seemingly needs to be about 10% of the underwater hull area, much larger than would be the case with the real thing. As long as the water flow about the stern is reasonably smooth, it looks as if a wide rudder is more effective than a deep one. I notice a bow rudder appears on the original Model Maker Plans Service drawings for PS *Bilsdale*, an interesting option I have not trialed.

A very visible feature of modern paddlers is a good complement of passengers (see **Photos 1 & 4**). In the UK, 1:48 seems to be a common paddler scale and commercial figures are readily available in 1:43 scale (railway 7mm gauge). Possibly that is close enough. It depends how particular you are.

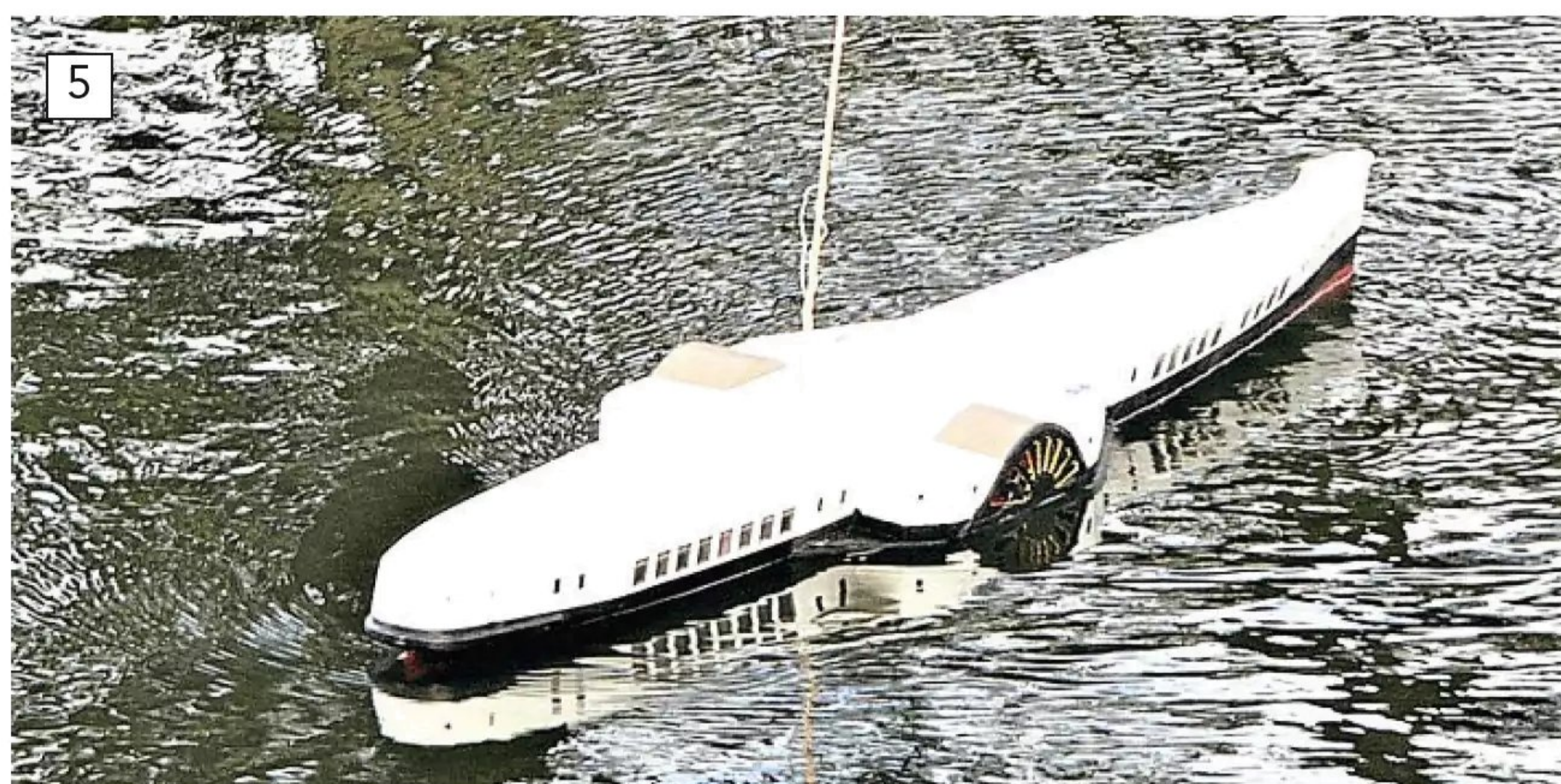
This leaves us with a working set of design rules but not yet with a design. That will be entirely up to you really. Given the experimental limits above for the minimum size of practical paddlewheels, with a full set of hull lines you should only need to scale

the plans accordingly and away you go. If, on the other hand, you only have photographs or perhaps the overall measurements you will need to make a few further assumptions about the hull shape.

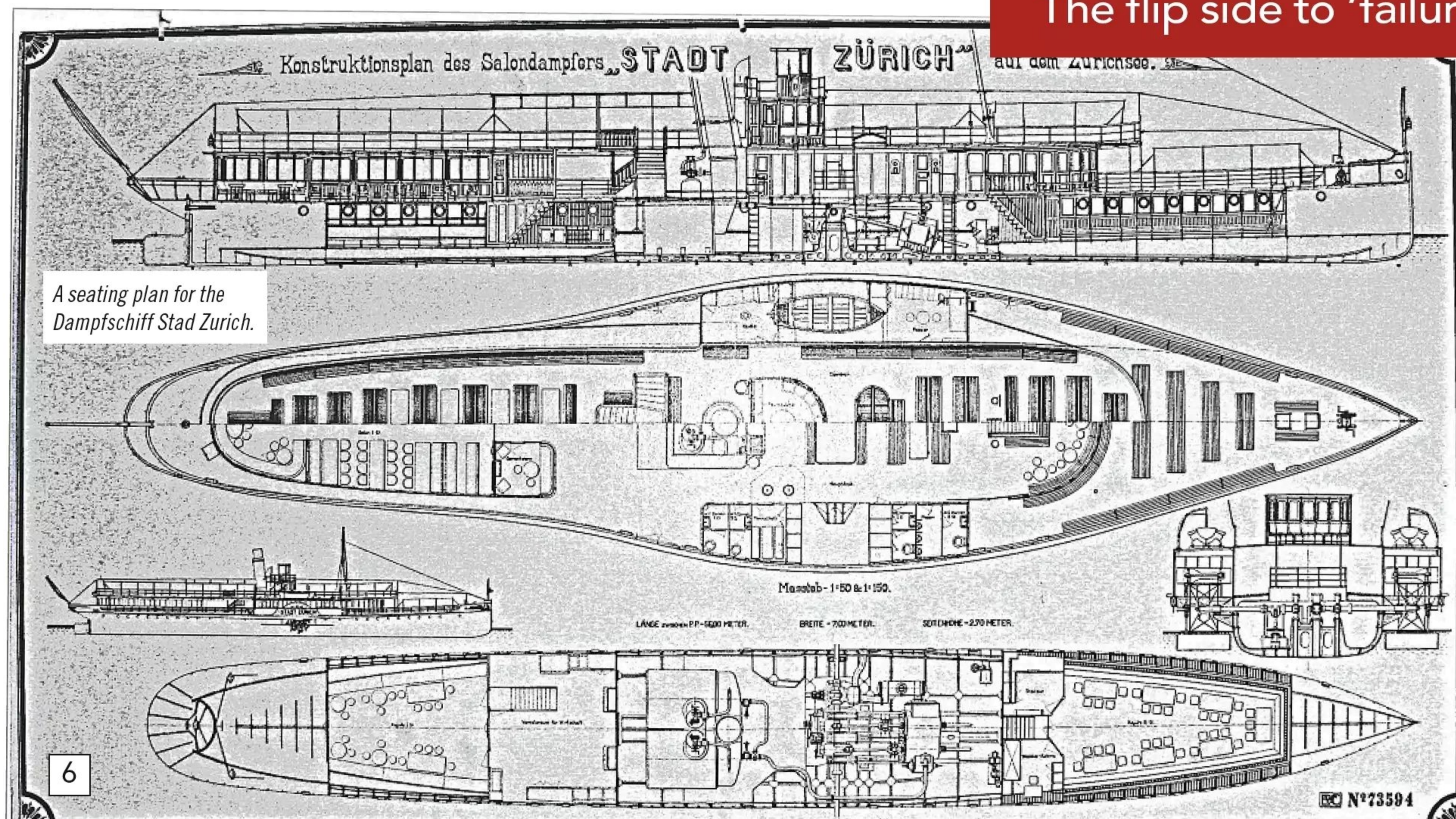
Paddler possibilities

I still have the hulls and a few survivors of the testing program in my bits pile somewhere, but for personal reasons I've moved on to a series of lifeboats that I am currently still progressing. This doesn't, however, stop my mind wandering back to the paddler challenge every now and again, particularly when an article appears in MB (Model Boats) demonstrating how successful others have been, or one appears on the water at Warminster. The emotions of envy or jealousy are not pretty; I will settle for admiration. So, before concluding, I will share a few other design thoughts, which are not backed by personal experience but seem to me to be a logical progression given advances in available technology.

"This may not be the most cost-effective option, but it does save on installation time and keeps down the weight/noise of gear boxes and/or belt drives"



Frustratingly, a contractor 'sea' trial on a river local to Mike saw his design do little more than thrash the water and frighten the fish!



A seating plan for the Dampfschiff Stad Zurich.

Propulsion

In the quest to keep things simple, if you decide to drive the paddles independently you could directly drive each with a small modern brushless motor – not chosen for their high speed and power, obviously, but for the fact that they can be smoothly controlled, delivering full power at very low rotational speeds. I used an Mtroniks Hydra 15A combo for a completely different purpose and was pleasantly surprised by just how slowly it could reliably be made to rotate. This may not be the most cost-effective option, but it does save on installation time and keeps down the weight/noise of gear boxes and/or belt drives. You may have to set up your transmitter and ESC with some care though, to avoid accidentally screwing the model into the lake.

Draft

Full-size paddlers are of shallow draft but many of the older model designs have deliberately increased drafts to allow for the weight of traditional build materials/methods, plus that of the then currently available propulsion, control and power supply components. The plans for PS Waverley, for example, clearly made this point within the modelling notes. All these factors are now considerably lighter, and to my mind there is no advantage in having to add dumb weight just to get a model down to its waterline. Design for lightness; it will pay dividends every time you lift the model. That said, consider the next section on stability carefully.

Stability

One thing I did find was that the shallow draft, long, slim hull rolls easily due to wave and/or wind action even if conventional bilge keels are fitted, lifting one paddle and burying the other, which obviously affects both drive efficiency and direction of travel. Wind driven leeway is also a significant issue

for designs with tall superstructures. If you are fully into scale then you have little option, but if not, I do wonder if a solution could be borrowed from our sailing colleagues...

A fin keel with bottom weight may, to be frank, appear a little ridiculous dangling below a motor-driven craft, without doubt raising comments from your fellow enthusiasts, but it will not be obvious afloat and there are some real advantages. Such an appendage will reduce roll, the deep weight significantly lowering the centre of gravity. The foil surface area will also resist rotation while not adding much to the hull friction. That same foil will reduce leeway and provide a pivot point, assisting steering accuracy. It also means you can build the hull to minimum weight and, if necessary, add or subtract weight on the foil mounted ballast relatively easily. Additionally, if the foil is removable, as is commonly the case on model schooners and sailing barges, it makes handling during transport lighter and storage easier. OK, the idea is far from conventional, but can you dispute its practicality?

As we are now some way 'outside the box' already, it may also be worth rethinking our traditional approach to building. Let's consider the potential build process for a Swiss lakes look-a-like: something multi decked with a lot of windage, both long and wide. Health and Safety alert: I suggest any pure scale modellers still with us move onto another article quickly, together with a strong mug of coffee (only kidding!). For example, the URI's superstructure is not quite as complex as it appears and yet the vessel seems to be top heavy. As a point of interest, there's a video on YouTube of a similar vessel apparently built to scale and looking very majestic, so it can be done – although in the footage it is being sailed on a swimming pool, not on an open lake.

For the moment, ignore the hull. Start on the superstructure block using, say, 1 mm rigid plastic sheet for the main structure,

much of it clear if you're going to have see-through windows. You could of course use a 3-D printer, but I am not sure if the result would be lighter. Why plastic? Well, it takes less weight of material (filler, paint, etc) to get a decent finish, is usually available in a multitude of thicknesses, and is easy to laminate, building in strength where you need it and lightness where you do not.

Gather all the mechanical bits: the paddles, rudder, battery, control system, cabling, passengers (if you are going to have them) and, of course, your fin keel – all those bits that add weight or put another way, will require the hull to have sufficient buoyancy to support them. Summate their weights, add this to the estimated weight of your hull, and you have your necessary displacement.

The hull outline is, of course, fixed, except for its depth, which you can now calculate. Common sense suggests that to protect the paddles, when the model, without its fin keel, is placed on a flat surface, the hull depth needs to be such that the paddles are just clear of that surface, or at least that protective bilge keels are fitted as a precaution.

I envisage the hull will wear the superstructure a little like a top hat. In the case of a vessel such as URI, much of the hull is largely masked by the superstructure, the remainder being underwater. So, if you accept the fin keel philosophy, the majority of the hull could be quite simply constructed, slab sided and flat bottomed even. The only need for ballast within the hull could be at extreme bow and stern to dampen any pitching.

Fin keel appeal

As I have explained, I am at present not in a position to follow up on this philosophy and would be delighted if someone else was minded to have a go. Perhaps you have already tried the fin keel approach? If so, please let the rest of us know how you got on.

Part
two

I.C. POWERBOATING BASIC BUILD

Derek Owen completes his beginner's guide to scratch building a very simple boat to get you started...

Last month I explained the build of the tub section for a keps 21 boat from a free online plan (simply Google 'keps freebie' to source this for yourself). This month we will continue with the sponsons for your boat.

Compared to the construction of the tub, the sponsons have a few more angles to cut. This part of the build, therefore, will take a little more time and care in order to get things right.

Cutting out the parts

Here, we will be using balsa as the main core material for the sponsons, although dense foam can also be used (the same principles outlined below can be applied if this is your preferred choice).

For ease, the shape can be cut from sheet balsa of 1/4-inch (around 6mm) thickness and your duplicate pieces can then be glued together (a 5-min epoxy will be fine for this task) in layers to achieve the desired thickness.

The ply skins also need to be cut (using



Cutting out shapes with a band saw.



Fine trimming of the cut out shapes.



All parts cut and laid out ready for the build.



Drilling boom tube holes.

either a fine cutting blade or a good craft knife) and drilled as required.

I recommend you then lay out all the pieces so that you can inspect them for accuracy and be sure you have everything ready for the build ahead.

As a little tip, when gluing the balsa and the skins with holes, I use a couple of spare or scrap pieces of tube the same diameter of the holes (around 12mm-ish in this case). Sliding the parts over the tubes will ensure

everything lines up!

You can now glue the ply side skins to your balsa (or dense foam) core, making sure to get the inner and outer skins correctly aligned for both left and right sponsons.

Fine block sanding comes next, to ensure the balsa matches the ply sides and is ready to receive your top and bottom skins. Always offer up the skins before gluing, as some small trim may be required. The top edge of each sponson will have a chamfer angle

along its side; notable when inspecting the inner and outer side skins. Hand tools, such as a small plane or surform???, can be used to trim this section. You will then need to tidy the trim up with a sanding block and 120 grit sandpaper to achieve the correct angle. Once happy, your thin angle strip can then be glued. A little final sanding will be required to remove any overhang of the skins once all is dry. Don't panic if some of your joints don't look perfect! Should you spot any gaps,



The scrap tubes used make sure everything lines up before gluing the core.



The core nicely glued together.



The underside ply skins also glued into place.



The ply side skins glued into place.



Using hand tools may be easier to obtain the top angle chamfer strip.



The hardwood nose blocks glued on, ready for shaping.



The hardwood nose blocks now shaped nicely.



Use of the boom tubes to check sponsons are true to each other.

simply run a small amount of glue into them and sand lightly over the area; the resulting sawdust will then fill offending gaps! Wood filler will also do the job but may be more noticeable. If, however, you plan to paint the boat, then filler won't be so much of an issue.

A hardwood block now needs to be glued to the front of the sponsons and shaped to a nice bull nose-look.

Sealer and tubes

At this stage, I like to apply a thin coat of epoxy to the wood to seal and protect its surface while you work; this will prevent the transfer of any dirt or grease that may be on your hands. This epoxy will also add a little extra general strength to the wood.

The holes in your sponsons will allow you to glue a tube into place into which your boom tubes can be slid into when putting the boat (tub and sponsons) together. I tend to use a 12mm tube with a 10mm inside diameter. The plan will usually dictate the

sizes required here. Alloy or brass can be used, or even carbon tube. Again, refer to the advice given on your plan here. The sponsons are usually linked by using carbon tubes, which pass through the main tub and are held in place with small bolts. I like to use stainless 3mm bolts with nylock style nuts, which I find resist vibration and stay nice and tight

Getting over the finishing line

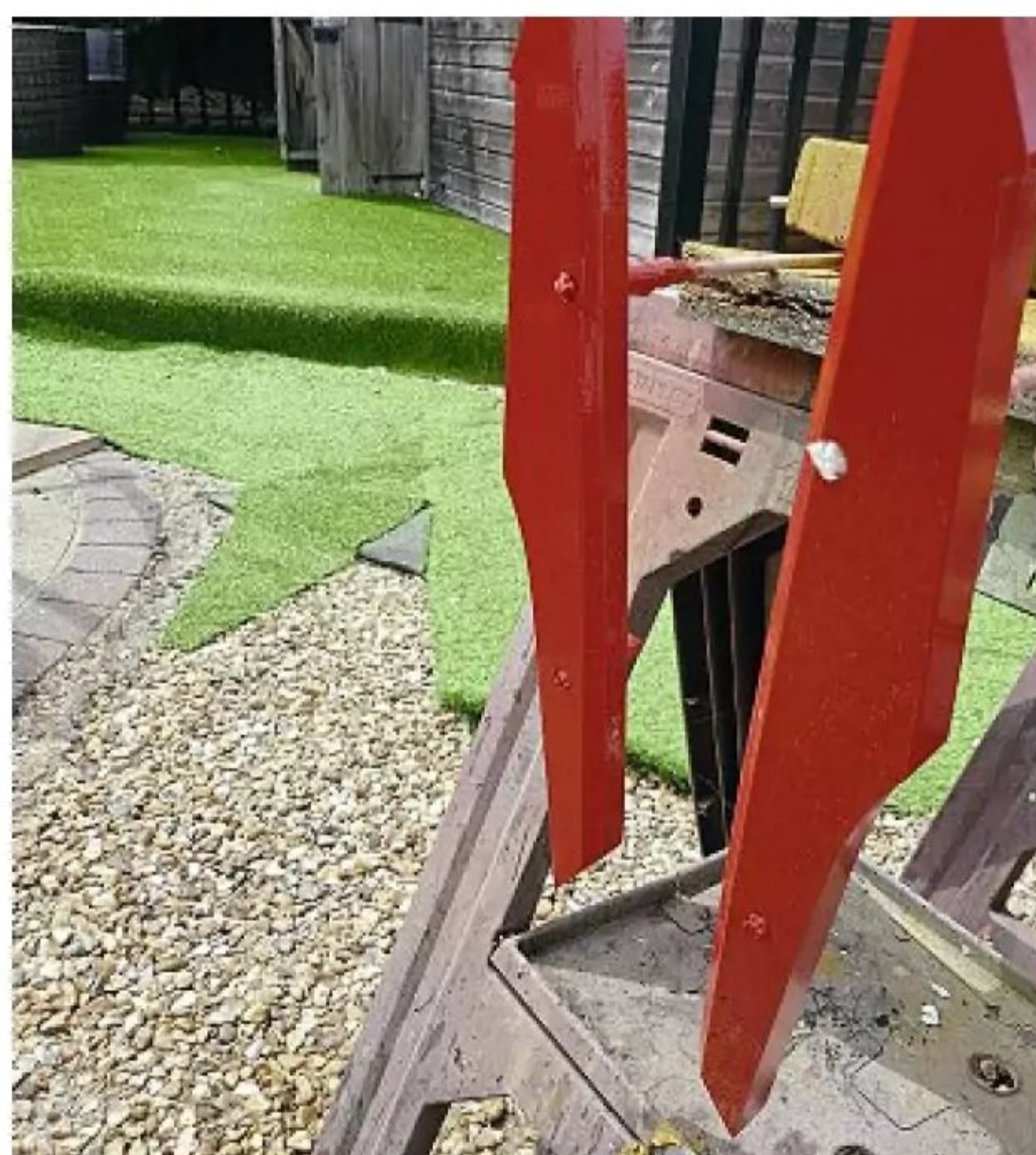
It's now time to sand down your sponsons and apply another sealer coat of epoxy, so they are ready for the application of some good quality primer and, finally, some paint.

Although simply a synopsis rather than a full-blown set of step-by-step instructions, I hope this two-part article has been of some help to those who've never scratch-built a model from plans before but who are keen to have a go at crafting a basic, inexpensive, entry-level I.C. powerboating racing hydroplane outrigger style boat.

Mine is certainly not the only approach, as all modellers tend to have their own preferred methods and techniques (and, of course, materials and products they like to work with). That, however, is all part of the fun in building model boats. There are no hard and fast rules; it's all about having fun, learning, and developing/honing your skills. Indeed, many in this hobby enjoy the build as much, if not more than, running their boats! ●



Using the tub to ensure sponsons align with the tub boom holes.



Paint now applied to the sponsons and drying in the sun.



The sponsons sealed and primed.



NATIONAL
CHURCHES
TRUST

Yours for good.

Last year our Friends helped
us save over 200 churches

St Mildred's,
Whippingham
Photo: Brian Woodruffe

Time is running out to save the UK's churches – join us to help stop the biggest heritage crisis



Photo: MyPix (CC BY-SA 4.0)

There are more than 900 churches on Historic England's Heritage at Risk Register. Across the UK, churches are closing as they cannot fund the urgent repairs they need to remain safe and open. We risk losing these beautiful buildings for good.

Just **£40 a year – less than £3.50 a month** – will help ensure church buildings remain at the heart of communities for generations to come. Please join us today.

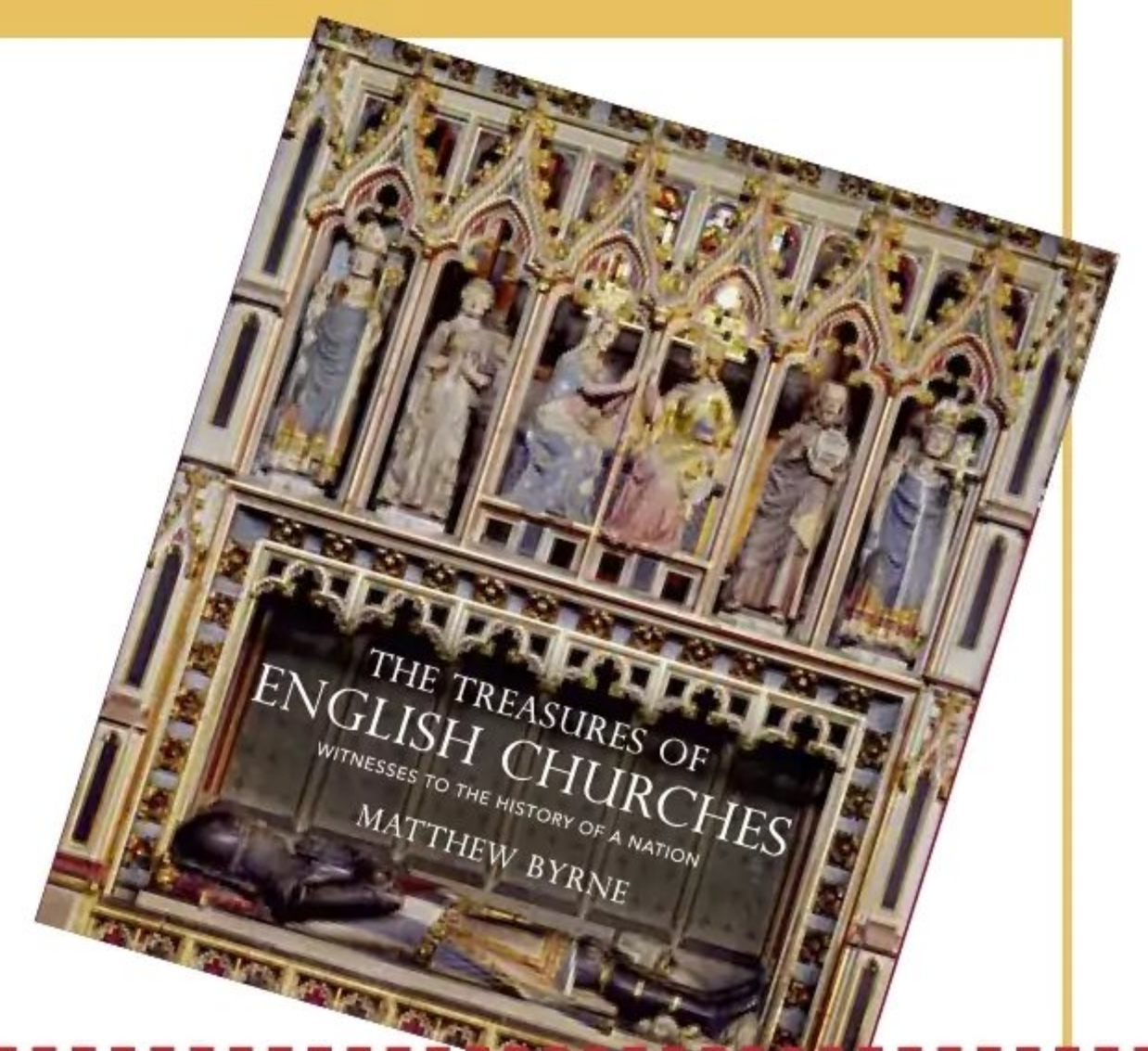
By becoming a Friend of the National Churches Trust, your support will help us save these wonderful buildings, keeping them open, in use and in good repair.

Sign up today by visiting:

nationalchurchestrust.org/friends and join for **£40** per year by Direct Debit or send a cheque for **£45** with the completed coupon below to National Churches Trust, 7 Tufton Street, London SW1P 3QB.

Every new Friend gets a free book:

A copy of **The Treasures of English Churches** (RRP £20). This delightful and luxuriously illustrated hardback book is a must for everyone who appreciates churches, art and heritage.



In signing up to become a Friend, you'll receive postal communications around four times a year: a biannual newsletter, our annual review, invitations to events and our latest campaigns, appeals, and fundraising and volunteering opportunities. Tick here ☐ to opt out of postal communications. Tick here ☐ to join our email list and receive our monthly Friends newsletter.

Title _____ Forename _____ Surname _____

Address _____

Postcode _____

Email _____

Your information will be treated as private and kept securely. We will never make public, swap or sell your details. Read more at nationalchurchestrust.org/privacy-policy

nationalchurchestrust.org/friends



SCAN ME

Registered with
FUNDRAISING
REGULATOR

Return coupon with your cheque to:
National Churches Trust, 7 Tufton Street, London SW1P 3QB
Tel: 020 7222 0605 hello@nationalchurchestrust.org Registered Charity Number: 1119845
[@NatChurchTrust](https://twitter.com/NatChurchTrust) [nationalchurchestrust](https://facebook.com/nationalchurchestrust) [@nationalchurchestrust](https://instagram.com/nationalchurchestrust) [national-churches-trust](https://national-churches-trust.org)

Boats-Oct23



Richard is a great fan of small lathes. Bushes such as this can be made quickly and easily in around an hour, so they are incredibly useful tools.

1



Richard Simpson explains the many benefits of learning how to tap a thread and shares best practice advice, tips and tricks...

2



All the bushes in this old Stuart Turner boiler were in poor condition so were removed. New ones were therefore made, all of which were tapped before fitting, and were then silver soldered in place.

Tapping a hole or cutting an external thread successfully is not only a fairly straightforward process but one that should be well within the capabilities of any of us who can handle a file, saw or most other hand tools. Judging by the reactions when the subject of tapping comes up, however, I rather suspect that all too often this a process many try, with fairly unsuccessful initial results, before then deciding it's something that needs to be handed over to an 'expert' and the cost simply swallowed.

So, in this instalment of Boiler Room I will providing a few pointers that may just help with tapping a successful internal thread (although all of considerations below apply equally to external thread cutting) but, the bottom line, as with any other manually-based process, is that you will need to practice. This will help you evaluate the best process to use and, with a little time and patience, improve your success rate. Sawing a straight vertical cut in a piece of metal didn't happen the first time you tried it, and neither will tapping your first internal thread. To give yourself a degree of confidence, practice on a piece of scrap metal before committing to your actual project. When you do, this should not be the sort of thing you attempt for the first time in the sight glass bushes within the beautiful new boiler you've just spent the past few months making, or, say, in the modification of the bush in a vintage Stuart Turner boiler sat in the bottom of your steam launch. I would

instead suggest trying something as simple as tapping a bush before you fit it to a boiler, so you have the option of trying again if unsuccessful; by way of example, illustrated is one I prepared earlier (see **Photo 1**).

When the need arises

There are various tasks that will benefit from you being confidently able to tap a thread, with some of the more common being:

- Tapping a boiler bush for a boiler you are building from scratch
- Repairing a damaged thread in a boiler bush by either replacing the bush or drilling and tapping out to a larger thread as a means of repair (see **Photo 2**)
- Tapping any metal part that is to have a fastening screwed into it, such as a bolt or machine screw
- Making a one-off fastening, such as a wing nut or something similar for a specific fastening purpose where a normal nut might not be appropriate.

These are just a few examples of what may lead you down the path of wanting to do your own thread cutting on a part. Don't forget the cheating possibilities as well. There is the option in some cases of using an existing nut and modifying it or soldering it to another metal part to create a ready-made thread. But the ability to tap a thread will be another useful weapon in your arsenal and will give you more flexibility in your approach to tackling challenges.

I.S.O. METRIC FINE THREADS IN M.M.

O.Dia	Core	Pitch	Depth	Flat	Flac.	Tap's Drill	Clearance Drill
8	6.773	1.00	0.6134	0.125	7.35	7.60	9.0
10	8.457	1.25	0.7698	0.156	9.18	9.75	11.0
12	10.457	1.25	0.7698	0.156	11.18	10.75	13.5
16	14.160	1.50	0.920	0.187	15.025	14.50	17.5
20	18.160	1.50	0.920	0.187	19.025	18.50	21.5
24	21.546	2.00	1.228	0.250	22.70	22.00	25.5
30	27.546	2.00	1.228	0.250	28.70	28.00	31.5
36	32.319	3.00	1.841	0.375	34.05	32.75	38.0
42	38.265	3.00	1.841	0.375	40.05	38.75	44.0
48	44.28	3.00	1.841	0.375	46.05	44.75	51.0
56	51.093	4.00	2.455	0.500	53.40	51.75	59.0
64	59.265	4.00	2.455	0.500	61.40	59.75	67.0

B.A. Standard Tapping Drills

B.S.1. RECOMMENDED			B.S.1. ALTERNATE			CLEARANCE DRILLS		
B.A.	Drill m.m.	Dec.	Drill m.m.	Dec.	m.m.	Dec.	m.m.	Dec.
0	5.10	0.2408	5.00	0.1968	6.10	0.2402		
1	4.50	0.1772	4.45	0.1752	5.40	0.2126		
2	4.00	0.1575	3.92	0.1562	4.80	0.1890		
3	3.45	0.1358	3.40	0.1339	4.20	0.1645		
4	3.00	0.1181	2.95	0.1161	3.70	0.1457		
5	2.65	0.1043	2.60	0.1024	3.30	0.1299		
6	2.30	0.0906	2.25	0.0886	2.85	0.1122		
7	2.05	0.0807	2.00	0.0787	2.55	0.1004		
8	1.80	0.0709	1.75	0.0689	2.25	0.0886		
9	1.55	0.0610	1.50	0.0590	1.95	0.0768		
10	1.40	0.0551	1.35	0.0532	1.80	0.0709		
11	1.20	0.0472	1.15	0.0460	1.60	0.0630		
12	1.05	0.0413	1.00	0.0394	1.40	0.0551		

All tapping drill sizes (except where shown) and B.S. Primary and Secondary Selection of P.I.s. are reproduced with the full permission of the British Standards Institution, 2 Park Street, London, W1. Where possible, British Standards recommended drills should be used, in order to ensure the greatest accuracy.

U.S.F. Threads (55°)

Dia.	O.Dia.	Core	Pitch	Depth	Radius	Flac.	T.P.L.
1/8"	0.1675	0.1475	0.0312	0.0200	0.0046	0.1675	32



Left: Good old Zeus tables! These contain a wealth of handy information, including drilling sizes for various threads. Once you've identified the correct drill, you can then buy it from your engineering supplier.

Above: A set of BA taps and dies, complete with tap wrench and die holder. This only features two taps of each thread and does not include all sizes, but it is a handy set to have available.

"The ability to tap a thread will be another useful weapon in your arsenal and will give you more flexibility in your approach to tackling challenges"

Preparing the part

When considering an internal thread, before we even get as far as reaching for the tap, we need to ensure we have the appropriate sized hole, and this needs to be in exactly the right location and at the correct angle. Drilling an accurate hole was covered in the June 2023 installation of Boiler Room, so I will take it as a given that you are already able to achieve this. If not, then you shouldn't even consider trying to tap a thread. You will never correct a badly drilled hole by applying sideways pressure on a tap.

Assuming we are on the right track with drilling the hole, the thing we need to consider is the size of the hole. A very common misconception is that the tap will cut the right thread even if the hole is a bit too big or a bit too small – not so! If the hole is too big then you won't get the full depth of thread cut and the thread will be very weak, leading to possible failure. If the hole is too small the tap will be overloaded while you are cutting the thread, which could lead to the tap breaking or, more likely, the heavy loading on the cutting edges of the tap will lead to possible surface scuffing of the thread and, again, weakening of the thread. It is crucial that the correct diameter drill is used for a specific thread. The first job, therefore, is to either have a look online for some tapping tables or get hold of your own tables or posters. What you need is a list of the correct sizes of drill to be used for specific threads. I use Zeus tables as they are handy for the pocket and are plastic coated so should last forever (see **Photo 3**). The tables will usually be laid out in thread types and for each size of thread the correct drill size will be shown. What you



A Model Engineering (ME) set of taps and dies by the Tap and Die Company of London. ME threads are still found on a lot of older vintage steam models.

will immediately see is that there are some very specific drill sizes that you know you haven't got the correct drill size for. Who, for instance, keeps a 5.1mm drill, the size you need for a 0 BA thread, when you know the B&Q set you have in the workshop only goes up in whole millimeter increments? Who would be tempted to drill it to 5mm then force the tap through the hole anyway? Let's face it, most of us think we are into the realms of micro engineering if we use a drill of a half size, such as 3.5mm. All you need to do in such a case, however, is get in touch with an engineering supplier and buy the specific size drill you need. I think you will be surprised at just how specific drill sizes can be when purchased individually and just how reasonably priced they are.

Once you have the correct sized drill for the thread you want to cut and the hole

is drilled in the right place, you can finally have a think about how you are going to tap the thread – and that requires a little pre-planning.

Setting up to cut a thread

Staying with the internal thread, the job to hand will determine the thread you want to cut. With a fastening you might be happy with a metric thread, but if you are drilling a boiler bush you might want to stay with the original manufacturer's thread system. In some cases, this may require the purchase of a specific set of taps for the job, but it may also be worth considering having a couple of sets of taps to hand for the more common model engineering thread systems. I have a complete set of BA taps and dies (see **Photo 4**) and a complete set of ME taps and dies (see **Photo 5**). These two sets cover a lot of model engineering uses and neither were as expensive as you might think. They still don't cover all threads found in boiler bushes however, so specific tap sets may well be

"A very common misconception is that the tap will cut the right thread even if the hole is a bit too big or a bit too small – not so!"



6
The great beauty of a lathe or a pedestal drill is that you can drill and tap without disturbing the job, thereby ensuring perfect alignment



7
Rotate the chuck with the chuck key in a backwards and forwards motion to break the swarf. The tailstock will automatically be drawn into the job as the tap cuts, as long as you have taken the lock off!

needed for certain jobs. When I say tap sets, in this case I mean a set of two or three taps of the same thread, not a full range as in the two above mentioned full sets. Every thread will have at least two taps, sometimes three – more on this later.

So, how should you set up to cut this thread? Well, while this will usually depend on the nature of the task to be tackled, ideally you should use some sort of mechanical device to ensure the tap remains square to the job; this could be a lathe, or it could be a pedestal drill. Holding the tap wrench in your hand might be the traditional perception of how to tap a thread but it's the method least likely to be successful unless you are very skilled and experienced. If possible, the lathe is the best tool, bearing in mind that the hole can be drilled and then tapped while not being disturbed. The job is put into the chuck, four jaw if the hole is not

“Holding the tap wrench in your hand might be the traditional perception of how to tap a thread but it's the method least likely to be successful unless you are very skilled and experienced”

central, and held securely. Slotting the drill back into the hole may help you achieve the right position when setting up an awkward hole with a four-jaw chuck. With the job secure and perfectly positioned, the hole can be drilled (see **Photo 6**). The tap should be held in a three-jaw chuck in the tail stock but not locked to the bed, so allowed to slide (see **Photo 7**). The thread can therefore be cut easily by introducing the tap to the hole and rotating the headstock chuck by hand. This will automatically draw the tap and the tailstock into the thread as it cuts.

If you don't have a lathe, then a pedestal drill can be used in a similar way. The job

should be secured in a vice on your table and adjusted so the hole is perfectly aligned with the drill chuck centre. The tap is placed into the drill chuck and lowered into the hole to cut the thread. In this case the drill chuck is rotated by hand while the tap is fed into the job as the thread progresses. Be very careful not to either put too much or not enough load on the handle, as this will again put undue load on the tap cutting face.

If your only option is to cut the thread by hand, then the most important criteria is that the tap must be perfectly vertical from all sides at all times (see **Photo 8**). Unless you ensure this, the thread will wander off and will not be perpendicular to the job face.

Some jobs of course, such as re-tapping a boiler bush that has already been fitted, cannot be done in a lathe, so using the pedestal drill is the next best option. The boiler should be set up and clamped with the bush perfectly centered below the drill chuck and the same process then followed for cutting the thread. Once you have your job set up and ready, you are in a comfortable position, safety specs on, cup of tea within grasp and your preferred choice of music playing, it's time to start cutting.

A word about taps

Taps will always be available as a set of either two or three. I have encountered some confusion over the naming of the three, and there seems to be regional descriptions, but my own take on the three is: 1 - the 'Taper Tap'; 2 - the 'Plug Tap'; 3 - the 'Bottoming Tap'. There are also specialist taps that are designed to be used in, for instance, a CNC machine for machine tapping on a production line, but you're not likely to come across one of these in a model engineering environment. There are also taps specifically designed for such threads as gas threads, spiral fluted taps, etc.



8
Manual tapping is a tricky operation that takes practice and skill. You will not get it right the first time and even the more experienced can get it wrong occasionally. Holding the tap perfectly perpendicular while looking down on it is not easy.



A very handy set of metric taps, with three of all the common smaller sizes.

Sometimes a specific tap set might only consist of two taps, usually a Taper Tap and a Plug Tap. Should you need to tap a blind hole right down to the bottom of the hole, then you may have to buy a Bottoming Tap separately. There are handy sets of metric taps of common sizes that include three taps of each thread (see **Photo 9**). You can also buy a single set of three taps of the same thread (see **Photo 10**).

The process

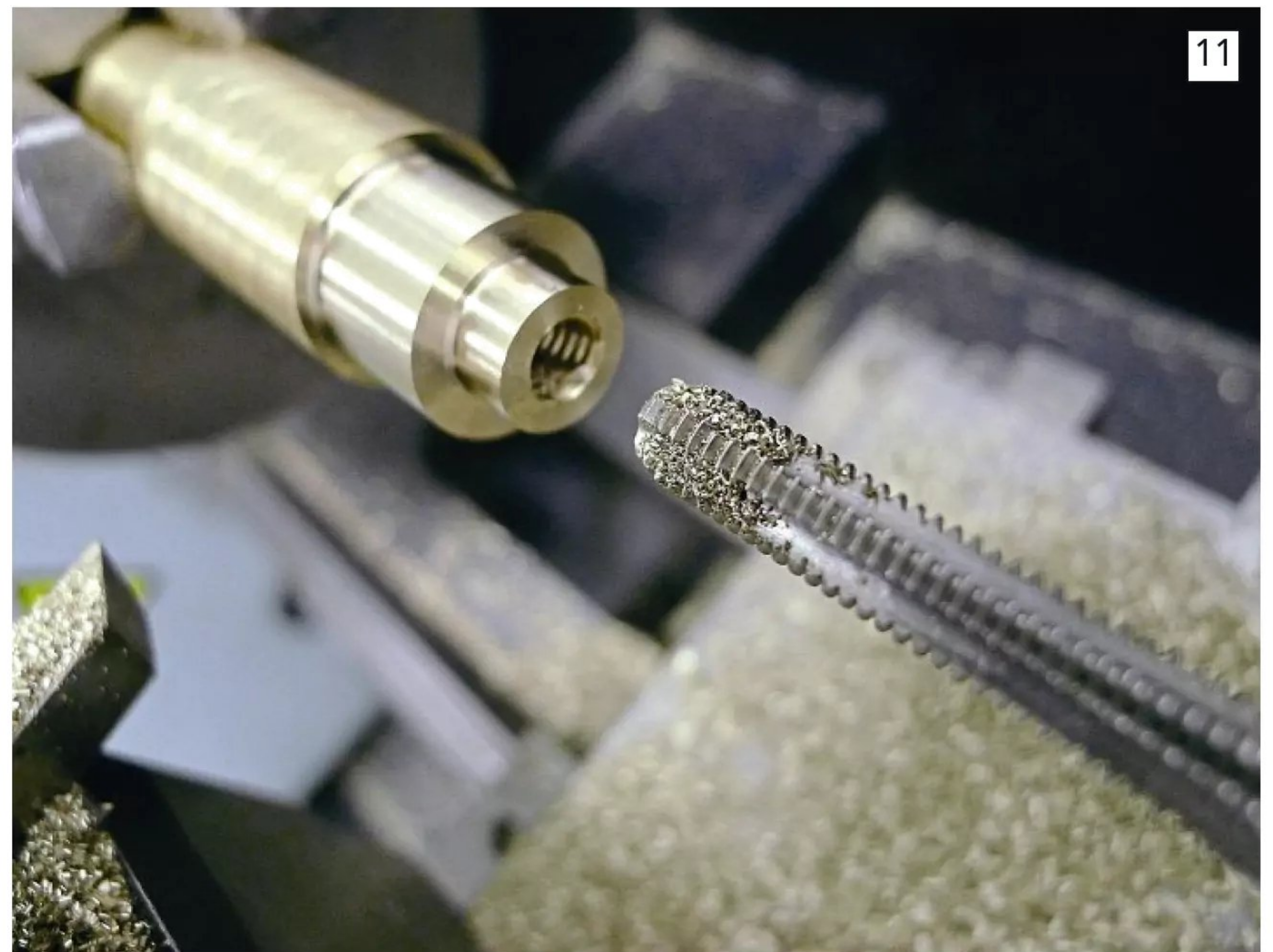
With any tapping process you should start with the Taper Tap. This tap is designed to lead the tap into the hole square and start the thread cutting. Each cutting edge will, as you rotate the tap, cut a little deeper, until it finally cuts the full thread on reaching the end of the taper.

You will need to rotate the tap by an amount sufficient to cut enough swarf but not so much it binds in the flute. I probably rotate around 90 degrees or so. Then, back the tap off again, by rotating anti-clockwise, so that the swarf will be removed by the preceding cutting edge and fall down through the flutes. You must then get into a rhythm of rotating 90-degrees or so, backing off 90-degrees, going forward again 180-degrees, and then, finally, backing off 90-degrees again. It sounds complicated but once you have done it for a few minutes it will quickly become second-nature to you. This backwards and forwards process should be adapted whether you are cutting the thread manually, rotating a lathe chuck or rotating a drill chuck, as you will still need to break the swarf.

You will also need to factor in certain conditions. If you're cutting the thread horizontally, then the swarf will not be free to



For a specific job you can buy a set of three taps of any specific thread, including Taper, Plug, and Bottoming taps.



One thing to be careful of when tapping horizontally, or into a blind hole, is that the swarf does not clear, so the tap has to be removed frequently to clean it. An old paint brush can be used to do this.

fall out of the flutes so will tend to build up in them (see **Photo 11**). Also, if you are tapping a blind hole, the swarf will fall down into it and sit in the bottom of hole; consequently, after only a couple of revolutions of the tap you should remove both it and the collected swarf. And it's here we come across one of the most common mistakes engineers and modelling engineers make... Naturally, you will want to try and remove the accumulated swarf without disturbing the job. Now, the one tool that most engineers have readily

available in the workshop, so is very tempting to reach for, is an air gun. Yes, this will quickly and easily blast the swarf out of the hole, but, at the very least, you'll get swarf all over the workbench and yourself and, at the very worst, there's the real danger of fine metallic particles becoming airborne and getting into your eyes. Instead, always use a battery-powered vacuum cleaner for removing swarf. They are the best things ever invented! I keep one of these on each work bench.

Once you have taken the Taper Tap as far

“It's here we come across one of the most common mistakes engineers and modelling engineers make...”

as you can, this should then be followed up with exactly the same process used with the Plug Tap. If you are cutting a blind thread you might need to repeat with the Bottoming Tap as well, but most of what we are doing will be achieved with two taps.

Finally, a word about lubrication. On the odd occasion you may be tapping ferrous metals and may therefore need to consider this. In most cases, however, you will be tapping brass, which contains zinc and so conveniently helps to lubricate any machining process. Consequently, I would suggest not bothering with lubrication, which can work against you, as it prevents the swarf falling clear of the flutes as you're tapping.

Still think this is not a skill you need to acquire?

Think again! One of the best linkages you can use to control your engine is a stainless-steel clevis mounted on a threaded rod. These can be bought from modelling suppliers complete with a die to thread the rod to the

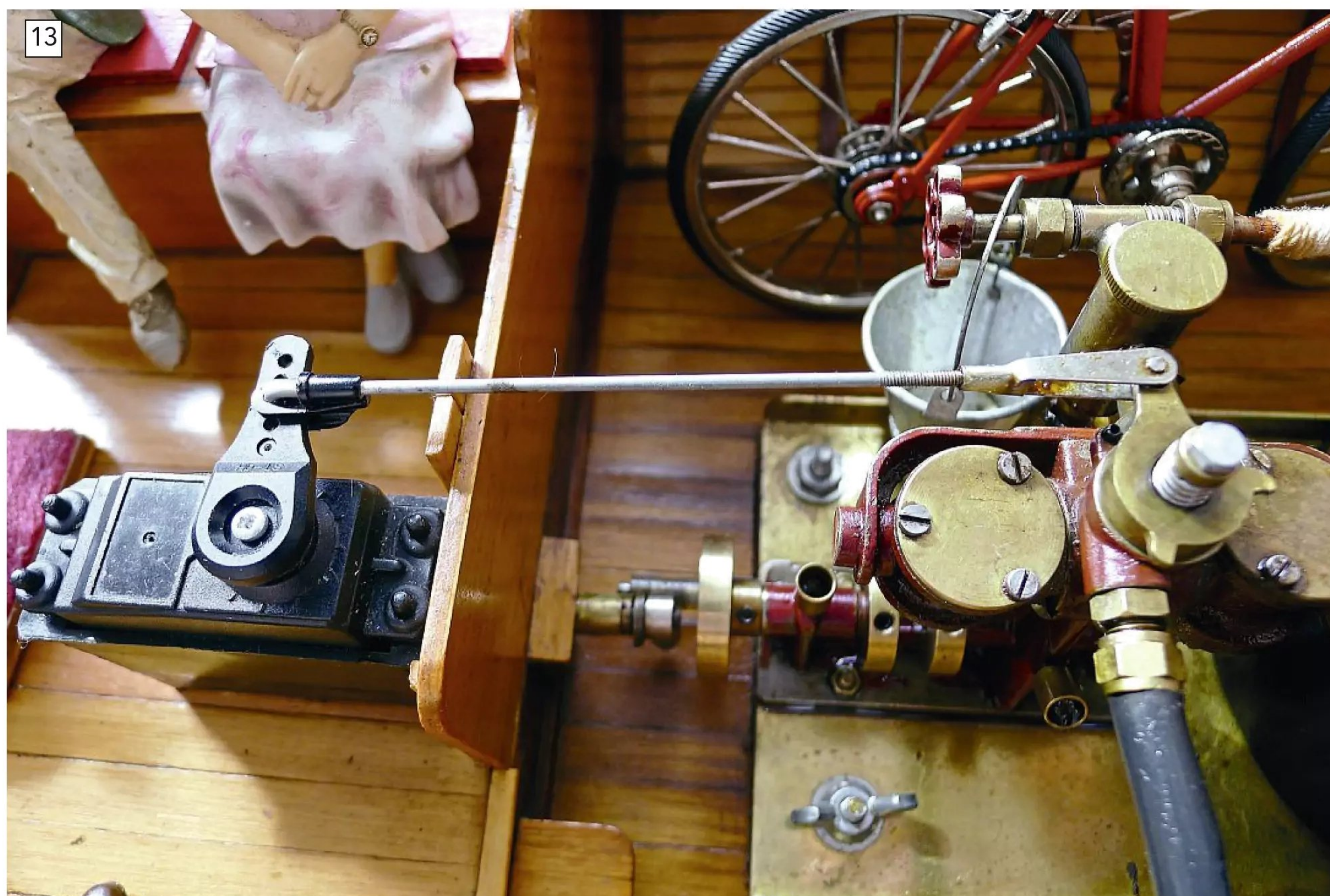


You can buy die nuts, but this is actually a circular die held in a hexagonal holder. The process of cutting the thread is exactly the same, but with a die, look closely at the two sides of it; one side will be tapered to start the thread, while the other side will be full thread for finishing.

precise length required (see **Photo 12**). This will give you a very flexible servo linkage that can be adjusted by half a rotation of the clevis, which is 0.2mm, and, once again, all of the above tapping considerations apply

to this process, too. These are the best control linkages you can put together for engine control (see **Photo 13**). It is, therefore, well worth learning a little bit about thread cutting. ●

“One of the best linkages you can use to control your engine is a stainless-steel clevis mounted on a threaded rod”



The best control linkage you can fit to a steam engine is a threaded rod with a stainless-steel clevis on the end. You find this is very strong while also being easily adjustable.

MANTUA MODEL
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

Australia's Premier Maritime Hobby Shop
FLOAT a BOAT
Fine Models Since 1962
 48c Wantirna Road,
 Ringwood Victoria 3134 Australia
Tel. 61 3 9879 2227
www.floataboat.com.au Mail Order

model
Boats
 To advertise contact
 Fiona on
 01507 529573
fleak@mortons.co.uk

model
Boats
 Deadline for supply of advert copy is
Monday 2nd October

ALWAYS IN STOCK:
 Huge range of miniature fixings, including our socket servo screws.
ModelFixings.co.uk
 also the home of **ModelBearings.co.uk**
 • Taps, Dies & Drills • Adhesives
 • Engine & Miniature bearings • Circlips, etc. etc.
Tel/Fax +44 (0)115 854 8791 Email: info@modelfixings.com

www.maritime-models.co.uk
SECURE ON-LINE SHOPPING - MAIL ORDER ONLY
 We stock a range of fittings from Aeronaut, Caldercraft, Krick and Robbe also tools, paints, props, propshafts, couplings and much more check out the web-site for our full range.
 Official stockists of BECC accessories and kits from Caldercraft, Krick & Aerokits.
 Commissions & restorations also undertaken!
 E-mail: **info@maritime-models.co.uk**
 Telephone: **01432 263 917** or **07786 781 421**

FOR SALE
Stuart Turner Steam Plant
 comprising double acting 7/16" bore x 7/16" stroke engine.
 Horizontal copper boiler 1 3/4" diam x 5 1/2" long with superheater
 'Pop' safety valve, copper funnel and spirit burner, all new and unused.
£225
Tel. 01988 500645
Email: jasbram@hotmail.co.uk

FLEETSCALE
WWW.FLEETSCALE.COM
 GLASSFIBRE BOAT & WARSHIP HULLS, FITTINGS AND SEMI KITS IN MOST SCALES AND ERAS
 EXTENSIVE SECURE ONLINE STORE
 MILITARY & CIVILIAN RANGES
 19TH, 20TH & 21ST CENTURY
 1/24TH, 1/32ND, 1/48TH, 1/72ND, 1/96TH, 1/128TH
TEL: 01822 832120
FAX: 01822 833938
 WESTWARD MOULDINGS LTD

Balsa Oak SLEC Ash Poplar
Spruce Manufacturing Cherry
Obechi Buy on Line Cedar
Plywood's 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

Only available direct from the manufacturer, not from any retail outlet!
Club500 Slipway
Club500 Racing...
 ...continues to be ever popular at our model clubs.
 See our Website or call us for details of prices, colours and accessories available.
Model Specifications:
 Length: 515 mm
 Beam: 180 mm
 Includes motor, propshaft & Tube, Propeller, Coupling and Rudder assembly with over 200 possible colour combinations and a rainbow mix of colours.
 Ordering is only via the website: **www.club500slipway.com**
 or by telephoning: Malcolm Griffett at Club 500 Slipway, 59 Shackleton Drive, Perton, Wolverhampton WV6 7SA. * Tel/fax: 01902 746905
 * Mob: 07884 071122 * email: club500@hotmail.co.uk

CLEVEDON STEAM
 Supplier of steam engines, plants and Cheddar Models compatible accessories
Tel: 01326 291390 • Mobile: 07818 044648
www.clevedonsteam.co.uk



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

Titanic triumph

I have had a life-long love of building model boats, from Airfix kits, etc, so I hope you will be interested in my model of the *Titanic*, which I completed, after a six-year long build, on April 12 this year – the 111th anniversary the ship's sinking.

The 5ft long model was built from ply, coffee stirrers, matchsticks and various other bits and pieces and is laced with gold leaf.

Astonishingly, after beginning the build of *Titanic*, I subsequently discovered that my great, great aunt, Susan Webber, had been one of the survivors of that dreadful night (you can find read her story at Susan Webber : Titanic Survivor (encyclopedia-titanica.org)).

The project has been an incredibly therapeutic part of my recovery from brain injury, and I must give a shout out to the staff of the Living Well Programme run by the

amazing charity Headway Sussex (<https://headwaysussex.org.uk/>) for all the support and encouragement I received throughout the build.

I am now hoping a museum may be interested in taking the finished model off my hands and putting her on display.

JOHN WEBBER
EMAIL

She's spectacular, John – what an achievement! And what an amazing discovery about your great, great aunt. Thanks for sharing the link supplied. I read her remarkable story, and it seems to me you share not just her DNA but that same courage and determination. All best wishes for your continued recovery and bravo to everyone at Headway Sussex. Ed.





Lady Jayne

I am sending some pictures of a static display model I've built by modifying Ray Woods' plan for Eventide (which came as a free pull-out in the January 2023 issue of MB). I found this a fun but at times exasperating model to build, but, overall, I'm really pleased with the result.

My next project (I need to have something to keep the motor skills and ageing brain functioning) will be a 150% upscaled and fully functional R/C model from the same plan. I live in Queensland, Australia and my local sailing lake is much subject to wind, so the original plan would, I feel, realistically be a

bit small for a sailing model that suits these conditions.

I look forward to reading the magazine when it appears in our newsagents, which is usually roughly two months after publication.

MICK EAST, A.K.A. 'EASTIE'
AUSTRALIA

Such a pretty model, Mick! Can't wait to see your scaled up version.

Two months? I find that really hard to swallow in this day and age, and that old phrase 'Slow boat from China' springs to mind. I have talked to my publisher



Sweet Lorraine

Following the recent prize draw offering the chance to win Billing Boats' kit for the shrimp cutter *Rainbow*, I thought I would share my build of this vessel from over 40 years ago, which I renamed *Lorraine* and have free sailed on many occasions.

RAY GUINTA
EMAIL

Lovely! This is such a charming little model and I'd never have guessed you built her that long ago. She's really stood the test of time and considering she's actually been sailed has obviously been well maintained. Ed.

about this, but clearly air freight would just bump up the cost to an unacceptable level Down Under. Ever considered taking out a subscription, as that way you could get a digital copy of the mag on your PC, phone or tablet immediately it goes on sale in the UK? Just a thought, as I totally appreciate the appeal of having a hard copy. Give me an actual book rather than an e-reader device any day of the week. Ed.





Adamcraft dinghy look-a-like

I read with interest the article in September issue on Adamcraft model boat kits by John Parker. At one point I thought I had an Adamcraft yacht, but it seems it's just a very, very similar boat. It's a bit bigger at 23 inches, although its thick brass keel is the same, and it's been beautifully built (not by me!); a really professional job.

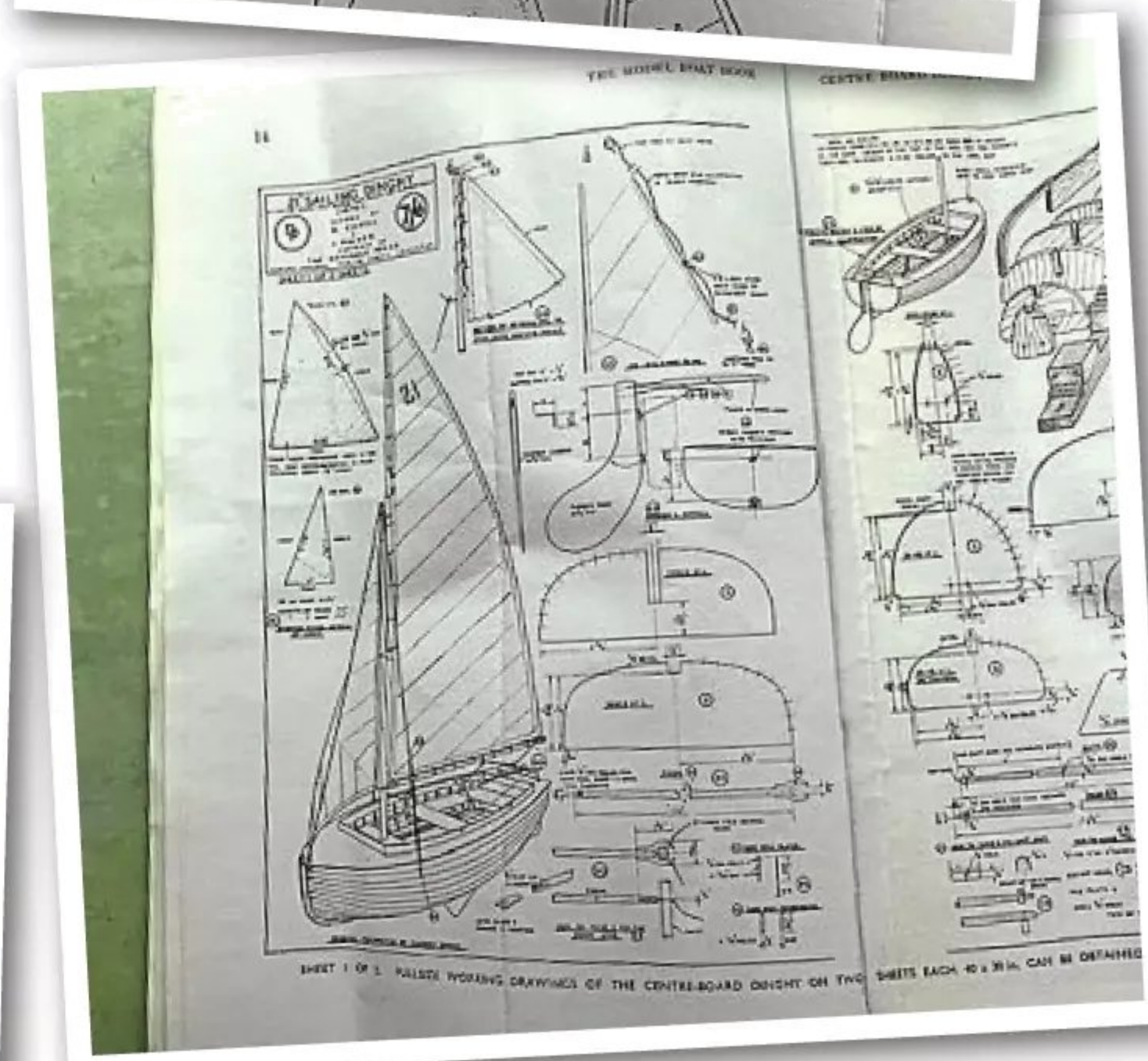
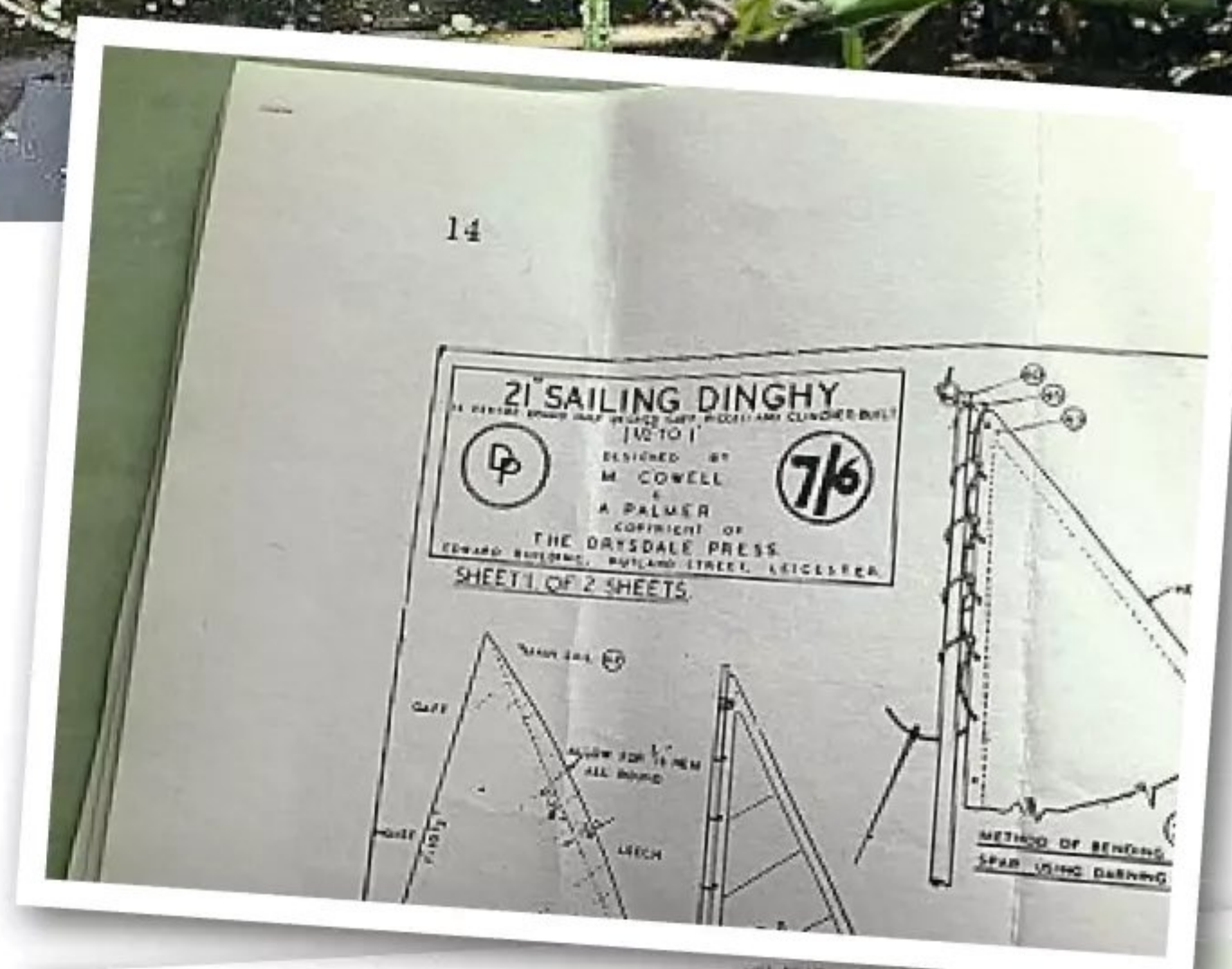
When it came into my possession it was accompanied by an article from *The Model Boat Book* entitled 'Centre Board Dinghy'.

Did the designers of this boat, M. Cowell

and A. Palmer, know the Adamcraft designer Harvey Adam, I wonder? It would be fascinating if anyone reading can enlighten us?

DR DAVID BINTCLIFFE
EMAIL

Oh, my goodness, she's gorgeous, David! And considering how closely she resembles the Adamcraft dinghy, that's a very interesting question. Whether there is still anyone able to provide an answer is another matter, but I am constantly surprised by these pages, so who knows? Ed.



The 'Breakfast Club' cereal skimmer

On August 6, the Eastleigh Model Boat Club (of which I am a member) held a regatta and the 'Chairman's Challenge' on this occasion was to build a boat out of cereal boxes. I decided to use the free Super Skimmer plan featured in the May 2023 issue of *Model Boats*

from which to build mine, so I thought I'd share a couple of photos

MIKE NICHOLSON
EMAIL

Brilliant! You'd clearly had your Weetabix (or should that be cornflakes/ rice crispies?). Ed.





Andrew's inventively constructed 1:144 scale model of HMS Cotswold.

Wartime dock layout

As I always enjoy the Your Models section of the magazine, I thought I should share some of my work. I have a long-term project in progress: an N gauge World War II dock layout. As I've exhausted my supply of 1:144 ship models, I have had to get a bit creative! I am submitting just a couple of examples...

To build *Briarfield*, the steam coaster that made several runs to the Normandy beaches in 1944, I used the Revell North Sea Trawler hull, and heavily remodelled the bow section.

For HMS *Cotswold* I had York Modelling produce the frame, as my first attempt was none too clever. By scaling

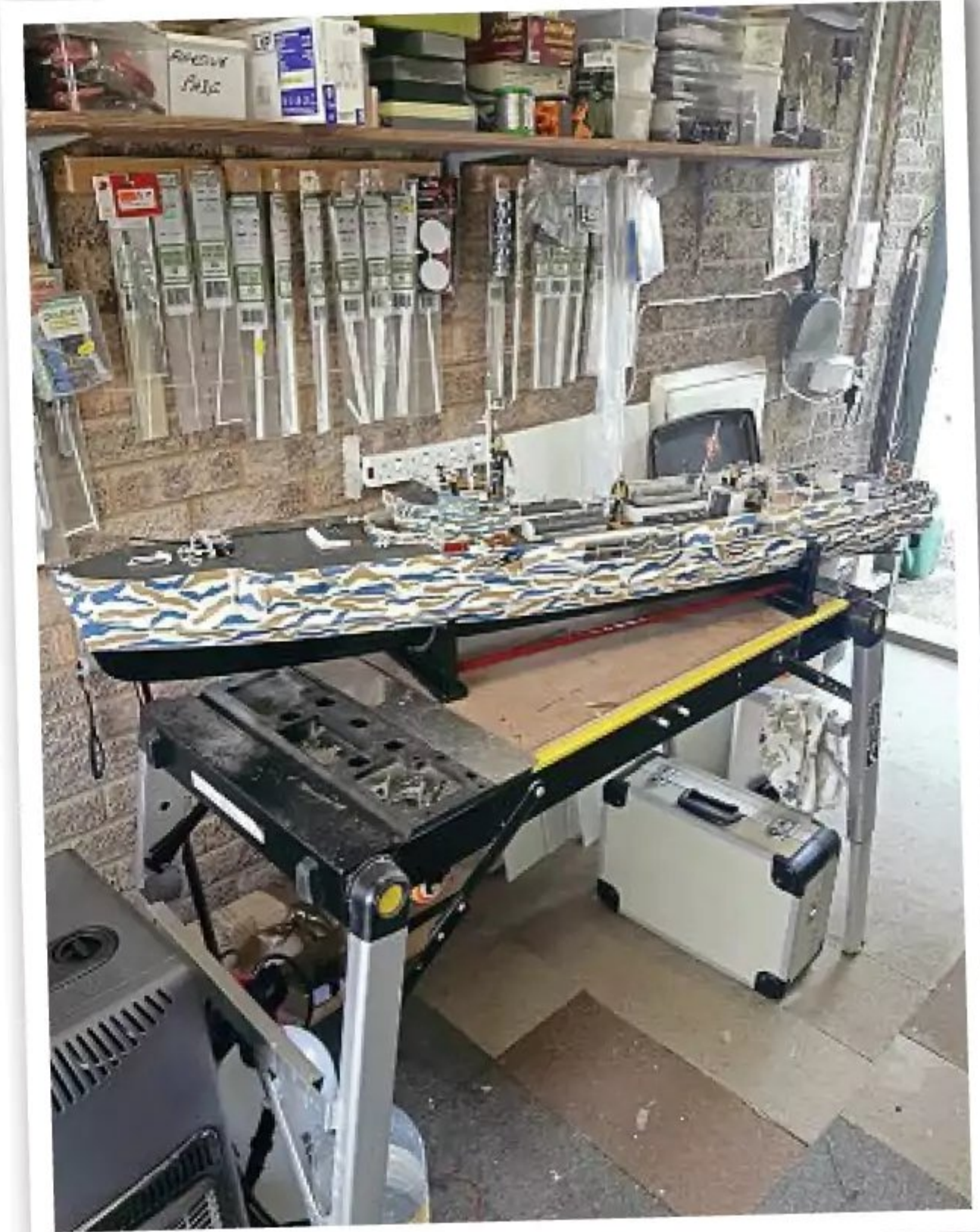
up a card kit from 1:200 to 1:144 – not quite N scale but close – I was able to use this as a template from which I could cut out the plastic card parts to form the superstructure. The weapons, ship's boats and some other fittings I purchased as 3D-printed items from Micro Master in New Zealand. The rigging is still to be finished. The *Cotswold* spent the war in UK waters, winning Battle Honours in the North Sea, Channel and Normandy.

ANDREW PULFORD
EMAIL

I love your 'Necessity is the mother of invention' approach to this project, Andrew, as it's in perfect keeping with the era in which you've set your layout. You've done a fantastic job on Briarfield and HMS Cotswold and there's just so much going on to marvel at. Those tiny 1:148 scale Oxford Diecast (I assume) military models and SS Jaguar bring back loads of happy memories from my days as editor of Model Collector, too. Please keep us updated as the project further progresses. Ed.



Andrew Pulford's intricately accessorised build of the steam coaster Briarfield, posed in his equally detail packed World War II port diorama.



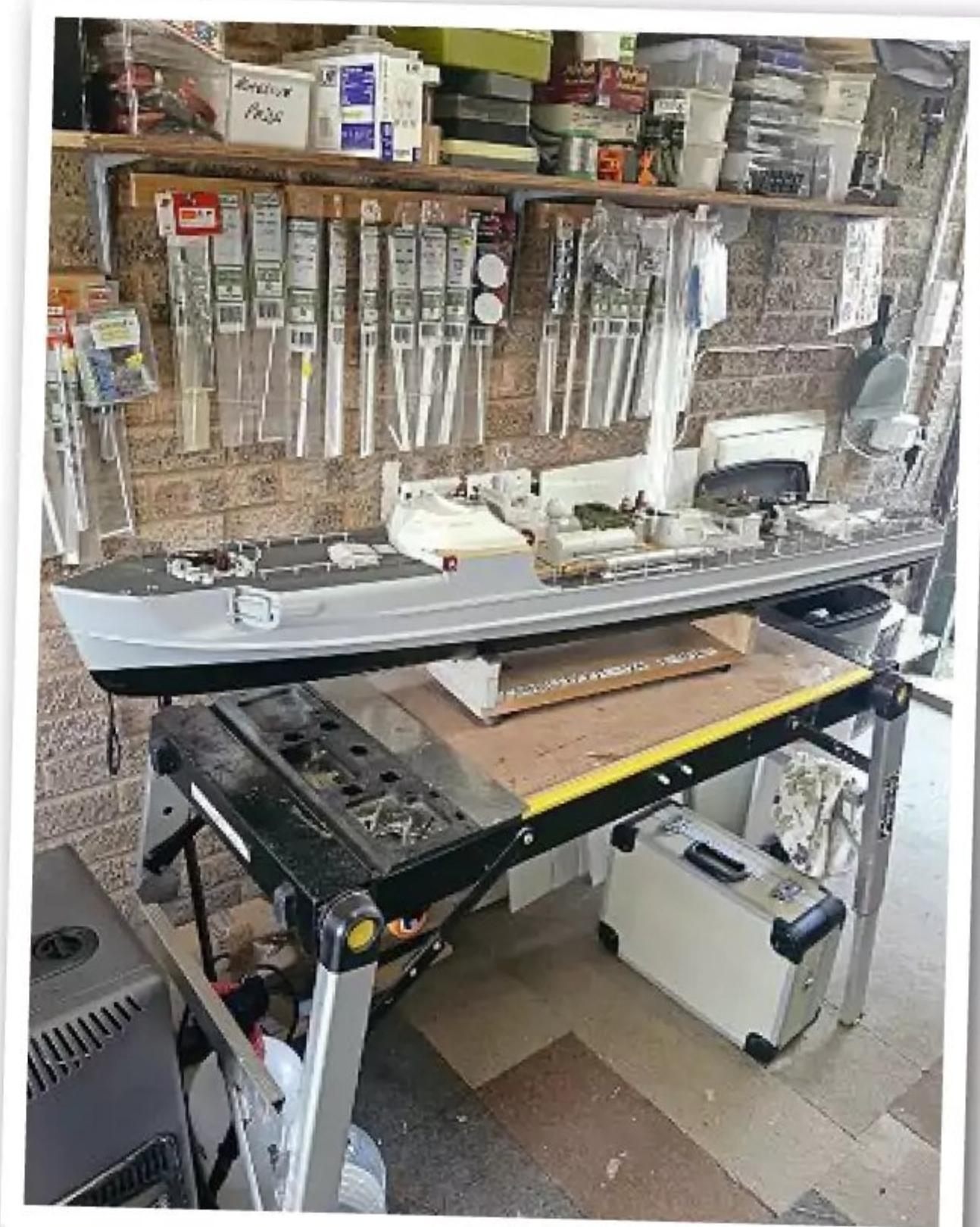
David Watson's 1:24 scale Kriegsmarine S35 class E-boat in Finland campaign colours.

E-boats

I am sending you pictures of two 1:24 scale 5ft E-boats I have in my collection. The camouflaged boat is in the Finland campaign colours, powered with three speed 600 Graupner motors and is an S35 class. The grey boat is an S100 class with the armoured bridge and is powered with three 1400 kx Turnigy brushless motors. All batteries are 5000 nimh.

DAVID WATSON
EMAIL

Great work, David! Loving the positioning of all your purposeful-looking crew figures, too. Ed.



David's S100 class model, with armoured bridge, also modelled to 1:24.

Merchant Navy memories and models

As an ex-Merchant Navy engineer, Victor Croasdale's letter in the September edition was particularly interesting. So, I thought I would share a few of my own recollections, and models.

The *City of Colombo* was one of Ellerman Lines lesser vessels! When less than five years old she was out of service for a number of months, having the main engine crankshaft replaced because a design defect. About nine years later, when I was Second Engineer, that replacement crankshaft fractured when we were up the Persian Gulf. By fitting a huge strap around the fracture and retiming the 6-cylinder engine to run more like a 3-cylinder one, we limped (almost literally) back to the UK on a passage taking 43 days.

Three years after that, having had another crankshaft fitted, I was serving as Chief Engineer when we nearly come to a stop in the middle of the Indian Ocean, having discovered the 600 tonnes of fuel oil onboard was almost unusable. We did eventually get to Montreal after a number of heart-stopping occasions, but not before we had to land the Master ashore in Cape Town when his gin consumption exceeded his body's ability to process it!

Fast forward another couple of years and I was now Superintendent for this not so fine vessel, and it wasn't long before there were more problems; she got stuck in ice off the coast of Canada. There was severe damage to her bow and 300 mm was broken off her four propeller blades. A year later the engine's crankshaft suffered a microbial attack (bugs ate my crankshaft!?) that damaged most of the crankshaft pins and journals, resulting in several weeks of machining them in situ. This process narrowly avoided a fourth crankshaft in 17 years.

I was, therefore, pleased, soon after this last incident, to be moved from ship operations to the more sedate environment of design and new construction.

MV *City of Plymouth*

Having escaped from the seemingly never-ending problems of the *City of Colombo*, in 1976 I became Project Engineer for a



Tim was also able to secure another ship of significance in his Merchant Navy career when he came across this HMS Guernsey build at a model engineering exhibition in Barnstaple.

series of five 300 teu container ships to be built at Appledore Shipbuilders in Devon. These ships, known as the 'Plymouth Class' after the first vessel to be built, had a clever hull design that allowed the container capacity to become 310 teu with no change of dimensions. The 5,000 bhp Doxford main engine, however, had very few clever aspects.

The engine builder had assured us and the shipyard that the engine they were going to supply was but a small modification to a new engine they had designed and extensively tested. It soon became apparent, however, that they had been very economical with the truth and there were things they had to do to suit our project that undid the things they had to do to get the prototype to operate correctly! The net result of this was that the engine for the first ship was nine months late and, worse still, the engine had to be further developed when the ship eventually entered service.

So, all in all, the project resulted in a lot of stress for everyone involved at the time. I pretty much forgot about this over the ensuing 40 years until, a couple of years ago, I bumped into a guy who was an engineering fitter at the shipyard during the *City of Plymouth* traumas. Unsurprisingly, we got talking about that fateful project and he told me he had become a model maker and had scratch built a model of the *City of Plymouth* from shipyard drawings. I went to see it and there was this great 1:100 scale model of the *City of Plymouth*, the vessel that had been such a significant and painful part of my early career. Despite that, when he asked if I wanted to buy it for what I thought was a very modest price, I didn't hesitate. Having committed myself, he then said I would have to find somewhere to sail it and suggested I

join the Kenwith Castle Model Boat Club in Bideford. The rest, as they say, is history!

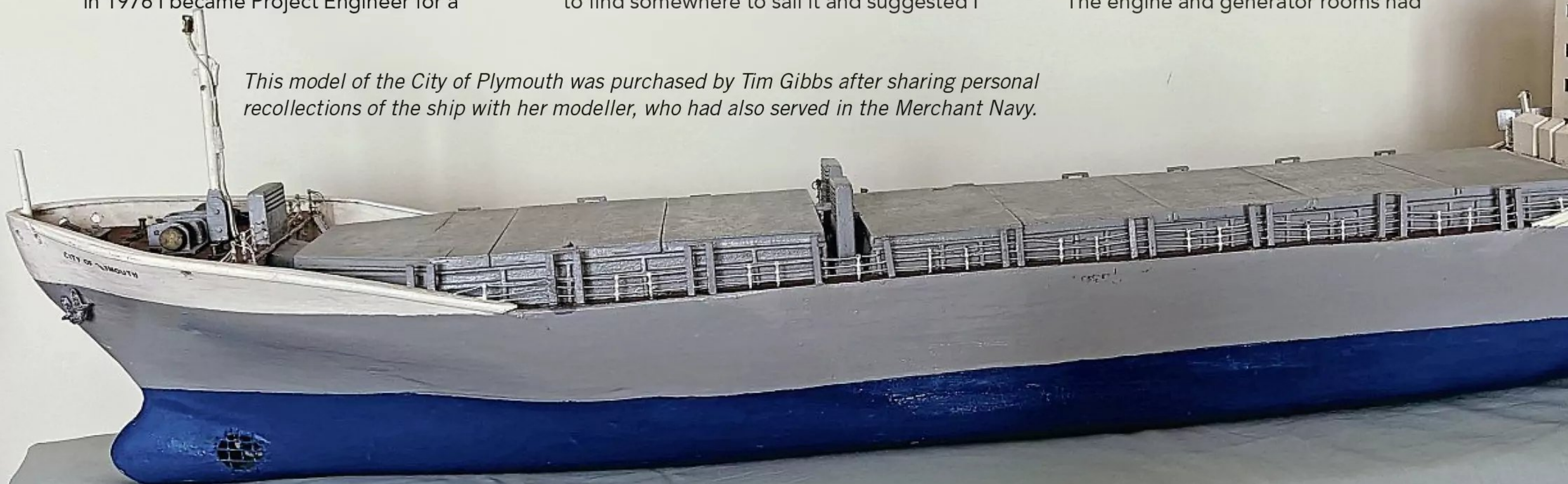
HMS *Guernsey* P297

By 1987, I was Technical Manager at Hall Russell shipyard in Aberdeen. Good Friday morning was foggy and the fishery protection vessel HMS *Guernsey* somehow managed to run aground on the rocks off Aberdeen, despite the fact that she was less than half a mile from the foghorn at Girdle Ness lighthouse. Interestingly, being a bank holiday seemed to reduce the importance of this event to the Navy – but don't let the Russians know that; holidays would appear be a good time to attack us! As there wasn't a great rush of personnel from Rosyth to take control of the situation, we decided to take matters into our own hands.

With the aid of a tug and some portable pumps we managed to get her off the rocks and started towing her into the harbour and to our fitting out berth. However, by this time the Harbour Master was getting quite excited as he was afraid *Guernsey* would sink in the middle of the entrance channel and so block the port. Before he would allow us to enter the port, therefore, we had to assure him that we had the situation under control, which, of course, we thought was the case, but in hindsight obviously wasn't! So, we carried on and eventually got the vessel alongside our fitting out berth, where she soon settled on the bottom with the main deck awash! Fortunately, with the aid of lots of mattresses and sheets of plywood to plug the holes, plus more pumps, we got her afloat again and safely into our drydock around midnight, about 12 hours after she grounded.

The engine and generator rooms had

This model of the City of Plymouth was purchased by Tim Gibbs after sharing personal recollections of the ship with her modeller, who had also served in the Merchant Navy.



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, Mortons Media Group, Media Centre, Morton Way, Horncastle, Lincs LN9 6JR**

been flooded, as had one fuel tank, and over the next couple of days we cut holes in the shipside to allow us to remove and preserve as much equipment as possible. By the Tuesday, following the holiday weekend, we thought we had done an amazing job – that is, until the Navy staff turned up in force. They clearly thought that we had committed a number of punishable offences, putting their property at risk by recklessly ignoring how and where work should be carried out as per the Navy's defined processes. The fact that we had saved them £100,000s by our early intervention didn't seem to be worthy of any consideration.

As the vessel had been built by this shipyard about 10 years previously and we had a contract to supply parts for this class of vessel, we thought we had a good handle of the required remedial work, allowing us to quote a fixed price to return the vessel to service. That offer got no consideration, but we did make a very nice profit, thank you much, for doing it the Navy's way!

Very recently, at a model engineering exhibition in Barnstaple, a guy had a rather nice model of HMS Guernsey and, when we got talking, it became clear he wanted to sell it. Needless to say, being a significant bit of my past, I almost bit his hand off!

TIM GIBBS
KENWITH CASTLE MBC

Now you would be the man to be sitting next to pondside, Tim! These models were clearly meant to come into your possession because your accompanying stories really bring what are already marvellous models in their own right to life. Ed.



MV Miranda Guinness

Further to Niall Galway's appeal in June 2023 Model Boats, my old mate Brian Williams built a model of the *Miranda Guinness*. However, chatting to him on the phone, he reckons that must have been getting on for 40 years ago, so goodness knows where it the model is now or even if it still exists. Brian had a guided tour of the *MG* in Runcorn (the ship would have bought Guinness from Ireland to Runcorn, where it was unloaded into tanker lorries and then went off to be bottled and kegged). I have a photograph of his model, but it never appeared as a project in any of the model boat magazines.

I've trawled Google and there are some forum posts from modellers

trying to find out whether the ship's builders plans are still in existence; Hills of Bristol closed down soon after the *Miranda Guinness* was completed, but when ship builders shut up shop all their plans would usually be donated to maritime museums, etc.

The actual ship was scrapped some years ago; she suffered from rust and as the tanks were attached beneath the deck it was uneconomical to repair her.

GREGORY METCALF
EMAIL

Thanks, Gregory. It would be nice to think the model is still out there in someone's collection somewhere, but 40 years is a lot of water under the bridge. Ed

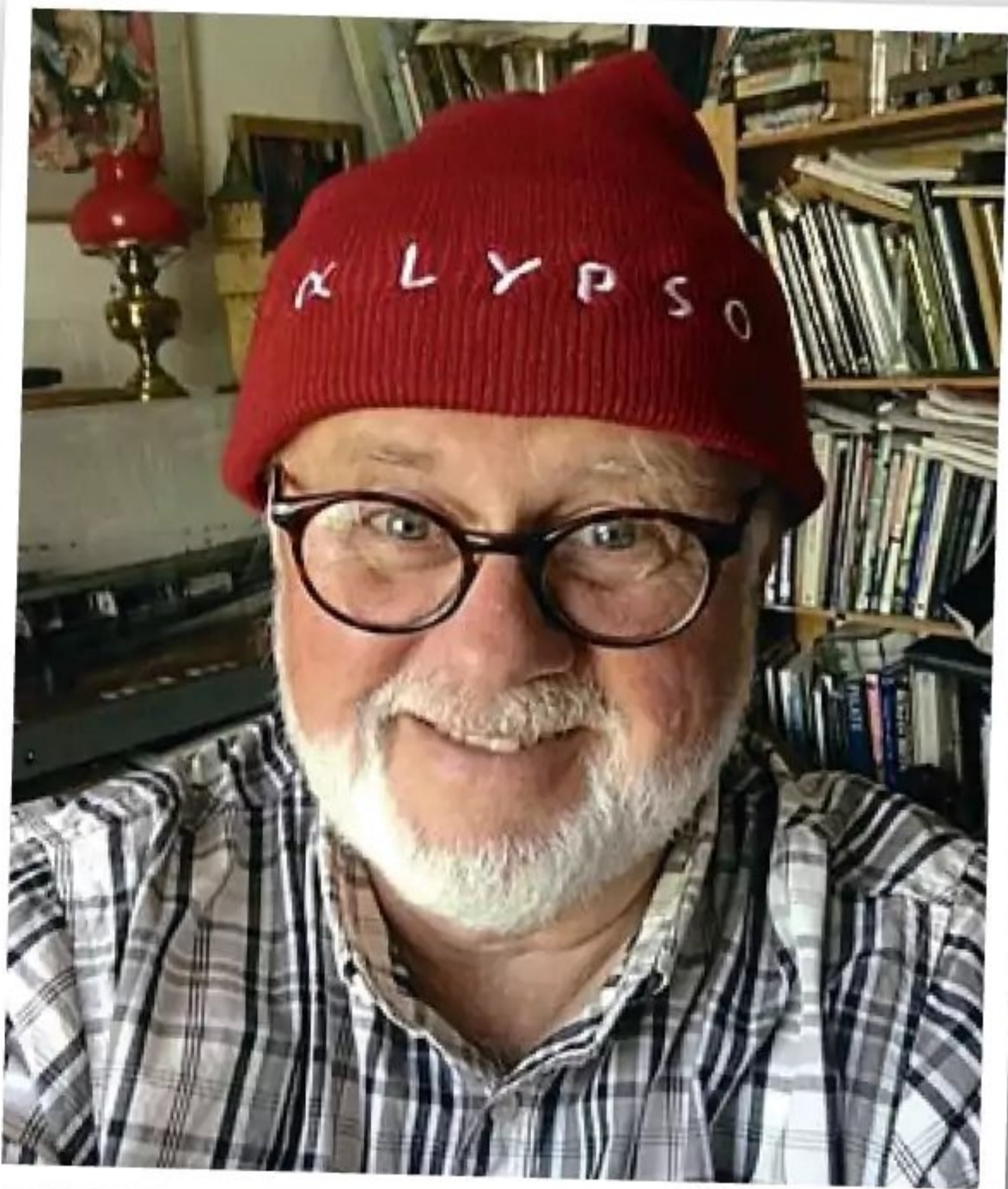
Snug as a bug in a beanie

Just a quick note to say that my Calypso beanie hat arrived in the post today, alongside the September issue of MB, so what a wonderful surprise!

It's a terrific hat and I can't wait to give it a run out at the pondside; the lads will all be jealous, I'm sure! It's also given me the impetus to crack on with my Billings Calypso, from which I've taken a break of late. So, a huge thank you in advance to Model Boats and to Billings Boats for keeping my head, with its ever-decreasing thatch, warm this coming winter.

ROGER MORGAN
EMAIL

You are so welcome. It looks great on you, Roger! Ed.



Roger Morgan, all red(dy) for winter.

Fixed wheels to feathering resource

In his article in the August issue, Colin Bishop noted that feathering paddle wheels "are not commercially available these days". I ran into this problem when I wanted to convert the fixed wheels to feathering on my model of the RMAS *Forceful*. As I didn't have the skill, the tools or the patience to make by hand or machine the parts described on the plan by Baker and Jones, I instead took the latter's information and created the graphics to have the flat parts

made by the photo-etching process. Mine were made by PPD in Scotland, but the 4D Model Shop offers a similar service.

I will be happy to provide a copy, to anyone interested, of the graphics I used.

ROY CHEERS
EMAIL

Cheers, Roy (sorry, couldn't resist), that's a really kind offer. I will pass on your contact details to anyone interested. Ed.

Below: Herve Clabaux, the President of the St Omer club, and his fishing boat, which includes a very innovative sound unit.



Above: Warships, lifeboat and various other types of crafts on display – and check out a member of the next generation of model boaters obviously enjoying the on-water demonstrations.

Right: Saturday, August 5: yep, it rained, but that clearly didn't dampen anyone's spirits at this friendly international show hosted by MBAD.



Above: Visiting club members from Calais and St Omer showing off just one of the models, the FS Loire, they brought along with them.

Below: The Broomfield Park MBC stand, including a model of Savannah.



Above: The French clubs' stand, shared by members of Modelisme Naval due Calais and Modelisme Naval de l'Audomarois St Omer.

MBAD's August pool party

I thought you and your readers may like to see some photos (taken by my fellow Model Boats Association Dover member Bernard Le Ny) of the international event we hosted over the weekend of August 5/6 at the Dover Transport Museum. Ten clubs from all over the South of England and two from France attended and everyone had a wonderful time, despite the weather on the Saturday.

ALAN POOLE
MBAD SECRETARY

Santé! Neil Terry (far left) from Dover tries out the French beer with Daniel Cordier (left) and Patrick Renault (right) from the Calais club.

Looks everyone had a lot of fun and came prepared for the good old British weather. Much appreciated, Alan, and please pass my thanks on to Bernard for capturing all those magnificent models and modellers on camera. Ed.



The view from our commentary position.



The Uplyme Model Dockyard stand, featuring Beck's Model submarines.

Sunday, August 6: what a difference a day makes!



OUT AND ABOUT

Rawdon MBC August Open Day

I hope you and your readers will enjoy seeing a few of the shots I took on the August 19 at the Rawdon MBC Open Day. A great day was had by all at the club's gorgeous venue (Larkfield Road, Rawdon, LS19 6EQ)

NEIL TERRY

<https://linktr.ee/neilterryphotography>

Thank you so much, Neil. Great to see how you well and truly immerse yourself in your work! Ed.



Next month in **model Boats**

In our November 2023 issue, on sale from Friday, October 20, 2023, be sure not to miss...



● **Sir John**
The scratch-built from plan
(well, loosely, anyway!)
gentleman's launch

● **Lady Jane**
"She's everything.
He's just Ken!"



● **A FREE PULL-OUT PLAN & guide for building this working gravel pit tug**



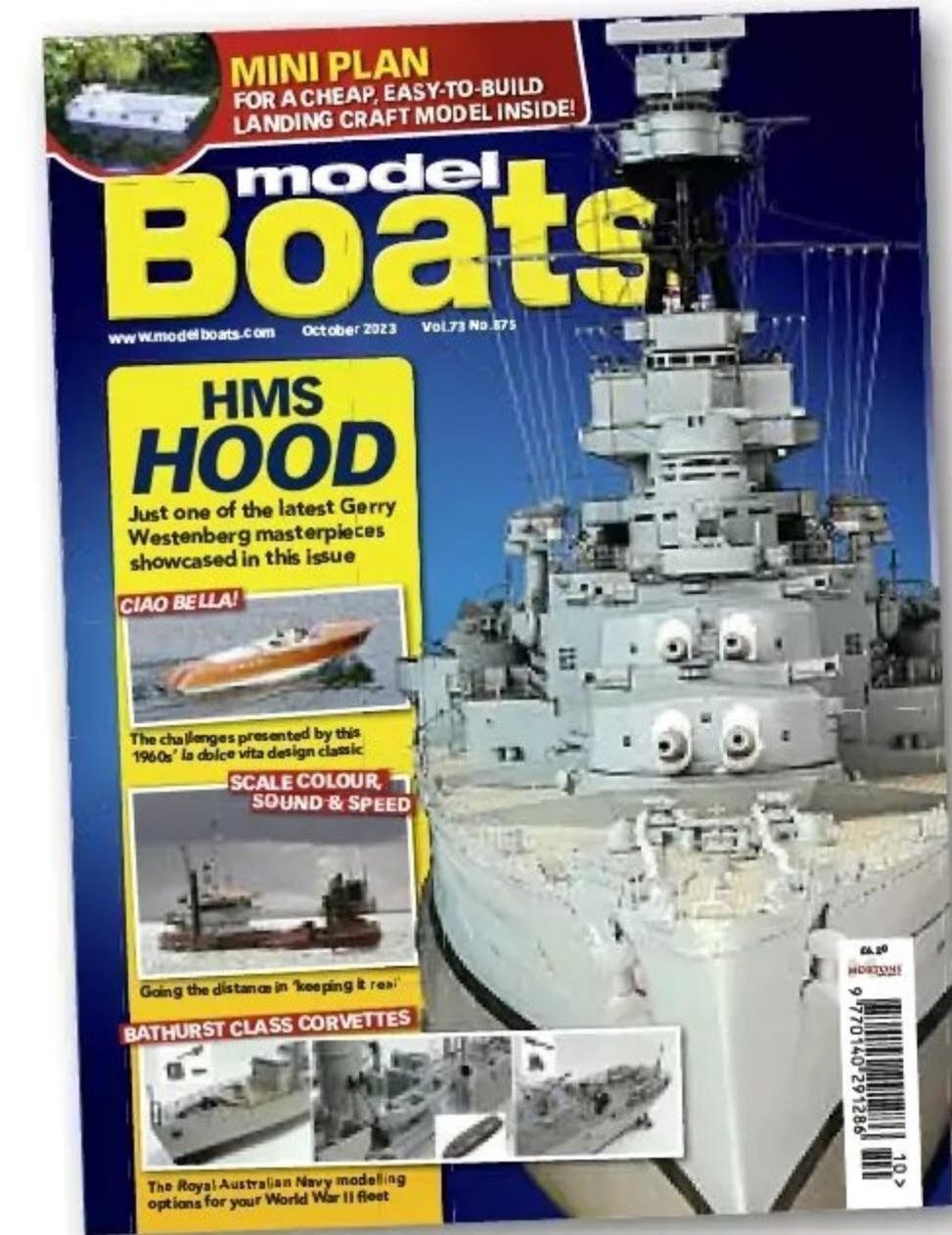
PLUS A thematically varied selection of feature-length articles, all your favourite regular pages – including Your Models, Your Letters, news, reviews – and lots more (Please note: content may be subject to change)

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 you copy of the November 2023 issue, which goes on sale at all good newsagents from Friday, October 20, 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 **Just ask!**

**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**

**SECURE ONLINE SHOPPING
& MAIL ORDER SERVICE**

Free mainland UK delivery on orders over **£100**
(*excludes surcharge areas)

**WE STOCK A WIDE RANGE OF RADIO CONTROL AND
STATIC DISPLAY KITS, FITTINGS, TOOLS AND PLANS**

**SPECIALIST ADVICE
AVAILABLE!**



**BIRTHDAY, LEAVING
PARTY, ANNIVERSARY
GIFT VOUCHERS
AVAILABLE**

TAMIYA RADIO CONTROL

We sell a full range of TAMIYA
CARS and TRUCKS the HOP-UP
options and spare parts.
Also the associated glues, paints
and tools.

Aeronaut Radio Controlled Boats

Anna 3 Fishing Cutter inc Fittings	237.60
Bellissima Sailing Yacht	249.00
Bismark Battleship with Fittings set	462.95
Capri Sport boats	144.00
Clipper Sail Boat	41.00
Diva Cabin Cruiser 580mm	76.00
Hansajolle Sailing Yacht	244.00
Kalle 2 Harbour tug	228.00
Mowe 2 Fishing Boat 495mm	56.95
Nurnberg battleship with Fittings 905mm	249.95
Queens Sports Boat Circa 1960's	169.99
Ramboline: Push lighter	176.95
Scharnhorst Battleship With Fittings 1170mm	419.95
Spitfire Outboard racing boat	105.00
Tirpitz Battleship with Fittings 1255mm	492.95
Torben Modern Hamburg Harbour Tug with Fitting	254.00

Amati

Adventure Pirate Ship 1760 1:60	84.90
Arno XI Ferrari 800kg Hydroplane 1953	329.00
Arno XI Ferrari Timossi 1953	381.00
Arrow Gunboat 1814 470mm	93.80
Bellezza Italian Sports Boat R/C	153.00
Bismark 50 inches long	493.00
Blue Nose Fishing Schooner	87.95
Chinese Pirate Junk 400mm long	84.00
Coca Spanish Cargo Ship 41cm	99.00
Egyptian Ship Sahure Dynasty 1:50 Scale	74.00
Elizabethan Galleon First Step Starter Kit	59.00
Endeavour Americas Cup Challengers 1:80	79.00
Endeavour Americas Cup Challenger 1:35	260.00
Endeavour Americas Cup Challenger Built Hull	248.00
Fifie Scottish Fishing Vessel R/C 700mm	224.00
Grand Banks 46 Modern schooner	529.00
Greek Bireme 480BC Length 560mm	74.95
Greek Galliot 18th Century 1:65	103.00
Hannah US Schooner - Ship in a Bottle	45.00
HMS Bounty 1787 Length 720mm	219.00
Mayflower English Galleon Length 650mm	159.95
New Bedford Whaleboat 1:16 Scale	112.00
Nina Caravel Of Columbus 1:65 Scale	89.95
Polacca Venetian Cargo Ship Length 450mm	119.95
Oseberg Viking Ship 1:50 Scale	99.00
Q-Ship Hunter Length 580mm	94.96
Rainbow J Class Yacht 1:80 480mm	79.00
Riva Aquarama - Italian Runabout 850mm	319.00
Robert E Lee Mississippi Steam Boat 1:150	243.95
Santa Maria 1492 1:65 Scale, Length 540mm	119.00
Titanic 1912 1:250 Length 1070mm	374.00
Xebec 1753 1:60	144.00

Caldercraft R/C Boats / Aerokits

Alte Liebe Harbour Tug C7020	398.00
Branarren Swedish Coastal Tanker C7015	450.00
Cumbrae 1:32 C7009	354.00
Fifie Amaranth Herring Drifter C7010	158.00
Imara Steam Berthing Tug	725.00
Joffre Tyne Tug C7000	379.00
Marie Felling C7003	625.00

Resolve Twin Screw Navel Tug C7024	779.00
Schaarhorn Steam Yacht C7021	505.00
Sea Commander 34" Cabin Cruiser C2001	219.00
Sir Kay 1:48 C7011	390.00
Talacre 1:48 C7005	379.00

Caldercraft Nelsons Navy

HM Bark Endeavour 1768 C9006	315.00
HM Bomb Vessel Granada 1756 C9015	298.00
HM Brig Badger C9017	224.75
HM Brig Supply 1759 C9005	189.00
HM Gunboat William 1798 1:32 Scale C9016	269.00
HM Mortar Vessel Convulsion C9012	126.00
HM Schooner Ballahoo 1804 C9013	79.99
HM Schooner Pickle 1778 C9018	174.00
HM Yacht Chatham C9011	119.00
HMAV Bounty C9008	256.99
HMS Cruiser 1797 C9001	269.00
HMS Diane 1794 C9000	599.00
HMS Jalouse 1794 C9007	295.00
HMS Mars 1794 C9007	264.00
HMS Snake 1797 C9002	260.00

Billings

Andrea Gail - Perfect Storm B726 R/C	240.00
Banckert B516 also called "Maasbank"	245.00
Bluenose B576 Schooner	158.00
Boulogne Etaples R/C B534 Stern Trawler	181.00
Calypso Research Vessel B560	432.00
Colin Archer B606 Sailing Boat	98.00
Colin Archer B728 R/C	463.00
Cutty Sark B564 110cm long	355.99
CUX 87 Krappencutter	145.00
Danmark Sail Training Ship B5005	387.00
Drazen Yacht B582	174.00
Ebjorn Ice Breaker B536	323.00
Emile Robin Life Boat B430	190.00
Esperance B908	61.00
Fairmount Alpine Dutch Super Tug B506	364.00
FD Yawl B701	114.00
Henriette Marie Pilot Cutter B904	64.00
HMS Bounty B492	216.00
HMS Endeavour B514	256.00
HMS Renown B604 50Ft Pinnace	91.00
HMS Victory B498	500.00
HMS Warrior B512	565.00
Hoga Pearl Harbor Tugboat R/C B708	155.00
Jylland Steam and Sail Frigate B5003	298.00
Kadet B566 R/C Vacuum Formed Hull - Beginners	112.00
Le Martegaou B902	61.00
Lilla Dan Training & Charter ship B578	158.00
Marie Jeanne B580 Fishing Boat	130.00
Mayflower B820	181.00
Norden B603 1:30 Scale 34.5cm long	110.00
Nordkap Trawler B476	252.00
Nordlandsbaaden 17C fishing boat B416	159.00
Norske Love B437 Three Masted Warship	358.00
RMS Titanic B510	1055.00
Sir Winston Churchill Schooner B706	163.00
Slo-Mo-Shun B520 R/C Race Boat	187.00

Smit Nederland B528	412.00
Smit Rotterdam B478	342.00
St Canute Tug B700	164.00
USS Constitution B508 1:100 34inches	281.00
Viking Ship Oseberg B720	233.00
Wasa B490 - Expert Range	356.00
Will everard Thames Sailing Barge 1:67 B601	123.00

Mantua & Panart R/C Boats

Mincio Freelance Mahogany Runabout	118.00
Bruma Open Cruiser Yacht 1:43	227.00
Venetian Passenger Motor Boat 1:28	270.00
Anteo Harbour Tug 1:30 Scale	413.00
Aiace Wooden Model Boat Kit Static or R/C	413.95

Occre Static Model Boats

Amerigo Vespucci 1:100 OC15006B With Sails	357.00
Apostle Felipe Galleon 1:60 OC14000	250.00
Aurora Brig 1:65Sc OC13001 682mm long	129.95
Bounty with Cutaway Section 1:45 OC14006	304.00
Buccaneer Pirate ship 565mm Length	116.00
Corsair Brig 1:80 Scale OC13600	167.00
Cross section Santissima Trinidad	125.00
Diana Frigate 1792 1:85 Scale	265.00
DOS Amigos Brigantine Schooner 905mm	138.00
Endurance 1:70 OC12008	167.00
Gorch Fock 1:95	332.00
Hercules Tug 1:50 OC61002	240.00
HMS Beagle 1:65 Scale	162.00
HMS Erebus 1:75 OC12009	161.00
HMS Revenge 1:85 Scale OC13004	167.00
HMS Terror With Sails 1:75 Scale	162.00
La Candelaria Bomb Vessel 1:85 Scale	182.00
N S Mercedes Spanish Frigate 1:85 Scale	270.00
Nuestra Senora del Pilar 1:46 Scale	392.00
RMS Titanic 1:300 OC14009	224.00
San ildefonso 1:70 Scale OC15004	479.95
San Martin Galleon 1:90 scale	167.00
Santisima Trinidad Cross Section 1:90	125.00
Ulises Ocean Going Tug OC61001	250.00

R0-Marin (Robbe)

Dolly II Harbour Launch 1:20	107.00
Florida Motor Yacht 1:10	149.95
Antje Fishing Boat 1:25	169.00
Neptun Tug inc fittings	235.00
Dusseldorf with Fitting set	419.00
Happy Hunter Salvage Tug with Fittings	745.00
Contesse sailing Yacht with Fittings	265.00
Katje Sports Boat	60.95
Paula III	153.00
San Diego Mega Yacht with Fittings	330.00
Sea Jet Evolution	169.99
Sergal Static Display Kits	
Cutty Sark Tea Clipper	447.00
Dutch Whaler "Baleneria Olandese"	284.00
HMS Bounty 1787 1:60	193.00
HMS Jamaica 14 Gun Sloop	155.00
HMS Peregrine Galley "Runner Class"	216.00
HMS President Light Frigate 1:60	109.00

HMS Racehorse Bomb Vessel 1:47	103.50
HMS Sharke Sloop 1711 1:50	155.00
HMS Victory Nelsons Flagship 1:78	405.00
Mississippi River Steamboat	425.00
Soleil Royal 1669 1:77	739.00
Sovereign of the Sea	750.00
Thermopylae Tea Clipper	99.00
VASA Swedish Man Of War 1628 1:60	759.00

Victory Models

Lady Nelson Cutter XVIII Century	115.00
HM Bomb Vessel Granada 1:64 Scale	269.00
HMS Fly 1776 1:64 Scale	259.00
HMS Pegasus 1776 1:64 Scale	340.00
Mercury 20 Gun Brig 1:64	354.00
Revenge 1577 Navy Royal Warship 1:64 Scale	395.00
HMS Vanguard 1787 74 gun ship 1:74 Scale	685.00

WE STOCK A LARGE RANGE OF HARDWARE INC:

2.4GHz Radio control systems
Raboesh bow thrusters
Lead acid, NiMh & Lipo batteries
Speed controllers, brushed and brushless
Battery chargers, charger leads, connectors, power supplies
MFA Motors Geared and Standard, Mounts & Gear Boxes
Radio Batteries & Chargers
Receivers by Radiolink, Hitec, Carson, etc.
Hitec, Carson, Radiant servos & servo testers
Sail winches from Hitec & Krick Windforce
Aerials & antennas, connector linkages, Rubber Push bellows
Futaba & JR switches, servo extension leads & plugs
Universal Joints/ couplings, heavy duty couplings & Smaller
Propshafts, rudders
Raboesh, Radio Active, Aeronaut & Schulze Propellers

Building Materials

Carbon Fibre tube & rods
Brass nuts, dome head Rivets
Captive Nut, cheesehead & countersunk screw, E- Clips
Nyloc nuts, pan head screws, slot head screws
Rivets, springs washers studs and well nuts
K&S Precision Metals range of sheets, strips, rods, angles
Evergreen Styrene
Maquett coloured profile sheets. PVC, lexan & styrene
Natural wood in lime, mahogany, walnut, maple etc
Stripwood, sheets, dowels and half round profiles.
MDF sheets, plywood.

And to Complete your model every kind of

All Purpose, Super Glue, Wood Glue, ABS & Plastic Glues
Billings, Humbrol, Mantua, Occre, Revell, Tamiya in paints
Vallejo paints, Admiralty & Occre Wood Stains
Humbrol, Mantua, Milliput, Revell, Vallejo fillers & puttys
Guild sanding sealers & dopes, grades of sanding paper
Modelcraft & tamiya masking tapes, refills and curved

Give us a call or facebook message
for many more products

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

Prices are correct at the time of printing, but are subject to change without notice



Mtroniks

electronics innovation

Over 30 years of
know how

24V VIPER Marine

Brushed speed controller
Available in 15A, 25A or 40A

FROM £41.99



No Relays or moving parts!

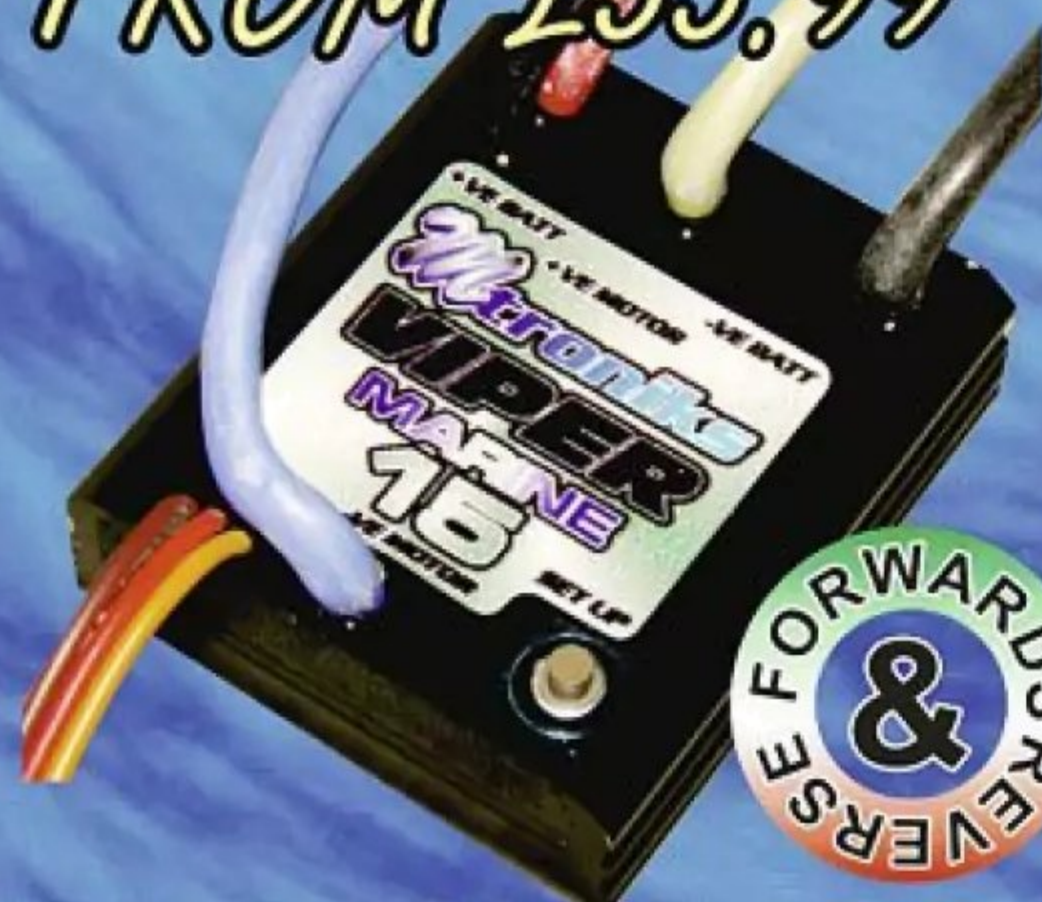
Ultra fine control for model boats running up to 24V. Available in different power ratings to suit all sizes of motors. 100% waterproof for trouble free modelling! See website or contact your local dealer for more information.



VIPER Marine

Brushed speed controller
15A, 25A, 40A or 75A

FROM £33.99



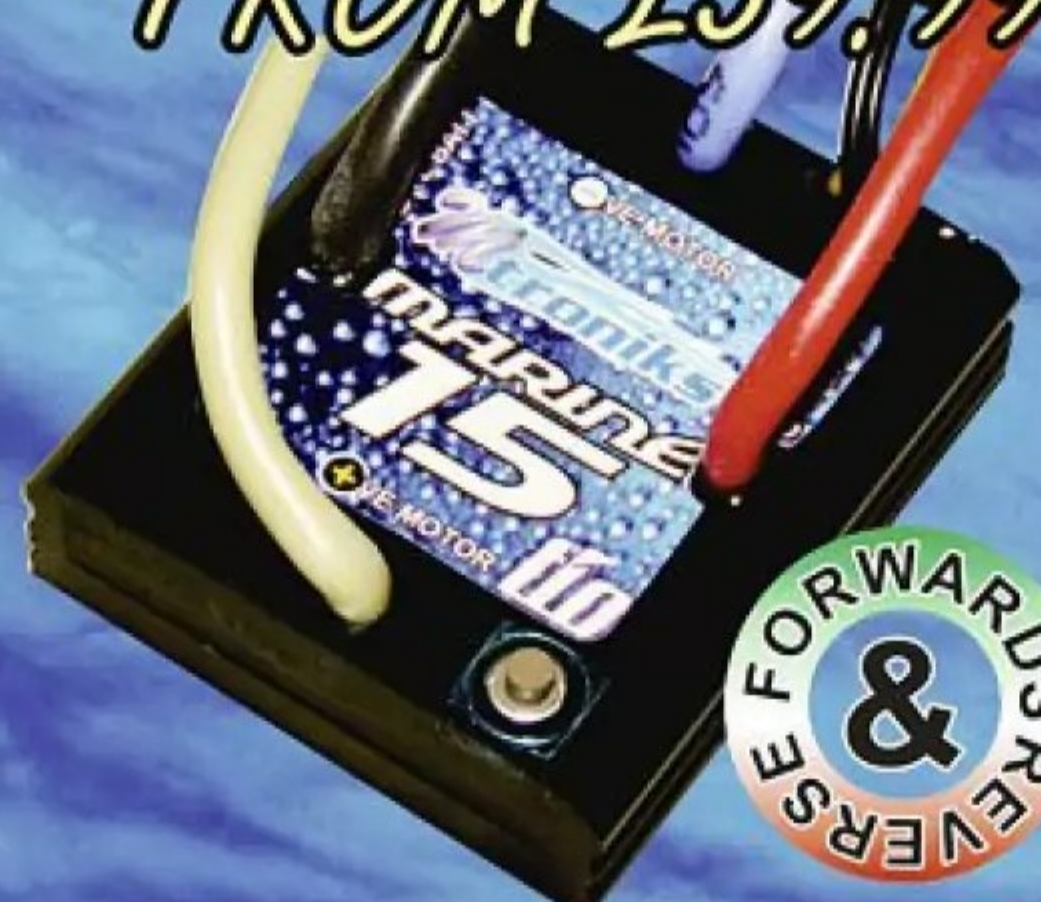
Ultra fine control for model boats running up to 12V. Available in different power ratings to suit all sizes of motors. 100% waterproof for trouble free modelling! See website or contact your local dealer for more information.



MicroVIPER Marine

Brushed speed controller
Available in 15A, 30A or 50A

FROM £39.99



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

£33.99



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



£19.99

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