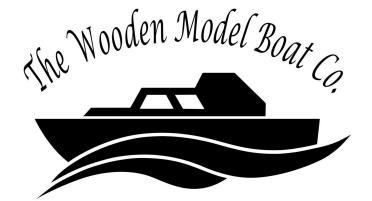


# Thames Lifeboat

Part No. WBC1003



## Specification

Length	440mm
Beam	120mm
Height	170mm
Finished weight	570g

## Recommended Running Gear

Motor	280 brushed
Speed controller	15A marine
Battery	7.4V 1100mAh LiPo
Prop shaft	150 x 2mm threaded
Propeller	30mm M2
Rudder	33 x 22mm brass
Motor coupling	Neoprene tube
Radio	2.4GHz 2-ch proportional
Servo	Mini or micro

## WELCOME ABOARD!

Thank you for purchasing this WMBC Lifeboat kit. Modelled on the E-Class boat, which was designed specifically for operation on London's bustling River Thames, this eye-catching model beautifully captures the spirit of the type. Combining both speed and manoeuvrability to cover the tidal reaches of the river, the E-Class was introduced in response to the recommendations of the 1989 Marchioness disaster enquiry..

Here at the Wooden Model Boat Company we pride ourselves on producing traditional model boat kits that build quickly and accurately into delightful semi-scale replicas. Using precise laser-cut balsa and ply parts, coupled with a semi self-jigging / interlocking hull frame, there's little that can go wrong during the construction of your model, providing you closely follow these instructions. If you're new to model boat building, allow a quiet 30 minutes to read these instructions carefully and to familiarise yourself with every part in the box, along with its function and when it's required in the assembly sequence.



## LIST OF PARTS

You will find the following parts in the box. Please check the list carefully and contact your retailer if anything is missing. Use this list in conjunction with the drawings of the laser-cut parts at the end of this manual.

Part No.	Description	Quantity	Material
1	Frame	1	3mm ply
2	Frame	1	3mm ply
3	Frame	1	3mm ply
4	Motor mount beam	1	3mm ply
4a	Motor mount bracket	1	3mm ply
4b	Motor mount nut (M3)	2	Mild steel
4c	Motor mount bolt (M3)	2	Mild steel
4d	Motor mount washer (M3)	2	Mild steel
5	Frame	1	3mm ply
6	Frame	1	3mm ply
7	Servo and battery tray	1	3mm ply
8	Transom	1	3mm ply
9	Keel	1	3mm ply
9a	Keel doubler	4	1.5mm balsa
9b	Keel trebler	2	1.5mm ply
10	Deck support	1	3mm ply
11	Chine stringer	2	3mm sq. ply
12	Gunwale	2	6 x 3mm ply
13	Bottom skin (stern)	1	1.5mm ply
14	Rudder support rings	3	3mm ply
15	Bottom skin (main)	2	1.5mm balsa
16	Side skin	2	1.5mm balsa
17	Bow profile blocks	28	3mm balsa
18	Bow deck coaming	1	3mm ply
19	Forward deck coaming	2	3mm ply
20	Aft deck coaming	2	3mm ply
21	Stern deck coaming	1	3mm ply
22	Spray rails	2	3mm sq. ply
23	Deck frame	1	3mm ply
24	Deck	1	1.5mm ply
25	Deck frame biscuits	3	1.5mm ply
26	Bow gunwale standoff	2	3mm ply
27	Midship gunwale standoff	2	3mm ply
28	Stern gunwale standoff	2	3mm ply
29	Gunwale	1	3mm ply
30	Equipment locker side	2	1.5mm ply
31	Rear seat side	2	1.5mm ply
32	Rear seat front	1	1.5mm ply
33	Equipment locker front	1	1.5mm ply
34	Equipment locker rear	1	1.5mm ply
35	Rear seat top	1	1.5mm ply
36	Equipment locker top	1	1.5mm ply
37	Steering console front	1	1.5mm ply
38	Steering console locker doors	4	1.5mm ply
39	Steering console top	1	1.5mm ply
40	Steering console cross piece	1	1.5mm ply
41	Steering console side	2	1.5mm ply
42	Steering console dashboard	1	1.5mm ply
43	Comms tower side frame	2	1.5mm ply
44	Comms platform bearer	2	1.5mm ply
45	Upper comms tower joiner	2	1.5mm ply
46	Lower comms tower joiner	2	1.5mm ply
47	Comms platform	1	1.5mm ply
48	Aerial	2	2mm dowel
49	Radar antenna	1 (2 pcs)	Printed plastic
50	Seated crewmen	1	Printed plastic
51	Steering wheel	1	Printed plastic
52	Stretcher	1	Printed plastic
53	Fairleads	2	Printed plastic
54	Samson post	1	Printed plastic
55	Samson post bar	1	Printed plastic
56	Deck magnets	2 (4 pcs)	6mm diameter
57	Stand end plates	2	3mm ply
58	Stand name plates	2	3mm ply

### GENERAL INFO: STICK WITH US!

The team here at the Wooden Model Boat Company are acutely aware that quality tools and materials play a vital part in the successful completion of any model build. Fortunately our staff are active modellers too, so we're very fortunate in being able to both supply and thoroughly recommend the perfect glues, paints and materials that are needed to complete your Thames Lifeboat to a very high standard. We can do this because we've built one. Actually, more than one!

## RECOMMENDED MATERIALS

The following is a list of the recommended materials you'll need to complete the model as depicted on the box and in the accompanying drawings and photographs (see [jperkins.com](http://jperkins.com)).

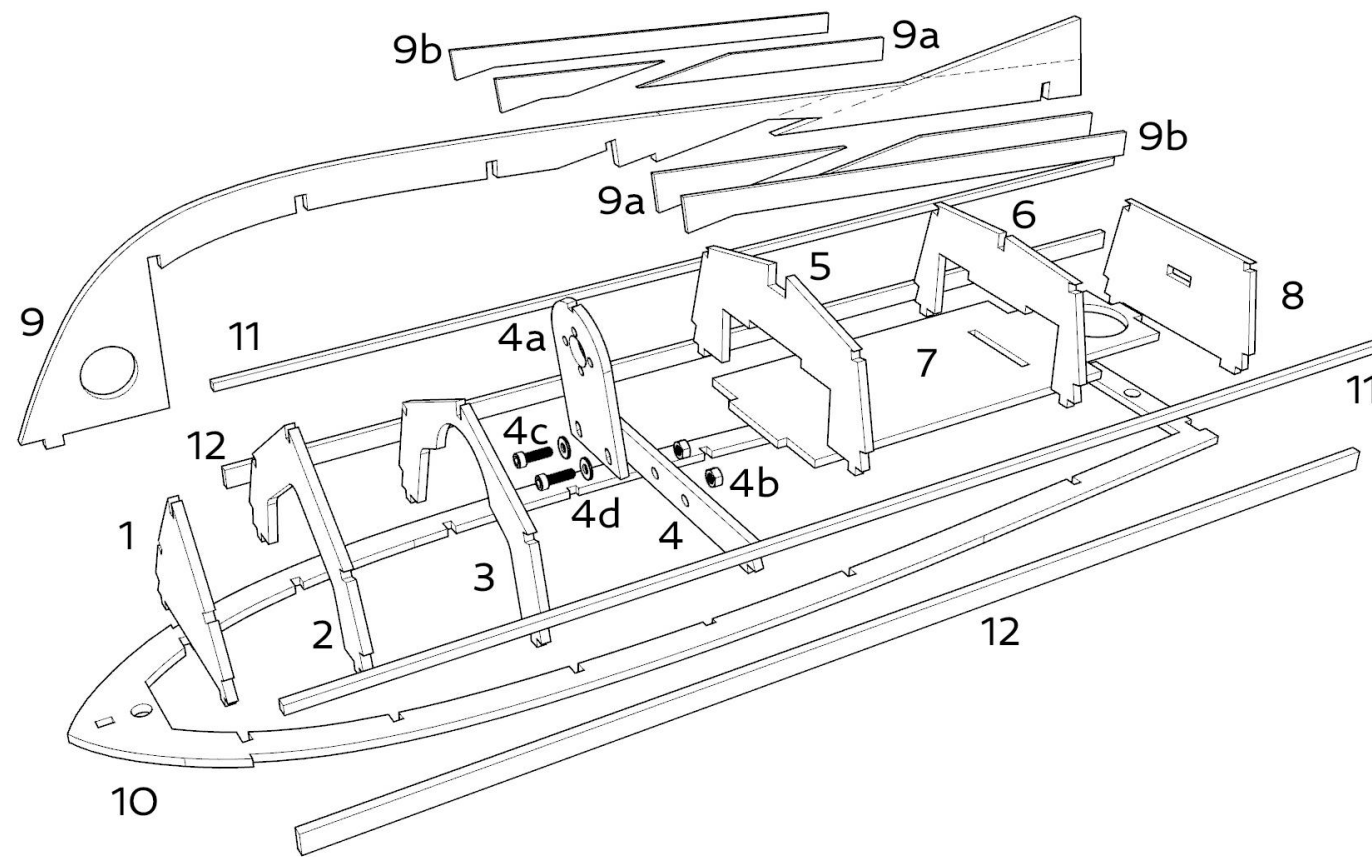
Description	J Perkins Part No.
MD Aliphatic White Glue	MDP5524821
ZAP Epoxy (15 min)	5525782-1
MD Super Filler	MDP5524830
500-Grit Sandpaper	-
800-Grit Sandpaper	-
1200-Grit Sandpaper	-
Sanding block	-
Guild Lane Sanding Sealer (60ml jar)	GLDCEX1100060
Guild Lane High Build Primer (400ml aerosol)	GLDCEX0960400
Guild Lane Satin Fuel Proofer (400ml aerosol)	GLDCEX1310400
Chroma Enamel Gloss Orange (400ml aerosol)	GLDCHR6406
Chroma Enamel Gloss Red (400ml aerosol)	GLDCHR6401
Chroma Enamel Gloss White (400ml aerosol)	GLDCHR6400

## STEP-BY-STEP

This assembly manual is divided into six sections: 1. Hull Frame Assembly; 2. Hull Skins & Profiling; 3. Deck Substructure; 4. Deck Assembly; 5. Finishing; 6. Motor & Radio Installation. All sections are supported by a build sequence whilst stages 1, 2, 3 & 4 are additionally supported by an exploded illustration (with numbered parts) for easy identification. Please follow these steps in precise order. Find yourself a clear, flat and solid surface for assembly and make sure you have all the components, glues and materials necessary to complete a stage before starting it.

### Section 1: Hull Frame Assembly

Note that the hull frames are assembled upside-down on a solid, flat surface.



□ 1. Locate all the parts shown above, along with the stand parts (57 & 58 – see parts drawings) and give all the brown, laser cut edges a light sanding to aid glue adhesion. Glue the stand end plates (57) to the stand nameplates (58). Temporarily attach the deck support (10) to your flat building surface using six or eight small pieces of paper-thin low-tack double-sided tape. This will ensure that no twisting occurs during assembly of the frames and keel.

□ 2. Glue frames 1, 2, 3, 5 and 6 vertically into their respective locations and leave to cure.

□ 3. Take the four keel doubler pieces (9a), orientate them correctly, then glue two each side of the keel (9) adjacent to the marked propeller shaft slot, which is indicated by double dotted lines. Glue just one of the keel trebler pieces (9b) in position.

□ 4. Lift the keel, flip it over and, using a razor saw, very carefully cut through part 9 (only) to open out the propeller tube slot. Be very careful not to cut into part 9b. Keeping the keel absolutely straight, glue the second keel trebler (9b) in position (to mirror the first) and clamp until the glue has fully cured.

□ 5. Dry fit the keel, check it for accuracy, then remove, add glue and refit.

□ 6. Glue the angled transom (8) in position.

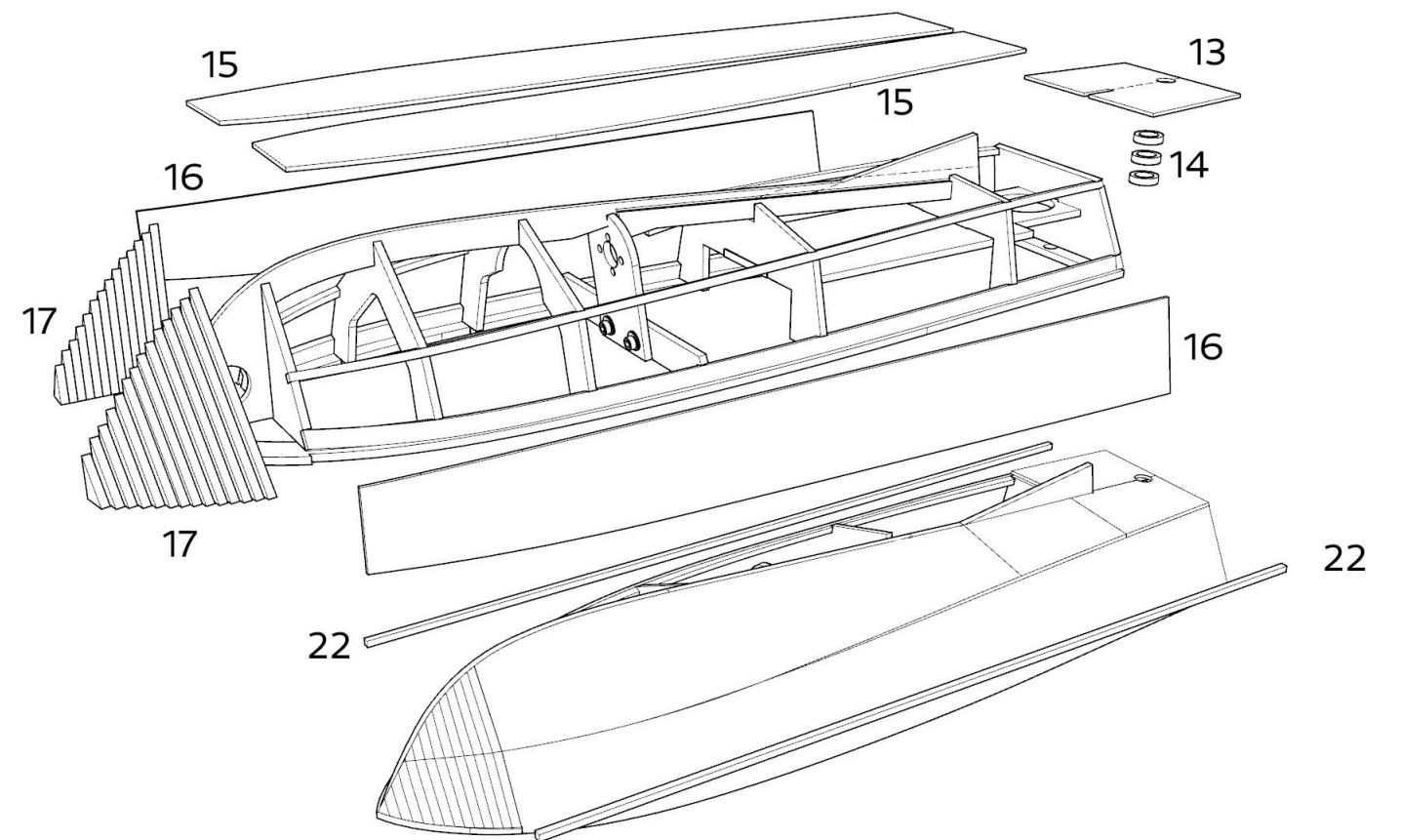
□ 7. Glue the chine stringers (11) in place from frame 1 to frame 8 and add the gunwales (12), leave to properly cure then remove the completed frame assembly from your building board.

□ 8. Using the supplied M3 nuts, bolts and washers (4b, 4c & 4d), bolt parts 4 and 4a together then glue part 4 (only) between frame 3 and 5, as shown. Do not glue 4a to the keel as this will need to be removed in order to fit the motor at a later stage.

□ 9. Glue the servo and battery tray (7) in position atop part 5 & 6.

### Section 2: Hull Skins and Profiling

Fitting the hull skins is by far the most challenging part of any boat build, however with care and attention it can also be one of the most rewarding. The old proverb 'measure twice, cut once' very much applies here. In other words, plan thoroughly before you take action. In this instance that means, carry out a dry run before fitting the parts, know in advance which glue you're going to use, work out how you plan to apply the skins and how you intend to hold the parts in place while the glue is setting. Make sure you have all the required tools and materials to hand and then...



□ 10. Locate the three rudder support rings (14), glue them cleanly and accurately together, then glue them to the inner surface of the stern skin (13) in perfect alignment with the hole for the rudder tube. When set, glue part 13 in position with the forward edge located exactly half way over Frame 6.

□ 11. Check the bottom skins (15) for fit, mark the inner surface with the position of frames 1, 2, 3, 5 and 6, then apply contact adhesive to the marked lines. Apply contact adhesive to the mating part of frames 1, 2, 3, 5 & 6 and leave for 10 minutes to dry. Dampen only the outer surface of the bottom skins (15) with water (to assist in bending the wood), apply aliphatic white glue to the mating edges of the skin and hull, then carefully position each skin and press into place. If the forward edge of the skins prove difficult to attach to frame 2, use medium cyano and kicker to finish the job.

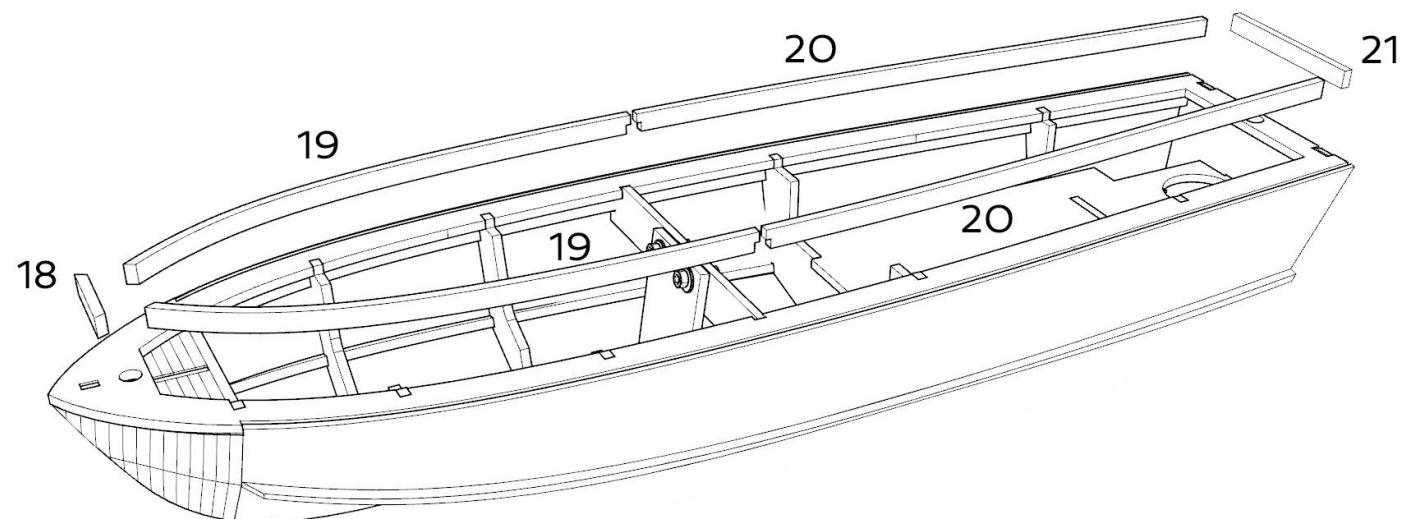
□ 12. Check the outboard edge of the bottom skin and trim any overlap of the chine stringer. Locate the side skins (16), check for fit and mark the inner surface with the position of frames 1, 2, 3, 5, 6 and 8, then apply contact adhesive to the marked lines. Apply contact adhesive to the mating part of frames 1, 2, 3, 5, 6 and 8 and leave for 10 minutes to dry. Dampen only the outer surface of the side skins, as before, apply aliphatic white glue to the mating edges of the skin and hull, then carefully position each skin and press into place. If the forward edge of the skins prove difficult to attach to frame 2, use medium cyano and kicker, as before.

□ 13. Trim the hull skins flush with frame 1, locate the bow profile blocks (17) and glue in position.

□ 14. Use sandpaper to shape and profile the bow blocks and sand the hull to a finish ready for waterproofing. Pay particular attention to the chine lines, transom and bow, and use lightweight filler as required.

□ 15. Locate the spray rails (22), cut a slope in the leading edge, and glue accurately to the lower edge of the side skin, following the line of the chine (the junction of the bottom and side skins).

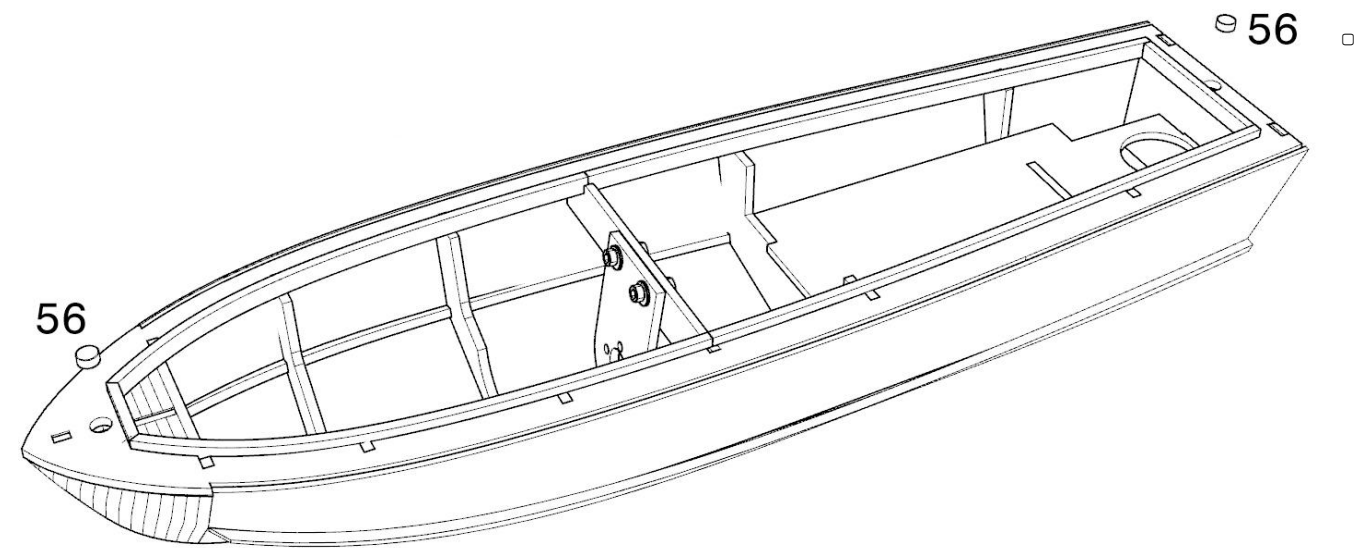
### Section 3: Deck Substructure



□ 16. Locate the deck coaming parts (18, 19, 20 & 21) and glue in position as shown.

### TOP TIP: WETTING WOOD

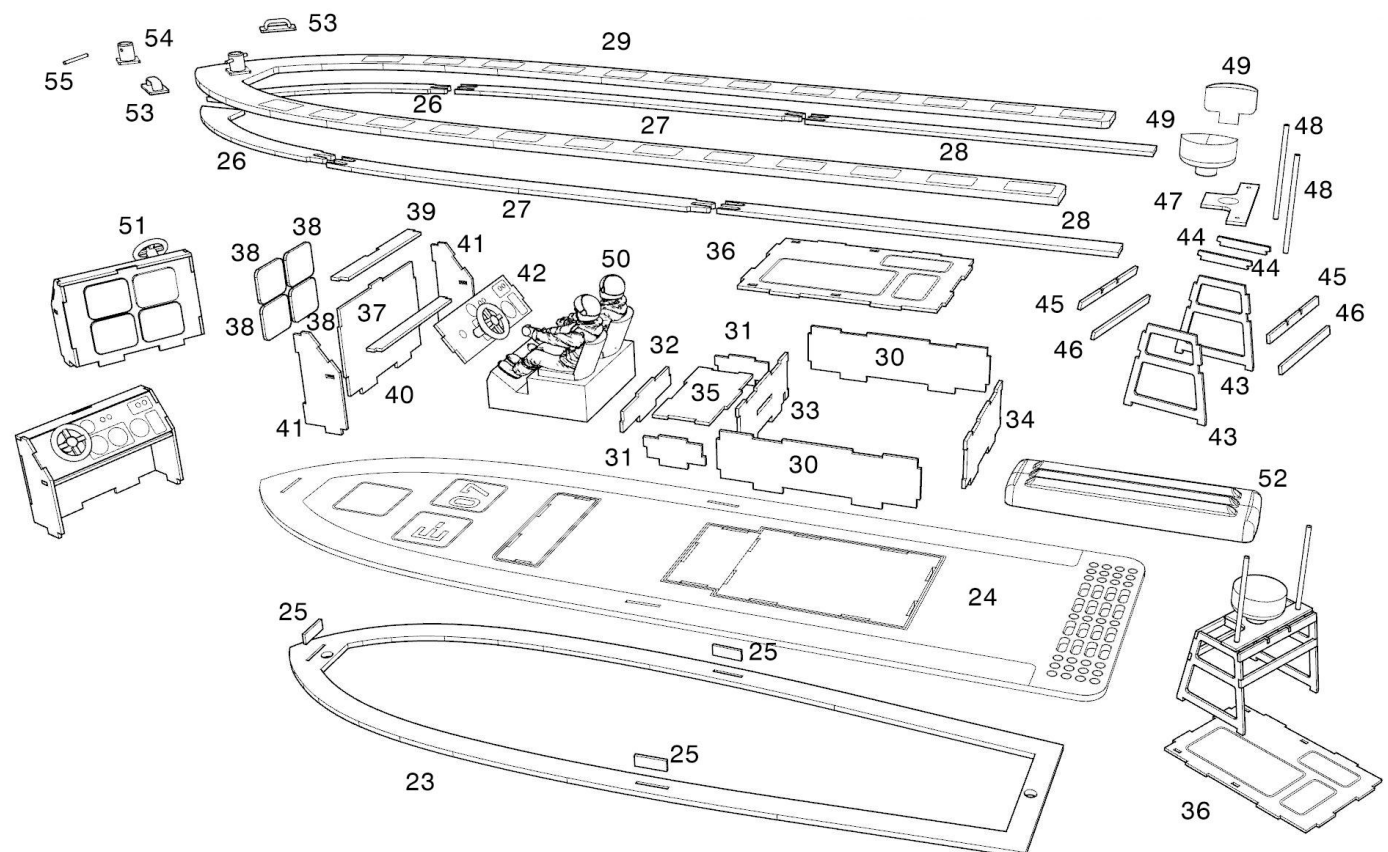
Wetting balsa sheeting on one side softens the wood fibres and acts as a plasticiser which encourages increased flexibility in the wood and allows the drier / stronger fibres (on the opposite side) to induce a bend in the direction of the dry side. Gentle heat from, say, a household iron, has a similar effect



17. Locate the deck magnets (56) and separate into north and south poles. Glue two units with identical poles into the deck support (10).

### Section 4: Deck Assembly

Before assembling the deck components, think carefully about the order of assembly, particularly with regard to painting and finishing. Follow these instructions to the letter.



- 18. Locate the parts shown in the illustration above and give all the brown, laser cut edges a light sanding to aid glue adhesion. Temporarily attach the deck frame (23) to your flat building surface using six or eight small pieces of paper-thin low-tack double-sided tape. This will ensure that no twisting occurs during assembly.
- 19. Locate the printed deck (24) and the deck frame biscuits (25). Glue the deck accurately in position on the deck frame using the biscuits to aid alignment. In order for the deck to clip snugly onto the hull it's essential that the deck frame (23) remains absolutely flat during this process. If necessary use suitably heavy weights to hold the edges of the deck down while the glue dries.
- 20. Locate the bow, midship and stern gunwale supports (26, 27 & 28) and glue in position on the deck (24), flush with the outer edge. As before, use heavy weights to keep the parts, and the deck below, pressed flat. When the glue has set, attach the gunwale (29) and reapply the weights.
- 21. Assemble the rear seat and equipment locker using parts 30, 31, 32, 33, 34, 35 & 36. NOTE! Do not glue this or the steering console to the deck until all items have been painted.
- 22. Assemble the steering console using parts 37, 38, 39, 40, 41 & 42.
- 23. Carefully glue together the comms tower using parts 43, 44, 45, 46 & 47. When set, attach the assembly to the top of the equipment locker.

## Section 5: Finishing

In this section we'll fit and remove the motor, install the propeller shaft and rudder tube. make the boat waterproof and carry out final assembly of the deck fittings.

- 24. Unbolt the motor mount bracket (4a) and attach your chosen 280 brushed motor. Refit the bracket / motor and slide your propeller tube into the hull. Accurately align the tube with the motor shaft in both the vertical and horizontal planes, then permanently glue the shaft in place using 15-minute epoxy. TIP! To guarantee alignment use a small piece of tight-fitting neoprene tube to link the motor and shaft. When the epoxy has set, remove the motor.
- 25. Trial fit the rudder tube, adjust as required (it should be absolutely vertical), then remove it for refitting after the hull is painted.
- 26. Apply two generous coats of Guild Lane sanding sealer to the hull, battery tray (7) and all wood parts that require painting, including the deck and cabin. Leave to dry between coats and sand after each coat with 800-grit (or similar) paper. If necessary, repeat until you're happy that the wood has been suitably sealed. Apply one generous coat of Guild Lane High Build primer to the hull and cabin, lightly sand with 1200-grit paper and check for imperfections. Fill as necessary, sand, re-prime then sand again until all parts are deemed suitable for the top coat.
- 27. Add top coats to suit your chosen colour scheme, not forgetting to prime, paint and detail the seated crewmen, radar antenna (49), fairleads (53), samson post (glue parts 54 & 55), steering wheel (51), aerials (48) and stretcher (52). The prototype predominantly uses Guild Lane Gloss Orange (upper hull & deck assemblies), Gloss Red (lower hull), High Build Primer (deck) and Gloss White (radar antenna and aerials). It also uses JP Black Trimline around the deck edge and to pick out other minor details.

- 28. Glue the steering console, equipment locker and seated crewmen to the deck. Follow this by attaching the fairleads (53), samson post, radar antenna and aerials.
- 29. Locate the remaining deck magnets (56) and glue them firmly into the circular pockets in the deck frame (23) making sure that the correct polarity orientation is observed.

## Section 6: Motor & Radio Installation

We recommend the Planet TS2+2 two-channel radio system for your Thames Lifeboat. Designed specifically for boat and car modellers the stick-style system is equipped with two primary channels (throttle and rudder) and two auxiliary channels which you may find useful on other boats as you explore the hobby further. In this respect the TS2+2 combo also includes a future-proof 6-channel receiver and a very competitive price tag. Visit [jperkins.com](http://jperkins.com) for details and pricing and pick one up at your local model shop.

- 30. Refit the motor then join the motor shaft and propeller shaft using tight-fitting neoprene tube. NOTE! You may need to shorten the prop shaft by cutting a small length from the non-threaded end.
- 31. Fit the propeller and refit the rudder (making sure the waterproof O-ring seal is in place between the rudder tube and hull) then tighten the rudder tube nut and washer against the top of the radio tray.
- 32. Attach your servo to the servo and battery tray (7) using padded double-sided servo tape and use a piano wire pushrod to link it to the tiller arm.
- 33. Use padded double-sided tape to attach your receiver (forward of the rudder servo), then test the model for balance, in water. Establish the ideal location for your chosen 2S LiPo battery then attach it using hook and loop tape. Check for leaks and rectify.

## HAPPY CRUISING

The Thames Lifeboat drives well in most conditions but, like all small model boats, excels in calmer water and looks very much the part, displacing a satisfying bow wave and leaving a tidy wake. Steering is positive and with the 280 motor / 2S LiPo combination the speed is beautifully matched to the type. Don't be tempted to over-power it. This boat has a semi-displacement (rather than a planing) hull and is not designed for out-and-out speed. When driven accordingly it is sure to bring enormous satisfaction.

We hope you've enjoyed building this model and are suitably enthused to try other boats in the Wooden Model Boat Company range.

Riviera Motor Boat – WBC1000

PT-109 Patrol Torpedo Boat – WBC1001

Police Launch – WBC1002

# LASER-CUT PARTS

Use these drawings to help identify the various laser-cut and printed parts that are included in your kit.

