Queen

aero-naut

Order No. 3080/00

Building instructions in English
can be downloaded from our website:
www.aero-naut.com

Vous pouvez télécharger la notice de
construction à parti de notre site web:
www.aero-naut.fr

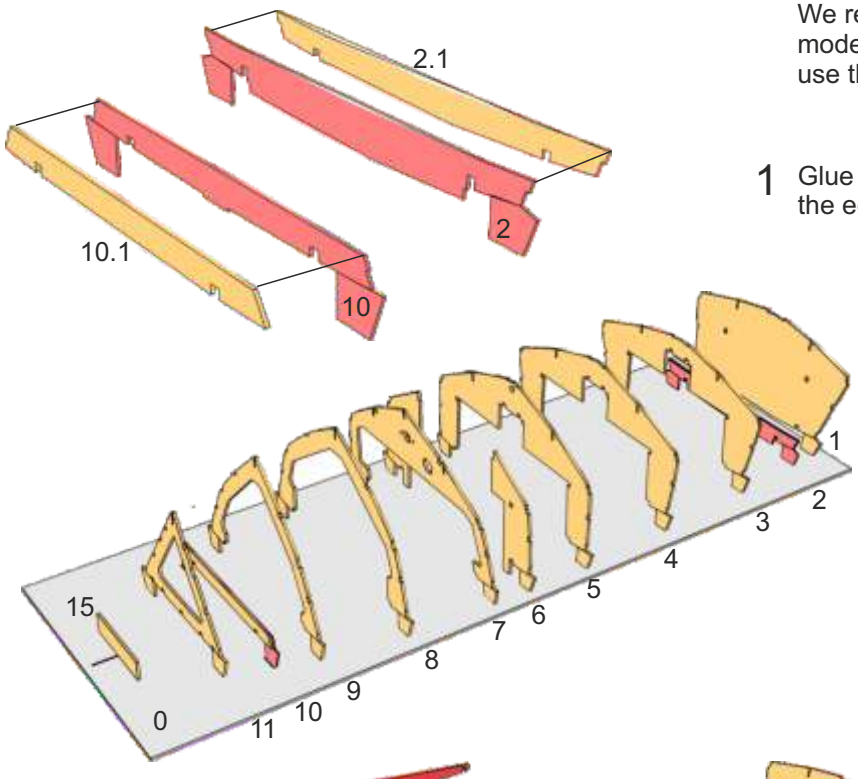
English version

Introduction:
The model should be assembled following the sequence of the stages of construction described in these instructions. Each subsequent stage then shows the previous sub-assembly or procedure in completed form.

Before starting construction please mark the part number on all the wooden components - apart from the strip material - working from the parts overview, which you will find at the end of these building instructions. This will make it much easier to locate the parts you need for each stage. Where the dimensions of parts are not mentioned in the individual stages of construction, please refer to the Parts List for the information. The manufacturing method leaves small tabs on some parts which have to be cut away using a thin-bladed modelling knife. The dark edges of the laser-cut parts should also be sanded off using abrasive paper in order to obtain sound glued joints. Check that all components fit accurately before reaching for the glue, and carry out any minor trimming required. Allow all glued joints to dry out fully before starting the next stage of construction. We recommend a fast-setting waterproof white glue for all joints involving the wooden structure; please take care to prevent adhesive running onto the untreated mahogany parts and any external surfaces which will be visible on the finished model, as the glue will show up through the final painted finish. We recommend that you apply a coat of sanding sealer (Order No. 7666/02) to the mahogany components before gluing. The whole of the boat - inside and out - must be given several coats of clear water-resistant boat lacquer before the model is placed in the water, as this waterproofs the wood and the glued joints. If you have to glue parts to areas which have already been lacquered, use two-pack adhesive for those joints.

Power system:

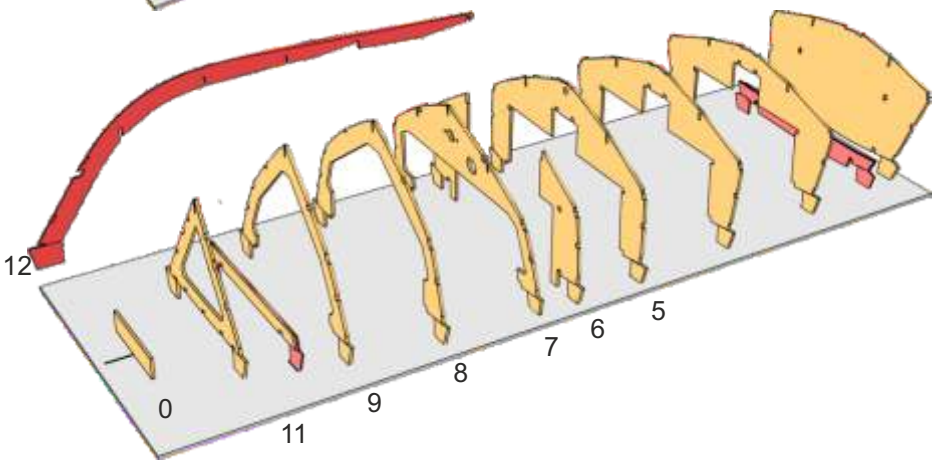
Race 650	with seven Sub-C cells or 2S LiPo	Three-bladed 40 mm Ø propeller
actro C5	with ten Sub-C cells or 3S LiPo	Three-bladed 50 mm Ø propeller
Speed 700, approx.1500 KV	with ten Sub-C cells or 3S LiPo	Three-bladed 50 mm Ø propeller



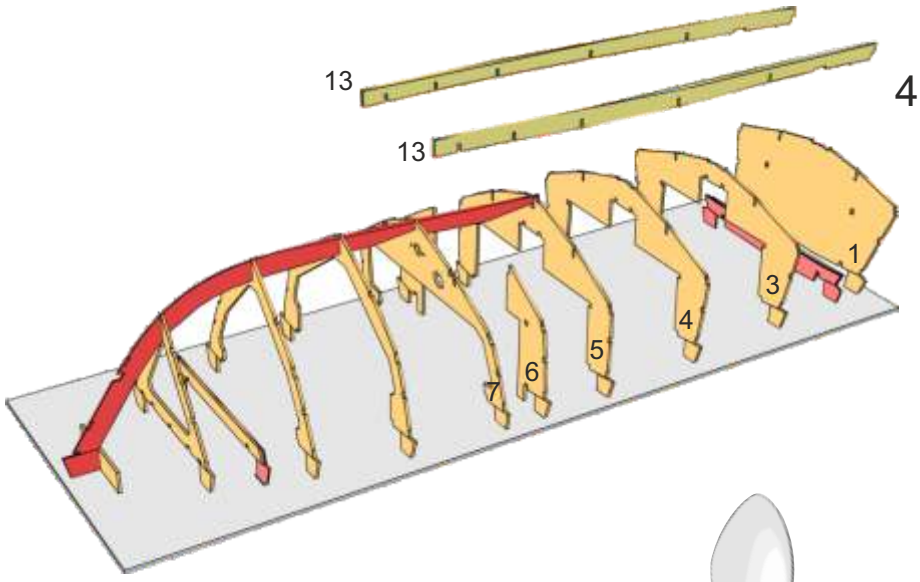
We recommend our aero-pick modelling pins, Order No. 7855/02, for use throughout construction.

1 Glue together the frames 2 + 2.1 and 10 + 10.1 with the edges flush.

2 Insert the frames 1 - 11 and the brace 15 in the slots in the jig 0. Frame 7 is prepared as standard to suit an actro C or 650-size motor. If you intend to fit a larger motor, you will need to modify frame 7 to suit.

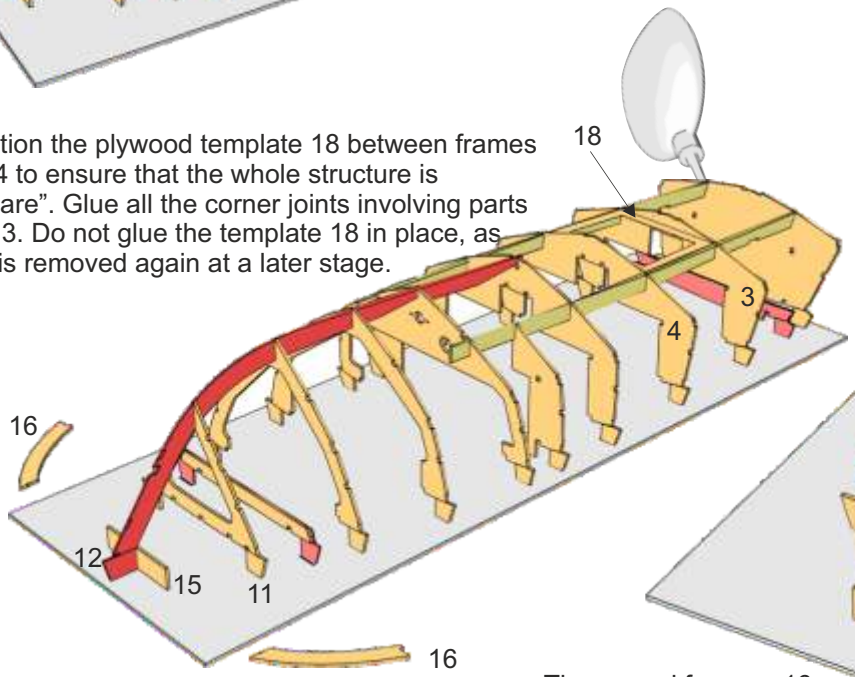


3 Carefully insert the keel 12 in the notches in frames 5 - 9, 11 and in the jig 0 at the bow; note that the keel 12 must end flush with the top of the frames. Frame 7 supports the motor (see Stage 22), and therefore must be fitted at an angle.

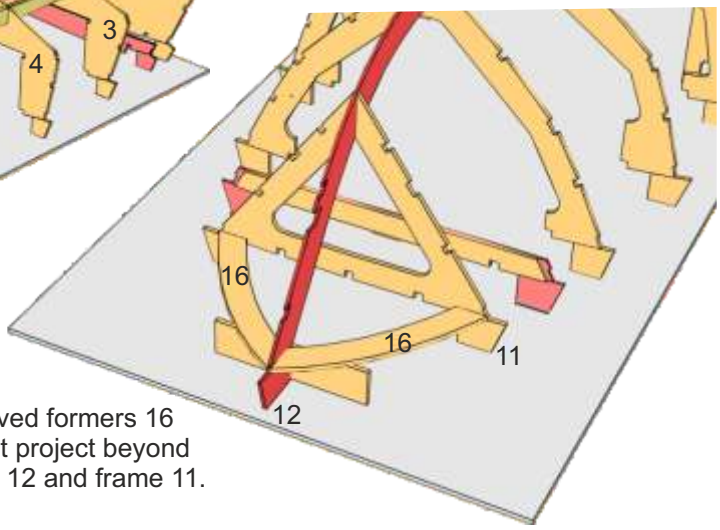


4 Insert the two fore-and-aft bearers 13 in the slots in frames 1 and 3 - 7, and press them fully into the notches; note that the bearers 13 must not project. Press frame 1 against the bearers 13 from the rear.

5 Position the plywood template 18 between frames 3 + 4 to ensure that the whole structure is "square". Glue all the corner joints involving parts 1 - 13. Do not glue the template 18 in place, as this is removed again at a later stage.

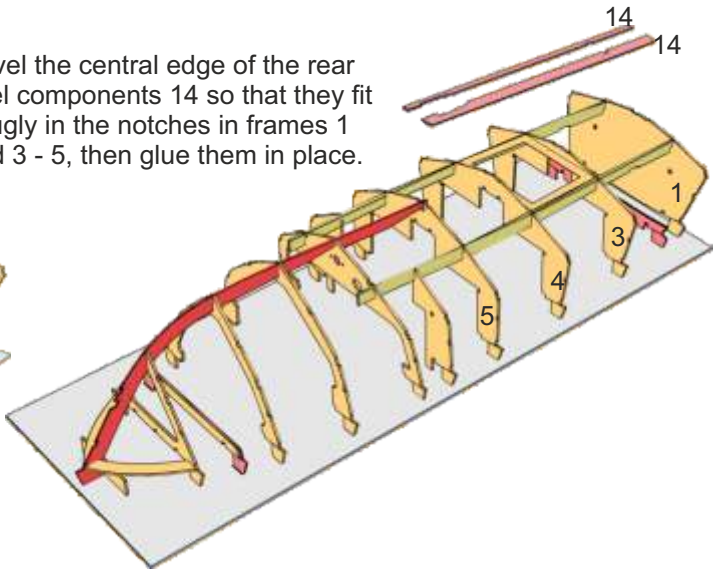


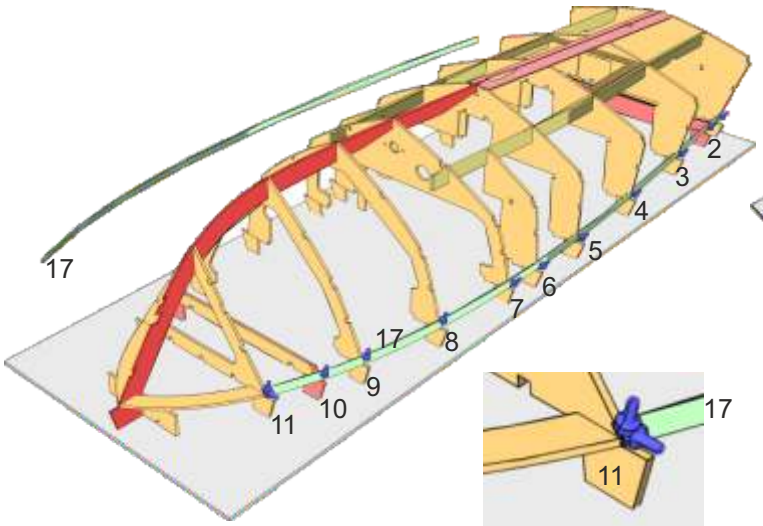
6 Insert the two curved deck support formers 16 in the notches in the keel 12 and frame 11; it should also rest on the brace 15.



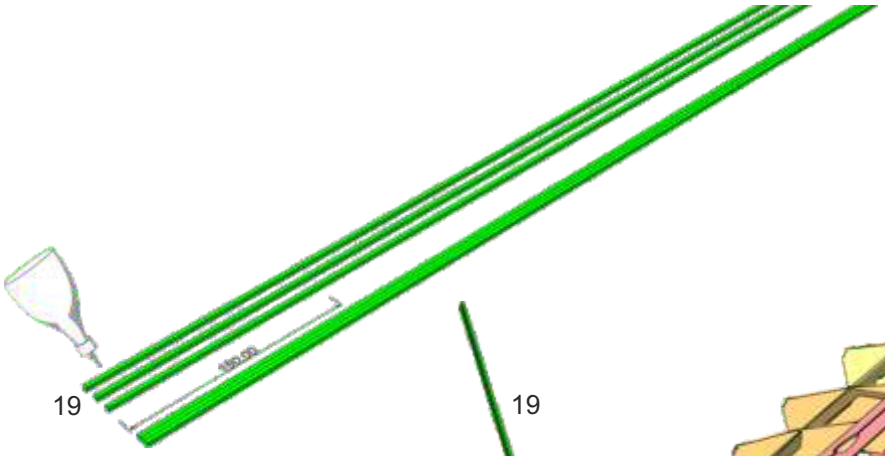
The curved formers 16 must not project beyond the keel 12 and frame 11.

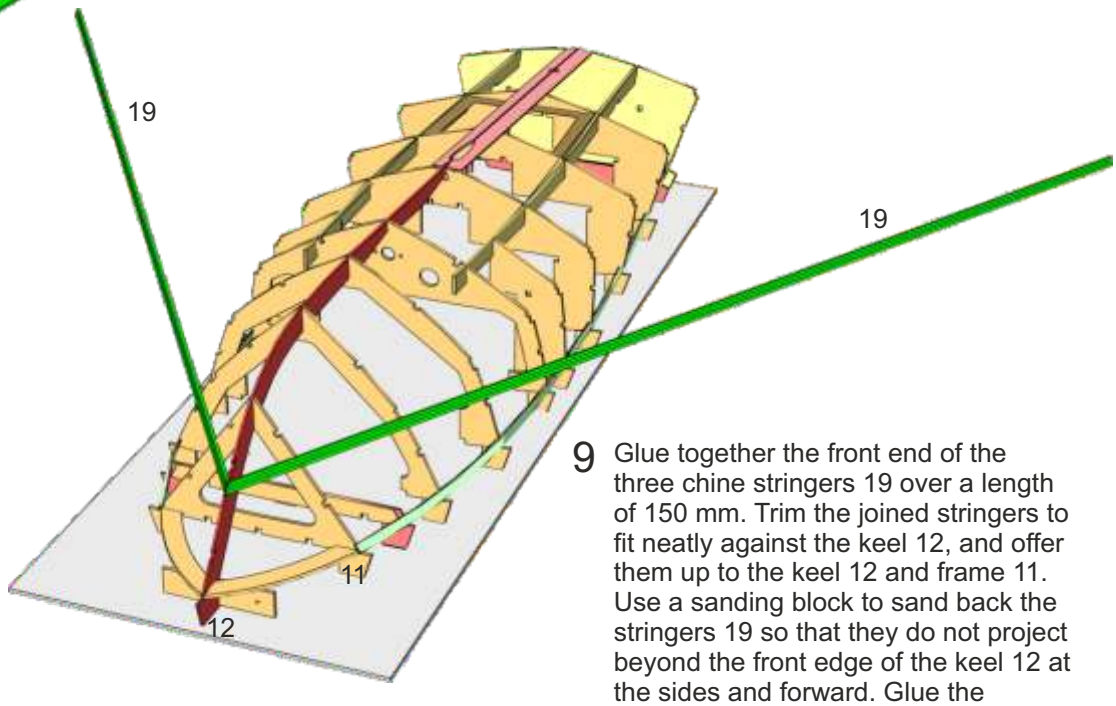
7 Bevel the central edge of the rear keel components 14 so that they fit snugly in the notches in frames 1 and 3 - 5, then glue them in place.

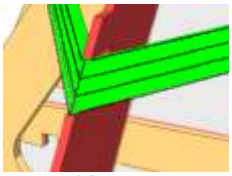




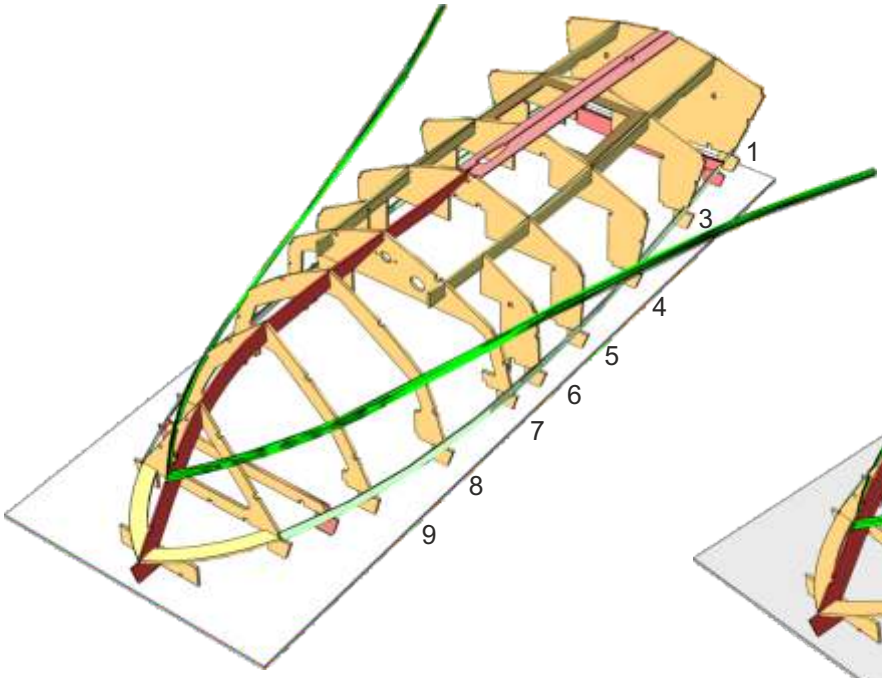
8 Glue the rails 17 to frames 1 - 11; parts 17 must be pressed fully into the notches in the frames; this is particularly important at frame 11 at the bow. Use modelling pins to hold the rails 17 in place.

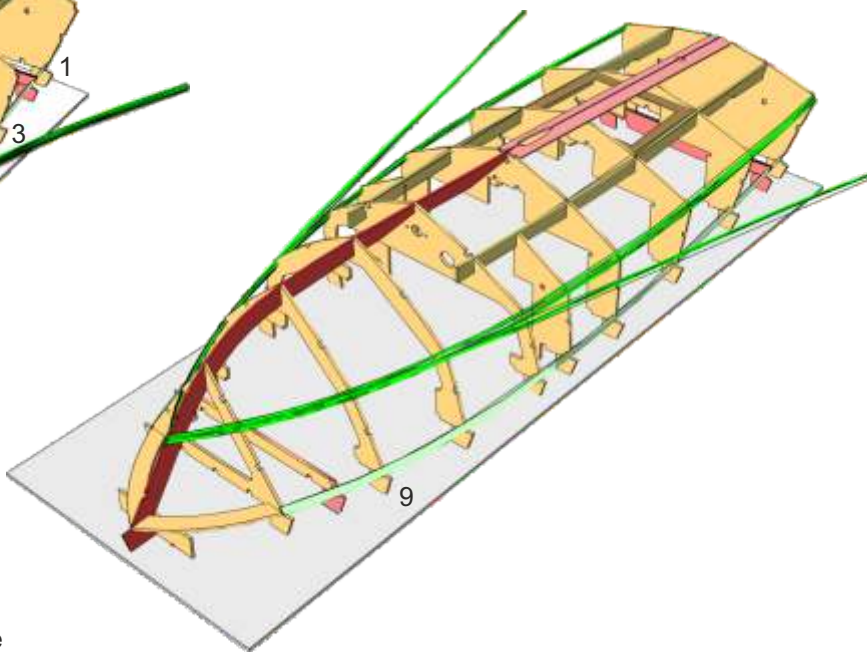




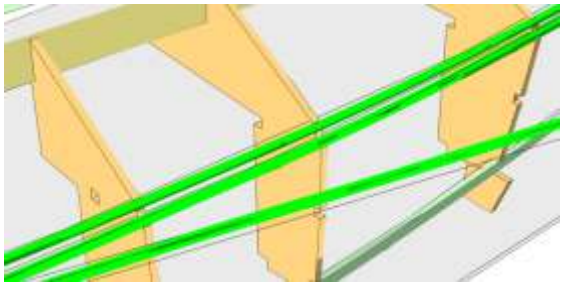


9 Glue together the front end of the three chine stringers 19 over a length of 150 mm. Trim the joined stringers to fit neatly against the keel 12, and offer them up to the keel 12 and frame 11. Use a sanding block to sand back the stringers 19 so that they do not project beyond the front edge of the keel 12 at the sides and forward. Glue the stringers to the keel 12 and frame 11, and allow the glue to set hard.





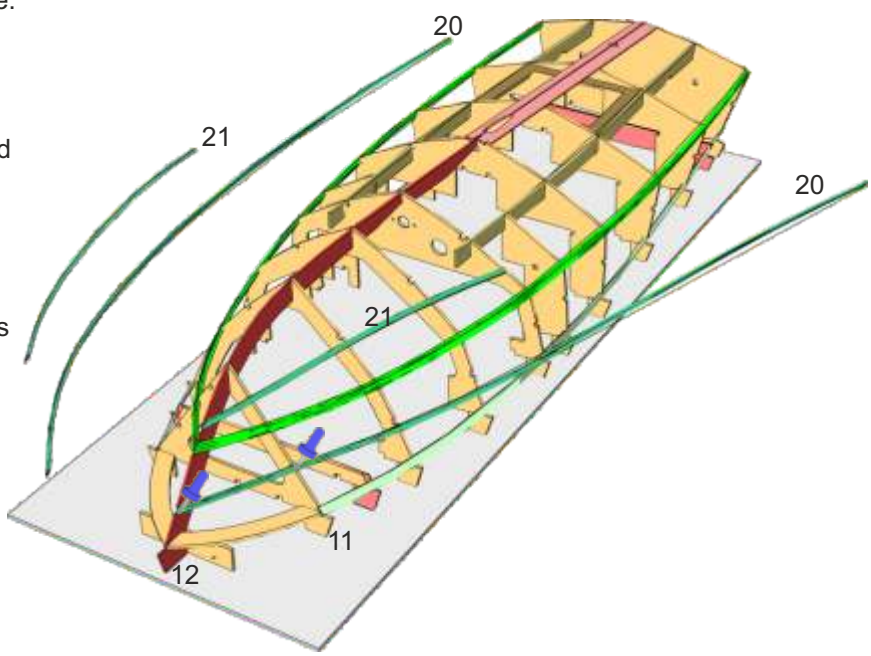
10 Glue the stringers 19 in place as far as frame 9, keeping them parallel. Continue by gluing only the upper and lower stringers to frames 1 - 8, then allow the glue to set hard. The central stringer 19 can now be glued between the upper and lower stringers; these parts define the chine of the hull. Once the glue has set hard, carefully sand the stringers to follow the shape of the frames.

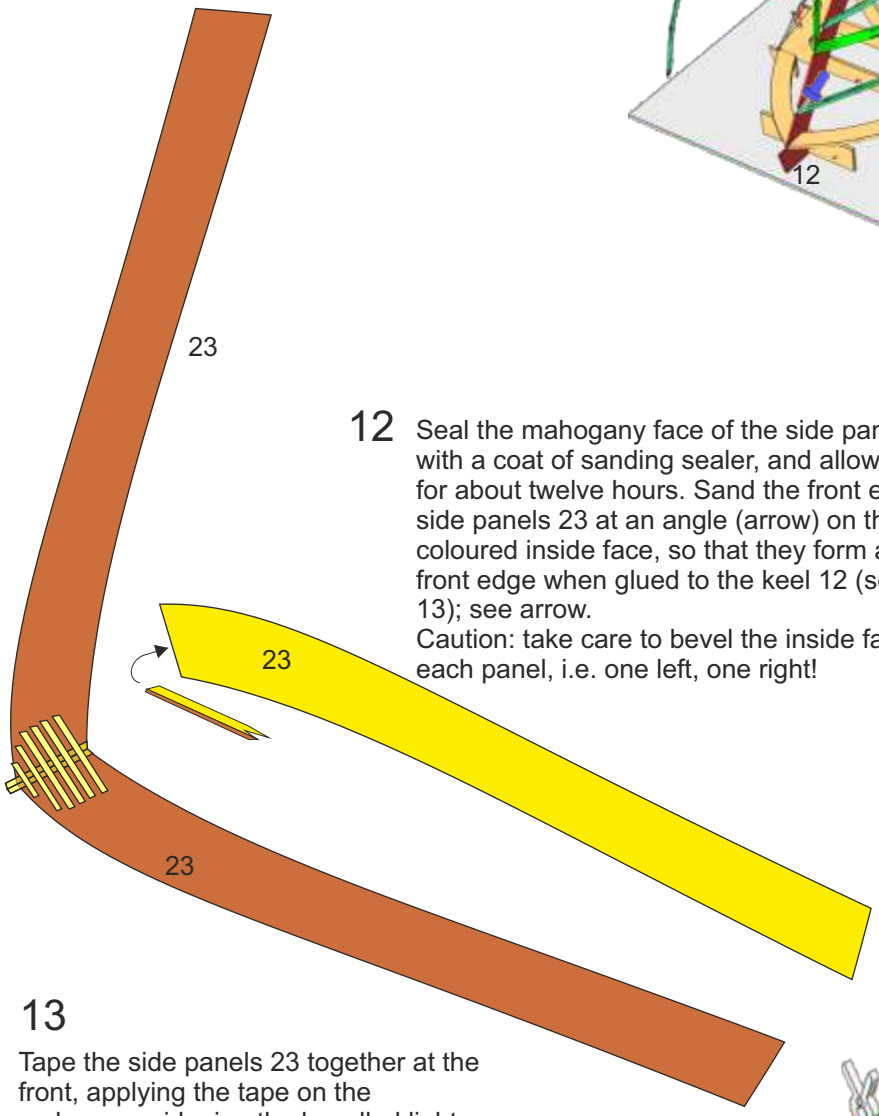


11 The next step is to trim the side stringers 20 + 21 to fit against the keel 12 and glue them in place. Press the strips into the notches in frame 11.

When the glue has set hard, glue the stringers 20 in the notches in frames 1 - 11.
Note that the side stringers 20 must be pressed fully into the notches in the frames, especially where they meet frame 11 at the bow. Secure the stringers with modelling pins.

When the glue has set hard, glue the stringers 21 in the notches in frames 7 - 11. Pin the parts in place.

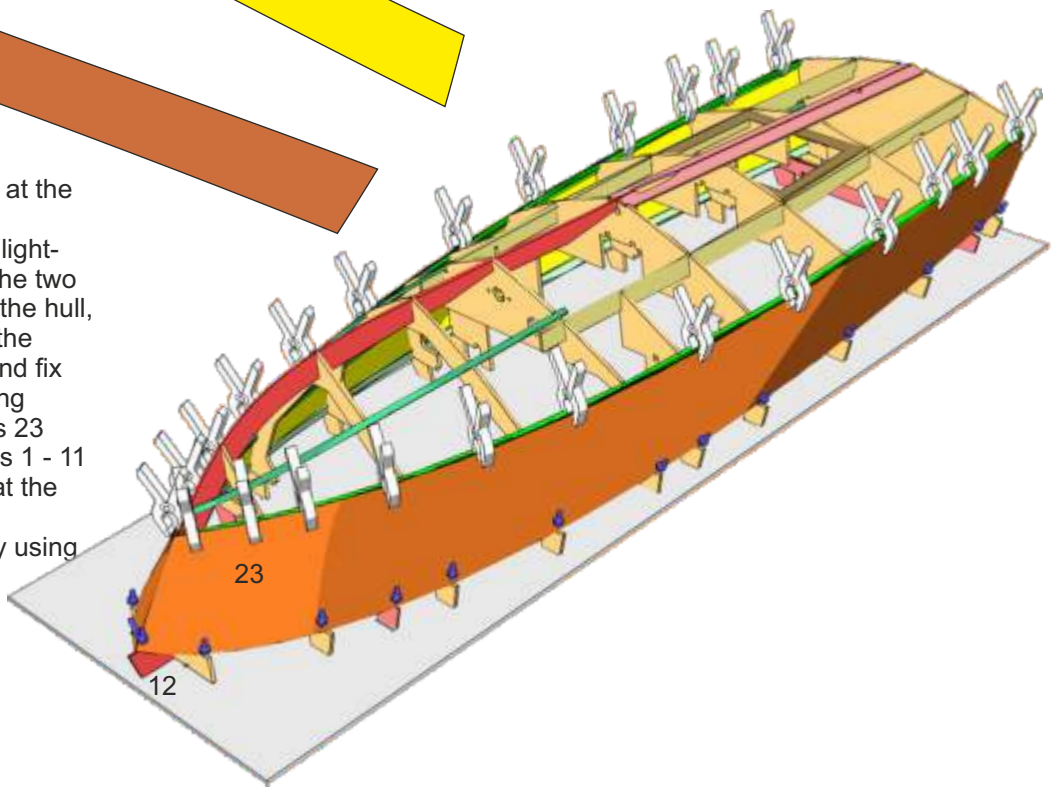


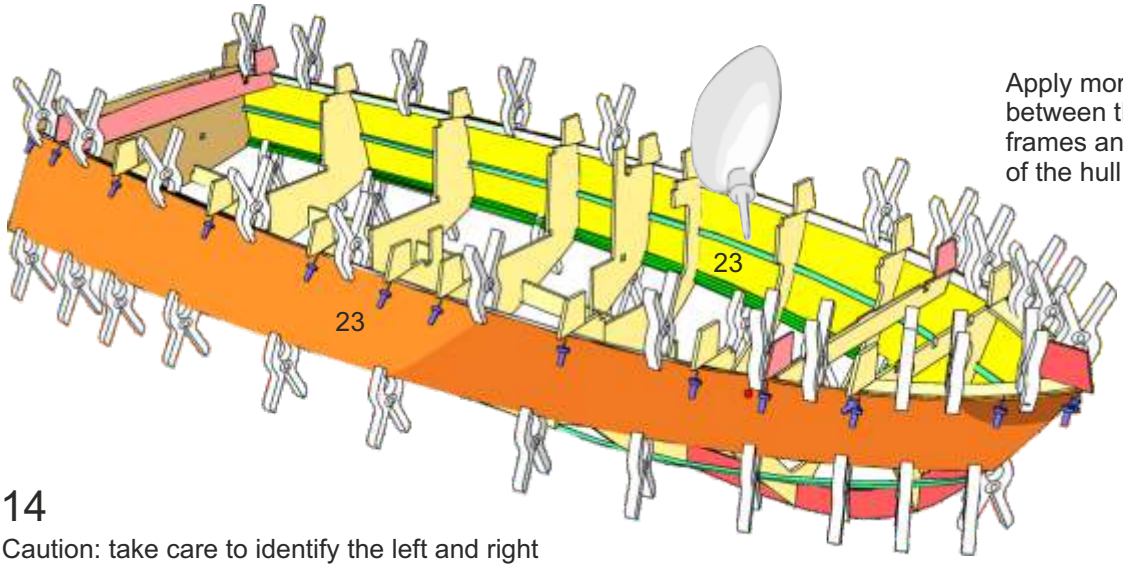


12 Seal the mahogany face of the side panels 23 with a coat of sanding sealer, and allow it to dry for about twelve hours. Sand the front end of the side panels 23 at an angle (arrow) on the light-coloured inside face, so that they form a sharp front edge when glued to the keel 12 (see Stage 13); see arrow.
Caution: take care to bevel the inside face of each panel, i.e. one left, one right!

13

Tape the side panels 23 together at the front, applying the tape on the mahogany side, i.e. the bevelled light-coloured surface on the inside. The two side panels can now be glued to the hull, from the centre of the keel 12 to the stern frame 1. Start at the bow, and fix the side panels in place with spring clamps and pins. The side panels 23 must rest on the jig tabs of frames 1 - 11 and on the jig tab of the keel 12 at the bow.
Wipe off excess glue immediately using a damp cloth.

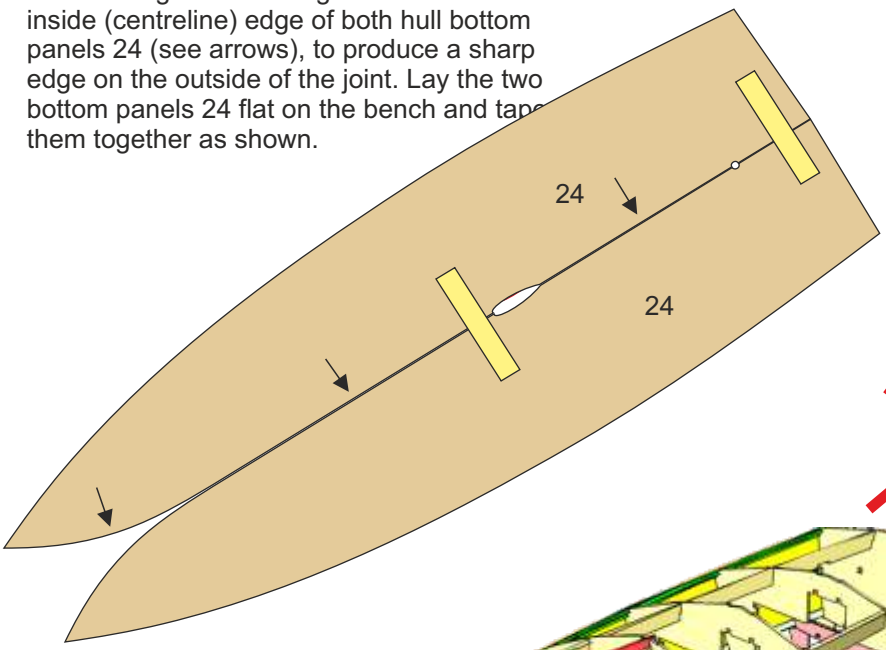




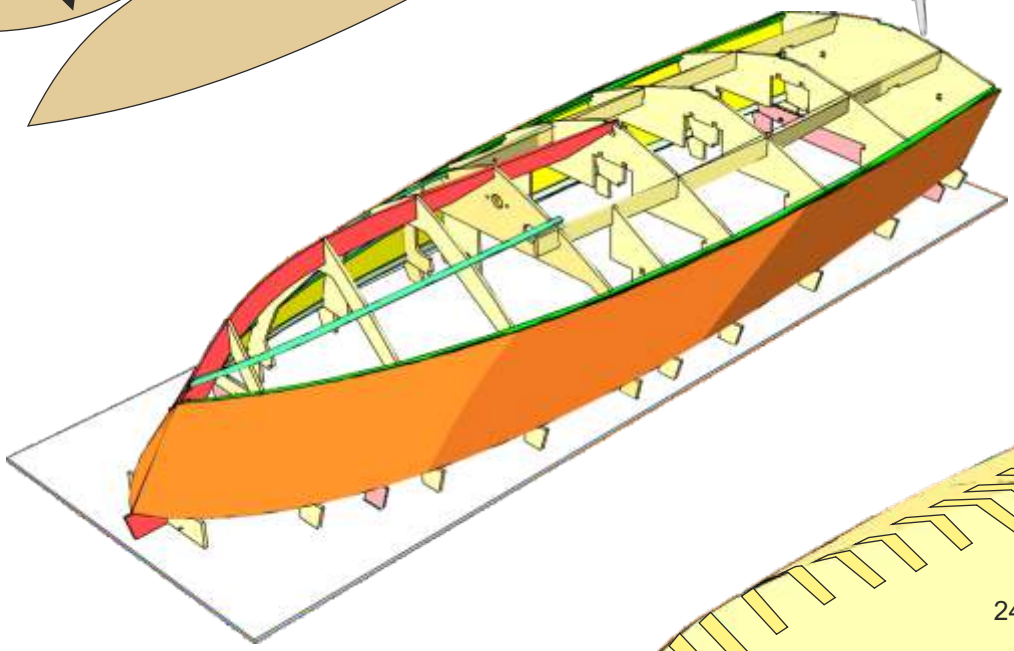
Apply more glue to the joints between the side panels 23 and the frames and stringers from the inside of the hull.

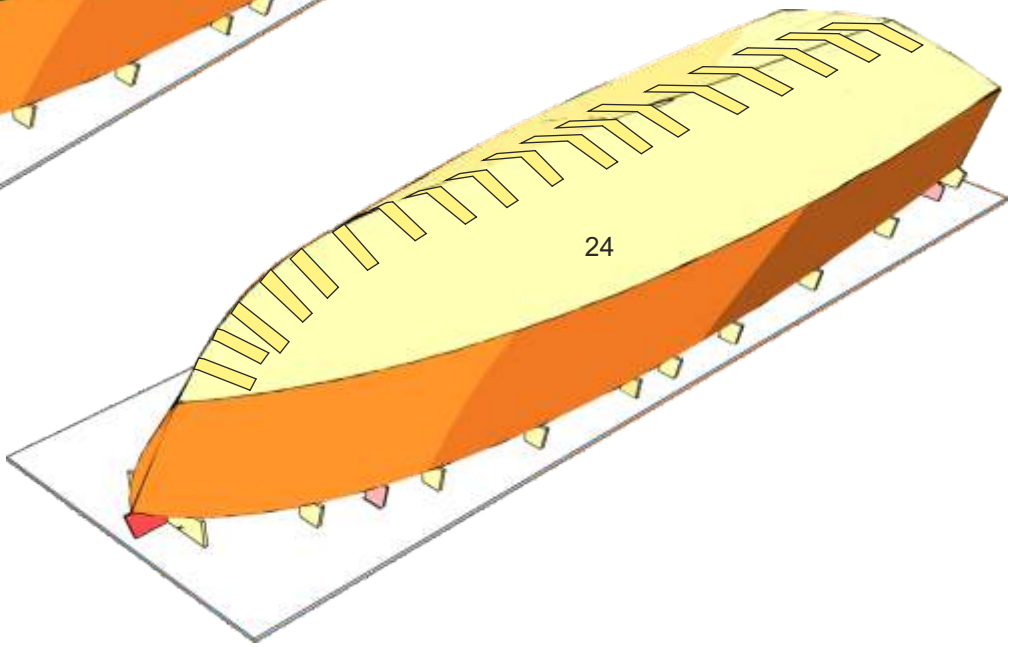
14

Caution: take care to identify the left and right sides during the next stage. Chamfer the inside (centreline) edge of both hull bottom panels 24 (see arrows), to produce a sharp edge on the outside of the joint. Lay the two bottom panels 24 flat on the bench and tape them together as shown.



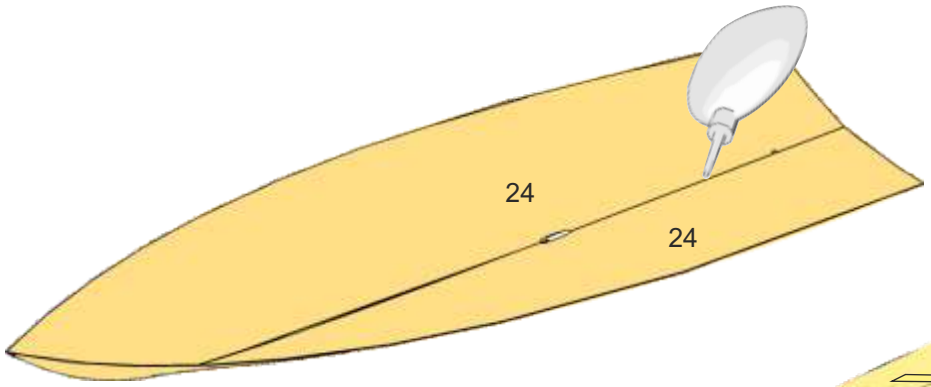
Do not apply glue at this stage!





15

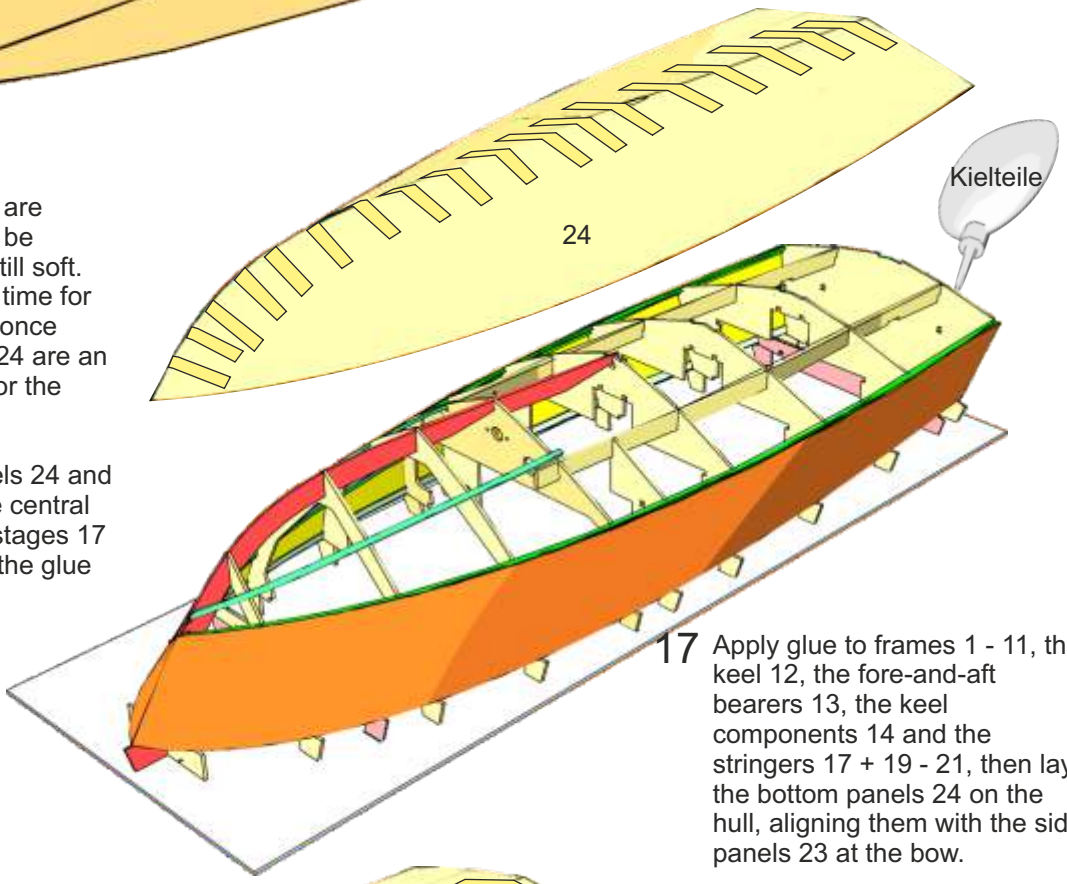
Lay the bottom panels 24 on the hull and tape them to the structure starting from the rear on the right-hand side, ensuring that the edges meet accurately along the centre. At the bow there will be a gap about 6 mm wide, as the material is too stiff to accommodate the curvature.



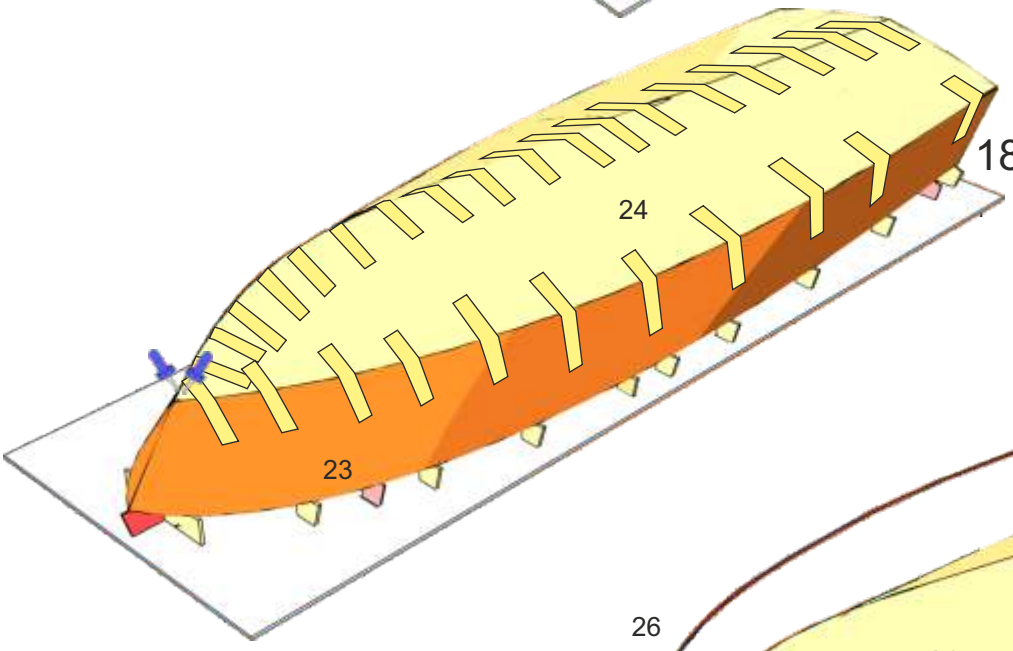
16

Caution !
The next three stages, which are described on this page, must be carried out while the glue is still soft. This means that there is little time for adjustment, so please check once more that the bottom panels 24 are an accurate fit before reaching for the glue.

Remove the bottom hull panels 24 and apply glue to the inside of the central joint. Continue with the next stages 17 + 18 immediately, i.e. before the glue

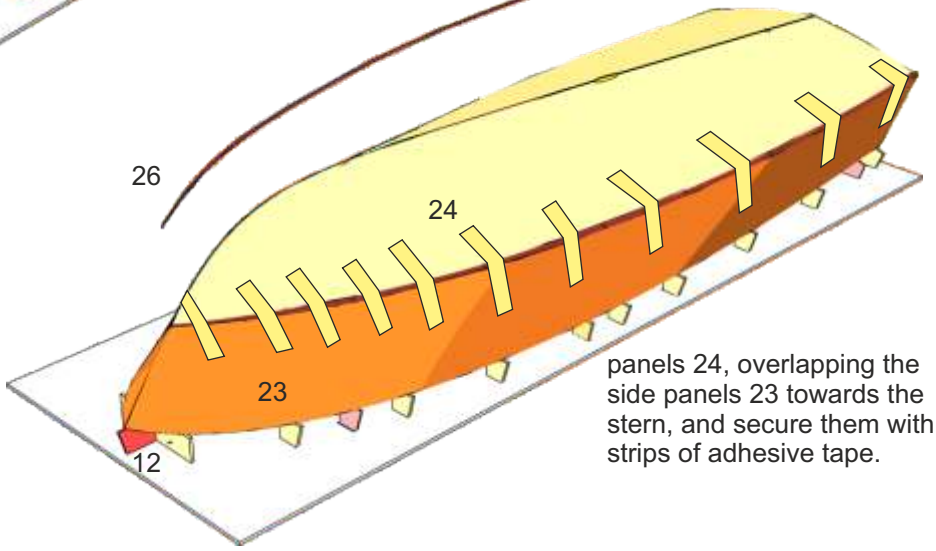


17 Apply glue to frames 1 - 11, the keel 12, the fore-and-aft bearers 13, the keel components 14 and the stringers 17 + 19 - 21, then lay the bottom panels 24 on the hull, aligning them with the side panels 23 at the bow.

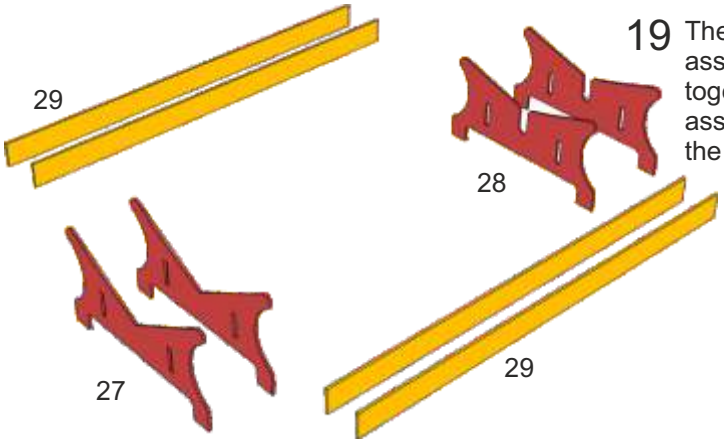


18 Press the bottom panels 24 together at the bow to remove any gap, and pin the parts in place. Now pull the bottom panels 24 against the side panels 23 as shown, using plenty of strips of adhesive tape. Ensure that the bottom panels overlap frame 1. Sand the wide face of the triangular stringers 26 over a length of about 50 mm from the front end (keel 12),

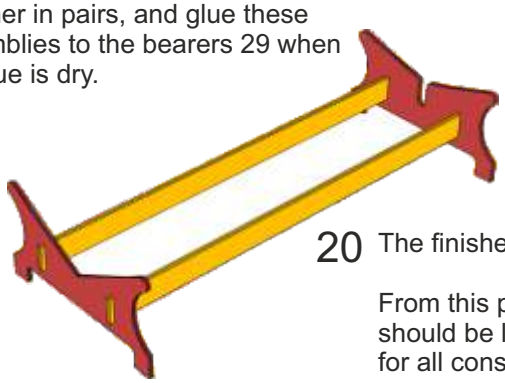
so that they taper and take up a pointed shape towards the bow. Starting at the half-way point and working towards the bow, saw half-way through the triangular stringers 26 at 10 mm intervals, as this makes it easier for them to conform to the curvature of the hull. Glue the triangular rails 26 to the hull, with the outside edge flush with the bottom



panels 24, overlapping the side panels 23 towards the stern, and secure them with strips of adhesive tape.

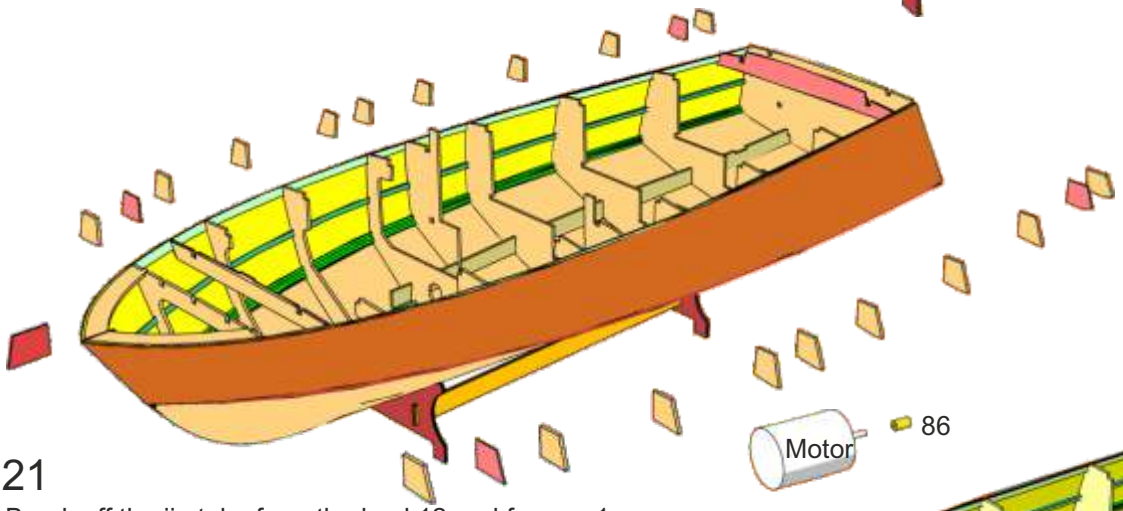


19 The boatstand can now be assembled: glue parts 27, 28 and 29 together in pairs, and glue these assemblies to the bearers 29 when the glue is dry.



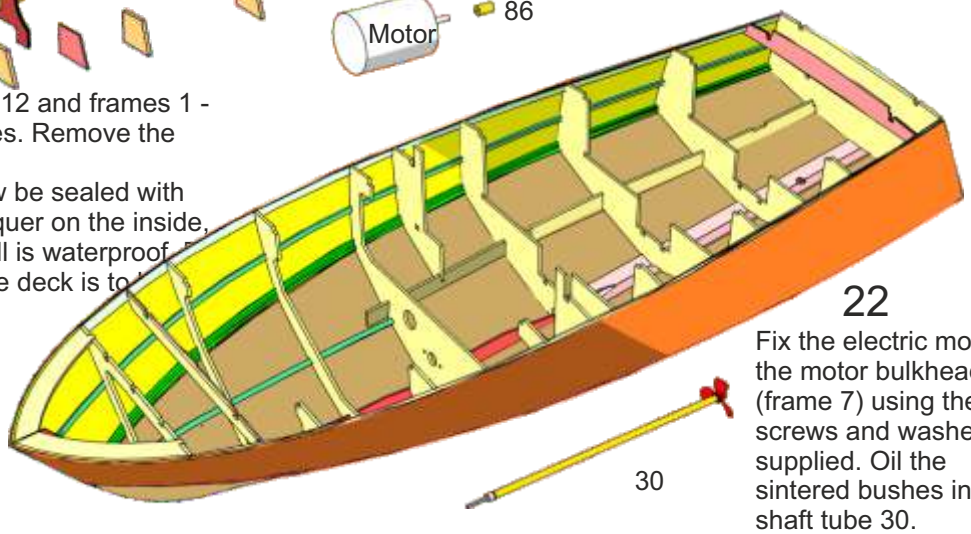
20 The finished boatstand.

From this point on the hull should be left in the stand for all construction work.

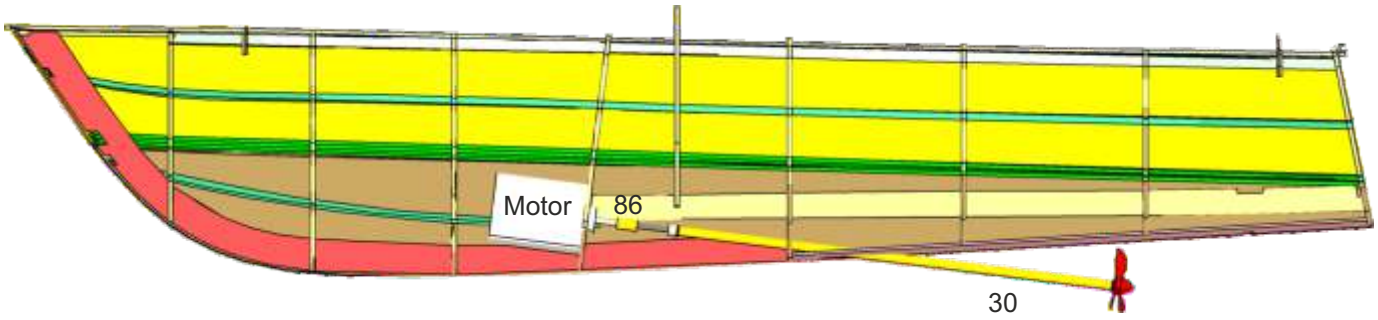


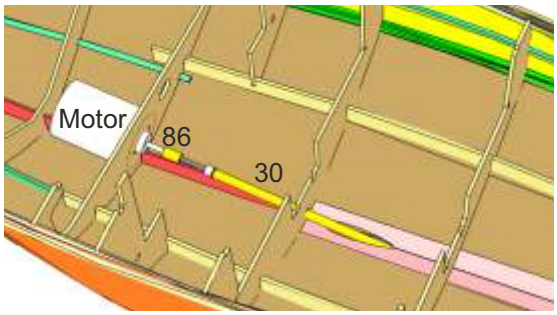
21

Break off the jig tabs from the keel 12 and frames 1 - 11, and sand away any rough edges. Remove the plywood template 18.
All the hull components should now be sealed with three coats of clear waterproof lacquer on the inside, to ensure that the interior of the hull is waterproof. Do not paint the top edges to which the deck is to be glued.

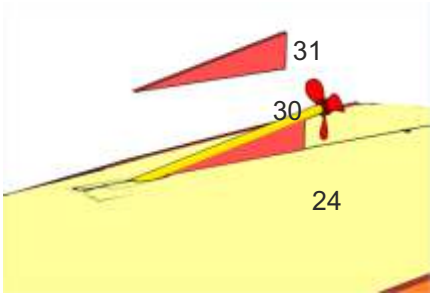


22 Fix the electric motor to the motor bulkhead (frame 7) using the screws and washers supplied. Oil the sintered bushes in the shaft tube 30.

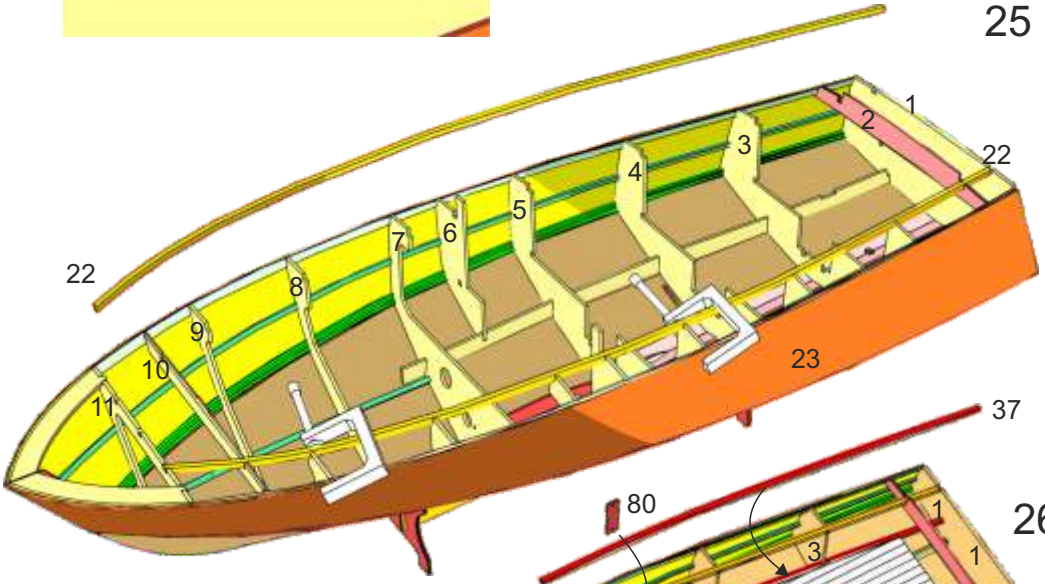




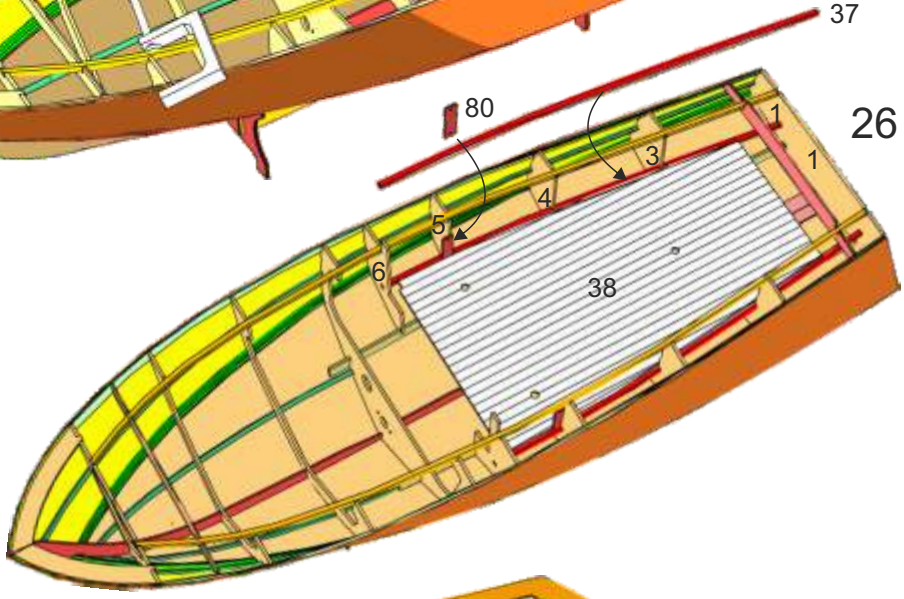
23 Slip the propeller shaft and shaft tube 30 into the hull, and connect the shaft to the motor shaft using the coupling sleeve 86 or 87; check that the propeller rotates freely.
Seal the outside end of the shaft tube 30 with adhesive tape before gluing the shaft tube to the rear keel 14 and the bottom panels 24 on the inside of the hull using two-pack adhesive.



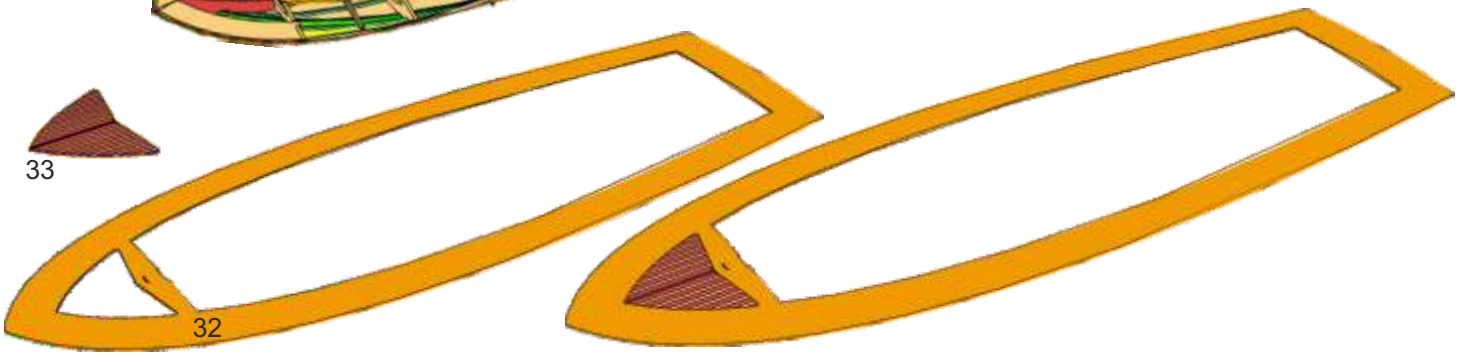
24 Glue the keel wedge 31 between the hull bottom 24 and the shaft tube 30. Ensure that the propeller is still free to rotate.



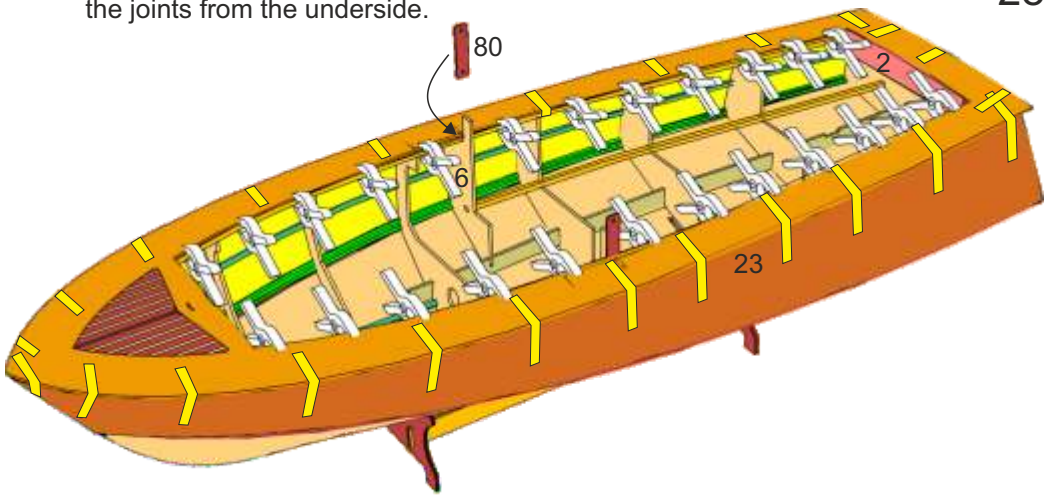
25 Glue the deck support rails 22 in the notches in the top of frames 1 - 11, and secure them with screw-clamps: press the rails 22 outwards as far as they will go, i.e. towards the hull sides 23.



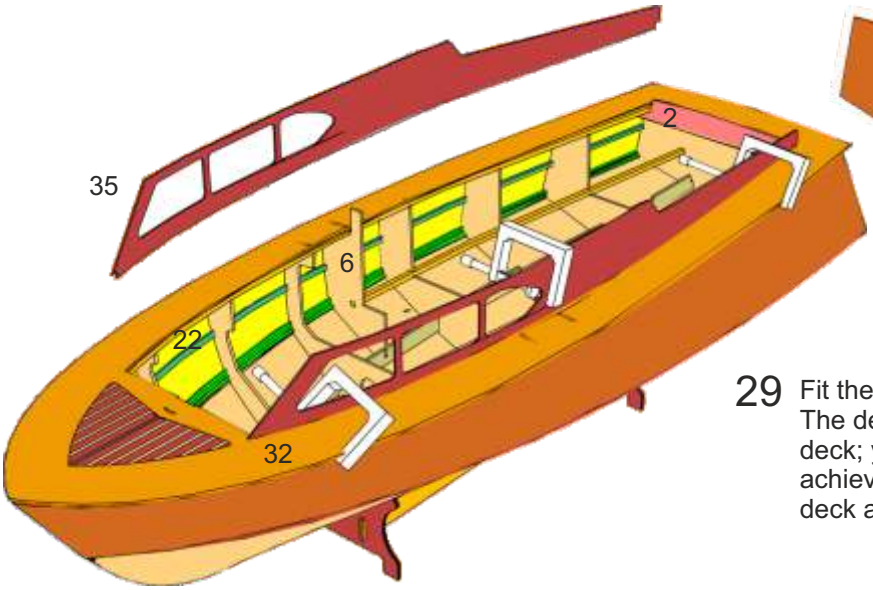
26 Glue the cockpit support rails 37 in the notches in frames 1 + 3 - 6. Fit the cockpit floor 38 in order to push the rails 37 into the frames, pressing them as far as possible towards frame 1; do not glue the cockpit floor 38 in place. Temporarily press parts 80 (1.5 mm) between the rails 37 and the cockpit floor 38 in the area of frames 5 + 6, but do not glue them in place.



27 Press the deck insert 33 into the main deck 32 and apply glue to the joints from the underside.



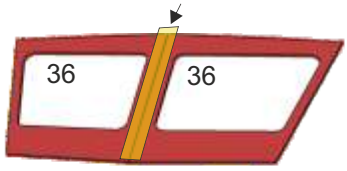
28 Sand back the top of frames 1 - 11, the hull rails 17 and the rest of the upper hull components so that all these parts are the same height as the hull side panels 23. The deck 32 can now be glued to the hull, securing it with spring-clamps and strips of adhesive tape as shown. Temporarily clamp parts 80 between the deck 32 and the projecting half-frames 6 to act as spacers. There is also a small step at frame 2 which locates the cabin side walls 35; see next stage.

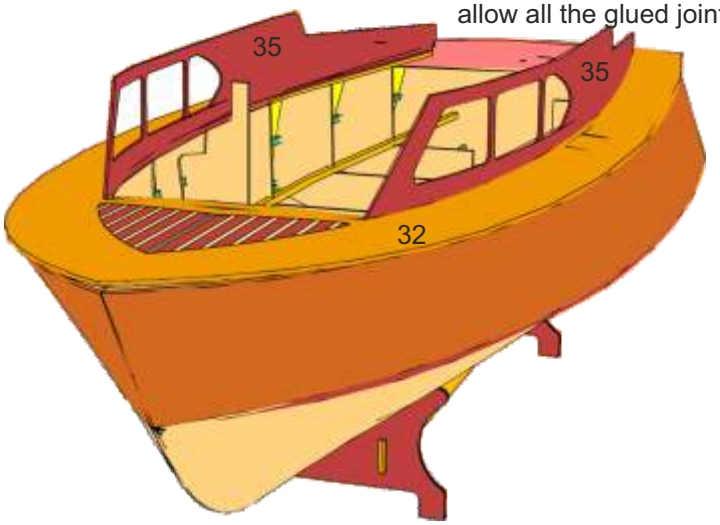


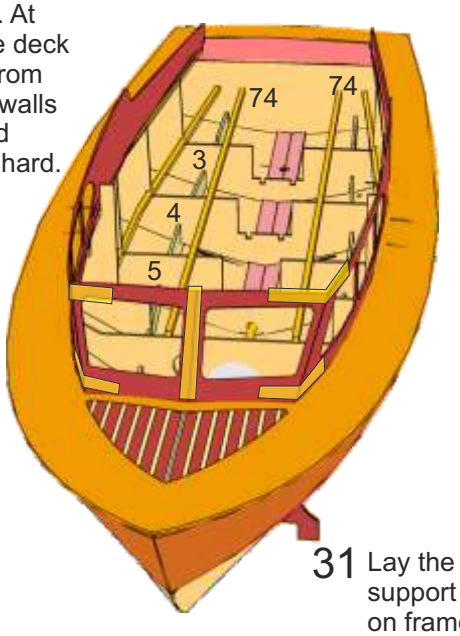
Glue the transom 25 to the outside of frame 1.

29 Fit the superstructure side walls 35 in the deck 32. The deck support rails 22 must lie flush with the deck; you may need to sand them back slightly to achieve this. The side walls must fit between the deck and frames 2 and 6.

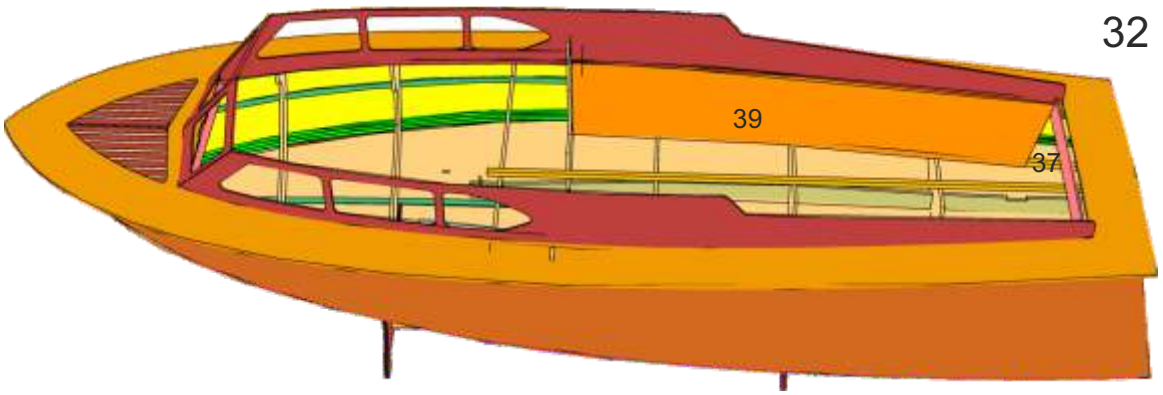
30 Chamfer the central edges (arrow) and bottom edges of the front windows 36, tape them together as shown, then glue the two window sections together in the centre. At the same time glue them to the deck 32 on the underside, working from the rear, and to the cabin side walls 35. Tape the parts together and allow all the glued joints to set hard.







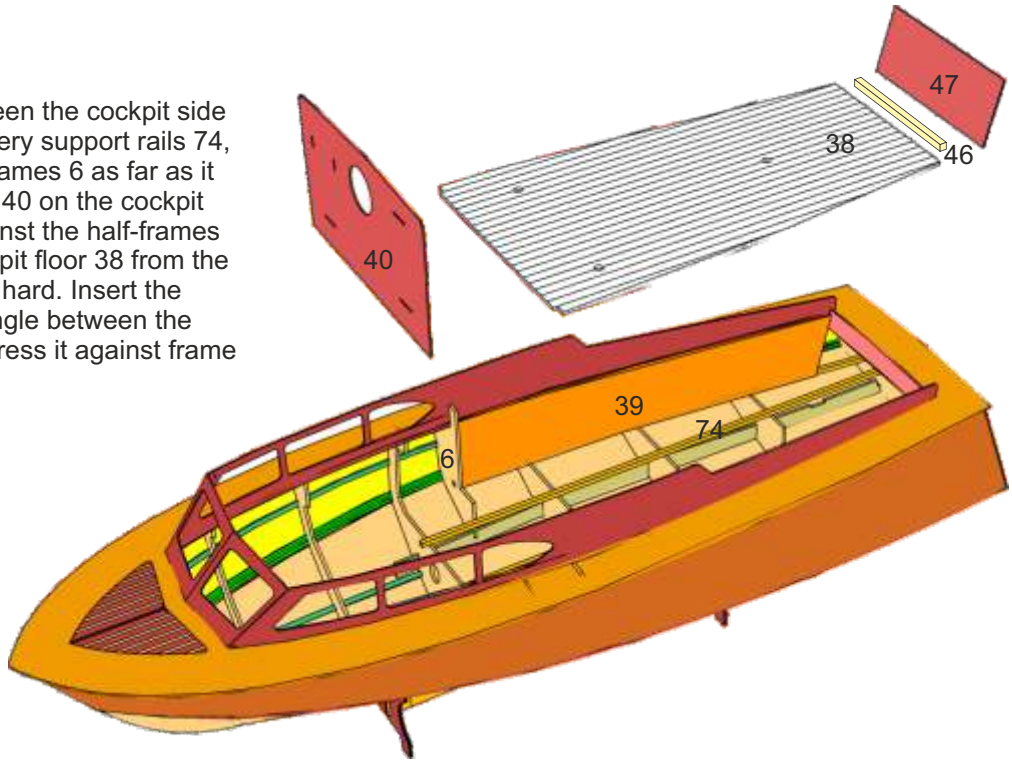
31 Lay the battery support rails 74 on frames 3 - 5.



32 Place the cockpit side panels 39 in the hull between frames 2 + 6, and press them against the cockpit support rails 37.

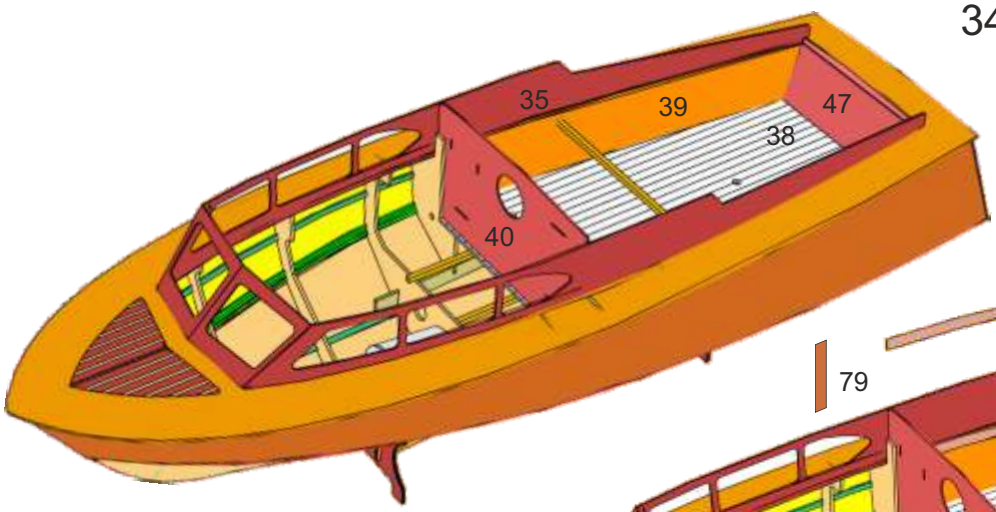
33

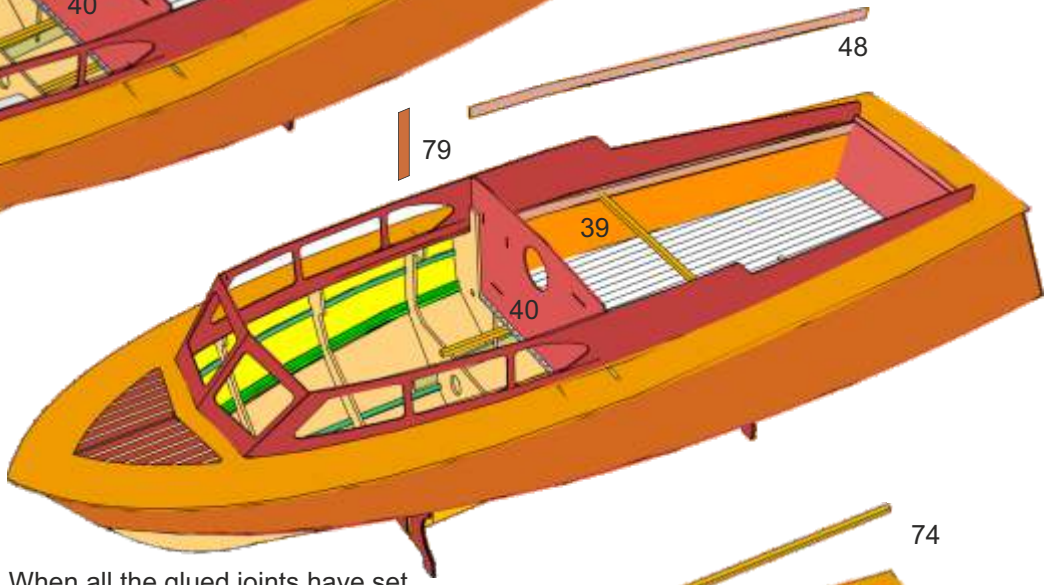
Lay the cockpit floor 38 between the cockpit side panels 39, resting on the battery support rails 74, and push it against the half-frames 6 as far as it will go. Fit the rear cabin wall 40 on the cockpit floor 38 and press it fully against the half-frames 6. Glue the rail 46 to the cockpit floor 38 from the rear and allow the glue to set hard. Insert the cockpit rear panel 47 at an angle between the cockpit side panels 39, and press it against frame 2 and the rail 46.



34

Use a strip of wood to press the cockpit side panels 39 fully against the superstructure side walls 35. Apply a little glue to the corner joints of parts 38, 39, 40 and 47 to tack them together.

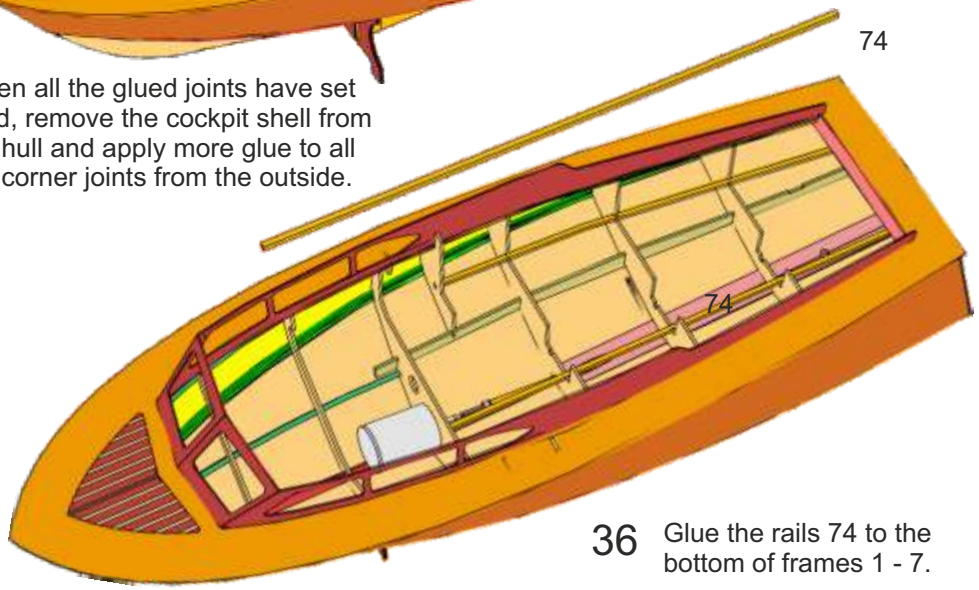




35

Glue the upper cockpit side stiffeners 48 in place, using a length of wooden strip to push them apart.
Glue parts 79 in the corner joints between parts 39 and 40 to strengthen these areas; the wide face should rest on part 39 (see also Stage 52).

When all the glued joints have set hard, remove the cockpit shell from the hull and apply more glue to all the corner joints from the outside.



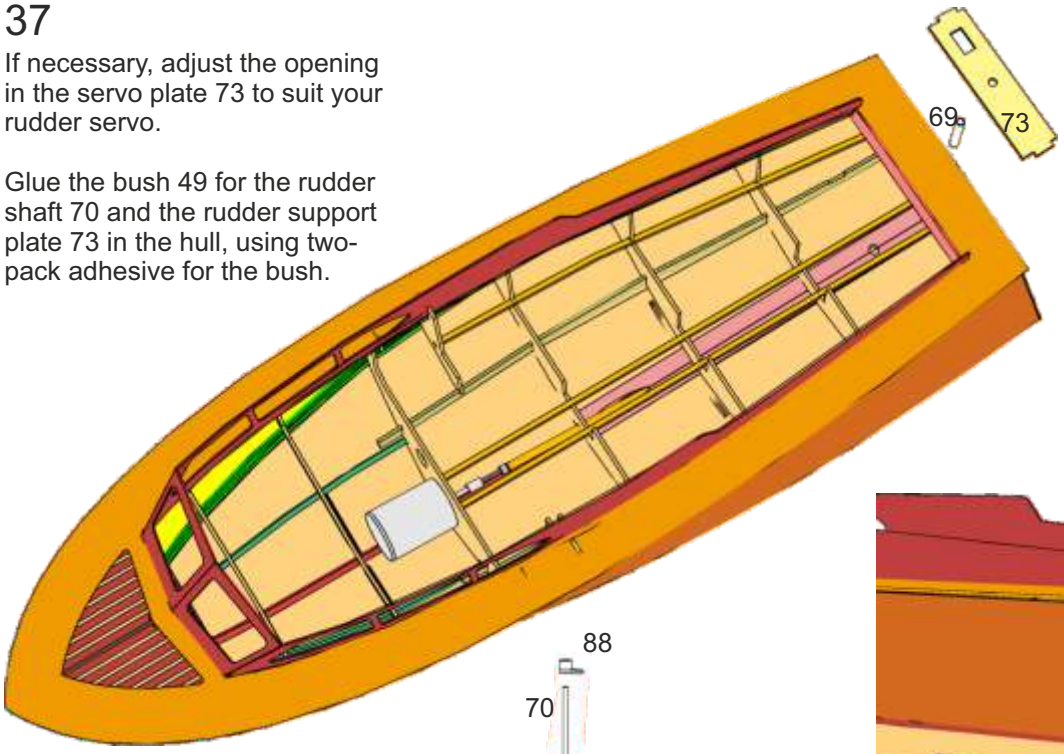
36

Glue the rails 74 to the bottom of frames 1 - 7.

37

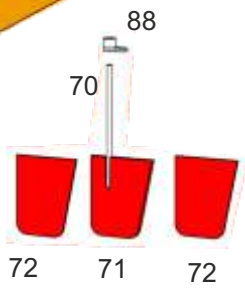
If necessary, adjust the opening in the servo plate 73 to suit your rudder servo.

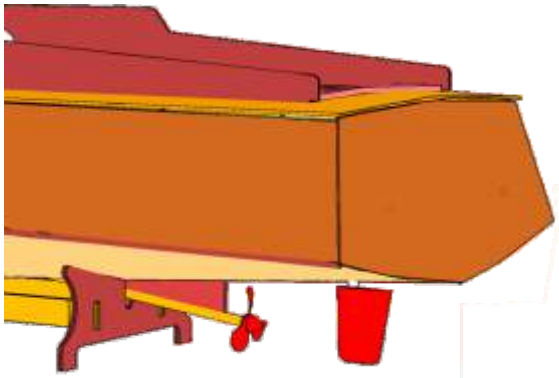
Glue the bush 49 for the rudder shaft 70 and the rudder support plate 73 in the hull, using two-pack adhesive for the bush.



38

Assemble the rudder from parts 70 to 72.

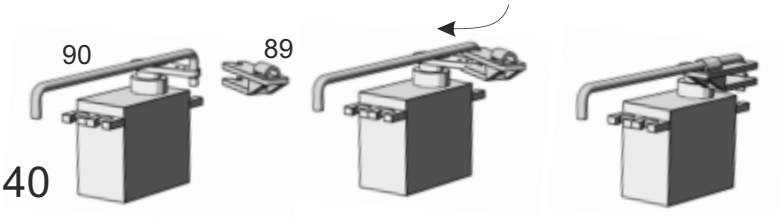




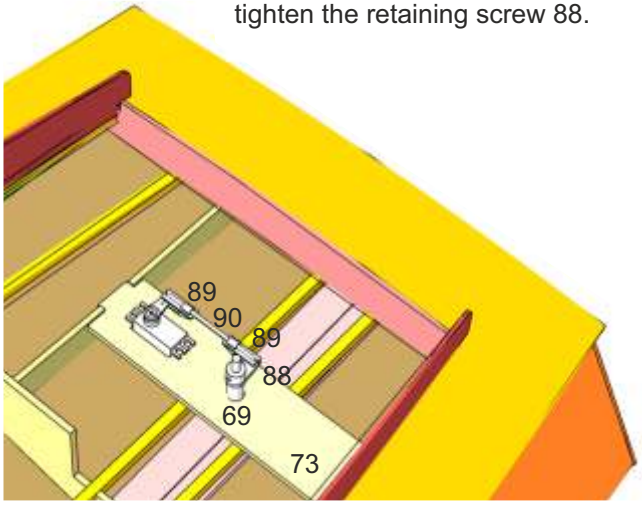
39

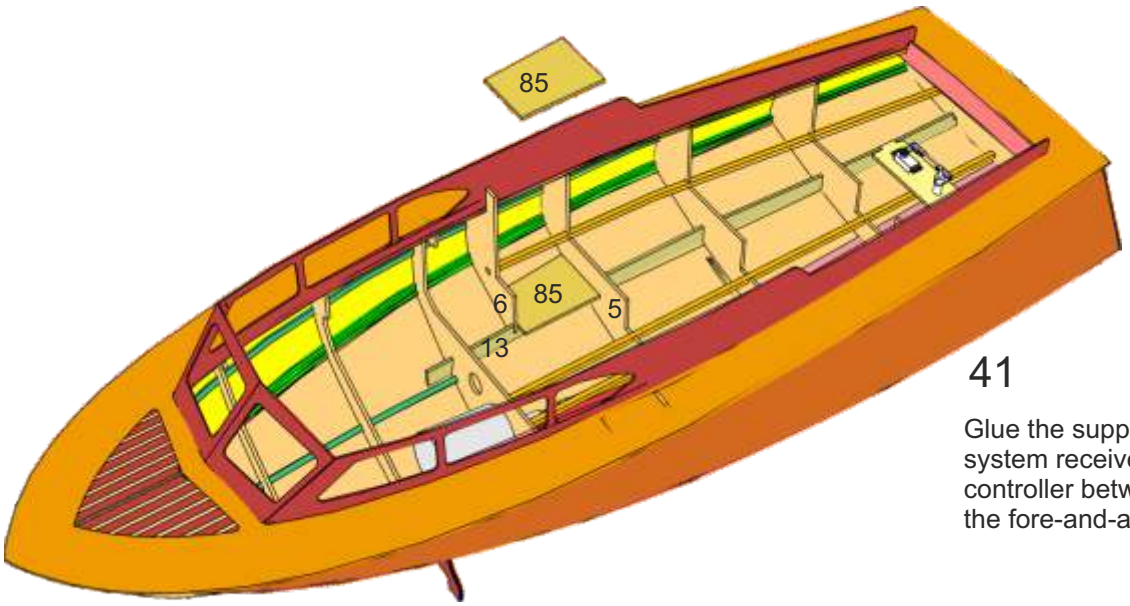
Slip the rudder through the bush 69 from the underside of the hull, fit the tiller 88 on the top end and tighten the retaining screw 88.

40



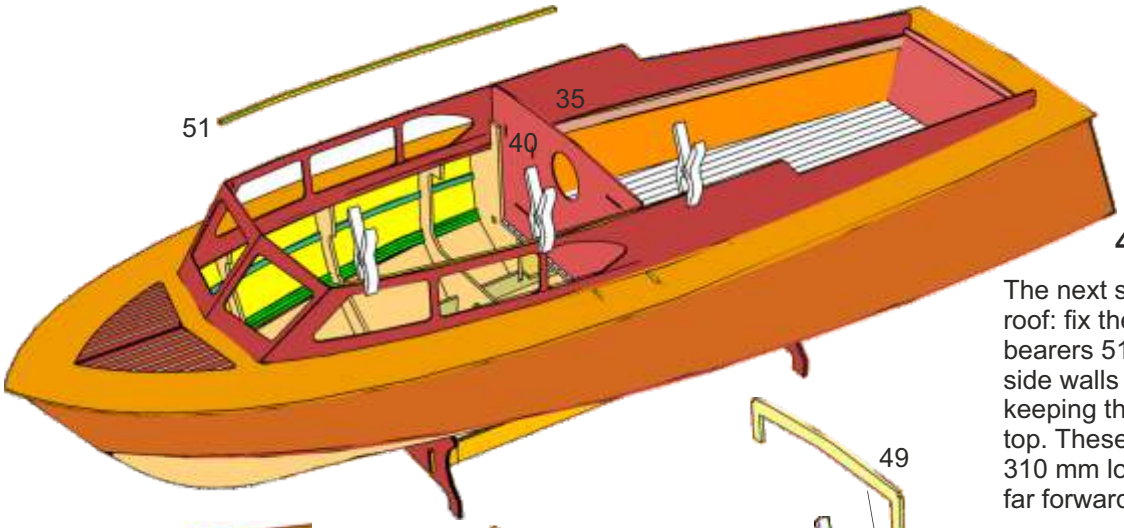
Measure the distance between the holes in the servo output arm and the tiller, and set the 1.5 mm Ø rudder pushrod to the correct length by bending both ends at right-angles; the angled ends should be 8 mm long. Fit the pushrod through the output arm and the tiller, push the retaining clip 89 onto the tiller 88, swivel it round and clip it onto the pushrod 90. Fit the second retaining clip at the servo output arm in the same way.





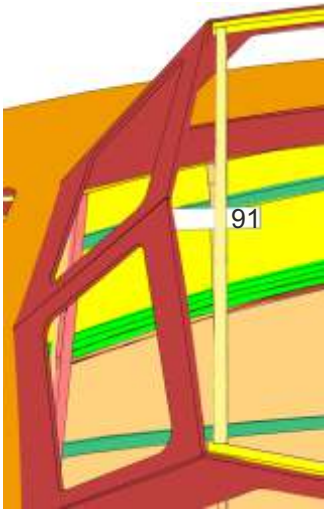
41

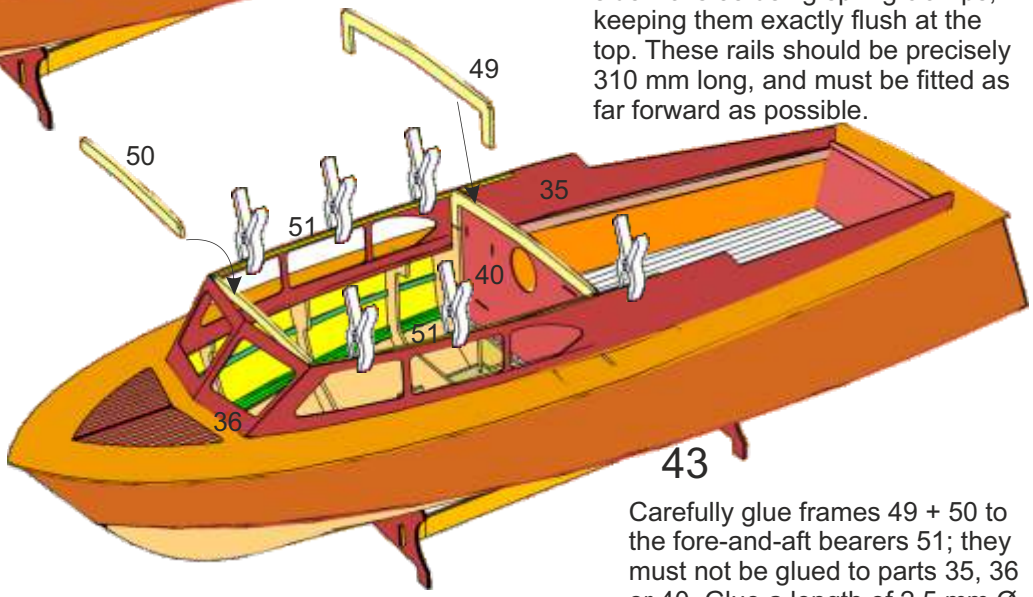
Glue the supports 85 for the RC system receiver and the speed controller between frames 5 + 6 and to the fore-and-aft bearers 13.



42

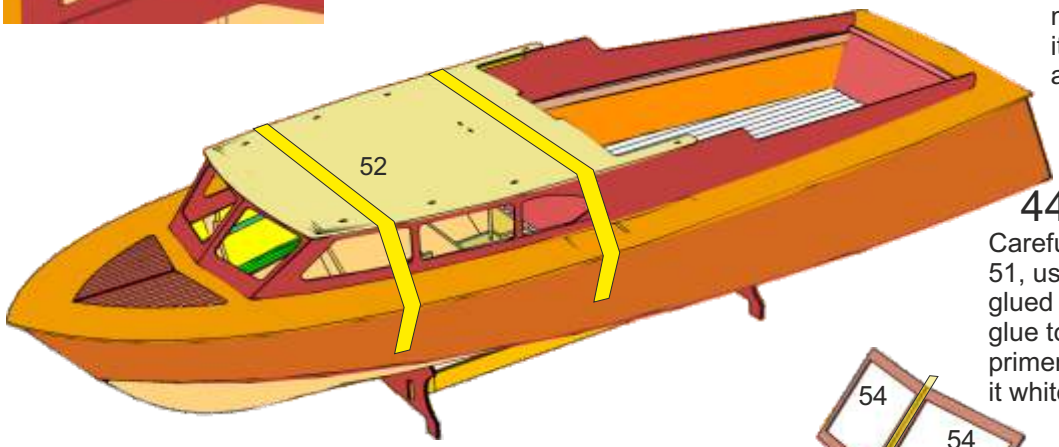
The next step is to build the cabin roof: fix the fore-and-aft roof bearers 51 to the superstructure side walls 35 using spring clamps, keeping them exactly flush at the top. These rails should be precisely 310 mm long, and must be fitted as far forward as possible.





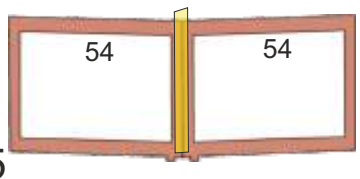
43

Carefully glue frames 49 + 50 to the fore-and-aft bearers 51; they must not be glued to parts 35, 36 or 40. Glue a length of 2.5 mm Ø metal rod in frame 49, and push it forward as far as it will go against the window frame 36.



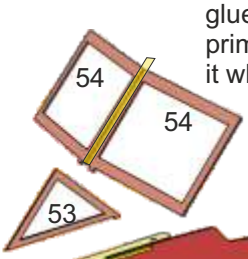
44

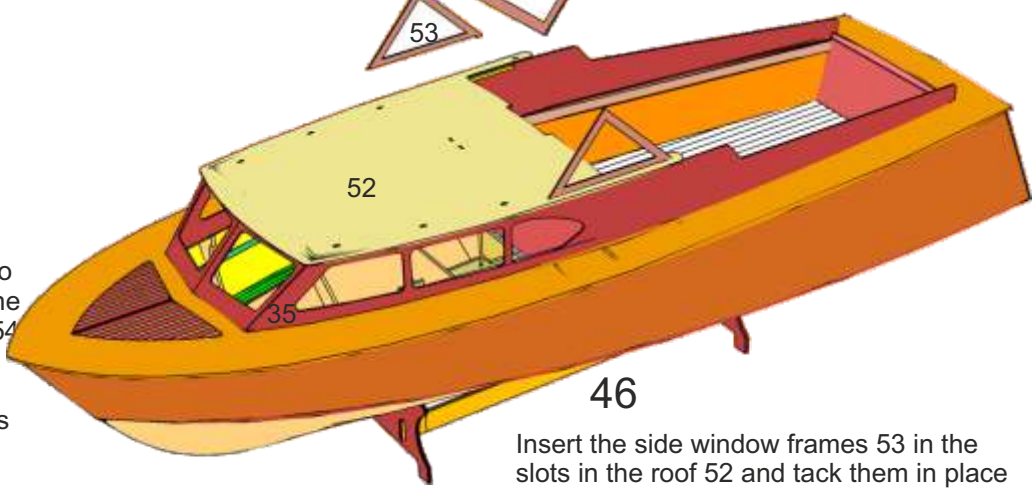
Carefully glue the roof 52 to parts 49 + 51, using only a little glue; it must not be glued to parts 35, 36 or 40. Allow the glue to set hard, then apply a coat of primer to the whole of the roof and paint it white.



45

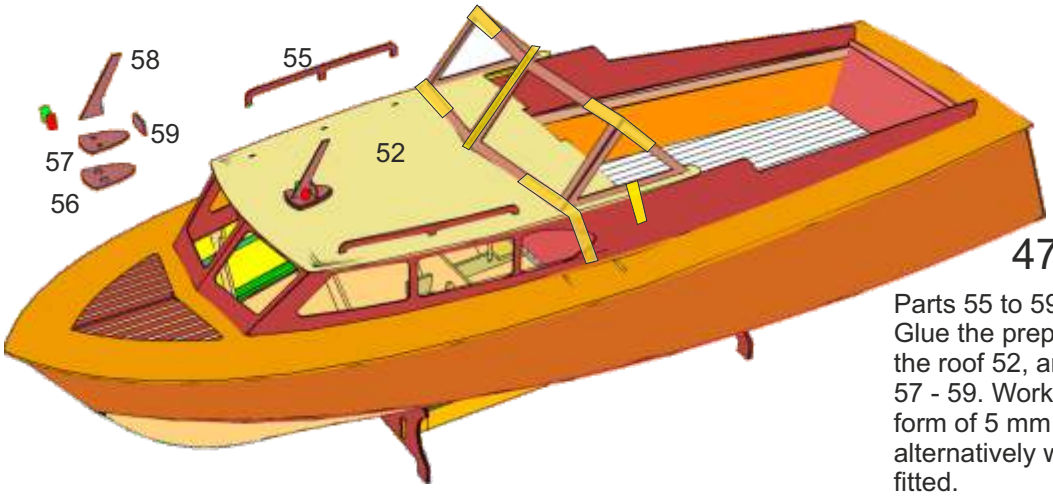
Apply a coat of clear boat lacquer to parts 53 + 54. Bevel the inside of the central joint of the window frames 54. Chamfer the small locating tabs at bottom front, so that they fit in the slots in the roof 52 when the frames are angled to the rear towards the side frames 53. Tape the frame together along the centre joint.





46

Insert the side window frames 53 in the slots in the roof 52 and tack them in place from the underside with a little glue. Now glue the front frames 54 along the centre joint and to the side frames 53, taping the parts together.



47

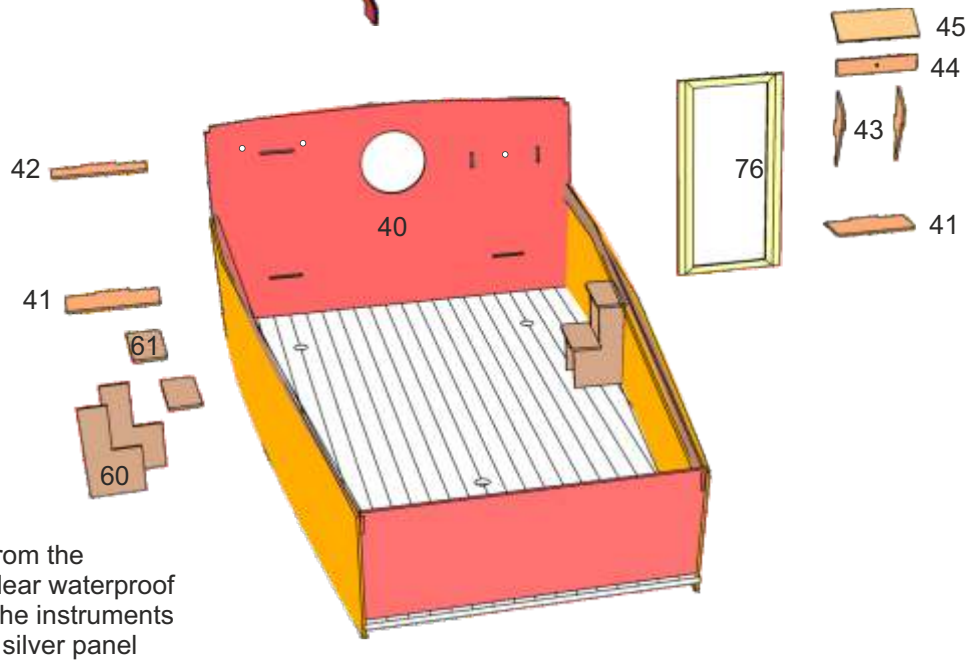
Parts 55 to 59 should be painted at this stage. Glue the prepared handrails 55 in the holes in the roof 52, and assemble the aerial from parts 57 - 59. Working lamps can be installed in the form of 5 mm Ø LEDs (not included in the kit); alternatively wooden dummy lamps can be fitted.

48

The next step is to install the deck doublers 34 and the ram guards 75, but first paint the hull bottom panels 24 and the triangular bottom rails 26 white. After this apply several coats of clear boat lacquer to the whole of the hull, including the superstructure. Paint parts 34 + 75 before gluing them to the boat, then give them a further coat of lacquer.

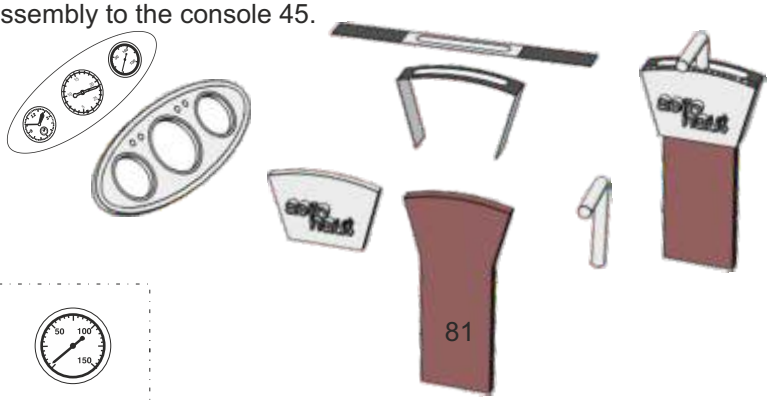
49

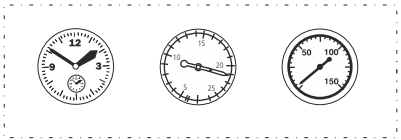
Before any more parts are installed in the cockpit, we recommend that you paint the cockpit shell with clear waterproof boat lacquer. The following parts can now be fitted, but only after they have been lacquered. Glue parts 41 - 45 and the door frame 76 to the cabin wall 40. Assemble the steps from parts 60 + 61.



50

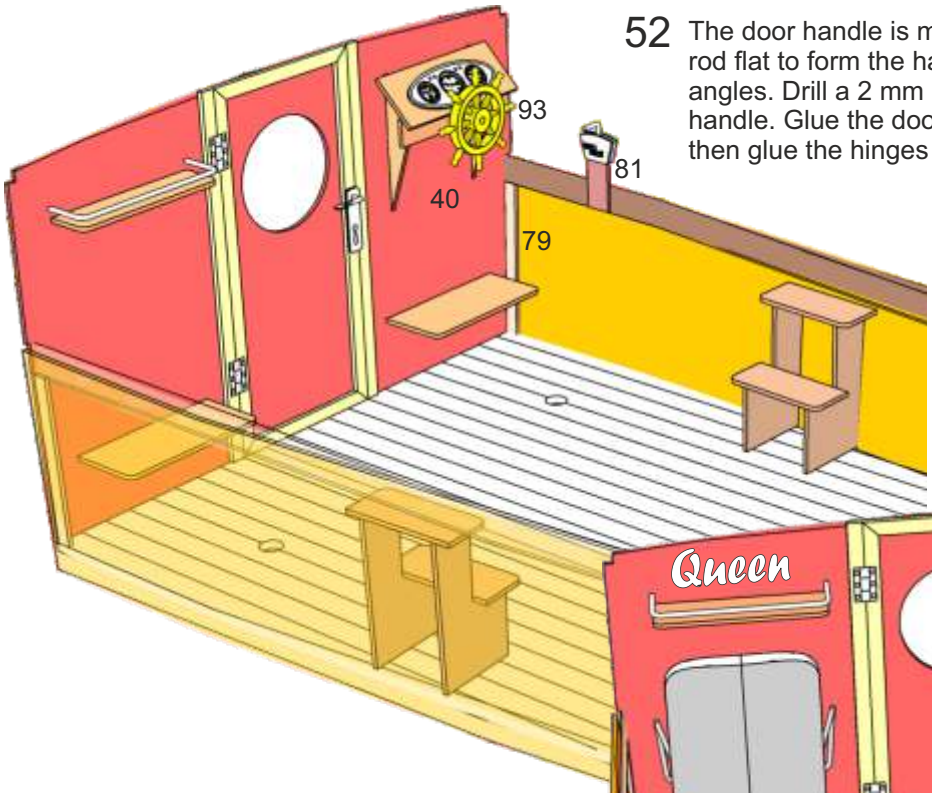
Cut out the dummy instruments from the instructions and apply a coat of clear waterproof lacquer to them. When dry, glue the instruments to the rear of the etched German silver panel before gluing this assembly to the console 45.





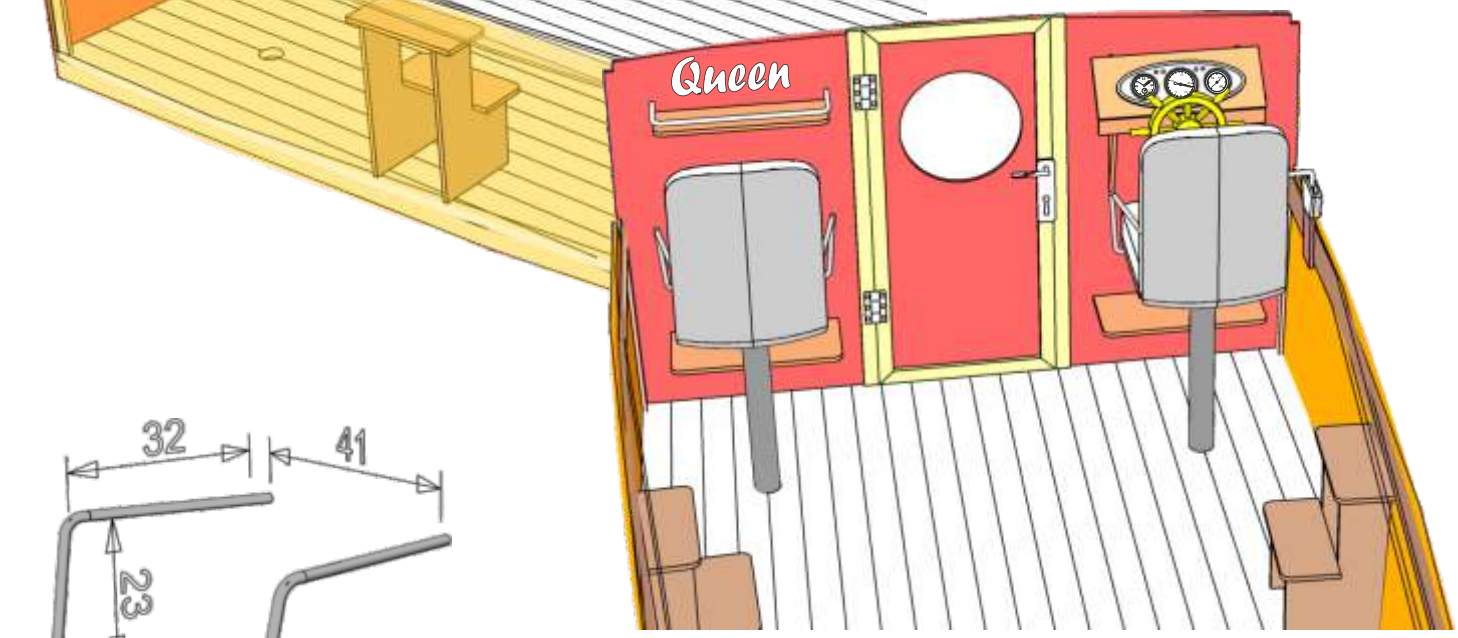
51

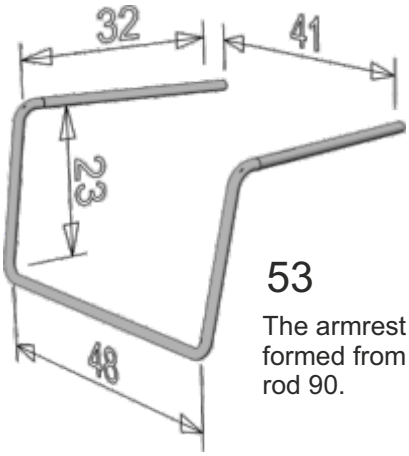
The throttle control is assembled from the etched components supplied: bend the slotted instrument frame to shape and angle the ends as shown. Glue the front panel (bearing the name placard) to part 81, and glue the instrument frame on top. Bend the throttle lever from 1.5 mm Ø metal rod and glue it in place.



52 The door handle is made from the 1.5 mm Ø rod 90: hammer the rod flat to form the handle end, and bend the other end at right-angles. Drill a 2 mm Ø hole through the door frame for the handle. Glue the door lock plate in place followed by the handle, then glue the hinges to the door frame.

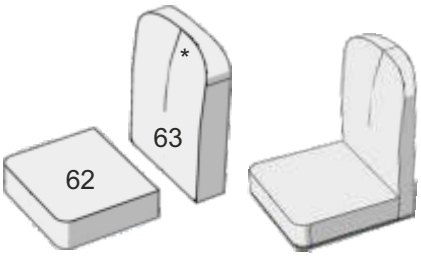
Bend a bar from the 1.5 mm Ø rod over part 42, and glue it in place. Glue the throttle control 81 in position.
Glue a 20 mm length of 1.5 Ø rod into the steering wheel 93, insert it in the console 44 and the cabin wall 40 and glue the parts together. Stick the 'Queen' placard to the cabin wall.



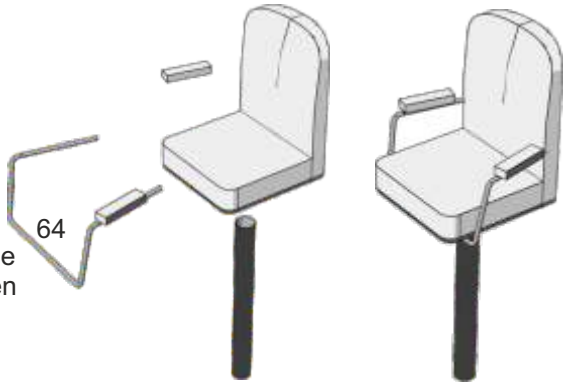


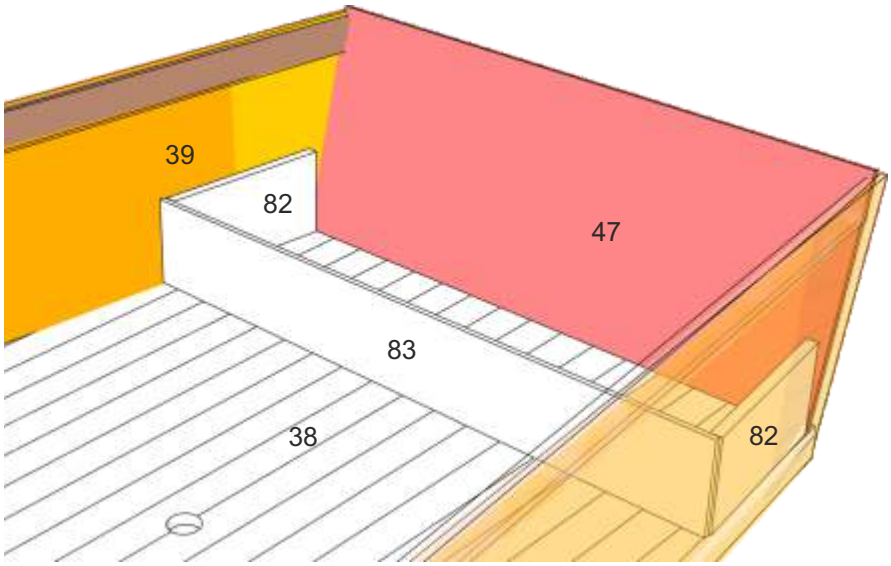
53
The armrest supports are formed from the 1.5 mm Ø rod 90.

54
Round off the top of the seat backrest 63; the upper part should be sanded to a concave shape for the skipper's back. Glue together parts 62 + 63, sand the rear of the backrest to a rounded section and round off all the edges. Prime the bare seat and apply a coat of granite-effect paint, which effectively simulates fabric seat covering. Bend the support rods 64 from the 1.5 mm Ø rod 90 and glue them to the chair. Cut the armrests from 3 x 5

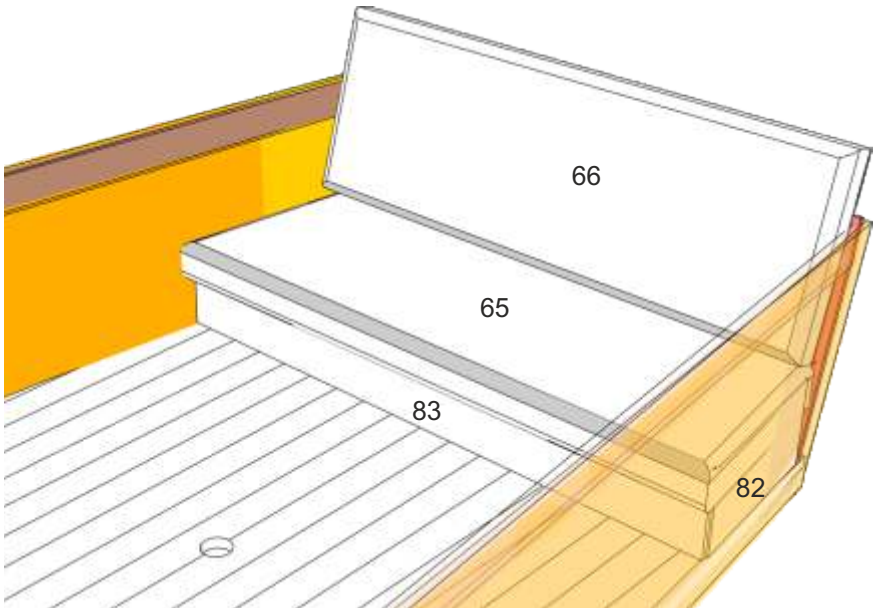


x 18 mm wood strip, paint them and glue them to the support rods. Glue the completed seats to the pillar base, then glue the bases to the cockpit floor.

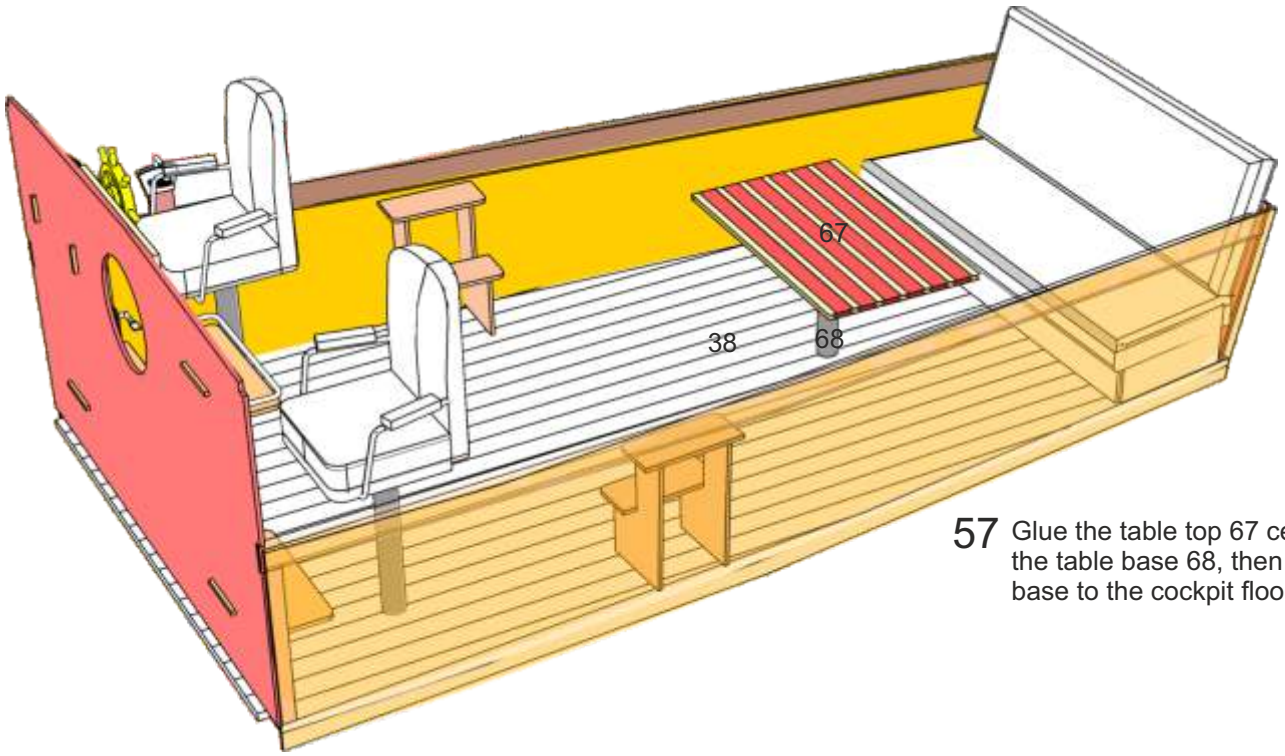




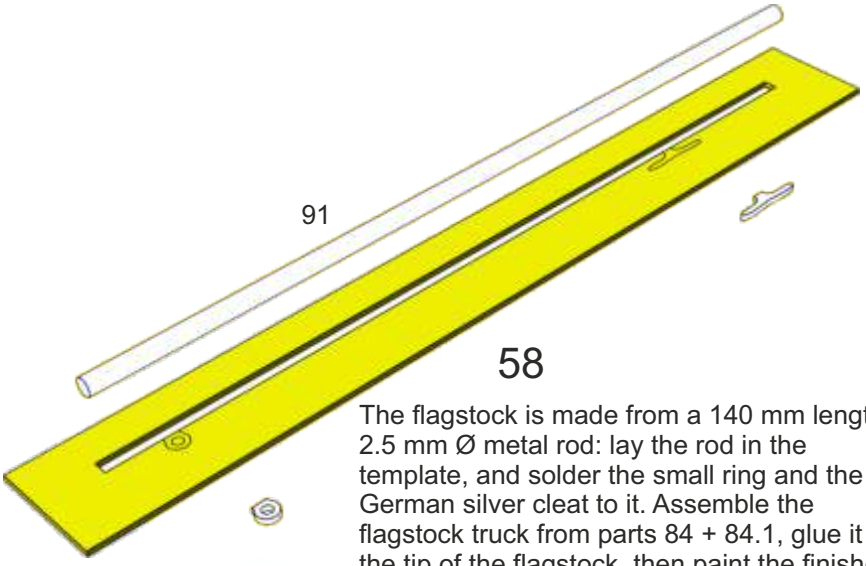
55 Glue parts 82 to the side panels 39 to form the ends of the bench seat base.
Glue the front panel 83 to parts 82 with the edges flush; there should be a gap about 1 mm wide at the bottom, so that any water which gets inside the seat can escape again.



56 Trim the bench seat 65 and the backrest 66 to the correct width to fit the cockpit. Round off all the edges and paint them like the seats. Glue the bench seat squab 65 on the base (consisting of parts 82 + 83), then glue the backrest 66 to the seat squab 65 and the cockpit back panel 47.

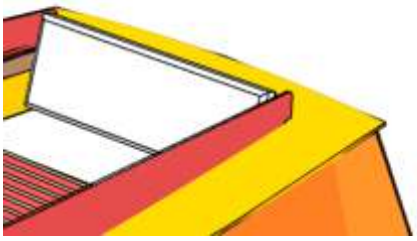


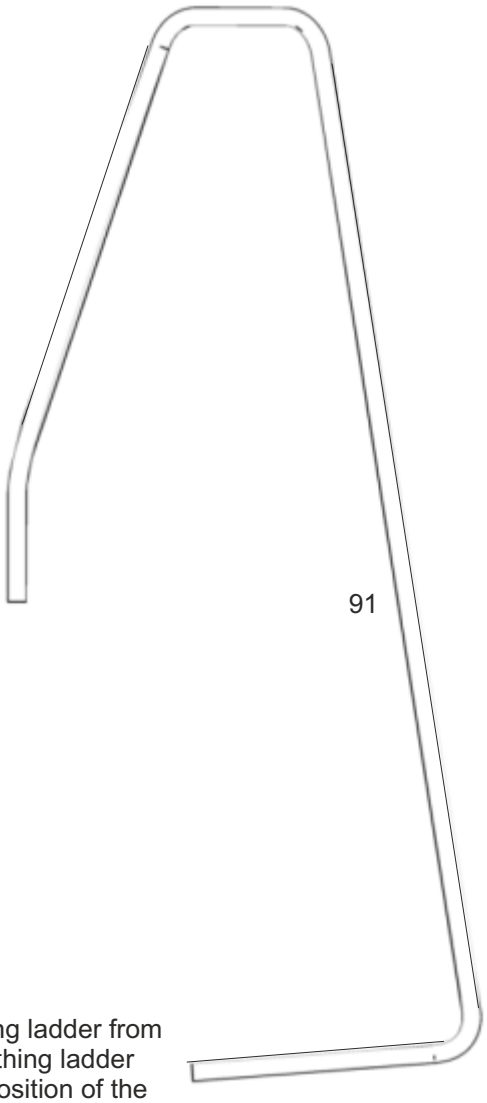
57 Glue the table top 67 centrally to the table base 68, then glue the base to the cockpit floor 38.



58

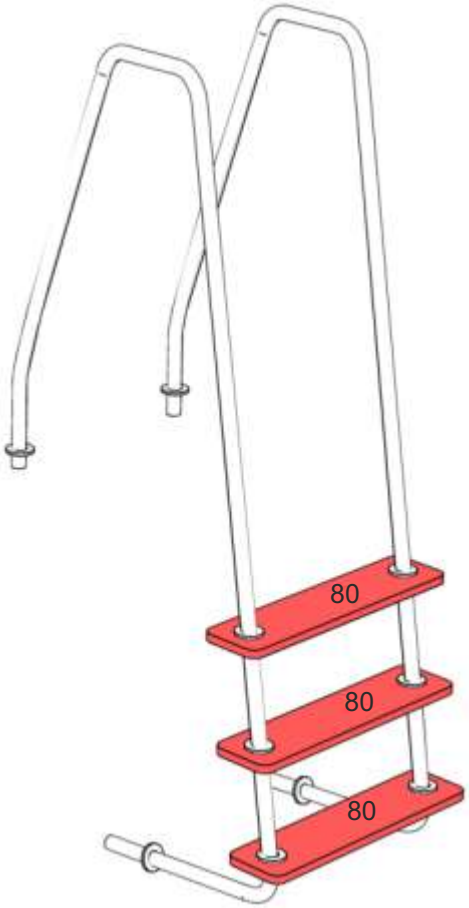
The flagstock is made from a 140 mm length of 2.5 mm Ø metal rod: lay the rod in the template, and solder the small ring and the German silver cleat to it. Assemble the flagstock truck from parts 84 + 84.1, glue it to the tip of the flagstock, then paint the finished unit. Drill a 2.5 mm Ø hole in the deck where shown. Slip a German silver rosette onto the flagstock, glue the stock in the hole, then glue the rosette to the deck.

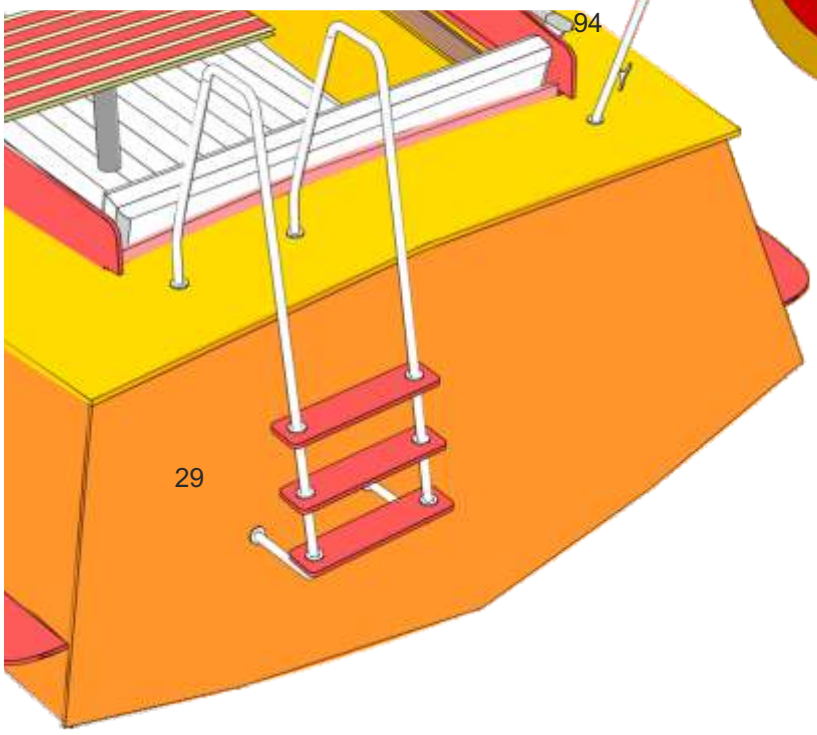




59

Bend the wire parts for the bathing ladder from 2.5 mm Ø metal rod. Lay one bathing ladder tread 80 on the deck, mark the position of the holes, and drill them 2.5 mm Ø. Thread the treads and the German silver rosettes onto the wire rails before fitting the bathing ladder in the holes in the deck. Mark the position of the holes on the transom 29, drill them 2.5 mm Ø, and glue the ladder in the holes. Drill holes for the cleats 94 and glue them in place.

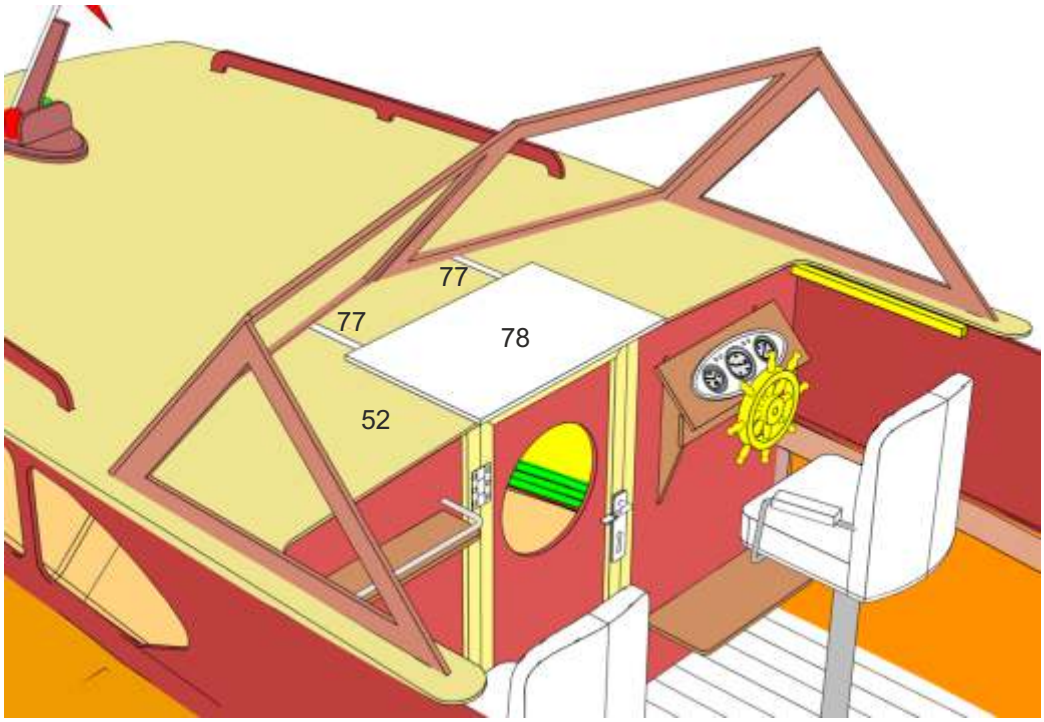




60

Cut the 1.5 mm Ø whip aerial to a length of 80 mm and glue it to the aerial assembly as shown. Cut out the pennant, fold it over, glue the halves together and finish it with waterproof lacquer. Drill holes for the cleats 94 and glue them in place. Glue the anchor box surround (etched German silver part) to the deck.

Bend the railings from 2.5 mm Ø rod, drill a hole on each side at the front of the deck and insert one end of each railing. Mark the position of the rear holes and drill them 2.5 mm Ø; The holes should be drilled parallel to the hull sides 23, so that the railings are angled outwards. Fit the rosettes (etched German silver parts) on the railings before gluing them in the holes in the deck.



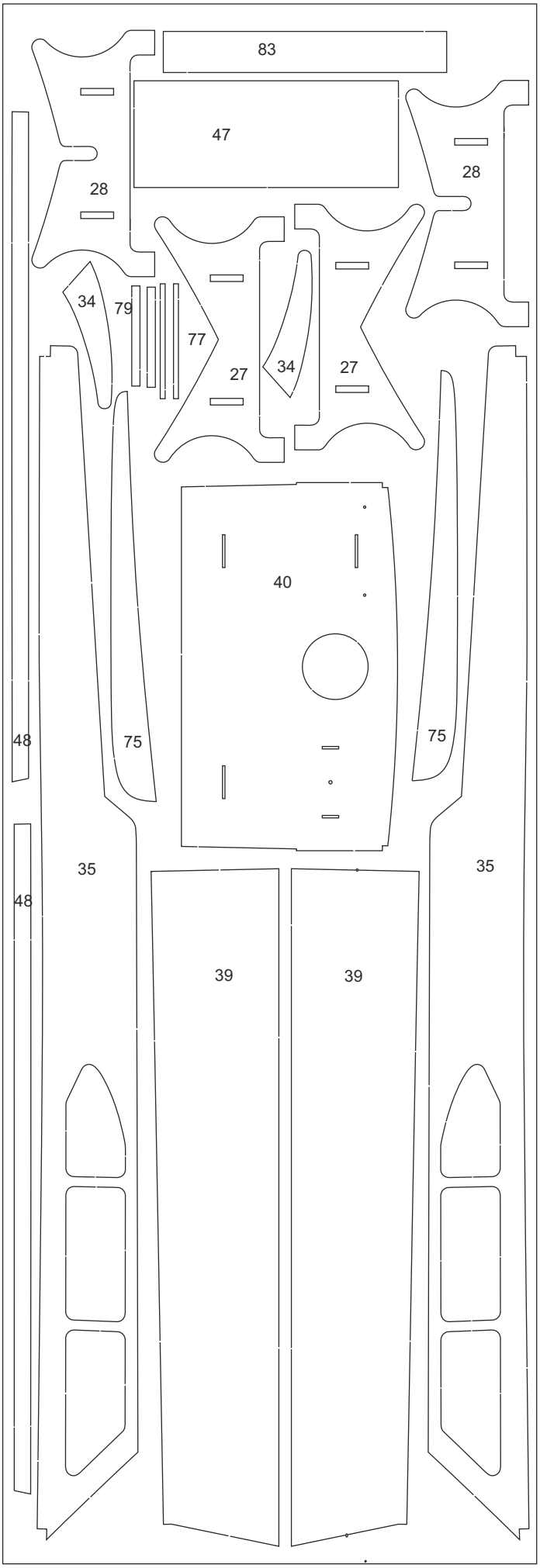
61

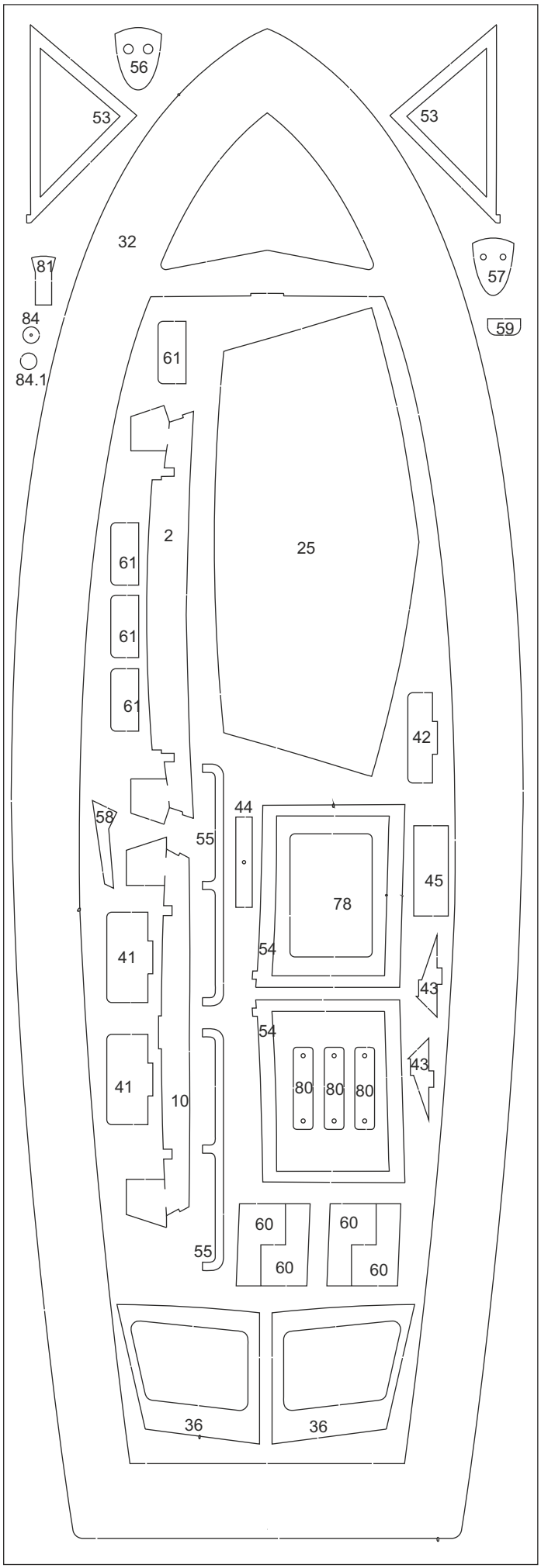
Glue the rails 77 to the cabin roof 52, and fix the door cover 78 on top.

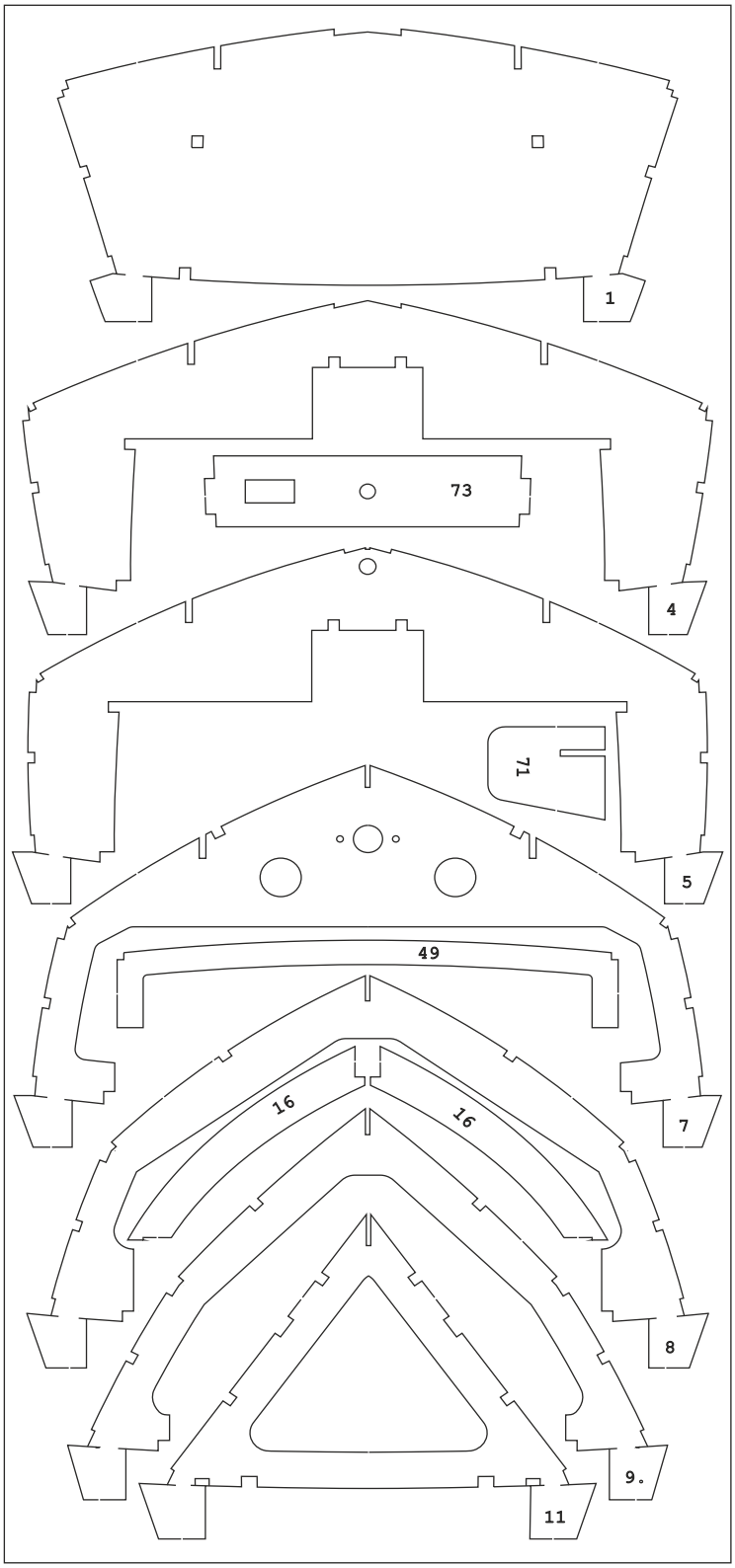
Finally glue the glazing panels to the frames using clear two-pack adhesive, and apply the name placards to the hull.

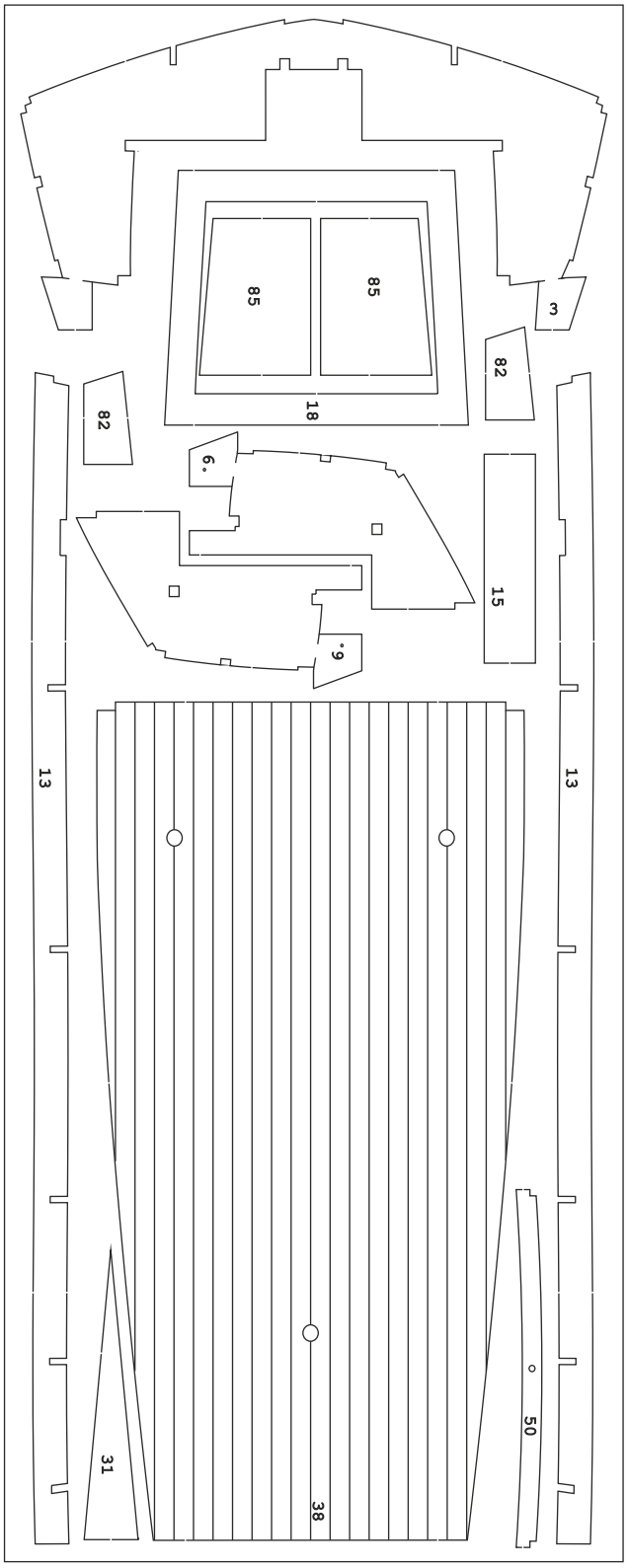
Part No	Description	Material	No. Off	Size
0	Jig	Depron	1	3 mm, die-cut
1	Hull frame	Plywood	1	3 mm
2	Hull frame	Mahogany plywood	2	1.5 mm
2.1	Frame doubler	Plywood	1	2 mm
3	Hull frame	Plywood	1	3 mm
4	Hull frame	Plywood	1	3 mm
5	Hull frame	Plywood	1	3 mm
6	Half-frame	Plywood	2	3 mm
7	Hull frame (motor bulkhead)	Plywood	1	3 mm
8	Hull frame	Plywood	1	3 mm
9	Hull frame	Plywood	1	3 mm
10	Hull frame	Mahogany plywood	1	1.5 mm
10.1	Frame doubler	Plywood	1	2 mm
11	Hull frame	Plywood	1	3mm
12	Front keel	Plywood	1	2 mm
13	Fore-and-aft bearer	Plywood	2	3 mm
14	Rear keel	Plywood	2	2 mm
15	Brace	Plywood	1	3 x 26 x 100 mm
16	Curved deck support former	Plywood	2	3 mm
17	Hull rail	Spruce strip	2	1.5 x 8 x 820 mm
18	Template	Plywood	1	3 mm
19	Stringer (chine)	Spruce strip	6	3 x 3 x 920 mm
20	Stringer (side)	Spruce strip	2	3 x 5 x 940 mm
21	Stringer (bottom)	Spruce strip	2	3 x 5 x 370 mm
22	Deck support rail	Spruce strip	2	5 x 5 x 820 mm
23	Hull side panel	Mahogany / obechi	2	
24	Hull bottom	Plywood	2	1 mm
25	Transom	Mahogany plywood	1	1.5 mm
26	Bottom stringer	Triangular, lime strip	2	5 x 940 mm
27	Boatstand, front	Plywood	2	1.5 mm
28	Boatstand, rear	Plywood	2	1.5 mm
29	Boatstand bearer	Plywood	4	2 mm
30	Shaft tube	Brass	1	7 x 345 mm
30.2	Shaft	Stainless steel	1	4 x 380 mm
30.3	Collet	Brass	1	4 mm
30.3	Nut	Brass	1	M 4
30.4	Teflon washer	Plastic	1	4 Ø x ?? mm
31	Keel wedge	Plywood	1	3 mm
32	Main deck	Mahogany plywood	1	1.5 mm
33	Deck insert	Mahogany / light wood	1	1.5 mm
34	Deck doubler	Mahogany plywood	2	1.5 mm
35	Superstructure side wall	Mahogany plywood	2	1.5 mm
36	Superstructure front window	Mahogany plywood	2	1.5 mm
37	Cockpit support rail	Spruce strip	2	5 x 5 x 480 mm
38	Cockpit floor	Plywood	1	3 mm
39	Cockpit side panel	Mahogany plywood	2	1.5 mm
40	Rear cabin wall	Mahogany plywood	1	1.5 mm
41	Footrest	Mahogany plywood	2	1.5 mm
42	Shelf	Mahogany plywood	1	1.5 mm
43	Console side	Mahogany plywood	2	1.5 mm
44	Console front	Mahogany plywood	1	1.5 mm
45	Console cover	Mahogany plywood	1	1.5 mm
46	Cockpit back panel rail	Spruce	1	3 x 3 x 160 mm
47	Cockpit back panel	Mahogany plywood	1	1.5 mm
48	Side panel stiffener	Mahogany plywood	1	1.5 mm
49	Roof bearer frame	Plywood	1	3 mm
50	Roof bearer frame	Plywood	1	3 mm

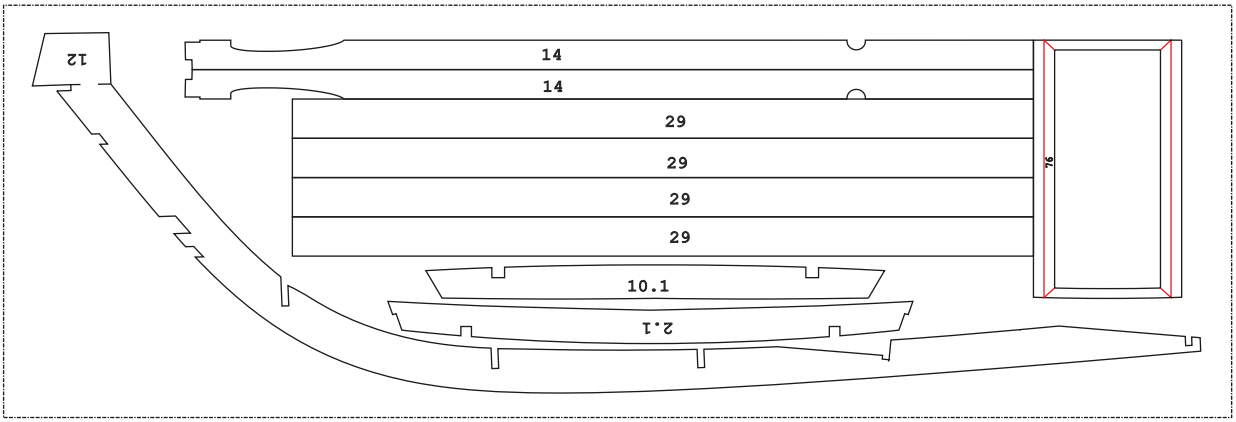
Part No	Description	Material	No. Off	Size
51	Roof fore-and-aft bearer	Spruce strip	2	3 x 3 x 310 mm
52	Roof	Plywood	1	1 mm
53	Side window	Mahogany plywood	2	1.5 mm
54	Front window	Mahogany plywood	2	1.5 mm
55	Handrail	Mahogany plywood	2	1.5 mm
56	Aerial bearer plate 1	Mahogany plywood	1	1.5 mm
57	Aerial bearer plate 2	Mahogany plywood	1	1.5 mm
58	Aerial	Mahogany plywood	1	1.5 mm
59	Aerial back panel	Mahogany plywood	1	1.5 mm
60	Step string	Mahogany plywood	4	1.5 mm
61	Step tread	Mahogany plywood	4	1.5 mm
62	Seat	Balsa	2	12 x 45 x 45 mm
63	Armrest	Balsa	2	12 x 45 x 60 mm
64	Seat base	Aluminium	2	8 Ø x 80 mm
65	Bench seat squab	Balsa	1	12 x 60x175 mm
66	Bench seat backrest	Balsa	1	12 x 55 x 160 mm
67	Table top	Deck	1	1.5 x 63 x 105 mm
68	Table base	Aluminium	1	8 Ø x 60 mm
69	Rudder bush	Brass	1	7 Ø x 50 mm
70	Rudder shaft	Brass	1	3 Ø x 80 mm
71	Rudder centre section	Plywood	1	3 mm
72	Rudder blade side	Plywood	2	1 mm
73	Rudder support plate	Plywood	1	3 mm
74	Battery support rail	Spruce strip	2	5 x 5 x 540 mm
75	Ram guard	Mahogany plywood	2	1.5 mm
76	Door	Plywood	1	2 mm
77	Rail	Mahogany plywood	2	1.5 mm
78	Door cover	Mahogany plywood	1	1.5 mm
79	Front panel	Mahogany plywood	2	1.5 mm
80	Bathing ladder tread	Mahogany plywood	3	1.5 mm
81	Throttle control	Mahogany plywood	1	1.5 mm
82	Bench seat base side	Plywood	2	3 mm
83	Bench seat base front	Mahogany plywood	1	1.5 mm
84	Flagstock truck	Mahogany plywood	2	1.5 mm
85	RC installation plate	Plywood	2	3 mm
86	Coupling sleeve	Brass	1	4 / 3.2 mm
87	Coupling sleeve	Brass	1	4 / 5.1 mm
88	Tiller	Aluminium	1	Ready made
89	Retainer clip	Plastic	2	7489/07
90	Metal rod	German silver	1	1.5 Ø x 500 mm
91	Metal rod	German silver	1+1	2.5 Ø x1000 + 500 mm
92	Etched parts	German silver	1	Ready made
93	Steering wheel	Metal	1	Order No.5655/25
94	Cleat	Metal	4	Order No.5400/14
95	Window	Plastic	2 sets	Die-cut

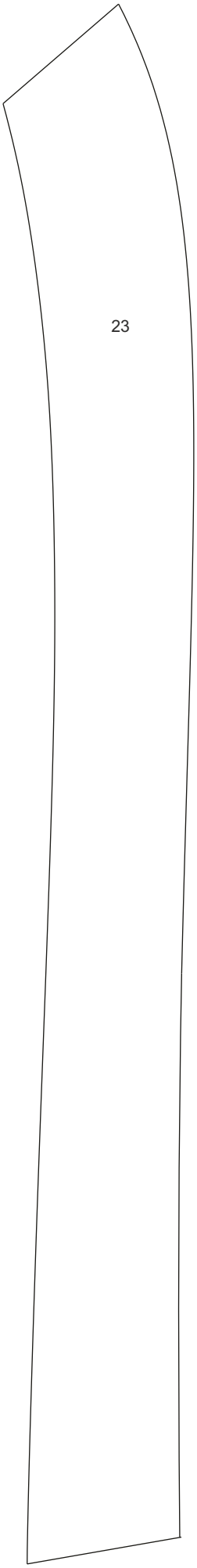

83
47
28
28
34
79
77
27
34
27
40
48
75
75
48
35
35
39
39

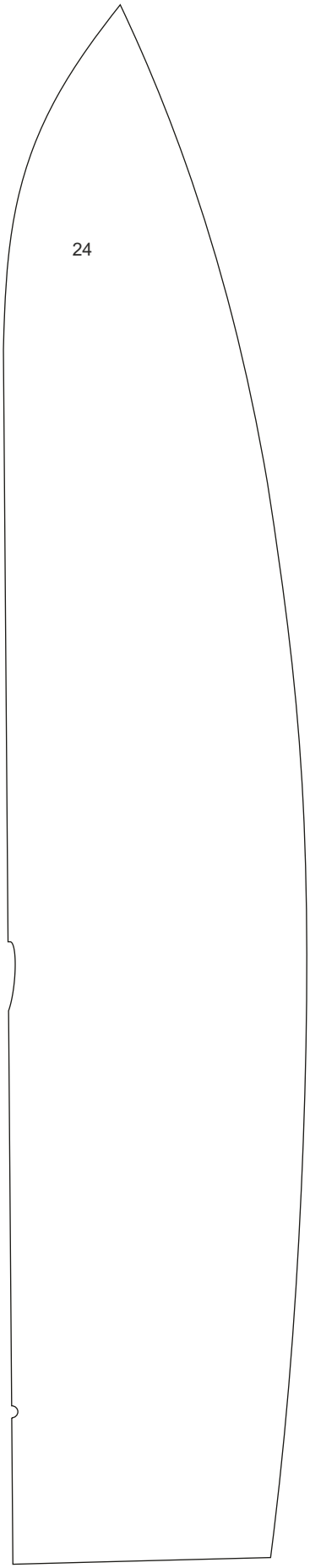

56
53
53
32
81
57
84
59
84.1
61
2
25
61
61
61
42
58
44
55
45
78
41
54
43
54
41
80
80
80
43
10
60
60
60
60
55
36
36

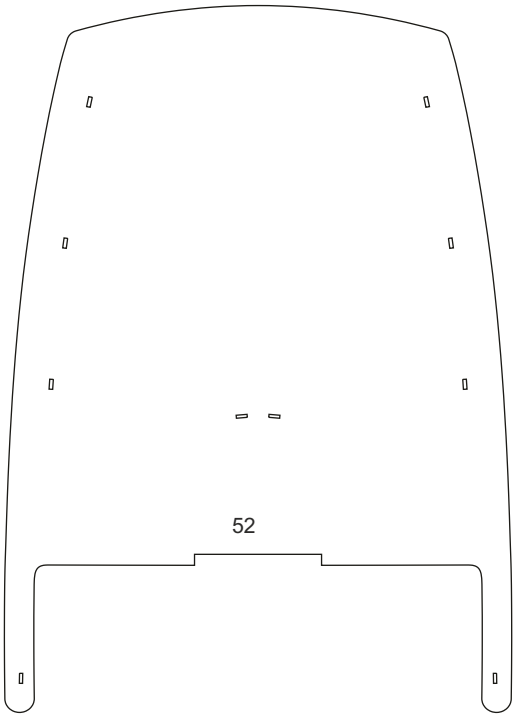

1
73
4
71
5
49
16
16
7
8
9.
11

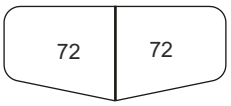

85
85
3
82
82
18
6.
15
9.
13
13
31
38
50

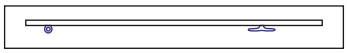

12
14
14
29
29
29
29
94
10.1
2.1

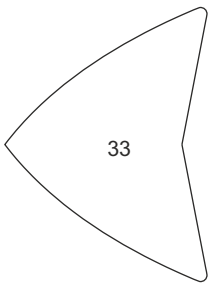

23

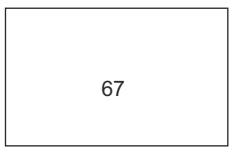

24


52


72
72




33


67