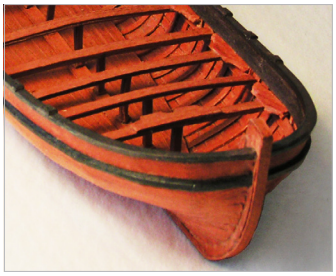
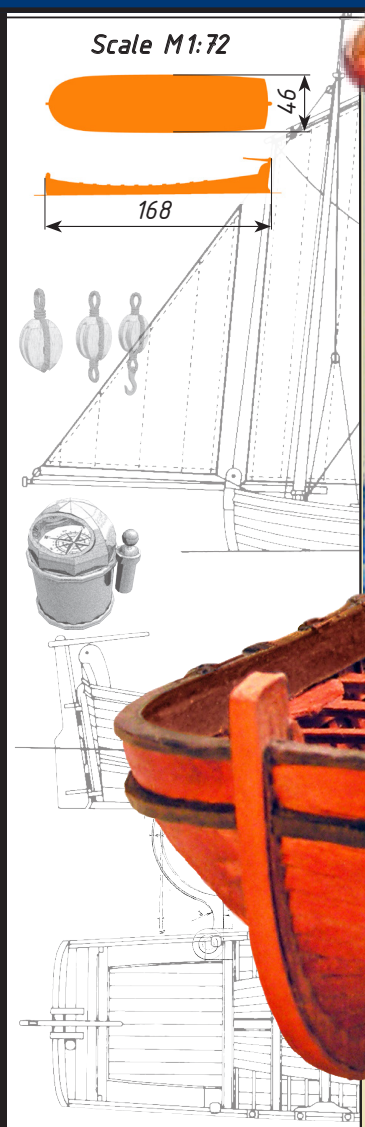


PSD MODELER

MAESTRO

French longboat of the 18th century
naval cargo longboat



Difficulty level

2014
3
March

Hello everyone!

Here is another model from the series “French longboat of the 18th century”. As planned, the next step was taken in the direction of a large-scale conversion of the model from a 1:48 scale to the popular and demanded 1:72 scale by modelers.

Together with the reduction in size, the assembly technology and the design of the model’s body itself were significantly redesigned. However, the author tried not to lose the “density” of the model’s perception, the proportionality of its saturation with details.

The assembly of the longboat is carried out on the slipway, as in the original version, however, the frames themselves, having lost strengths along with their size, now need to be reinforced. It was decided to use the templates during the assembly, on which the frames now lie, which, in turn, have become simply little strips with a section of 0.8x1.0 mm.

The skin boards are now single-layer and very easy to stick into place. Their number remained the same - twelve pieces per side. This is still the most difficult moment in the entire assembly due to the rather painstaking fit of the parts along the grooves. And as before, the outer skin defines the “face” of the entire model, therefore the highest demands on the quality of assembly are imposed on it.

The author, simplifying the model, decided not to put sailing equipment on the longboat, as well as the bow and stern roller assemblies. The fairness (or not) of this decision will be shown by time and your, dear colleague, feedback.

In general, one more step has been taken towards the creation of the “newborn” magazine “PSG-Modeler” for paper modelers.

I hope you like it.

Sincerely yours,

Daniel Dane Vishnevsky.

French longboat of the 18th century naval cargo boat

Paper model, materials, patterns of parts, diagrams and assembly descriptions

DANIEL DANE WISHNEWSKI - KARLSHAGEN

The model of the French longboat of the French Navy of the 18th century, presented to your attention, is a large-scale conversion to a scale of 1:72, in this case a reduction of the previously released model at a scale of 1:48 (see PSG-Modeler №1/2013).

The body length was thus reduced to 168 mm, and the model became much easier to assemble. There are no sailing rigs, lift rolls and boat supplies, since such small parts are rather difficult to make well out of paper.

The longboat, which became the prototype of this model, was born somewhere on the French coast from Dunkirk in the north to Bordeaux in the west. It has a traditional design, luger sail armament and four cannons. The boat was intended for the carriage of goods, as well as for working with the ship's anchor.

Prototype Specifications:
The length of the longboat - 11.7 m,
The width of the longboat - 2.98 m,
Draft amidships - 1.19 m,
Sail area - 62.7 m2.
The model is made on a scale of 1:72.

GENERAL REMARKS

All the necessary information for assembling the model is included in the assembling instruction.

Of the tools, you will need good scissors, a special designer knife with replaceable blades, a metal ruler for a straight cut in a straight line, as well as ordinary draws templates for a curvilinear cut. Needle files and sandpaper will be very helpful.

As a glue, for most cases, PVA is suitable. There are dozens of his brands on sale. Try different adhesives, not just PVA, and choose yours.

With the help of an engraving mill, you will be able to process the parts of the boat, chamfer, fit parts to each other, turn out parts like in lathe, and final surface finishing. Always wear safety glasses when working with an engraving mill.

It is useful to have small, lightweight plastic clamps to hold the parts in place during assembly. Just remember that the clamps provide only the adherence of the parts to each other, but not in any way the straightening of their irregular shape by pressure.

It is convenient to assemble parts on a plane, which is quite suitable is a piece of thick plastic or glass, 6-10 mm thick. It is good to have a few small metal weights between 50 and 200 grams. With their help, you can make almost any spatial assembly of your parts.

It is necessary to say separately about the marking of parts. It one goes in two streams. Roman numerals designate cardboard parts thick of 1.1 mm, that make up the base of the hull structure. Usually, they assemble hull parts on this structure. Subsequently, these parts made from cardboard are usually removed.

Arabic numerals designate «visible» parts that define the appearance of the model. For the most part, they are made of thick colored paper (red ocher) with a thickness of 0.4 mm.

Parts are numbered in accordance with the model assembly procedure accepted by the author.

At the end of the issue, a complete list of model parts is given, indicating the number of the pattern sheet, where they are located, their quantity, the material from which they are made, as well as their thickness.

This issue of PSG-Modeler magazine is in a PDF file so that you can download and print it on paper with a thickness at least 0.4 mm. If your printer can not print on thick paper, print the parts on plain office paper. Then glue a sheet of such paper with parts on thick color paper from which you will assemble the model.

Here it is very important to spread glue on the parts sheet **BETWEEN** the parts, and not, as usual, spread glue **ON** the parts. Then after cutting out the parts along the contours on a sheet of thin office paper, the office paper will fall off by itself, since you did not spread the parts with glue.

MODEL ASSEMBLING DESCRIPTION

01. Building berth. Unlike the actual assembly at the shipyard, we will assemble the longboat in the keel up position. To do this, it is necessary to equip a building site - a building slip, which will allow us to accurately and in a certain order to arrange the parts of the longboat hull, that is, to assemble them. Then the parts are glued together and we get a hull ready for completion.

The slip-way is a flat base ***(part I)***, on which the jig is vertically installed ***(part II)*** and two guides ***(part III)*** and ***(part IV)***. The surface of the guides defines the base plane of the slip way, which is called the baseline. The guides must be exactly rectangular and parallel. The jig is supported by three pairs of bracket knees ***(part V)***, ***(part VI)*** and ***(part VII)***. In the jig, grooves are pre-cut for the installation of patterns, on which the frames will be installed, as well as for the stem and stern-post. (**Fig. 1**).

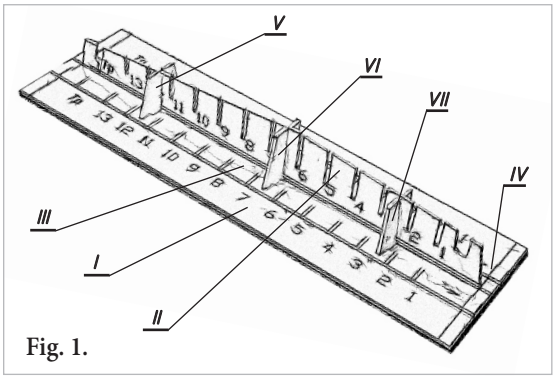


Fig. 1.

Frames ***(part 14)*** are glued together from two parts each to gain the required thickness. Then the frame is pre-bent according to the shape of its pattern and placed on the side surface of the pattern ***(part 1-13)***, ***(part 1L)*** and ***(part 1R)***, pre-curved to fit snugly. (**Fig. 2**).

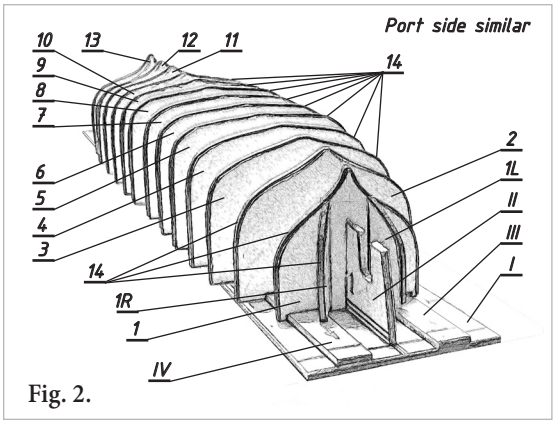


Fig. 2.

Attention! Since the assembly of the longboat is carried out with the keel up, the upper parts of its set during assembly will actually be located at the bottom and the lower ones at the top.

Attention! ONLY the upper ends of the frames (near the base of the slip-way) are glued to the patterns over a length of about 3-4 mm.

Pay attention to the pivoting frames in the bow of the hull ***(part 1L)*** and ***(part 1R)***. They are glued according to the marks on frame No. 1 and marks on the guides. If the frame does not fit the pattern quite tightly, this is not a problem: the hull plating, which will be installed later, will press the frames against the patterns.

When installed transom ***(part 15)*** on the slip-way preglue the assembled stern-post ***(part 16 carton)***, ***(part 16L)*** and ***(part 16R colored paper)***, and cut a groove in the slip-way under its top. Give the transom a slight curvature, bulge to the stern side. To simulate boards on it, make horizontal cuts every 4 mm. (**Fig. 3**).

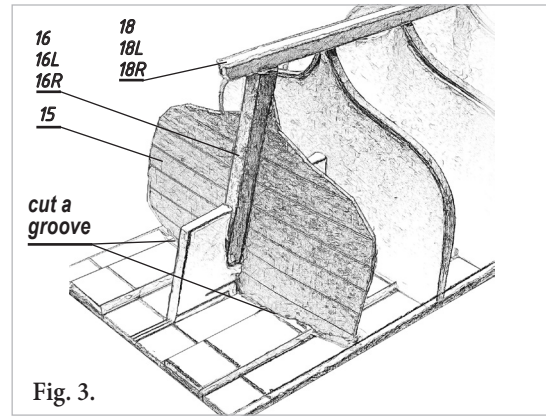


Fig. 3.

Make sure all frames form a straight line where the keel will be installed later.

The stem, ***(part 17)*** and the keel, ***(part 18)***, which are cut out of two layers of cardboard, should be pasted on the sides with colored paper: ***(part 17L)*** and ***(part 17R)*** for the stem and ***(part 18L)*** and ***(part 18R)*** for the keel. (**Fig. 4**)

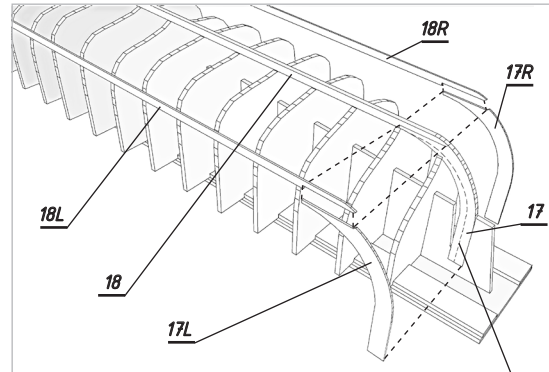


Fig. 4. *) Use T1 template for position line of planks ends.

The front and rear surfaces should be pasted over with colored paper later, after installing the keel and stem in place. **(Fig. 4a)**

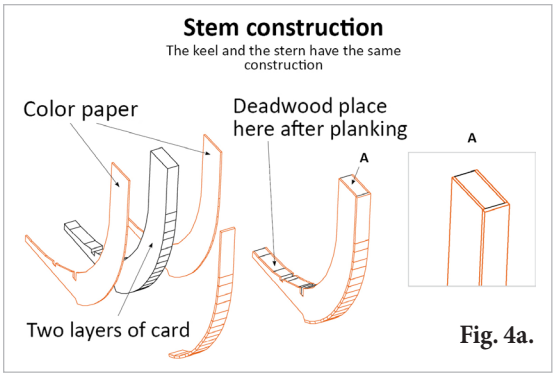


Fig. 4a.

02. Hull Planking. The first plank of the skin should be installed from the keel. The end of the first two (from the keel) skin planks ***(part 19L)*** should be installed according to the mark on the stem with the help of template ***T1***. The edges of the board should be adjusted to the keel, stem and stern-post, removing the bevel from them - "extra corners on the details", which prevent the details from adhering to each other without gaps. When installing the board, bend it with a "screw" along the length of the longboat body so that it lies with its face on each frame. Then install the first plank of the opposite side ***(part 19R)***.

Likewise, in pairs on each side, install all the other planking planks ***(part 20)***-***(part 30L)*** and ***(part 20)***-***(part 30R)***. When installing trim parts, make sure that the boards with their ends lie in the middle of the stem width along a smooth arc repeating its outline. To do this, use the ***T1*** template. Skin boards are given a length allowance. Cut off the protruding ends along the outside edge of the transom (**Fig. 5**).

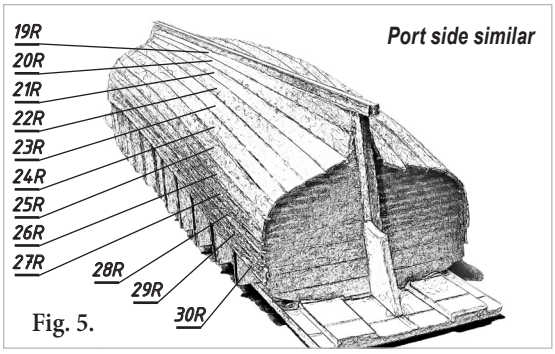


Fig. 5.

Attention! Make sure that no glue gets between the frames and the templates. Otherwise, you will not be able to remove the finished hull from the slip-way.

03. Removing the hull from the slip-way. After the glue has dried, the hull of the longboat can be removed from the slip-way. To do this, it is necessary to cut the upper ends of the frames on the templates (along the upper edges of the sides of the hull near the base of the slip-way) and carefully separate the hull from the slip-way. Be careful - the case is not yet fully strong and can be damaged quite easily.

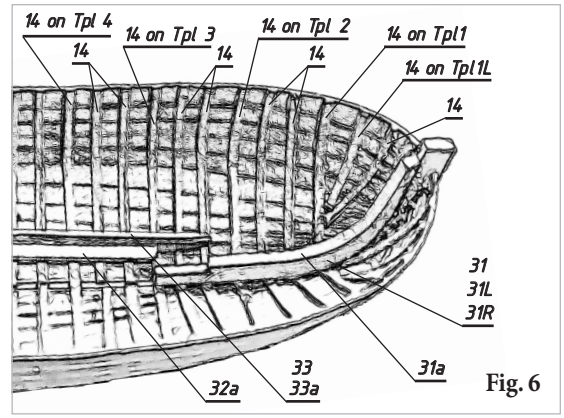


Fig. 6

04. Completion of the hull's building. Intermediate frames ***(part 14)*** glue between already which standing. Install the deadwood ***(part. 31)***, ***(part 31L)*** and ***(part 31R)***, and place strip of color paper on the stem on the stern side. If necessary, cut slots for frames ***(part 1)*** and ***(part 2)*** at the bottom of the stern-wood.

Glue together the vertical keelson ***(part 32)*** and horizontal keelson ***(part 33)*** and ***(part 33a)***. Then glue bottom boards of the port ***(part 34L)*** and starboard side ***(part 34R)*** under the horizontal keelson, butt to the vertical keelson. Install the assembly at her place in the boat bottom. The bow end of keelsons should be fitted to the end of deadwood (**Fig. 6, Fig. 7**).

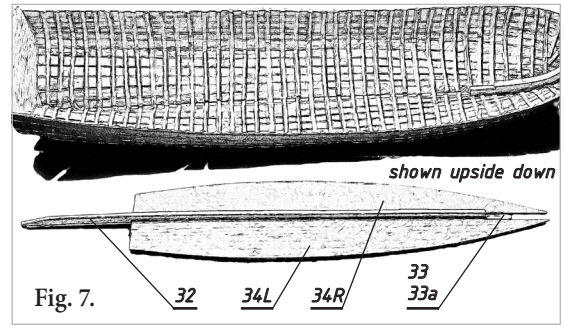


Fig. 7.

Install the cockpit bulkhead ***(part 35)*** and cockpit deck ***(part 36)***. If necessary, adjust the shape of the parts in place. A slot should be cut in the cockpit bulkhead for the horizontal keelson.

Install the coamings of the side stern thwarts of the left ***(part 36L)*** and right side ***(part 36R)***, as well as coamings of the stern thwarts ***(part 37)***.

Next, you need to install the port and starboard side risers ***(part 38L)*** and ***(part 38R)*** (**Fig. 8**). For thwarts it is easier to mark slots on risers in place. The distance be-

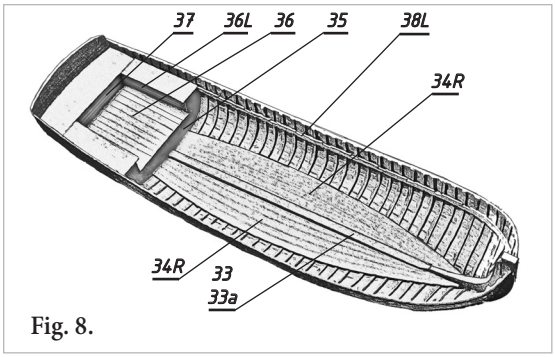


Fig. 8.

tween the aft edges of the rowers' thwarts is 10 mm. Aft thwarts for rowers ***(part 40)*** and ***(part 40a)*** are placed with their aft edge from the cockpit bulkhead also at a distance of 10 mm (**Fig. 9**).

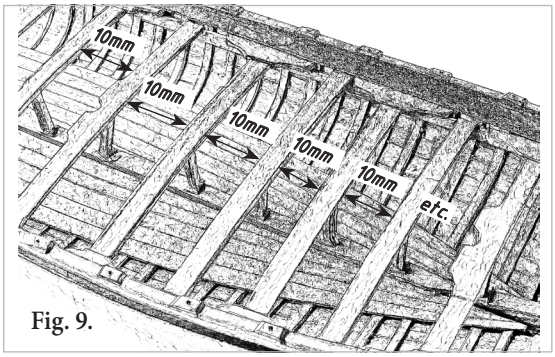


Fig. 9.

After marking and cutting out the slots for the thwarts, install risers on the left and right sides. They should be glued to the inner faces of the frames. Position the parts in height so that the upper edge of the riser coincides with the upper edge of the cockpit bulkhead and runs at the same distance from the upper edge of the side.

The device of the aft cockpit ends with the installation of aft and side thwarts ***(part 39)***. If necessary, adjust the shape of the part in place.

To the thwarts of rowers ***(part 40-49)*** glue the pillars ***(part 40b)*** and also, to every second thwarts, glue knees at their ends. Knees are assembled from ***(part. 41L)*** and ***(part 41aL)*** and ***(part 41R)*** and ***(part 41aR)*** which are glued together in pairs. The same should do with ***(part 43L)***, ***(part 43aL)*** and ***(part 43R***, ***part 43aR)***, ***(part 45L)***, ***(part 45aL)*** and ***(part 45R)***, ***(part 45aR)***, ***(part 47L)***, ***(part 47aL)*** and ***(part 47R)***, ***(part 47aR)***, ***(part 49L)***, ***(part 49aL)*** and ***(part 49R)***, ***(part 49aR)***. Round the top edges of the thwarts with a radius of 0.5 mm and slightly bend it to give them camber. Place the assembled thwarts with knees and pillars in place (**Fig. 10**).

The shape of the bow platform, ***(part 50)***, as well as the location of the deadwood slot in it, define using a paper template. On the bow platform itself, as well as on the seat of the stern can, it is necessary to imitate the boards

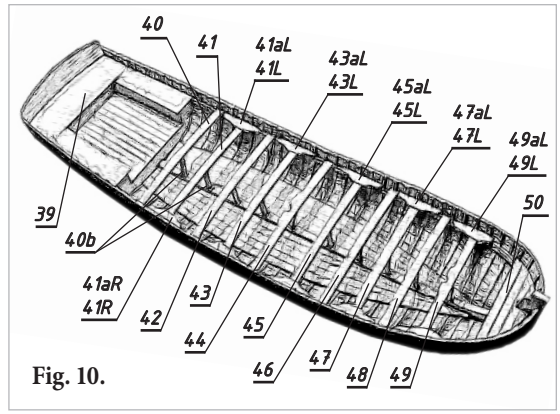


Fig. 10.

by making transverse cuts on them every 4 mm. The same, but longitudinal cuts should be made on the deck of the aft cockpit, as well as on the seats of the aft side thwarts (**Fig. 10**).

Next install the inner side stringers ***(part 51L)*** and ***(part 51R)***. They are also given a length allowance. Make sure that their lower edges are at a distance of about 1.0-1.5 mm from the upper edges of the risers. If, at the same time, the upper edges of the stringers protrude beyond the edge of the bead in some places - it's okay, later they can be aligned flush with the side board using sandpaper.

Install gunwales ***(part 52L)*** and ***(part 52R)*** from above to the sides so that they are flush with the surfaces of the inner stringers and protrude approximately 1-1.5 mm over the side. Round the outer edges of the gunwales with a radius of about 0.3 mm. (**Fig. 11**).

Install the transom gunwale ***(part 53)*** on top of the transom so that it protrudes approximately 0.5-1.0 mm beyond the transom on each side. Details are given with a length allowance. Dock the ends of the gunwale to the side gunwales and trim them in place. In the same way, install a wood batten ***(part 53a)*** on the outside of the transom under gunwale.

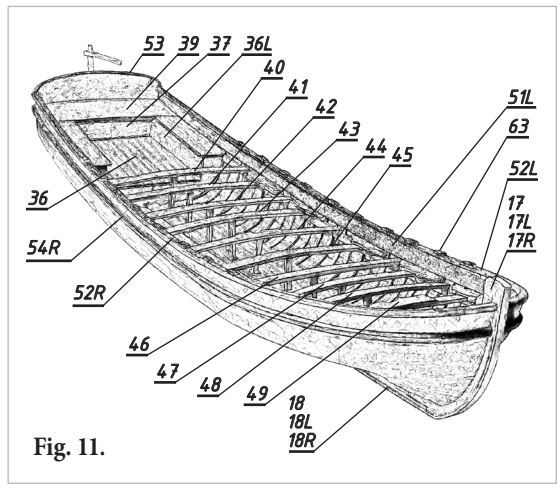


Fig. 11.

Install fenders ***(part 54L)*** and ***(part 54R)***. Fenders should run along the lower edge of the top side board plank. Install the fenders on the transom ***(part 55L)*** and ***(part 55R)***. They must be an extension of the side fenders on the transom (**Fig. 11, Fig. 12**).

05. Rudder. The steering device consists of the actual rudder ***(part 56)*** and tiller ***(part 56a)***. The tiller is put on with its slot on the head of the rudder. The whole assembly is fastened with hinges ***(part 57a)*** and ***(part 57b)*** to the sternpost, on which the sternpost mating hinges are also installed ***(part 58)*** (**Fig. 12**).

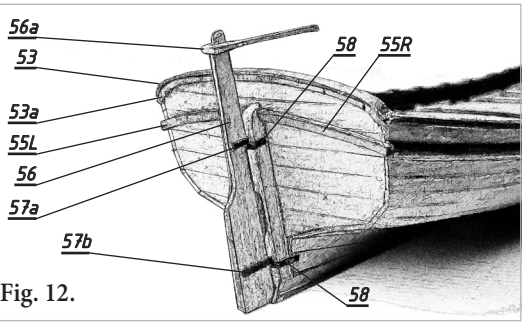


Fig. 12.

Install strips for the oarlocks ***(part 63)*** on the gunwales of both sideboards in place between thwarts. (see **Fig. 11**).

Assemble the base for the model boat from the bow ***(part 59)*** and ***(part 59a)*** and aft ***(part 60)*** and ***(part 60a)*** keel blocks connected by recumbent ***(part 61)*** and standing ***(part 62)*** beams (**Fig. 13**).

This completes the assembly of the longboat model. I would only advise you to take a close look at the result of your labors and boldly make your own "edits" in the appearance of this beautiful boat. Let your model be individual. It will bring joy to you and your loved ones. Which, in fact, was the author's most important task.

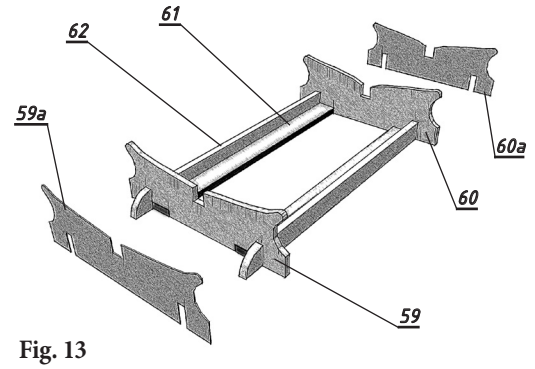


Fig. 13

Visit the website at ***www.bnk.sobdelo.ru***. There you will find new assembly details in a mass of color illustrations and explanations, as well as some time later, ready-made photo instructions for assembling models in ***.pdf*** files, which you can download for free. All materials on the longboat that were not included in the magazine are waiting for you on the site.

Write me on Paper Modelers forum in threads ***Future, Current, and Past design projects (www.papermodelers.com)***

See you soon on the pages of the PSG-Modeler magazine and on the website ***www.bnk.sobdelo.ru***!

Sincerely yours,

Daniel Dane Vishnevsky.

French longboat of the 18th century
Specification *)

Symbols of materials:
ROP - Red Ocher Paper, thickness 0.4 mm, BP - brown paper, thickness 0.4 mm, BCB - beer cardboard, thickness 1.15 mm.

Part number	The name of part	Sheet №	Qty	Material for the manufacture of the part, the number of layers of paper, the thickness of the part in mm
1	2	3	4	5
I	Flat base of slip-way	1	1	ROP-1 layer, 1.15 mm
II	Vertical jig	1	1	ROP-1 layer, 1.15 mm
III	Left side guide	1	1	ROP-1 layer, 1.15 mm
IV	S tarboard guide	1	1	ROP-1 layer, 1.15 mm
V	Aft jig bracket knee	1	2	ROP-1 layer, 1.15 mm
VI	Middle jig bracket knee	1	2	ROP-1 layer, 1.15 mm
VII	Bow jig bracket knee	1	2	ROP-1 layer, 1.15 mm
1-13	Frame patterns	1	13	BCB-1 layer, 1.15 mm
1L , 1R	Pivoting frames left and right	1	2	BCB-1 layer, 1.15 mm
14	Frames	4	40	ROP-2 layers, 0.8 mm
15	Transom	2	1	ROP-1 layer, 0.4 mm
16, 16L, 16R	Stern-post with colored side parts	1, 4	1+2	BCB-1 layer, 1.15 mm, ROP-2 layer, 0.8 mm. [1]
17, 17L, 17R	Stem with colored side parts	1, 4	1+2	BCB-1 layer, 1.15 mm, ROP-2 layer, 0.8 mm. [1]
18, 18L, 18R	Keel with colored side parts	1, 4	1+2	BCB-1 layer, 1.15 mm, ROP-2 layer, 0.8 mm. [1]
19-30L, 19-30R	Skin planks of portside and starboard	2	24	ROP-1 layer, 0.4 mm
31, 31L, 31R	Deadwood with colored side parts	1, 4	1+2	BCB-1 layer, 1.15 mm, ROP-2 layer, 0.8 mm. [1]
32	Vertical keelson	1	1	BCB-1 layer, 1.15 mm
33, 33a	Horizontal keelson	4	2	ROP-2 layers, 0.8 mm
34L, 34R	Bottom boards of portside and starboard	4	2	ROP-1 layer, 0.4 mm
35	Cockpit bulkhead	4	1	ROP-1 layer, 0.4 mm
36	Cockpit deck	4	1	ROP-1 layer, 0.4 mm
36L, 36R	Coamings of the side stern thwarts	4	2	ROP-1 layer, 0.4 mm
37	Coamings of the stern thwarts	4	1	ROP-1 layer, 0.4 mm
38L, 38R	Risers of portside and starboard	2	2	ROP-1 layer, 0.4 mm
39	Aft and side thwarts	4	1	ROP-1 layer, 0.4 mm
40-49	Thwarts for rowers	4	10	ROP-2 layers, 0.8 mm
40b	Thwarts' pillars	4	10	ROP-2 layers, 0.8 mm
41, 41aL, 41aR	Thwarts knees of portside and starboard	2	2	ROP-2 layers, 0.8 mm

[1] These parts must also be sealed with ROP - 1 layer paper from the side of the open ends (see Sheet 4).

Specification. Table continuation.

Symbols of materials:
ROP - Red Ocher Paper, thickness 0.4 mm, BRP - brown paper, thickness 0.4 mm, BCB - beer cardboard, thickness 1.15 mm.

1	2	3	4	5
43, 43aL, 43aR	Thwarts knees of portside and starboard	2	2	ROP-2 layers, 0.8 mm
45, 45aL, 45aR	Thwarts knees of portside and starboard	2	2	ROP-2 layers, 0.8 mm
47, 47aL, 47aR	Thwarts knees of portside and starboard	2	2	ROP-2 layers, 0.8 mm
49, 49aL, 49aR	Thwarts knees of portside and starboard	2	2	BRP-2 layers, 0.8 мм
50	Bow platform	4	1	ROP-1 layer, 0.4 мм
51L, 51R	Inner side stringers	3	2	BRP-1 layer, 0.4 мм
52L, 52R	Gunwales of portside and starboard	3	4	BRP-2 layers, 0.8 мм
53	Transom gunwale	3	1	BRP-1 layer, 0.4 мм
53a	Wood batten	3	1	BRP-1 layer, 0.4 мм
54 L, 54R	Fenders of portside and starboard	3	4	BRP-2 layers, 0.8 мм
55L, 55R	Fenders on the transom	3	4	BRP-2 layers, 0.8 мм
56	Rudder	4	2	ROP-2 layers, 0.8 мм
56a	Tiller	4	2	ROP-2 layers, 0.8 мм
57a	Upper rudder hinge	3	1	BRP-1 layer, 0.4 мм
57b	Lower rudder hinge	3	1	BRP-1 layer, 0.4 мм
58	Sternpost hinge	3	2	BRP-1 layer, 0.4 мм
59	Bow keel block	3	5	BRP-5 layers, 2.0 мм
59a	Bow front keel block	3	1	BRP-1 layer, 0.4 мм
60	Aft keel block	3	5	BRP-5 layers, 2.0 мм
60a	Aft rear keel block	3	1	BRP-1 layer, 0.4 мм
61	Recumbent beam of keel block	3	8	BRP-4 layers, 1.6 мм
62	Standing beam of keel block	3	8	BRP-4 layers, 1.6 мм
T1	Pattern for line of tip's of planking boards	1	1	BCB -1 layer, 1.15 мм

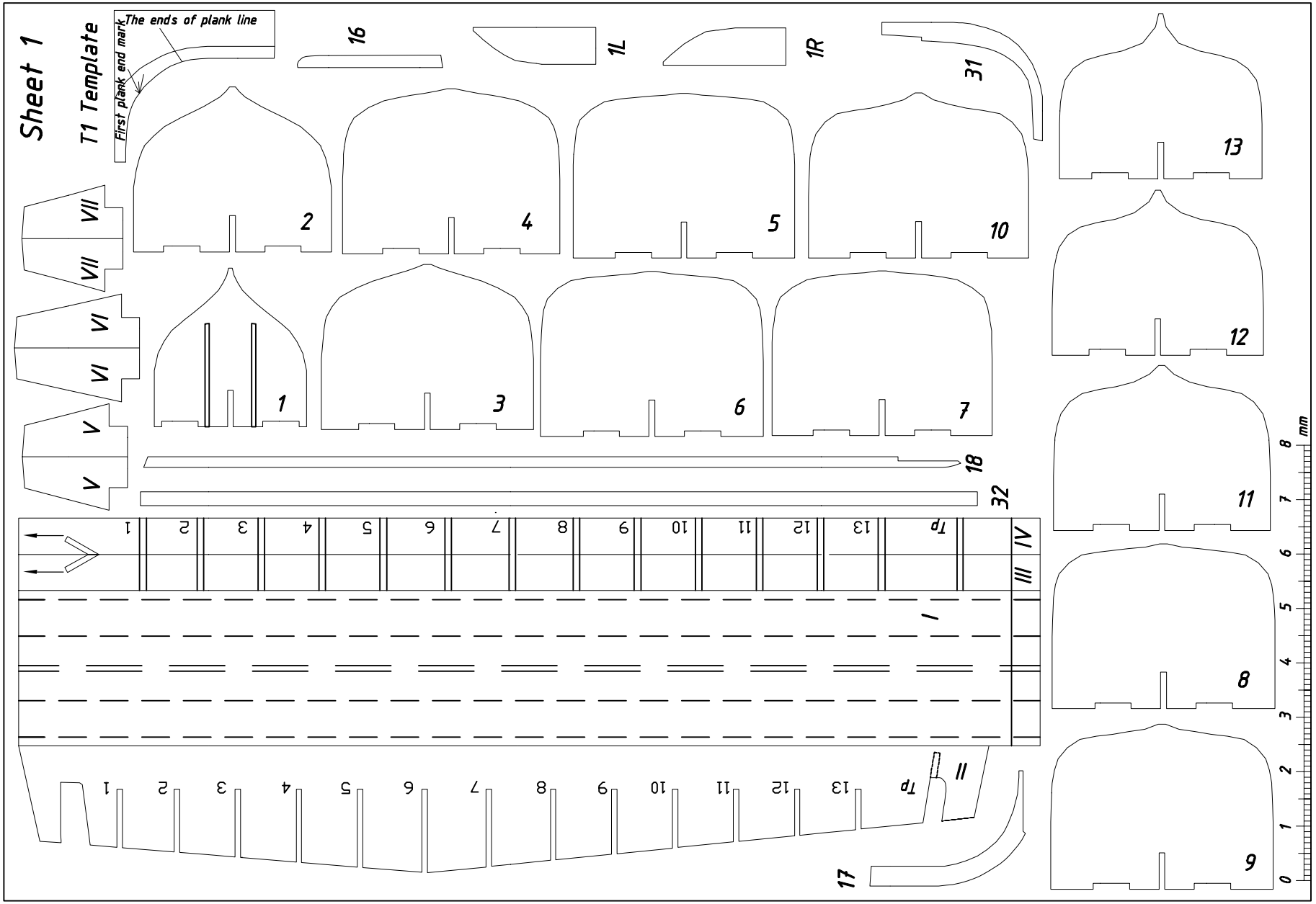
*) On sheets with patterns of parts, only their outlines are given. The material that should be used for the manufacture of the part and the number of its layers, as well as the thickness to which it is necessary to bring each part, are indicated in column No. 5 of the Specification.

Take into account that the author entrusted the performer with the layout of the parts by color before gluing their patterns on colored paper!

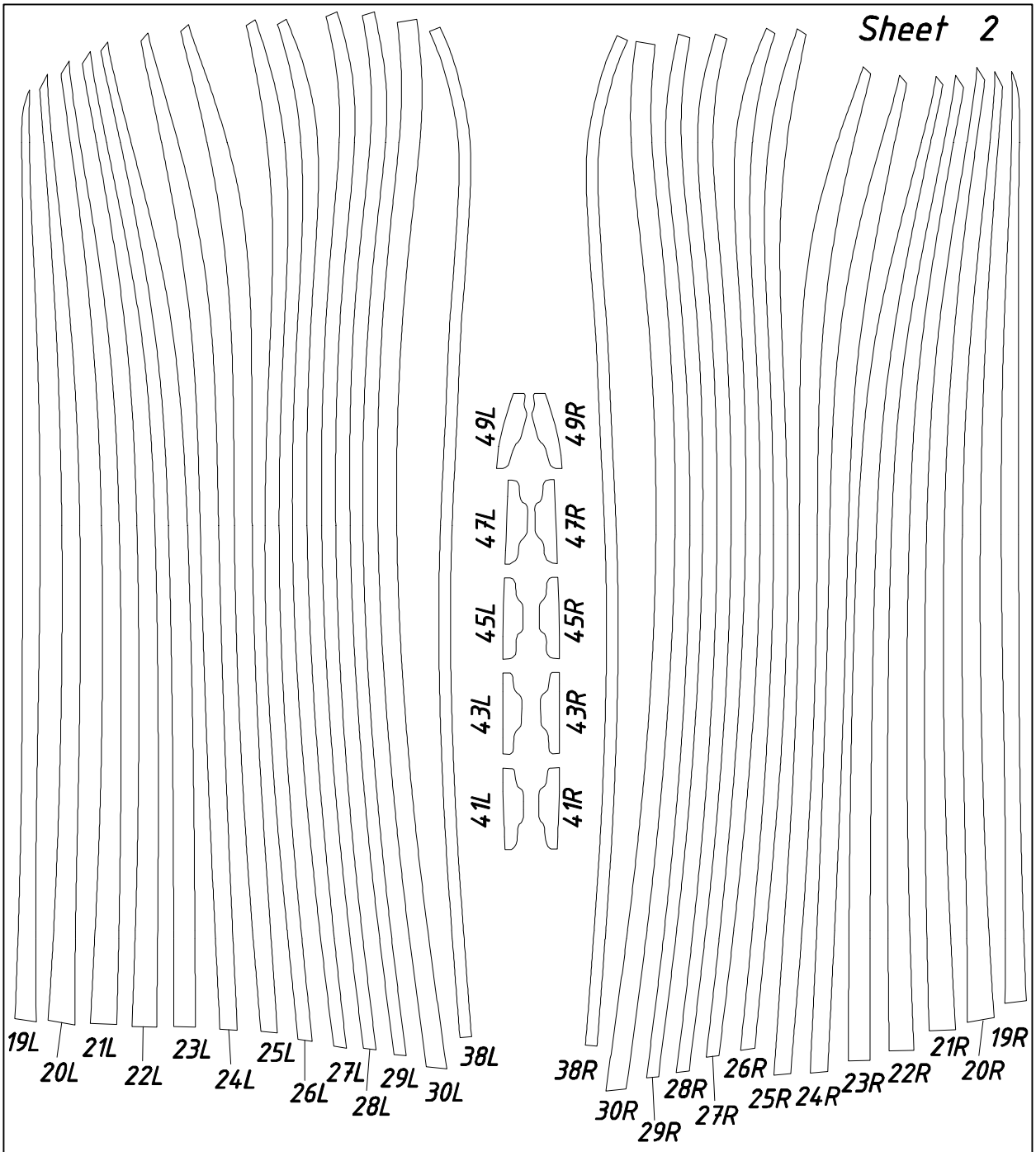
Composition of the issue:

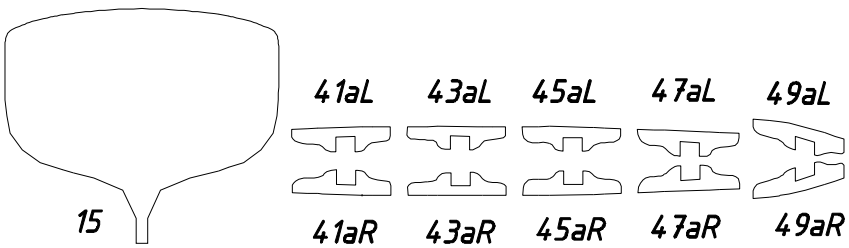
1. Instruction on eight pages 175x250 mm with color cover.
2. Patterns of B&W parts on four sheets and patterns of colored parts four sheets on format 175x250 mm.
3. The modeler can choose cardboard and colored paper for the model assembling based on the author's recommendation.

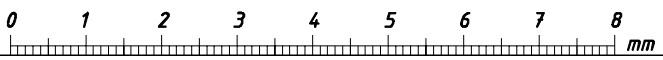
The issue contains 13 figures explaining the manufacture of the longboat model.


Sheet 1
T1 Template
The ends of plank line
First plank end mark
16
1L
1R
31
2
4
5
10
13
VIII
VII
12
VI
VI
1
3
6
7
11
V
V
18
32
1
2
3
4
5
6
7
8
9
10
11
12
13
Tp
IV
III
I
II
17
8
9
mm
0
1
2
3
4
5
6
7
8

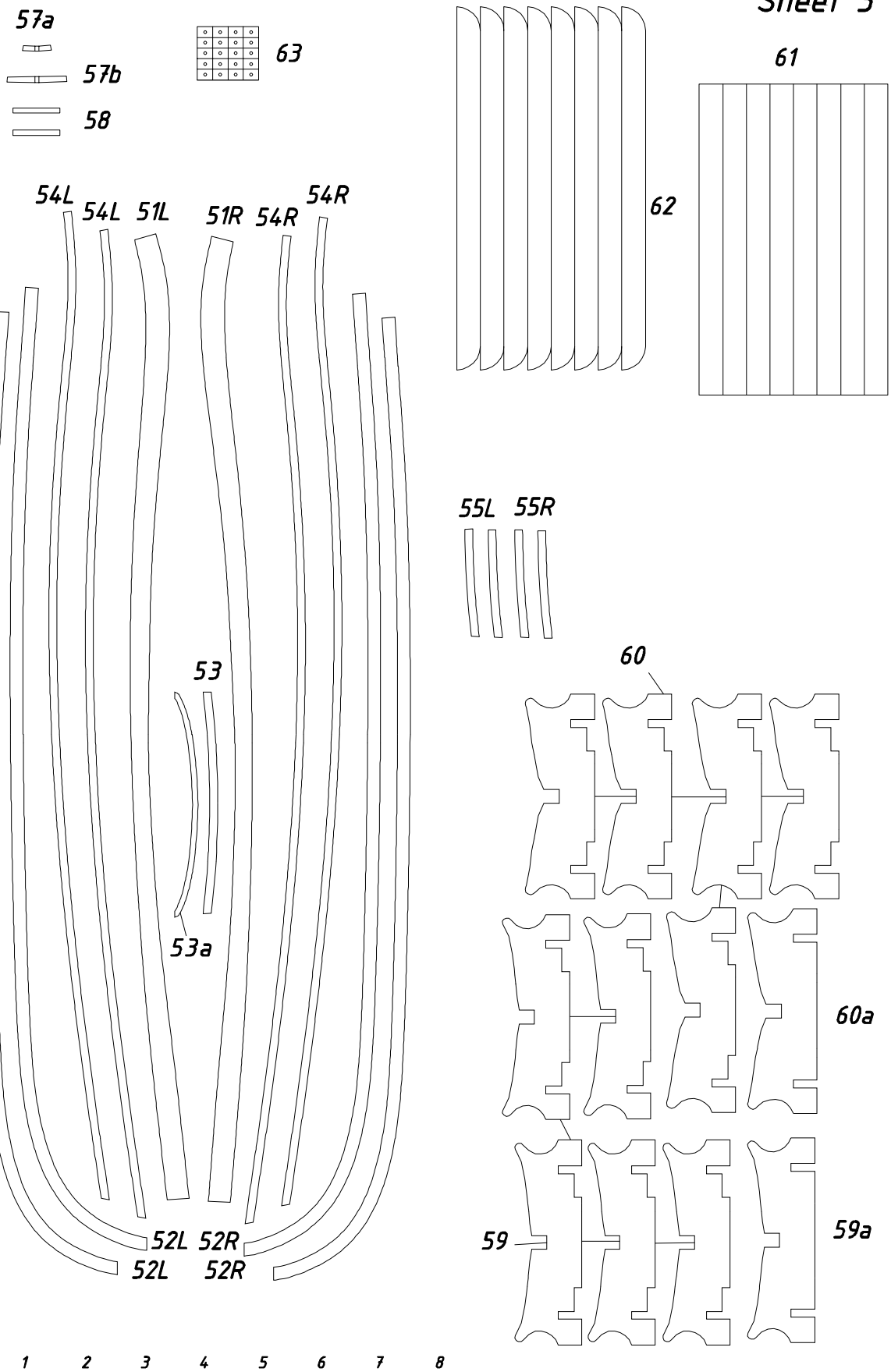
Sheet 2

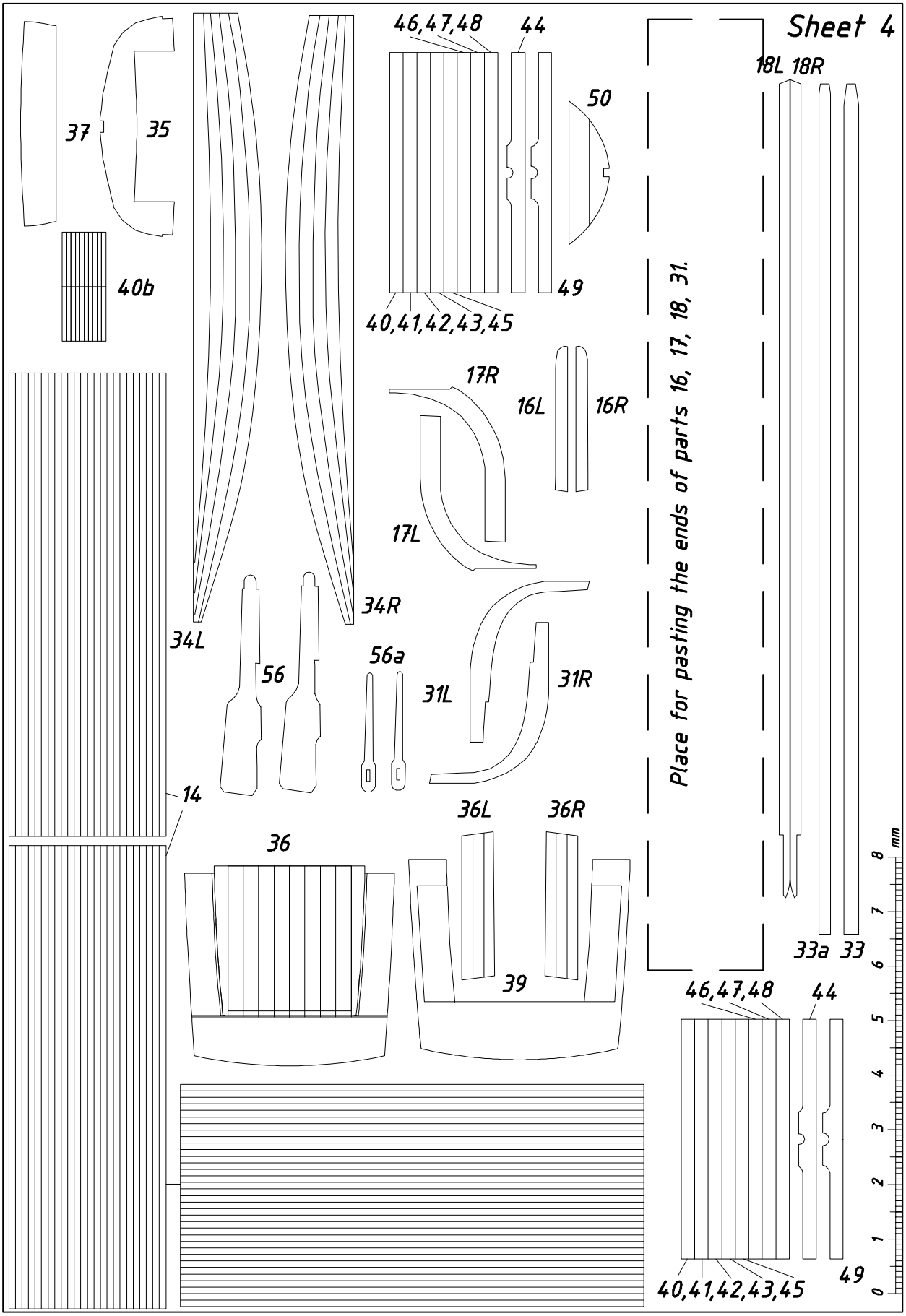

19L
20L
21L
22L
23L
24L
25L
26L
27L
28L
29L
30L
38L
49L
49R
47L
47R
45L
45R
43L
43R
41L
41R
38R
30R
29R
28R
27R
26R
25R
24R
23R
22R
21R
20R
19R


15
41aL
43aL
45aL
47aL
49aL
41aR
43aR
45aR
47aR
49aR

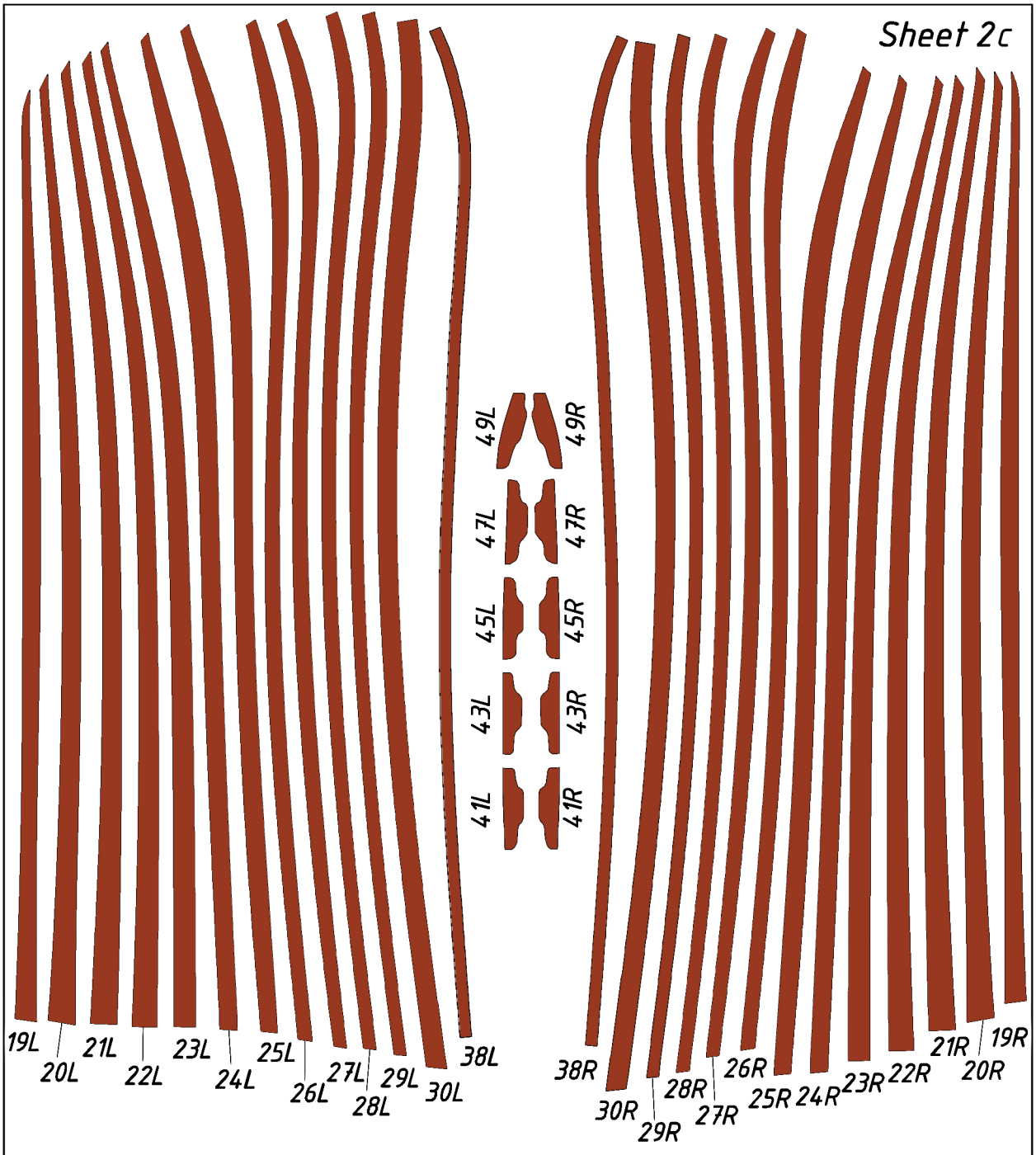

0
1
2
3
4
5
6
7
8
mm

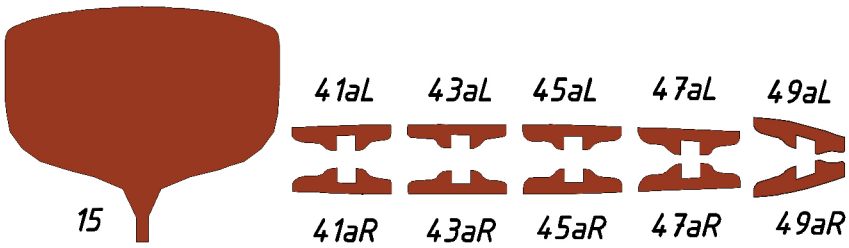
Sheet 3


57a
57b
58
63
61
62
54L
54L
51L
51R
54R
54R
55L
55R
53
53a
60
60a
59
59a
52L
52R
52L
52R
0
1
2
3
4
5
6
7
8
mm


Sheet 4
37
35
40b
46,47,48
44
50
49
40,41,42,43,45
18L
18R
Place for pasting the ends of parts 16, 17, 18, 31.
17R
16L
16R
17L
34R
34L
56
56a
31L
31R
14
36L
36R
36
39
33a
33
46,47,48
44
49
40,41,42,43,45
mm
0
1
2
3
4
5
6
7
8

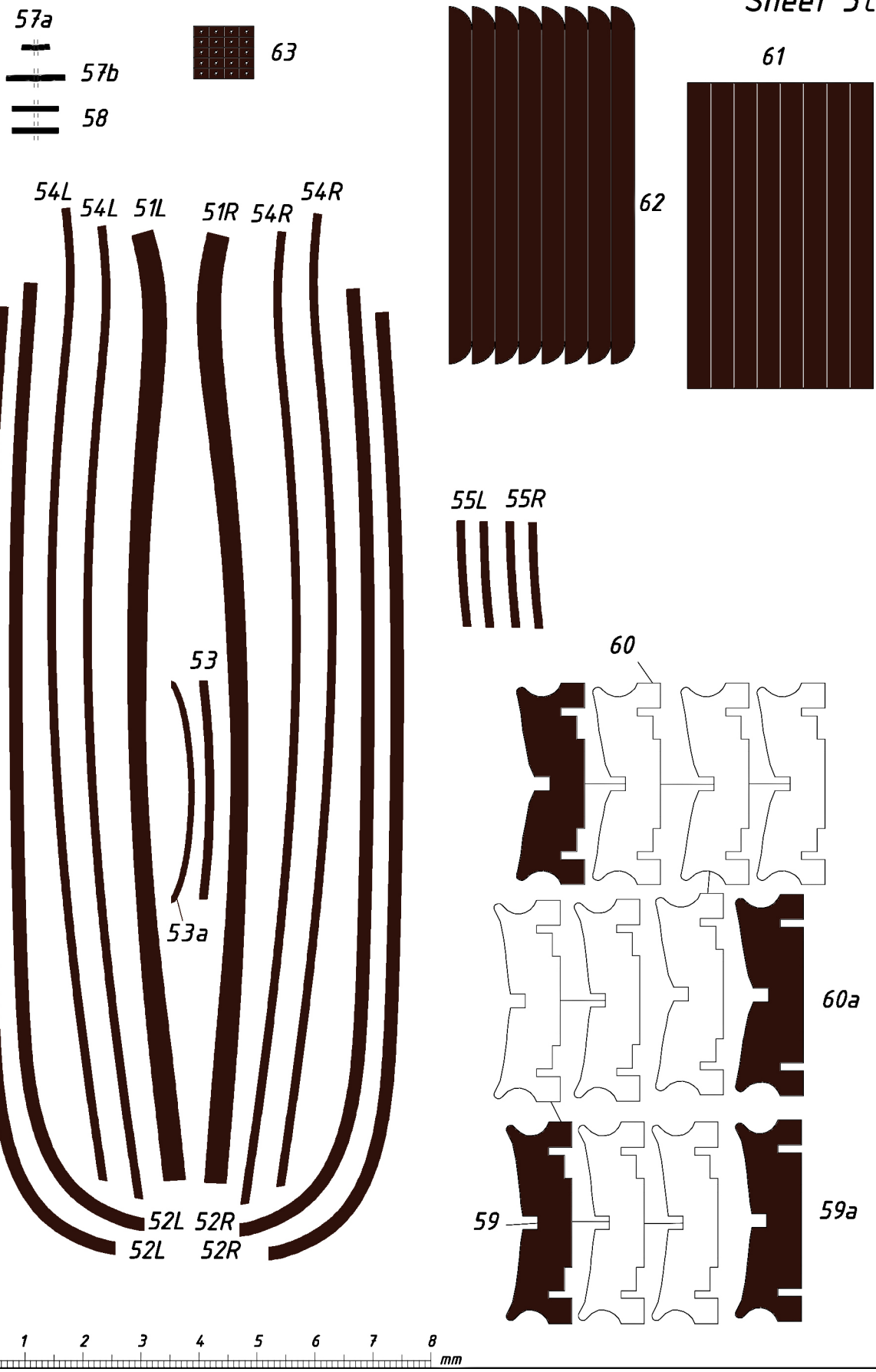
Sheet 2c

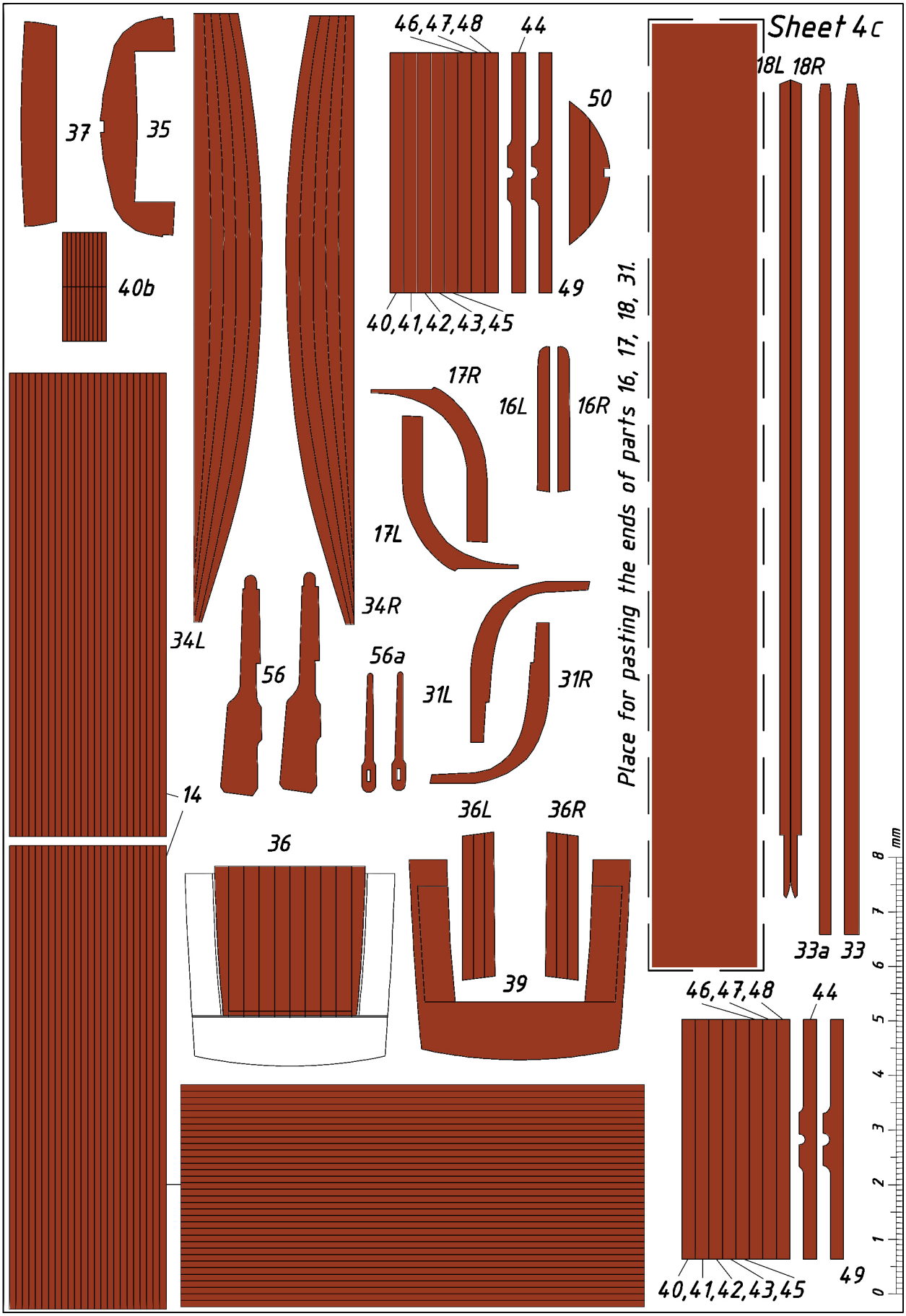

19L
20L
21L
22L
23L
24L
25L
26L
27L
28L
29L
30L
38L
49L
49R
47L
47R
45L
45R
43L
43R
41L
41R
38R
30R
29R
28R
27R
26R
25R
24R
23R
22R
21R
20R
19R


15
41aL
43aL
45aL
47aL
49aL
41aR
43aR
45aR
47aR
49aR


0
1
2
3
4
5
6
7
8
mm

Sheet 3c


57a
57b
58
63
62
61
54L
54L
51L
51R
54R
54R
55L
55R
53
53a
60
60a
59
59a
52L
52R
52L
52R
0
1
2
3
4
5
6
7
8
mm


Sheet 4c
37
35
40b
46,47,48
44
50
49
40,41,42,43,45
18L
18R
Place for pasting the ends of parts 16, 17, 18, 31.
17R
16L
16R
17L
34L
34R
56
56a
31L
31R
14
36L
36R
36
39
33a
33
46,47,48
44
49
40,41,42,43,45
mm