

# Digital Navy

## Imperial Russian Navy Battleship

### Oslabya

Battleship Oslabya was laid down in the fall of 1896, launched in 1898 and commissioned in 1901. Today classified as a pre-dreadnought type, second class battleship, she was a member of a class of three ships: Oslabya, Peresvet and Pobieda. The ships in the class were not identical, and significant differences existed in their appearance, but the main characteristics such as displacement, speed, armament and armor were similar. The ship was built in the Admiralty Shipyard in Sankt-Petersburg.

The ship's career was brief and tragic. Oslabya left home waters in October of 1904, as part of the 2nd battleship division under kontr-admiral Dimitri Felkerzhm. The entire Russian Baltic Fleet, now a Second Pacific Squadron under command of Admiral Zinovi Rojdestvensky, reached Tsushima Straits on 27 May 1905. The following naval battle with the Japanese fleet of Admiral Heihachiro Togo was a first large engagement of the modern, "big gun" navies and was widely studied in years to come. Participation in such an important event, however, was not a consolation for the cursed crew of the Oslabya. The ship was caught under concentrated fire of half of the Japanese fleet, and sunk with significant loss of life. The battle ended with a big victory for Togo's fleet, and practical annihilation of the entire Second Pacific Squadron.

Main characteristics of the Oslabya were as follows:

Length - 434'

Beam - 71.5'

Displacement - 12,674 tons

Speed -18.0 kts

Armor

side belt max. - 9.0"

main turrets max. - 9.0"

Armament

4 x 254mm (10")

11 x 152mm (6")

20 x 47mm

8 x 37mm

The model was designed in scale 1:250 and the primary references were plans drawn by V. U. Potaschov.

The sheets are in Adobe Acrobat pdf format and can be opened with the freely available Adobe Acrobat Reader. All sheets have a size of 26cm x 19cm. This size will print without cropping on both letter and A4 size paper. Sheets 1 to 4 can be printed on regular 20-24lb paper as they have to be reinforced (laminated) to the total thickness of 1mm. Sheet 17 should be printed on thin (20lb) paper as it contains parts which have to be tightly rolled.

All sheets should be printed with the "high resolution" setting of the printer or with the "medium/paper" option set to "photo quality paper" or equivalent. **Do not** use the "scale to fit" feature of your printer - this could result in altered sizes of the parts and problems with fit. Each sheet has a black outline -in correct print the size of the frame should be 26cm x 19cm.

The model is relatively simple to build and can be constructed as a waterline or full hull model.

#### The hull

All parts of the frame - sheets 1, 2, 3 and 4, should be laminated on card board to the total thickness of 1mm and assembled according to Fig.1,2 and 3. It is important to keep all the bulkheads square with part 10 and 11. After gluing on main deck (part 14), but before installing the forecandle deck (part 13a and 13b) to the frame,

assemble all the parts which will be hidden below the “overhang” of the forecastle deck - see Fig.2. Also note tabs (part 15c to f) which have to be installed on parts 15a and 15b.

Start installing hull plating from parts 6-5 or 5-4 - the middle sections of the hull bottom. Glue connecting strips provided on sheet 18 over each corresponding bulkhead. The hull plating numbers represent two bulkheads over which an element of the plating will be installed. All segments of the hull plating have tabs which should extend past the waterline. Some segments have a triangular cut in the tabs and the tip of the cut should line up with the corresponding black triangle on part 10. This way one can be sure that hull plates are properly placed along the ship’s hull. **Important** - when cutting out the plates from the sheets, cut along inside of the part outline. All those parts were designed with our Catepillar algorithm and represent a theoretically ideal outline of the parts. Since cutting along curved lines inevitably introduces some “weaviness” to the part edges, small mistakes can add up and create excess in the total length of hull plating.

Start assembly of the hull sides by installing parts 29 and 27. There are some “alignment” points along the edge of the forecastle deck that will help in the correct placement of the hull sides - especially the side casemates, which have to fit over protruding deck “wings”. Take care in the proper shaping of the ship bow - part 26 - it is round at the front, top edge of the deck bow, end gradually narrows to a sharp bend at the bottom of the part. It is also important to keep top edges of parts 27, 29 and 30 at the same level, and the waterline created by bottom edges of parts 28, 31 and 32 straight.

Construction of the hull completes installation of the keel with rudder (part 23), bilge keel (part 25) and propeller shafts with propellers - see Fig.4. Part 17 is a “connecting tube” between the shaft and the propeller - roll it tight and insert half of its length into the end of part 16. The propellers (part 19a) will be fitted over the remaining, protruding section of the connecting tube.

### **Superstructure**

Fig.6 to 14 illustrate the installation procedure for various elements of the superstructure. Fig.7 shows assembly of the midship bulwark. This is probably the most difficult part of the model construction. Parts 55a, 55c, 55d, 55f, 56a, 56c, 56d, 57a and 57c should be reinforced (laminated) onto 0.5-1.0mm cardstock to provide an additional “gluing thickness” which will help to attach those parts to the top edges of parts 27, 29 and 30. The cardboard strip shown on Fig.7 should be glued on the white, unprinted strip along the edge of the deck to act as a kind of tab for gluing inside surfaces of the bulwarks - see Fig.7a. There are 49 supporting posts of the boat deck needed - those should be made of 0.3-0.5mm wire. Fig.9 and Fig.8 illustrate assembly of the combat bridge and front mast. The wings of the bridge should rest on top of the front 152mm casemate extension of part 27.

### **Funnels**

Figures 10 and 10a illustrate assembly of the funnels’ structure. All three funnels are almost identical and the part numbers are the same, but note that only one of the funnels has two steam pipes - in front and behind the funnel - and this funnel assembly should be placed in last (third) position counting from the bow. If you intend to install stay wires of the funnels (8 per funnel) it may be easy to thread them through punched out holes in part 42a and glue to the inside of the part before rolling and gluing part 42a into a cylinder. Black former 42c does not have to be placed at the very top of the part 42a - it can be pushed 4-6mm into the part to provide a more realistic “empty” appearance of the funnel.

### **Armament**

Assemble main gun turrets according to Fig.18. Cylinder 111, with gun barrels glued in, should be “trapped” between turret side (part 109c), top (part 109d) and “chair” created by parts 110c and 110a. Part 109e creates some distance between parts 109d and 109f - this will help in achieving correct “dome” shape of turret roof. Fig.19 and Fig.20 illustrate the assembly of small antitorpedo guns. The ship carried 11 medium caliber (152mm) guns placed in the hull casemates. All 152mm barrels should protrude 15mm from the casemates, the

exception is the bow mounted gun, whose barrel protrudes 10mm from the bow.

### **Masts**

Figs.21 and 22 show construction of masts - rear and front masts respectively. Some elements (those shown in black) have to be scratchbuilt from wood or wire. The drawings are in scale (1:250) and can be used to directly measure required dimensions. Please note that the test model shown on the Digital Navy site has an incorrectly oriented rear top mast and some yards. Instruction drawings show the correct placement of those elements.

### **Ship boats**

The model contains 16 boats, and since they constitute a very visible element of the ship, a novel assembly technique and engineering of the boats' replicas were employed. Fig.15 illustrates a typical sequence of the boat assembly - the drawing shows boat 125, but all others are similar. First, laminate part 125b to a thickness of 0.8-1.0mm. This is done not as much to provide strength to the part as to make it more dimensional, to give it more "depth". Similarly, laminate part 125c to 0.5mm of thickness. Cut out part 125b and all white areas from part 125c. Next, glue part 125b on part 125c as shown in step 1 of Fig.15. Next, cut along outside of part 125b. Now, you need to sand the edges of the just created top frame of the boat as shown in Fig.17. The hull of the boat, part 125a, has to be carefully shaped before gluing it around boat deck. Finally, attach stern plate (part 125d) to the boat. Nice looking boats can be built in this way, although it may require some patience and a couple of trial and error runs. Fig.16 shows a section trough one of the four motor lunches. The hull assembly is identical to that described above for the sailing boat. The motor boats have additional onboard equipment - a small boiler, steam engine and armament - all shown in Fig.16. This figure shows part numbers for the bigger motor boat - assembly of the smaller one is similar.

### **Equipment details**

The assembly of numerous equipment details - ladders, reflectors, ground tackle, etc.- is illustrated on attached diagrams. A fine jewelry chain can be used to simulate the anchor chain. Refer to pictures of the model on the Digital Navy site for a basic rigging layout. Sheet Diagram 7 also provides templates for bow and stern flagstafs and boat davits.

I recommend applying a protective coat of clear matte lacquer to the finished model.

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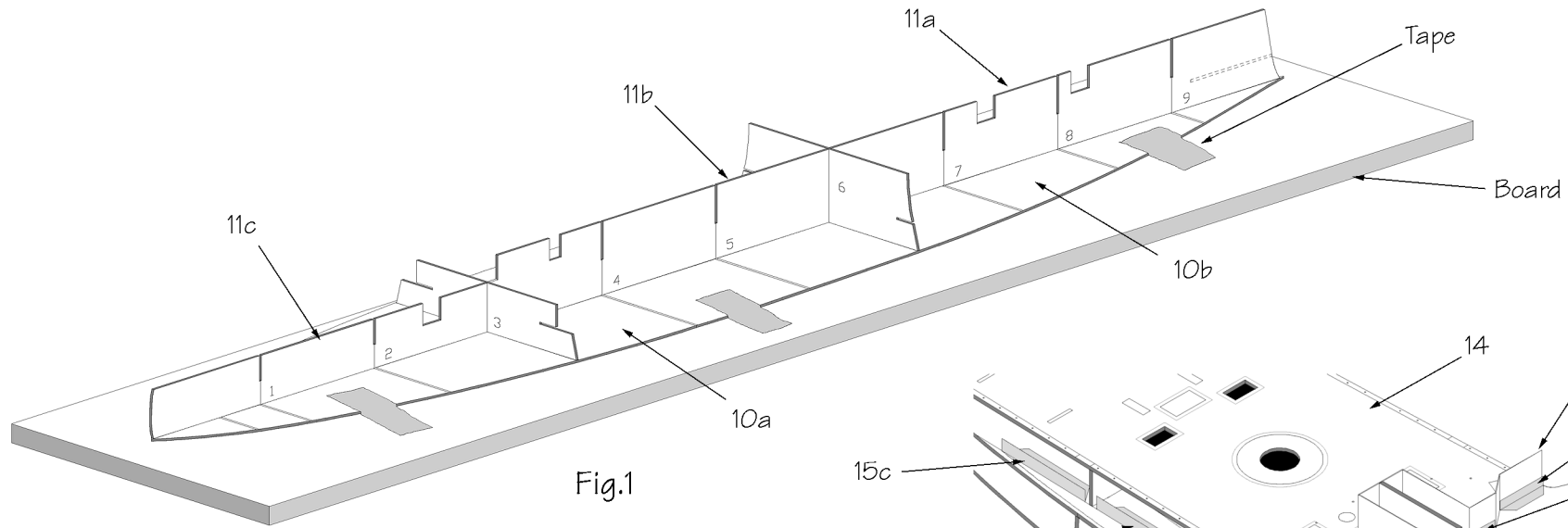


Fig.1

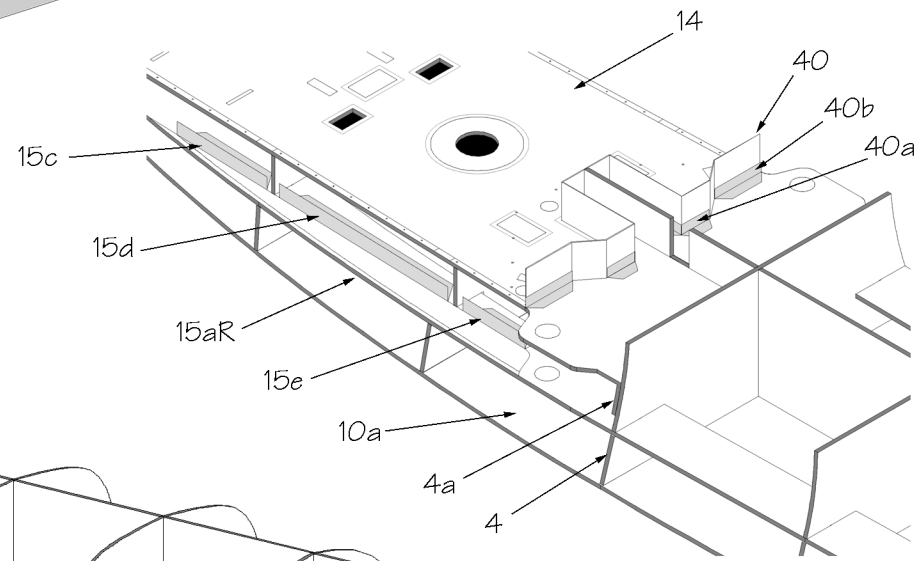


Fig.2

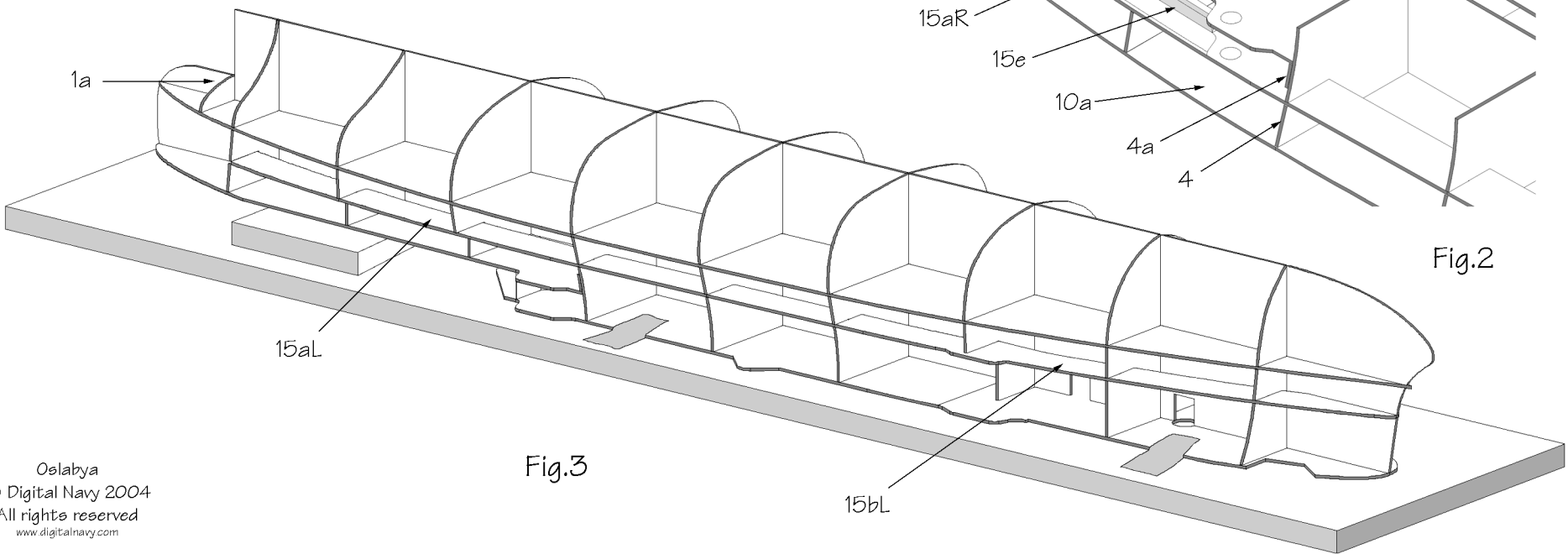


Fig.3

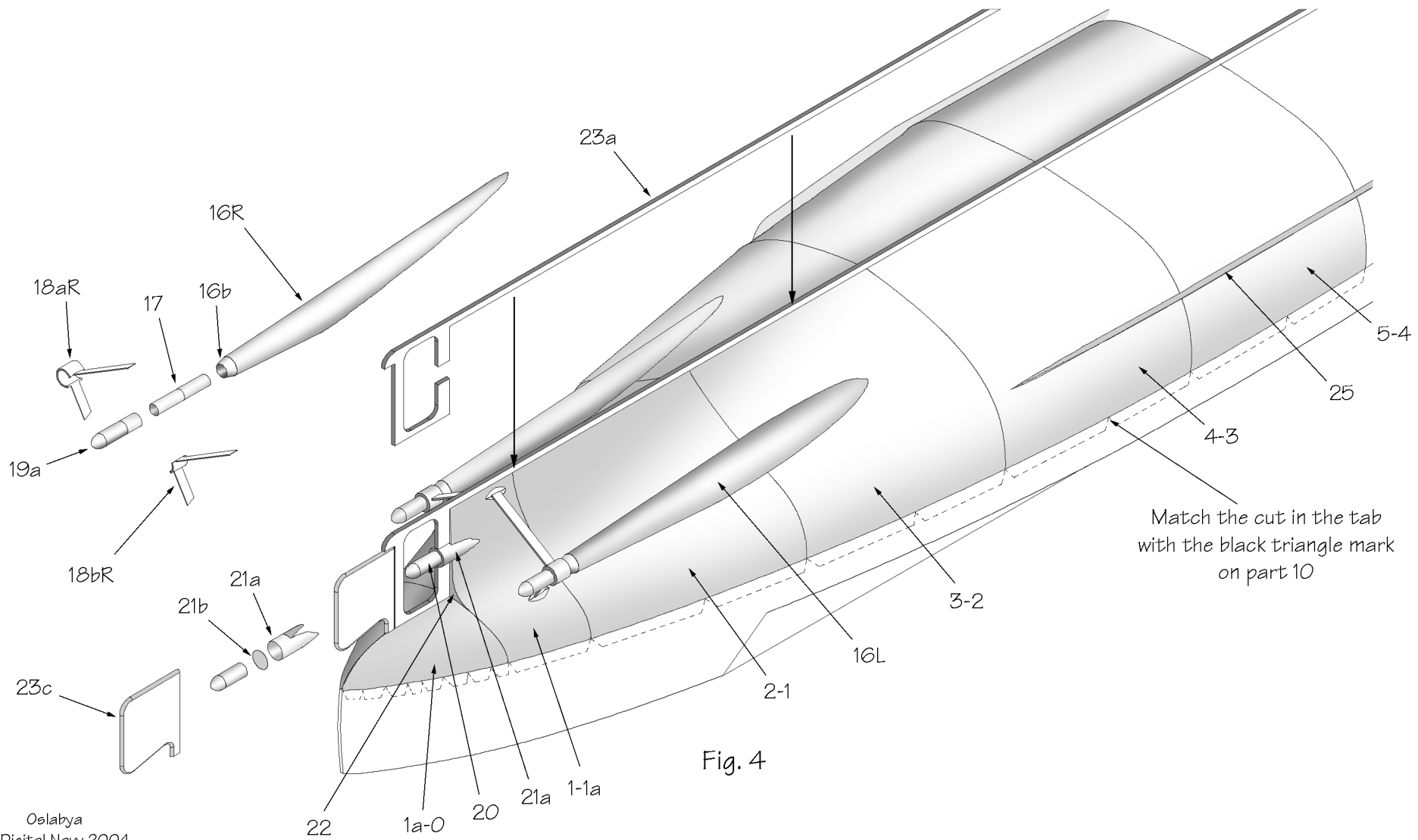
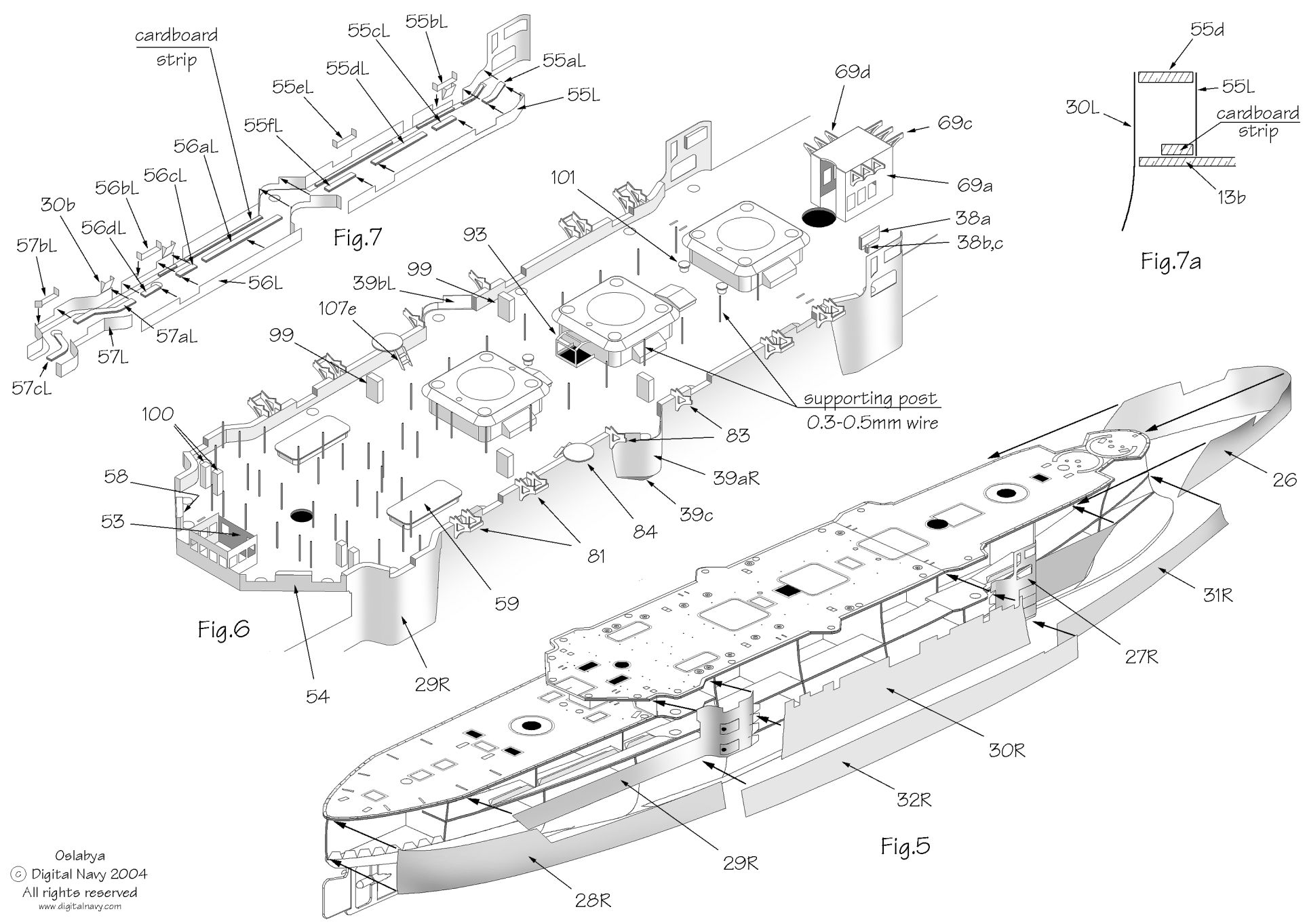


Fig. 4



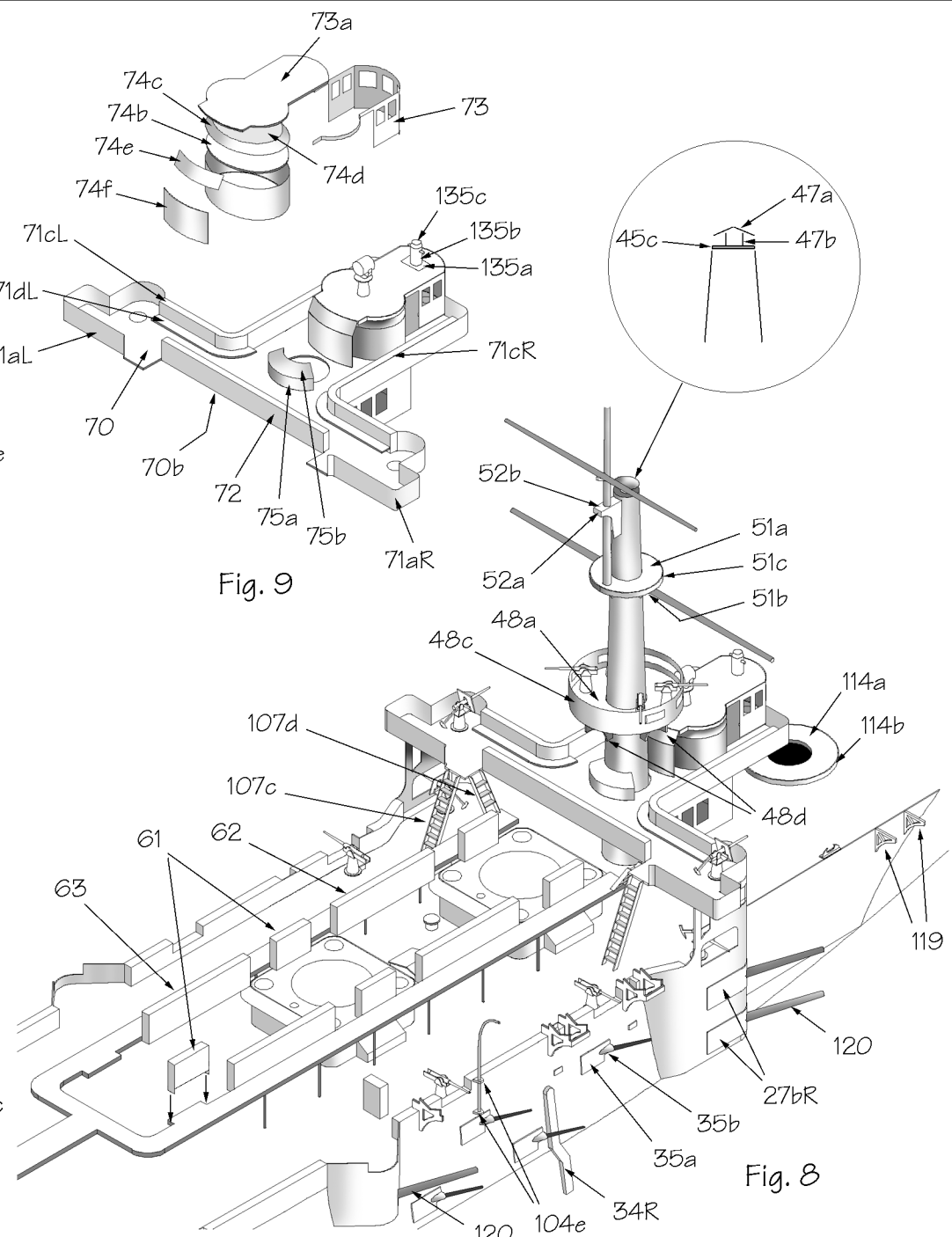


Fig. 9

Fig. 8

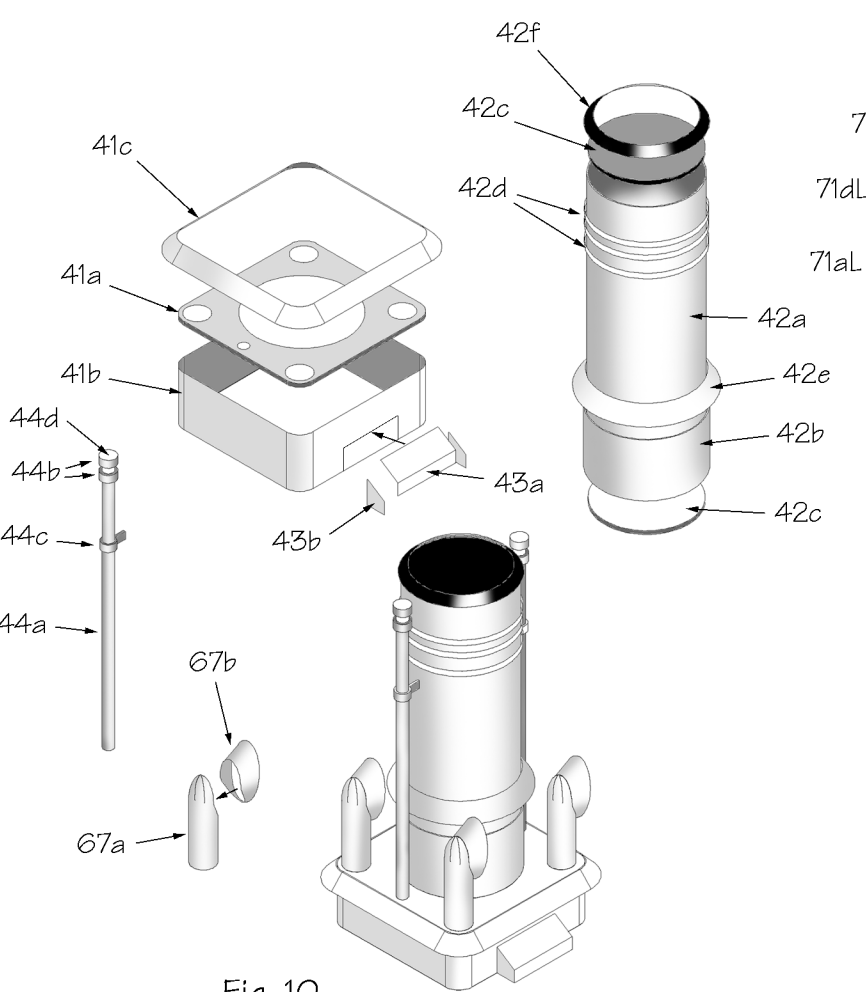


Fig. 10

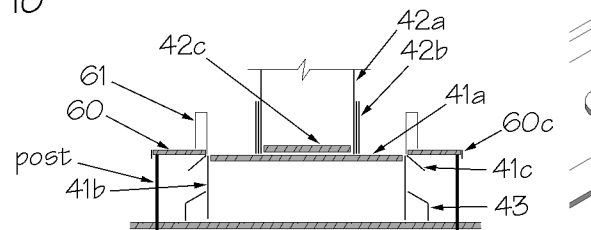


Fig. 10a

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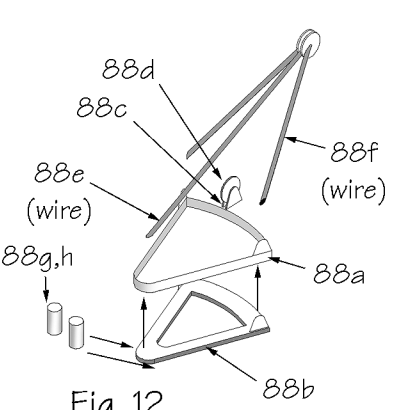


Fig. 12

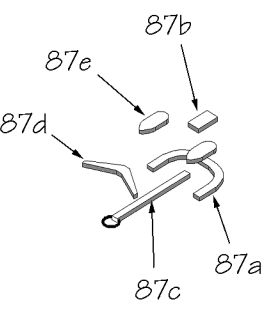


Fig. 13

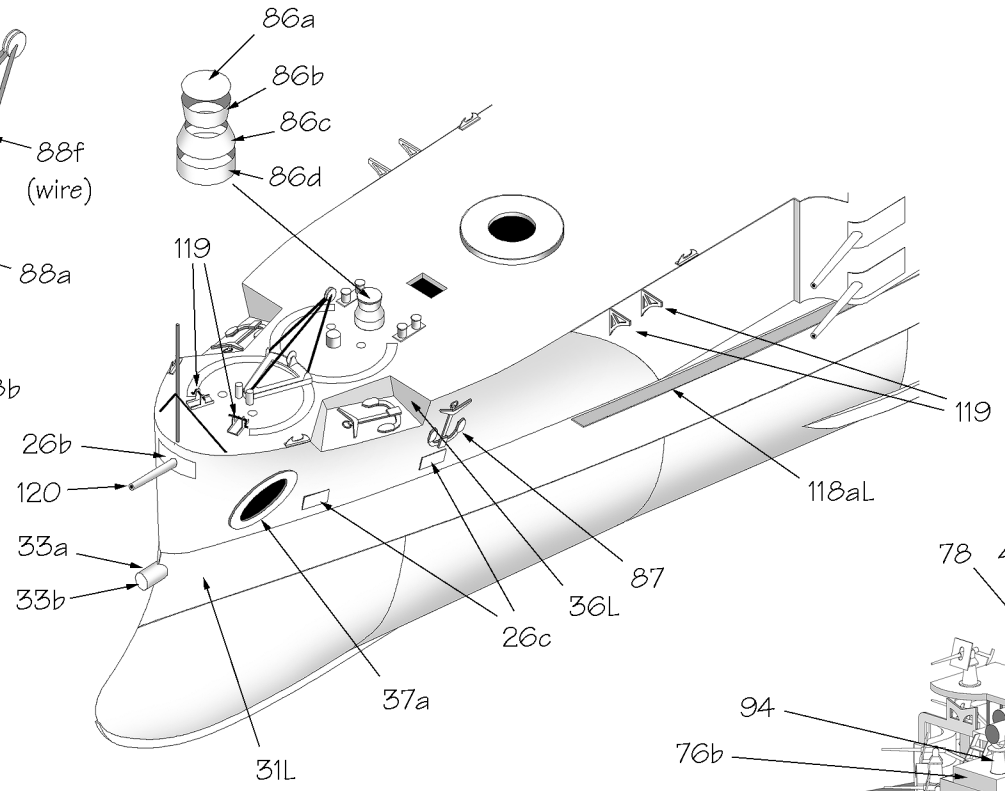


Fig. 11

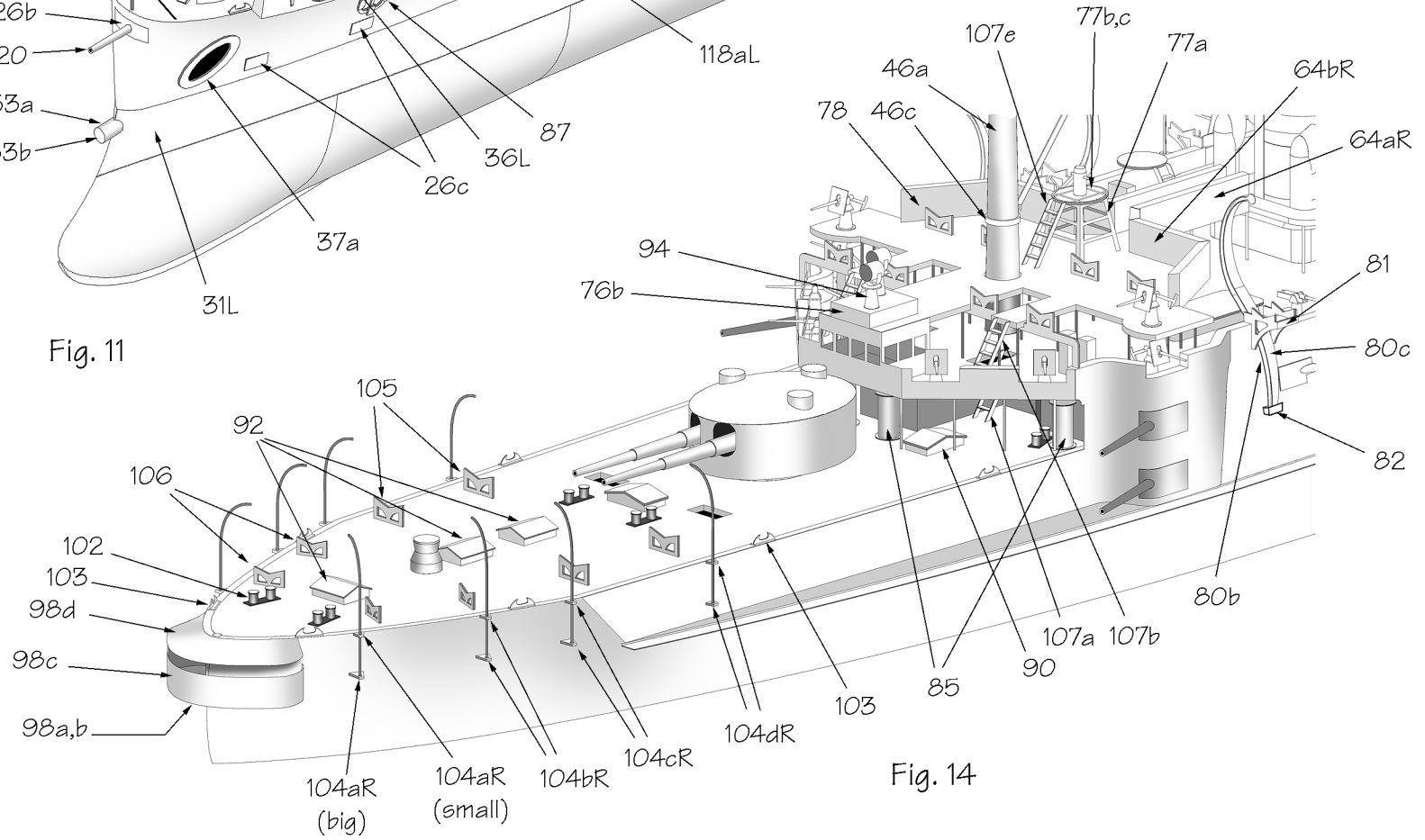
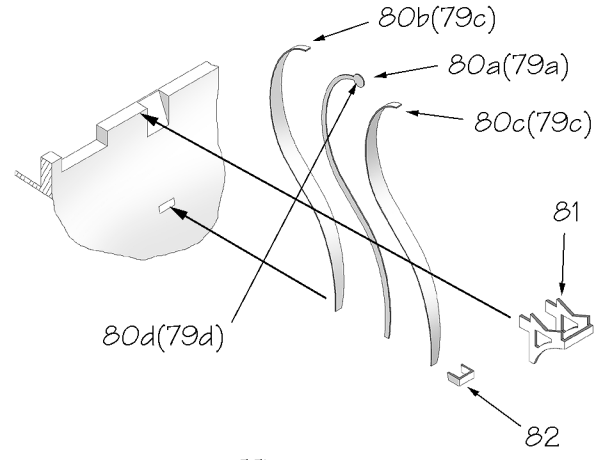
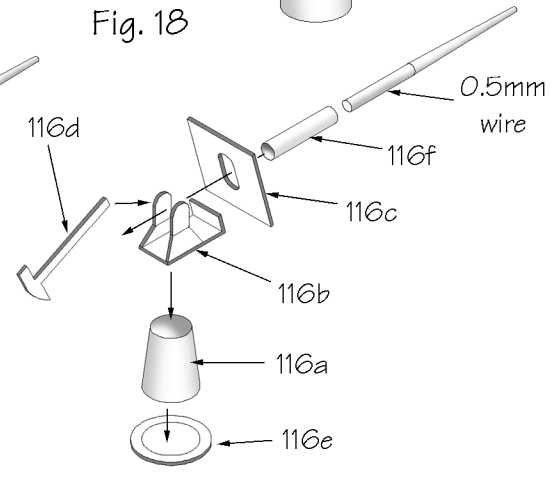
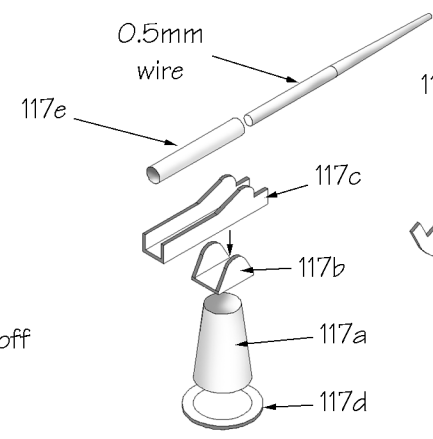
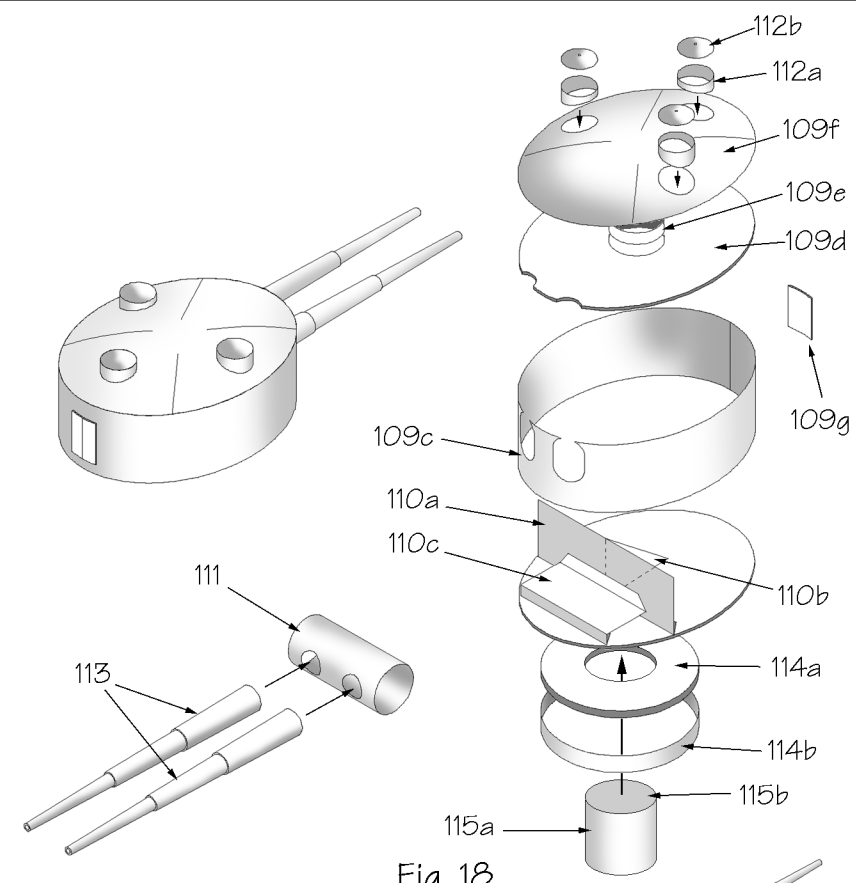
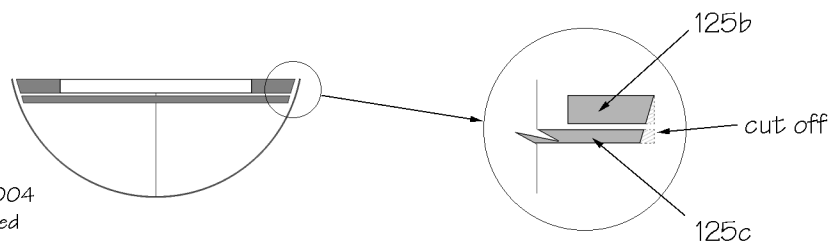
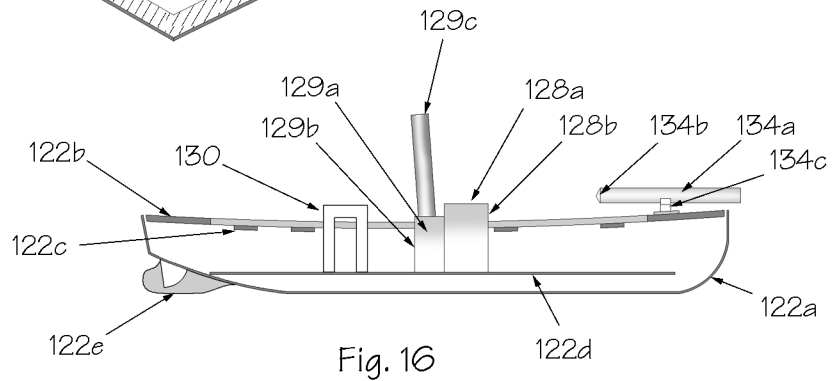
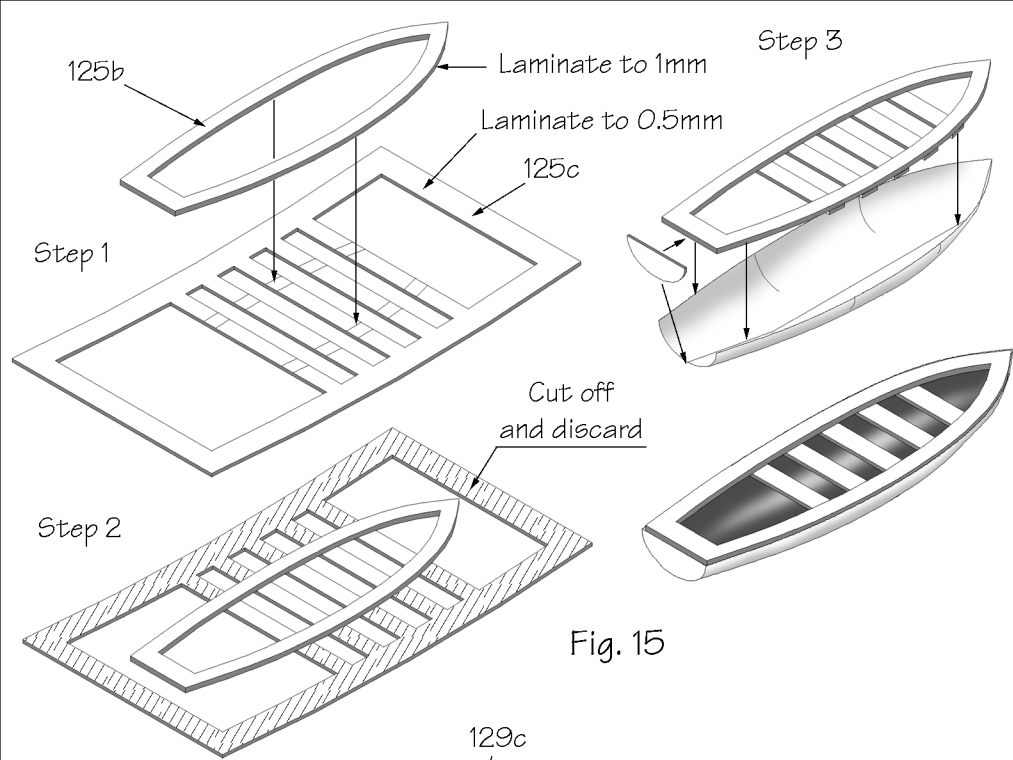


Fig. 14





Davit  
12 pcs

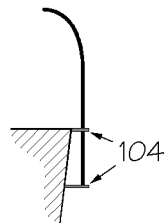


Fig.23

Stern  
ensign staff

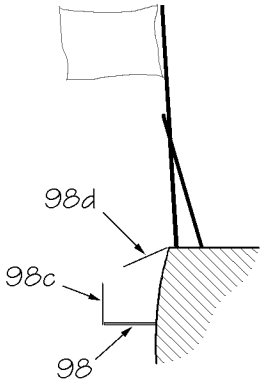


Fig.24

Bow  
jack staff

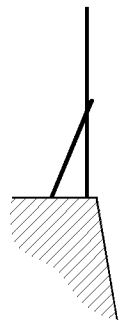


Fig.25

50a

49

49d

95

96a

96

46c

Boat boom

97

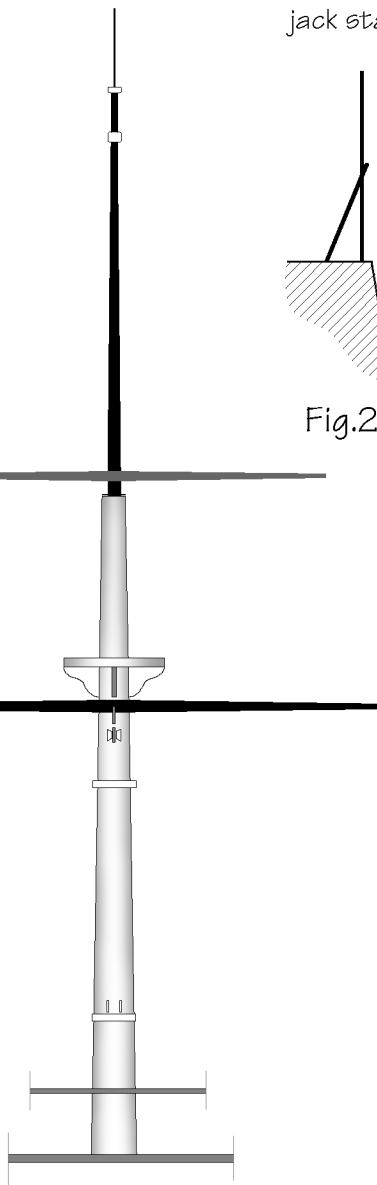
Bow  
→

13

46b

Fig.21

Diagrams 7



47a  
47b  
52a

Bow  
→

48c

48d

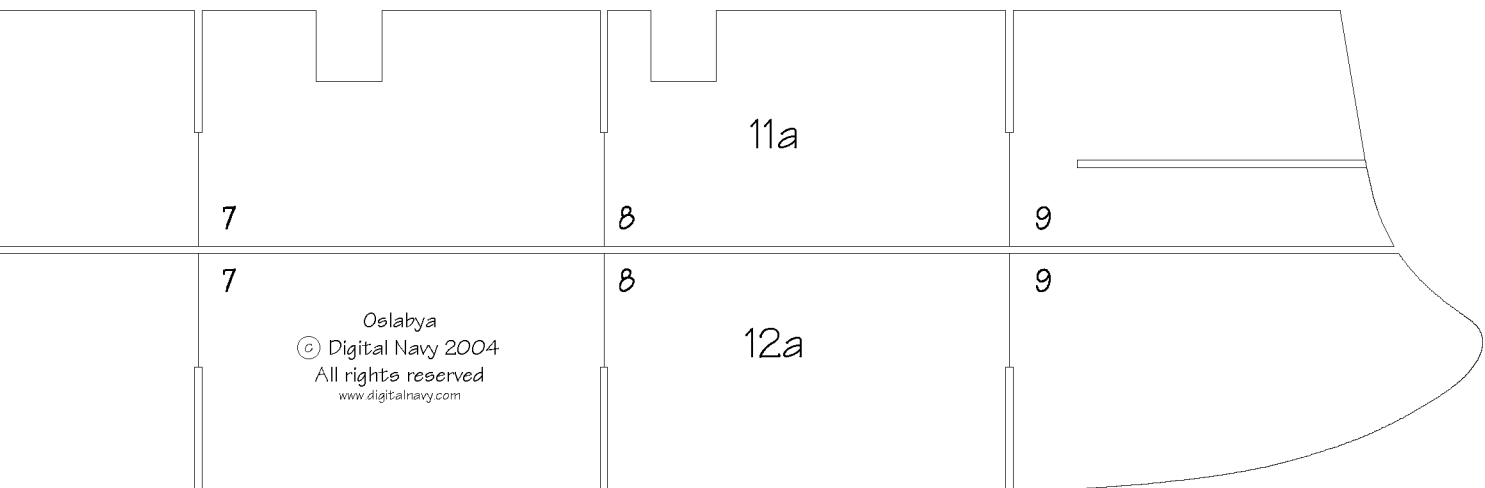
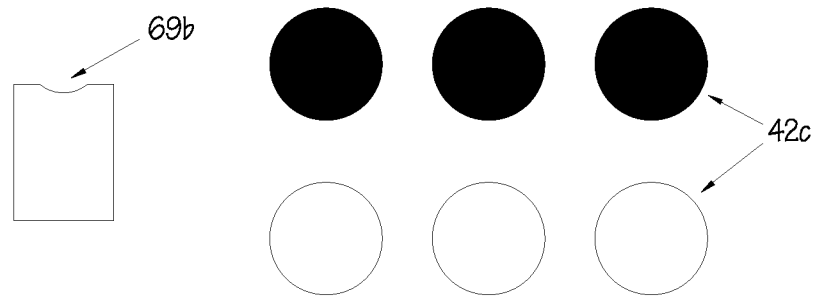
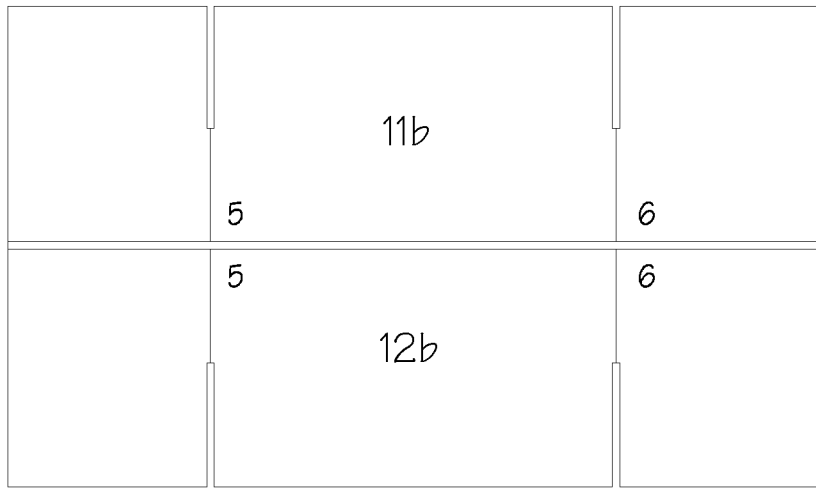
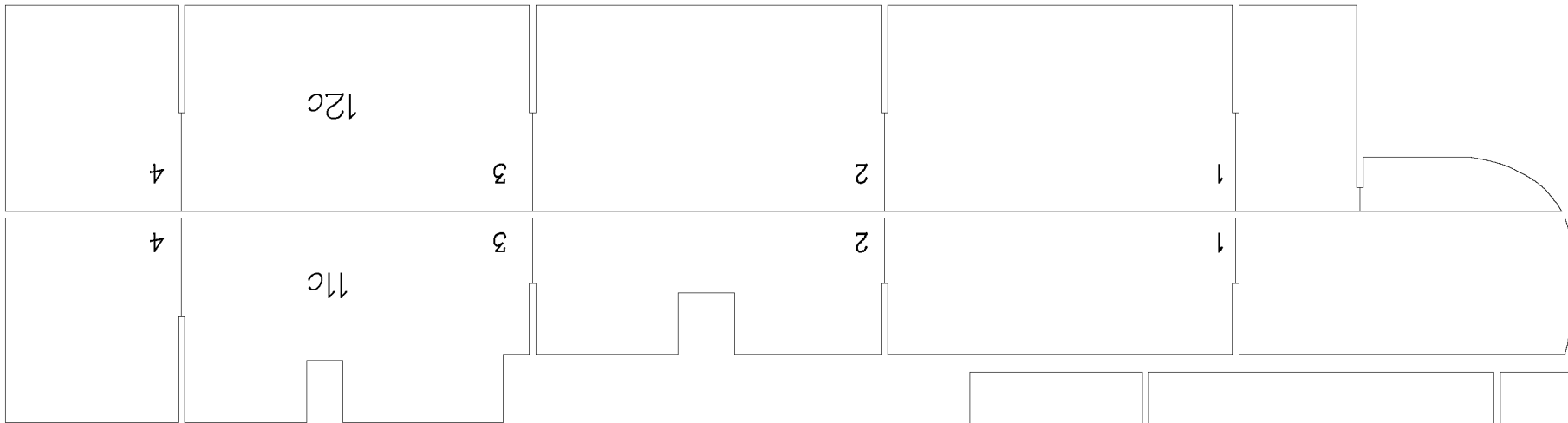
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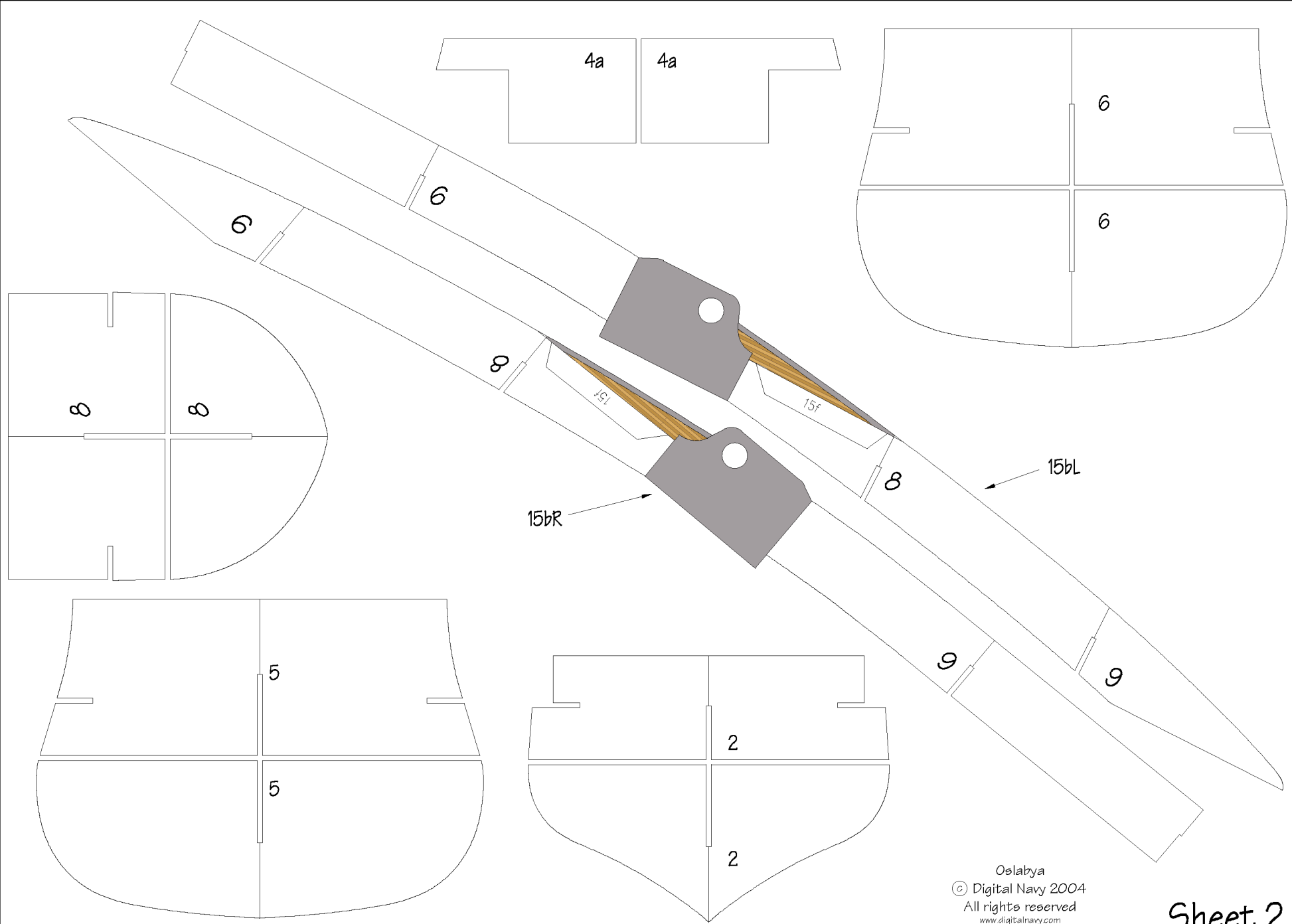
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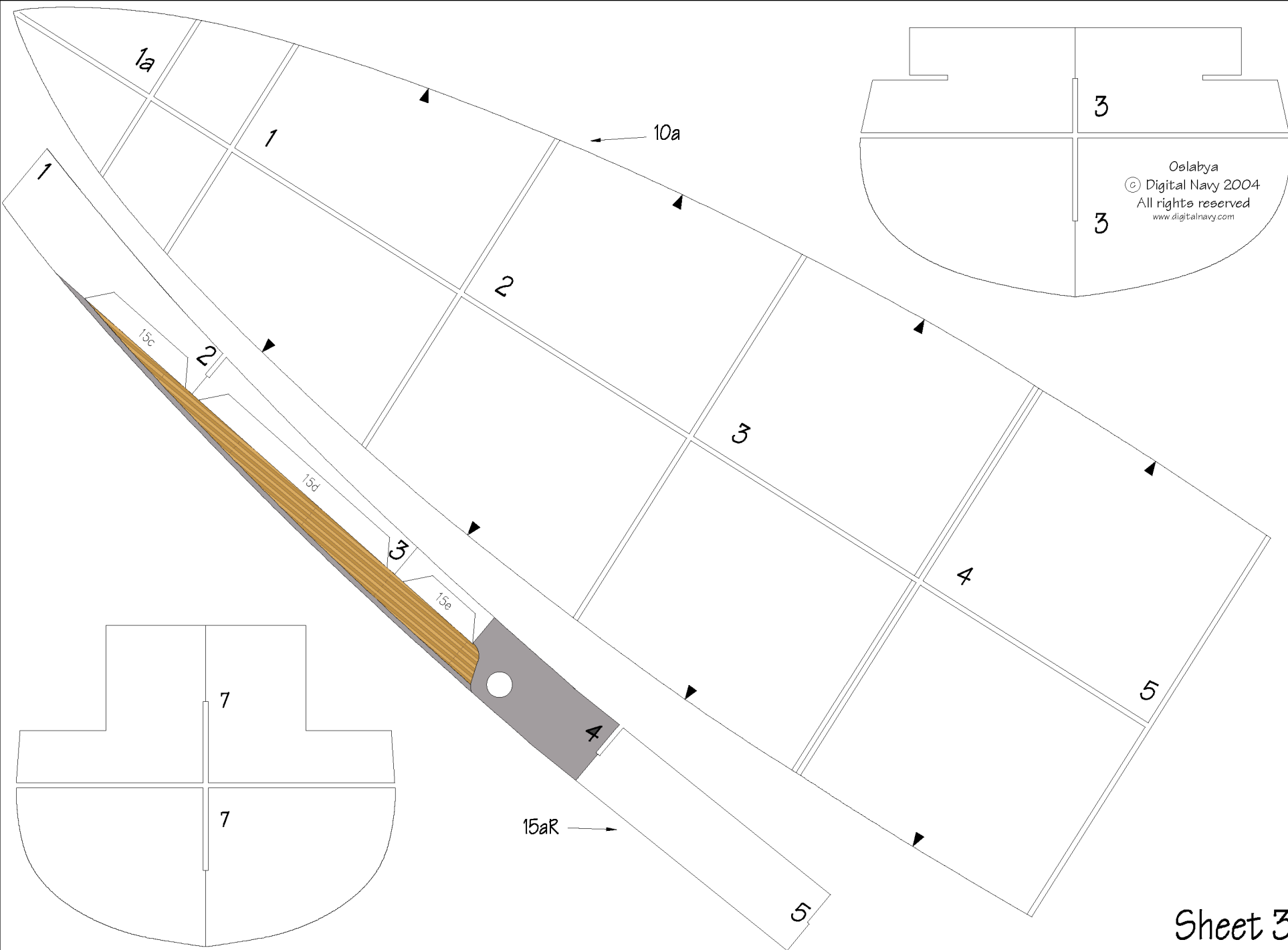
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Fig.22

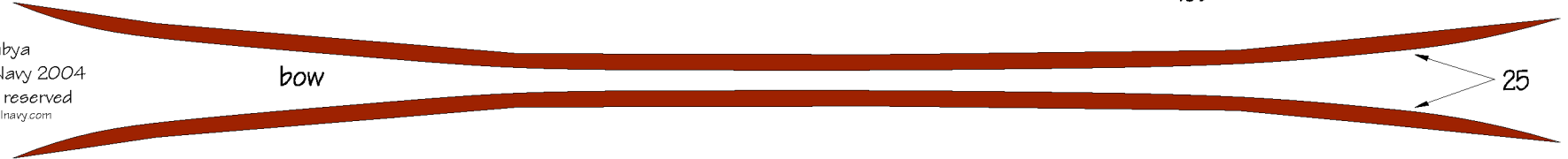
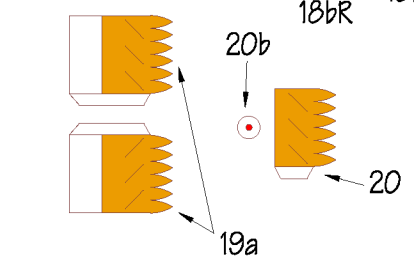
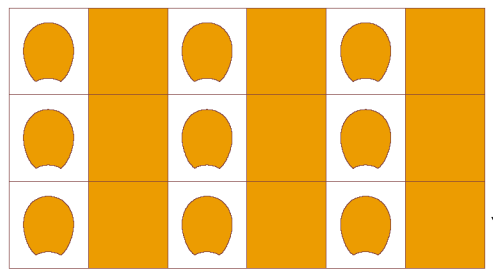
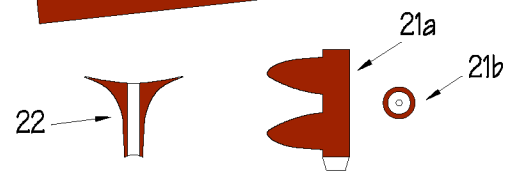
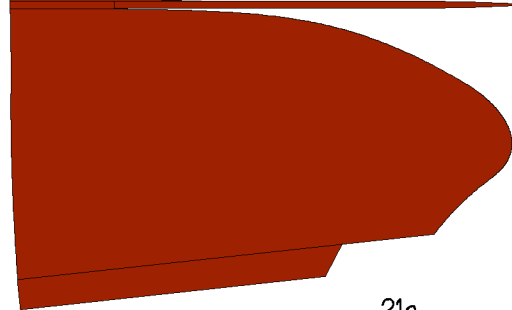
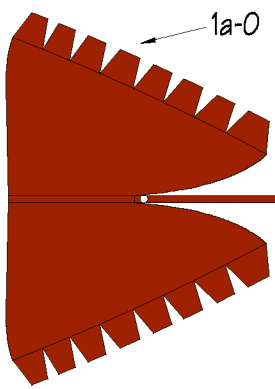
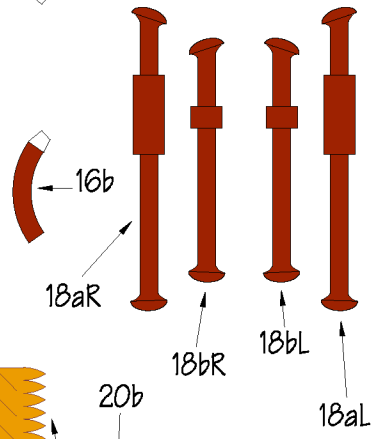
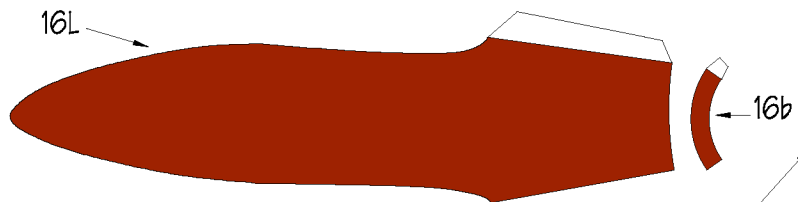
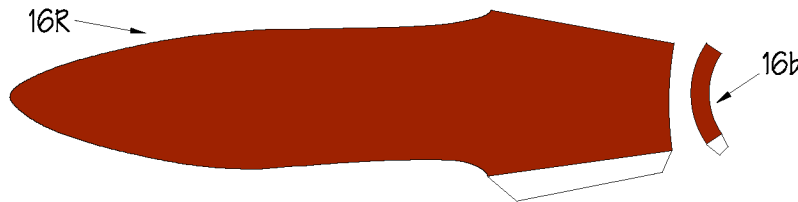
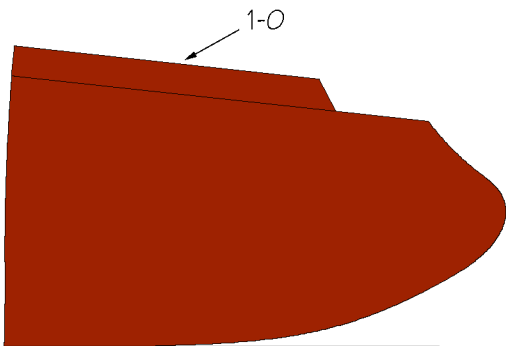
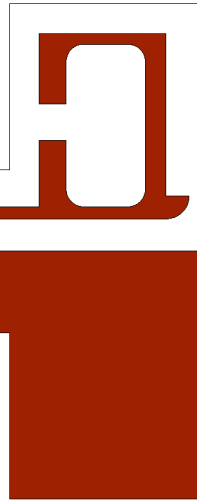
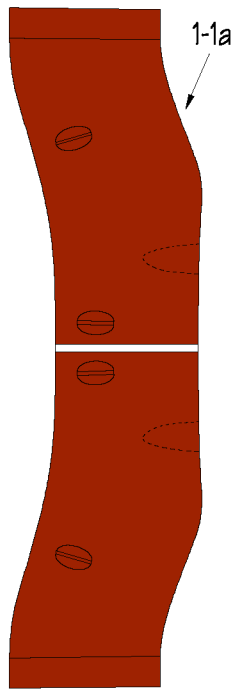
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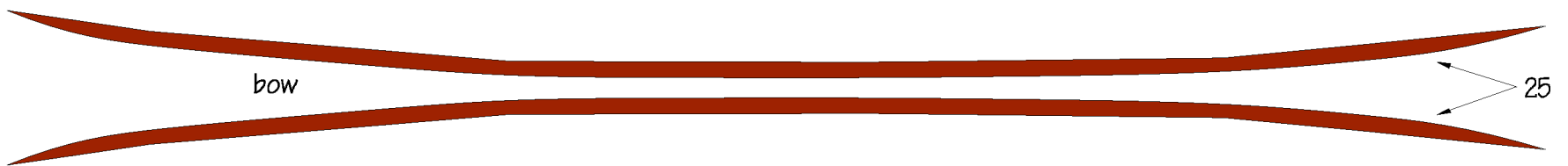
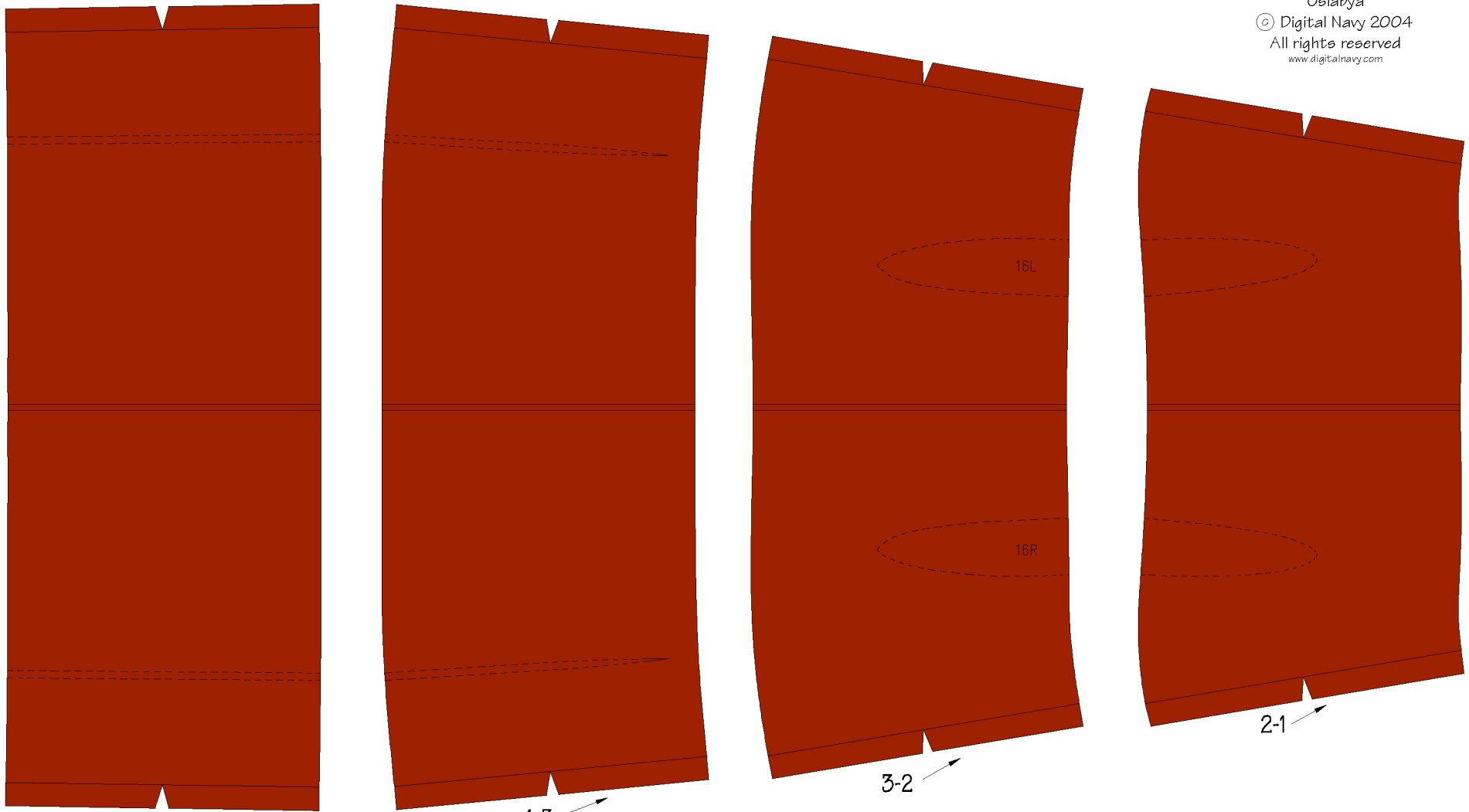




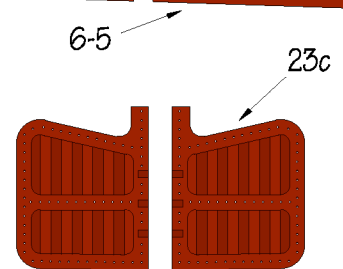
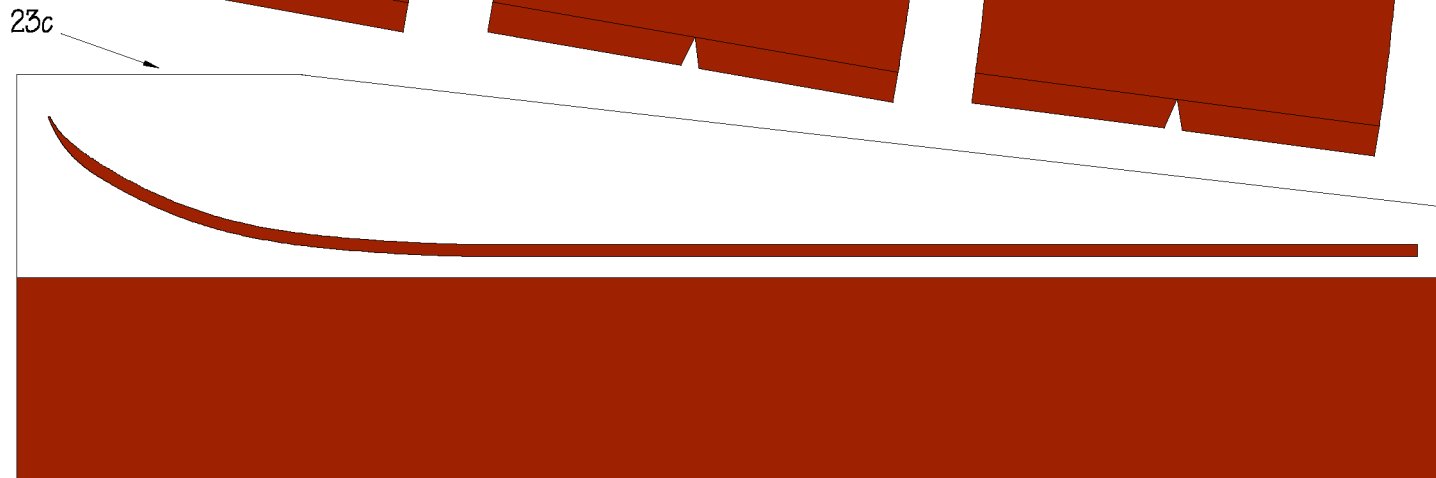
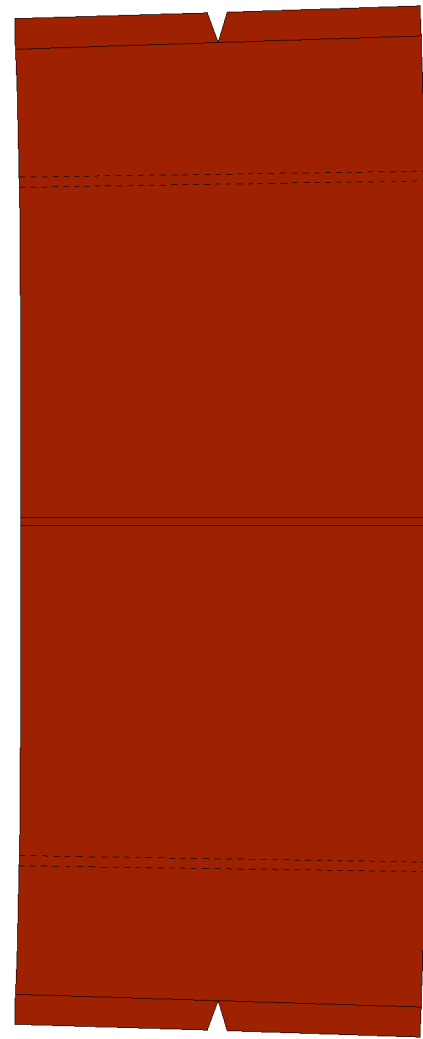
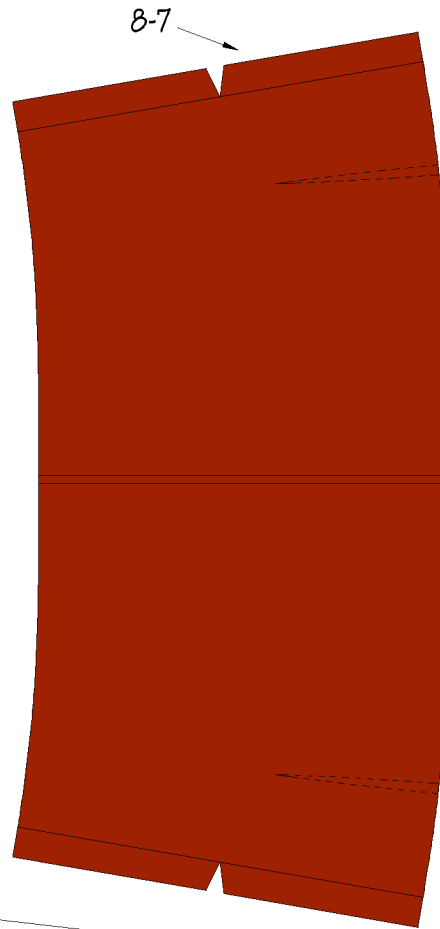
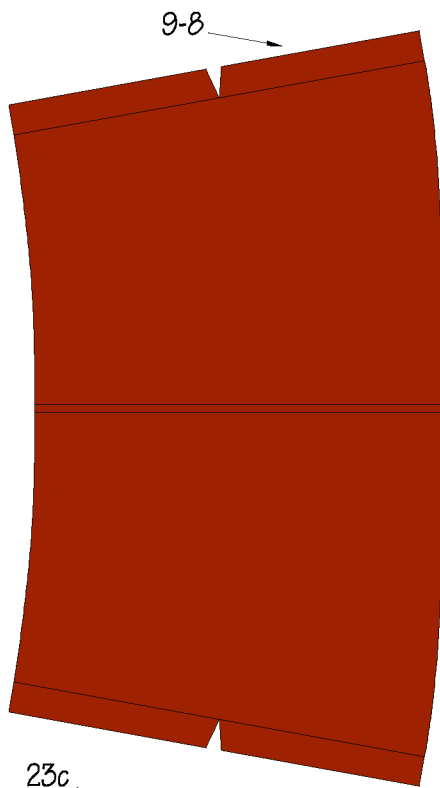




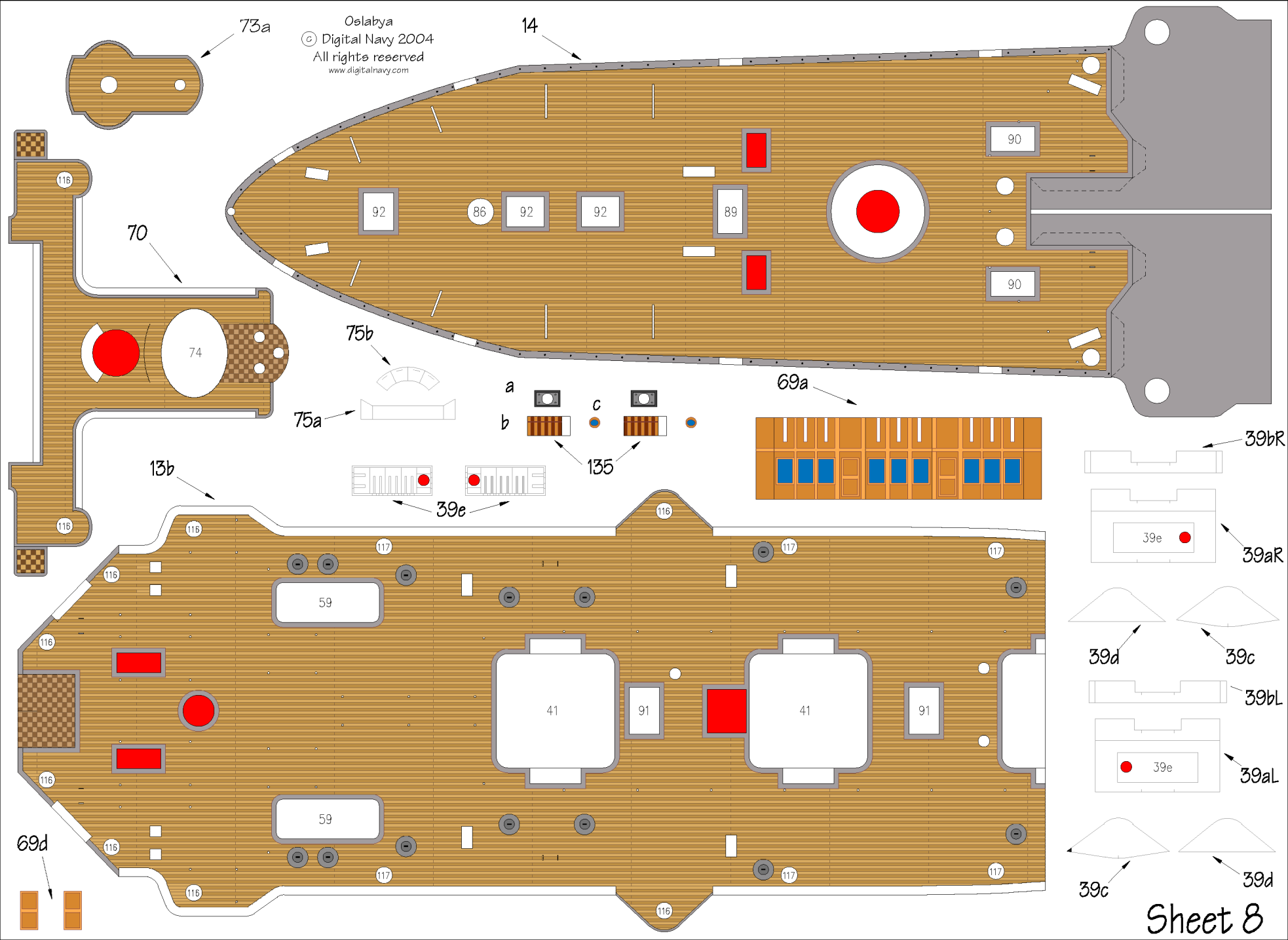
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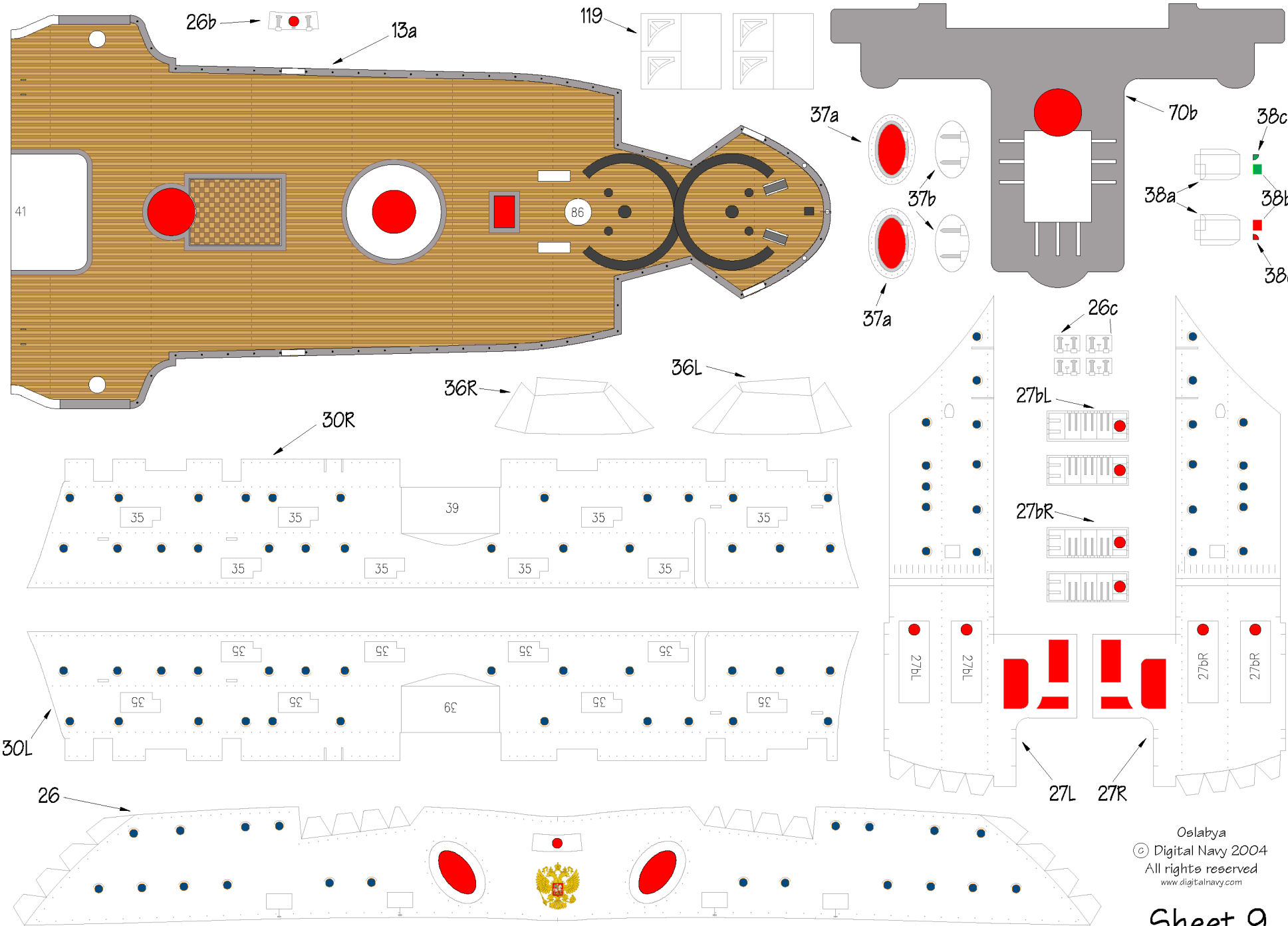


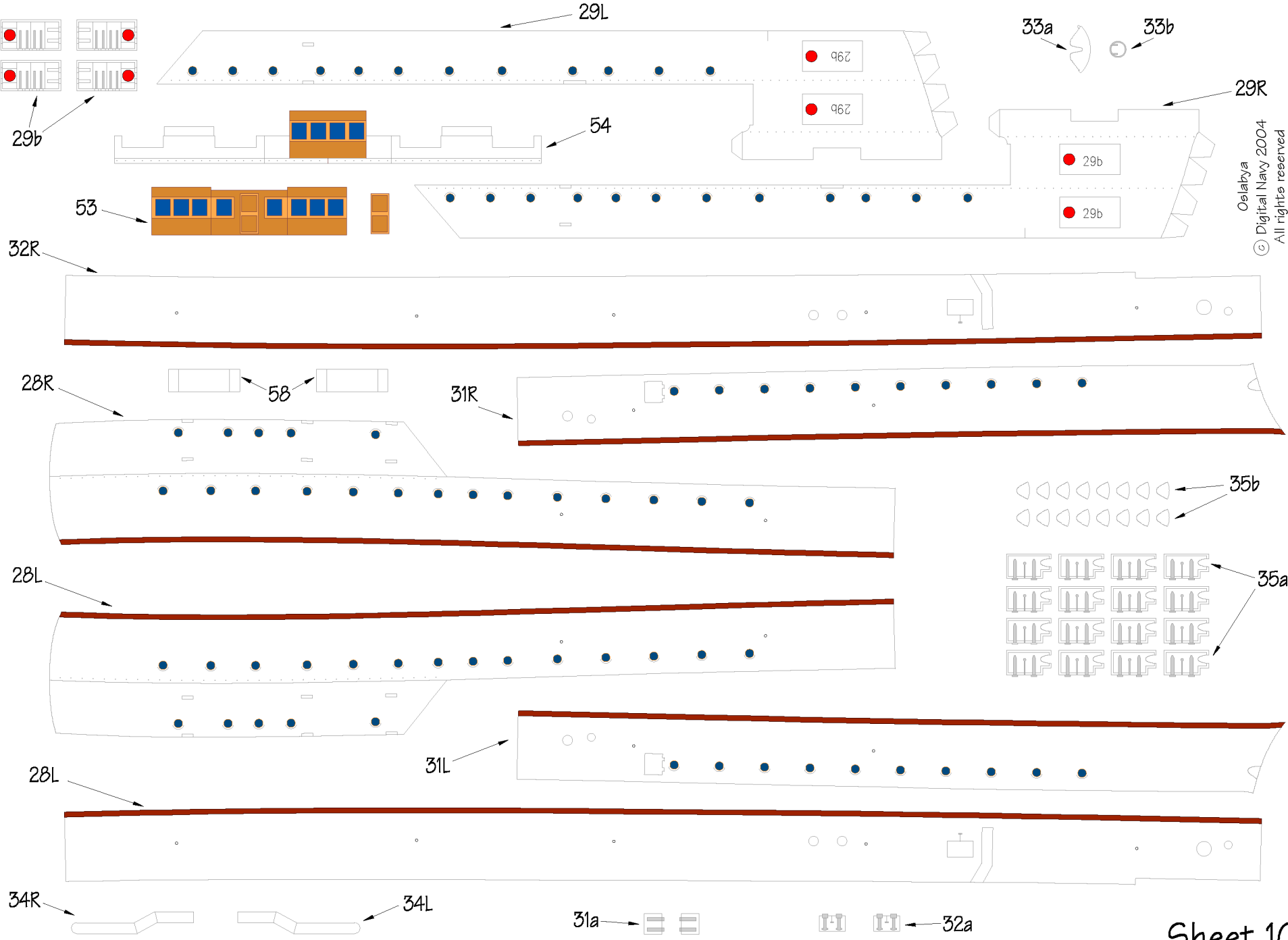




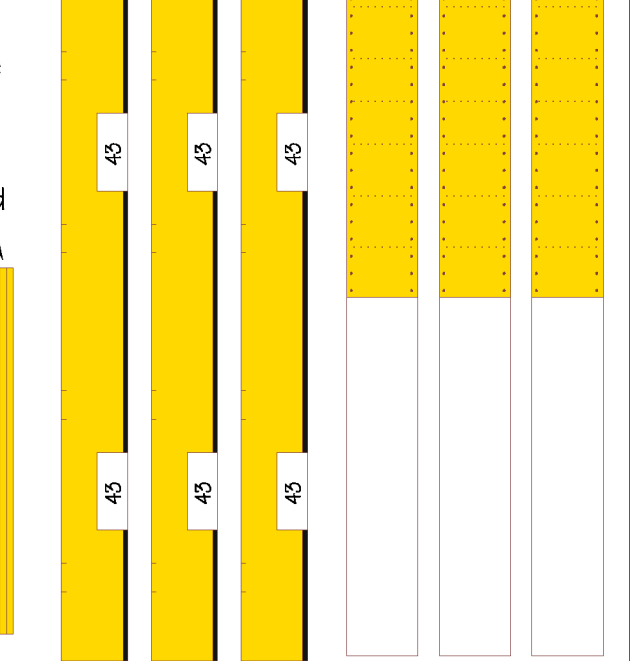
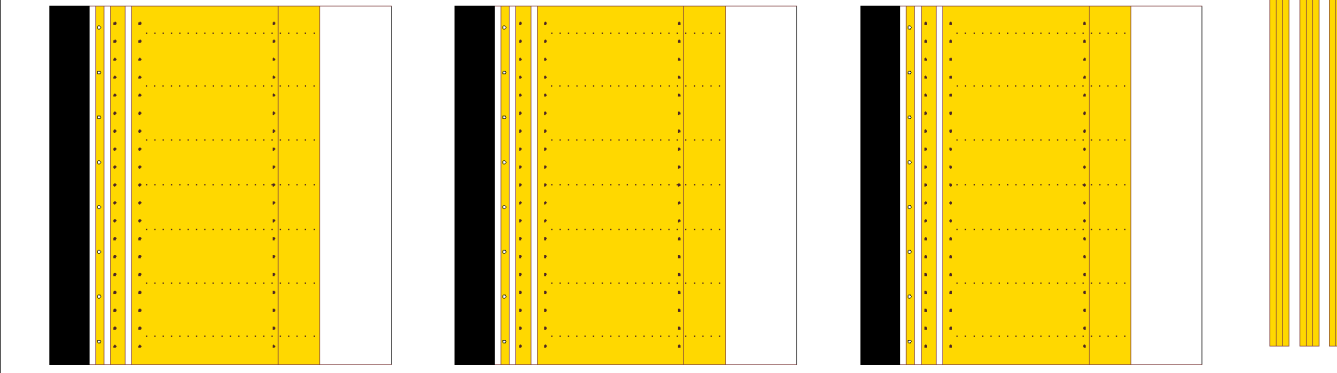
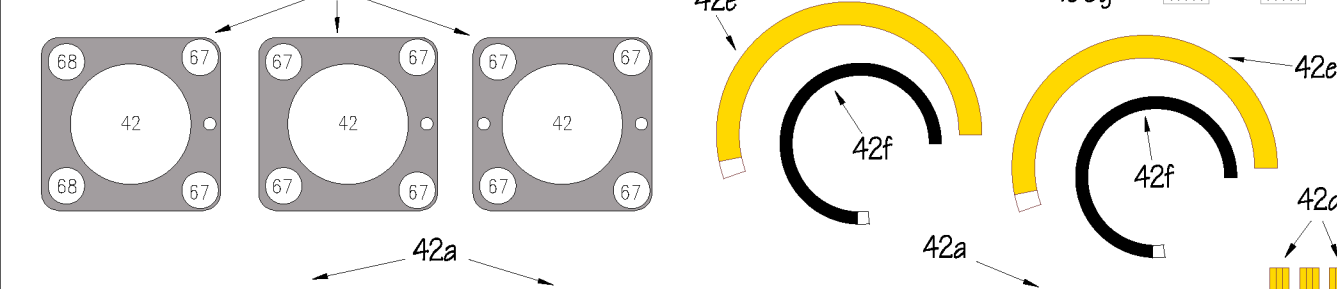
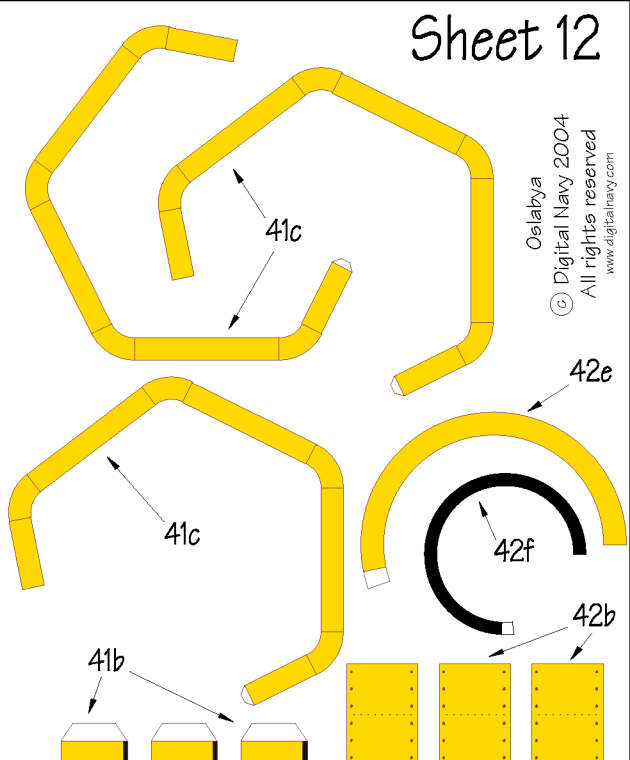
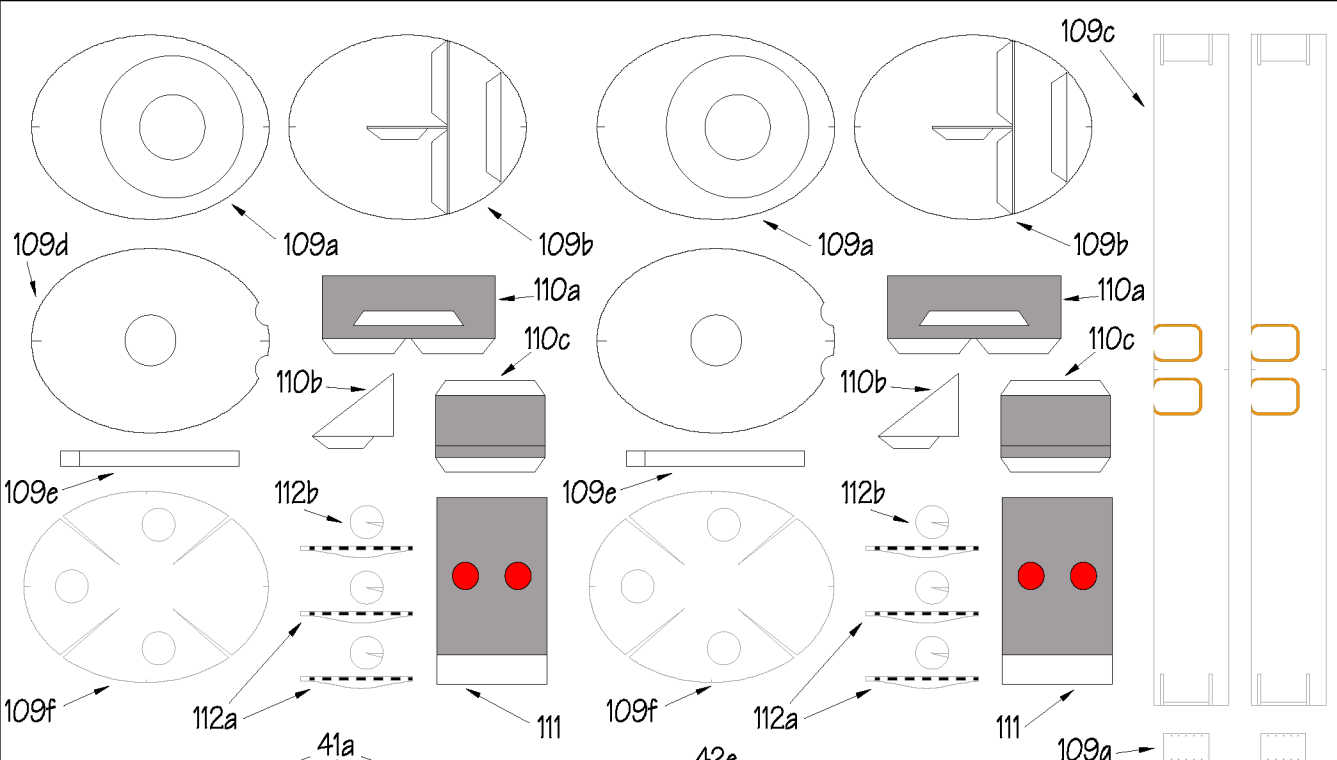
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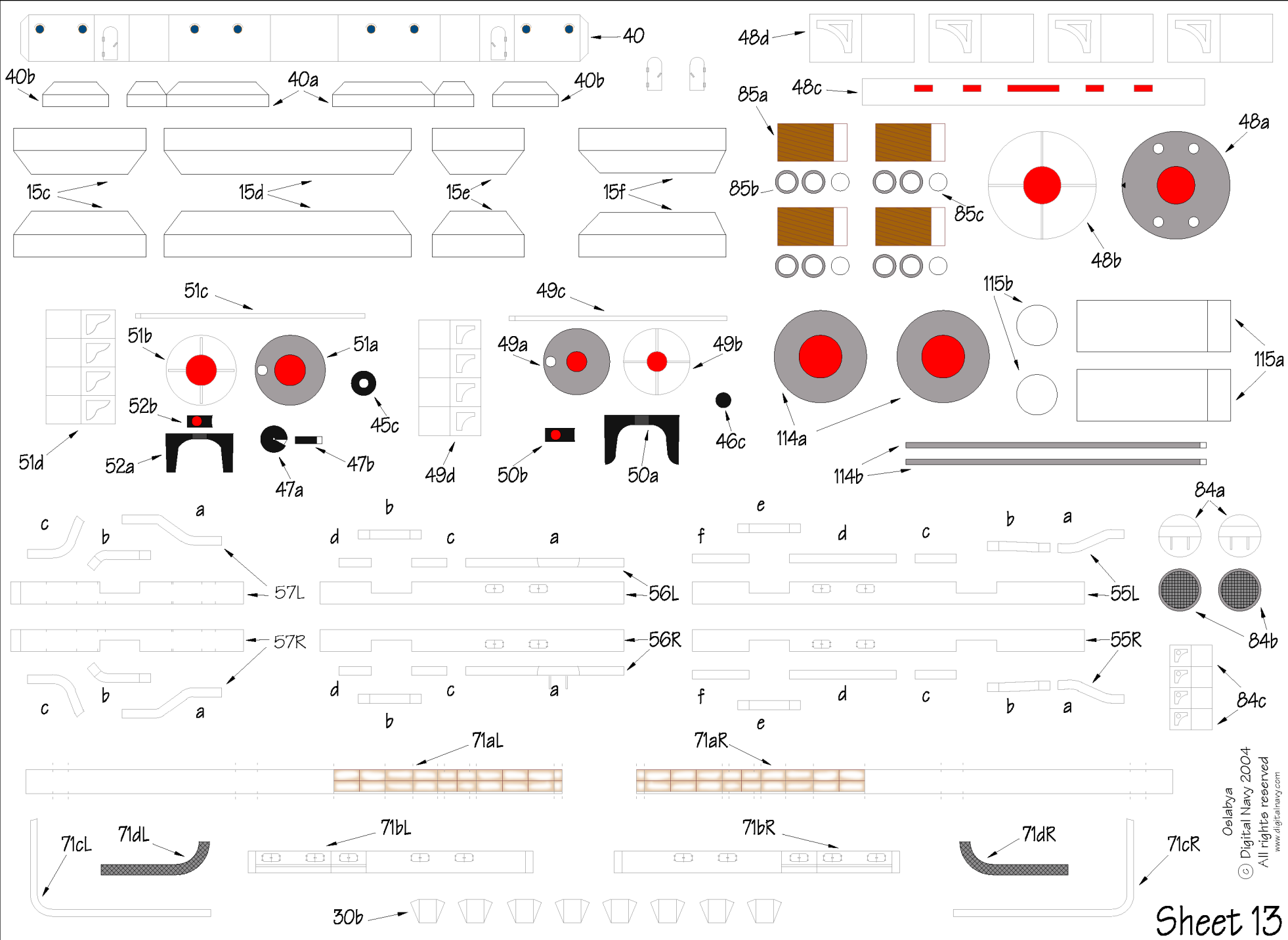


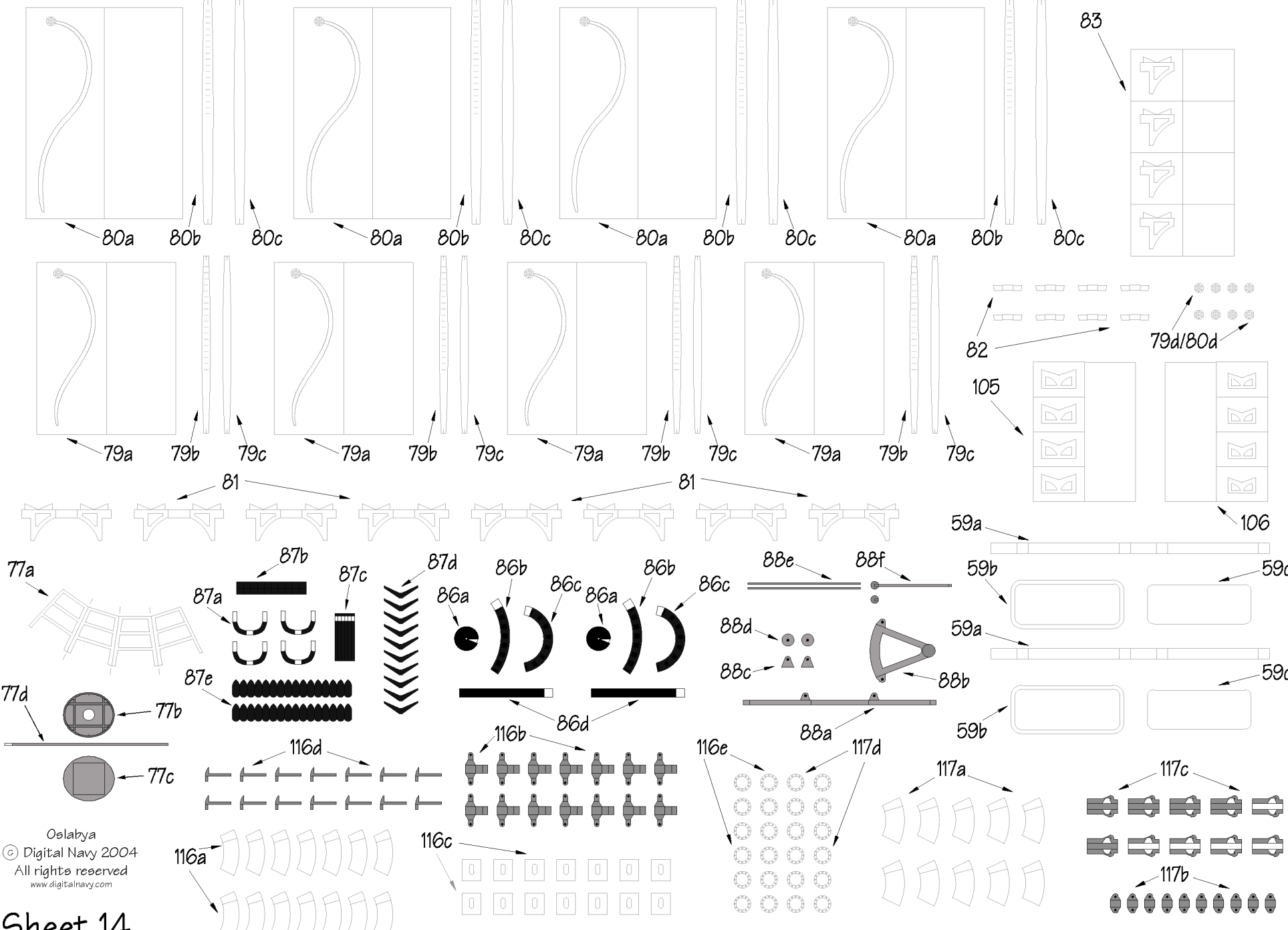






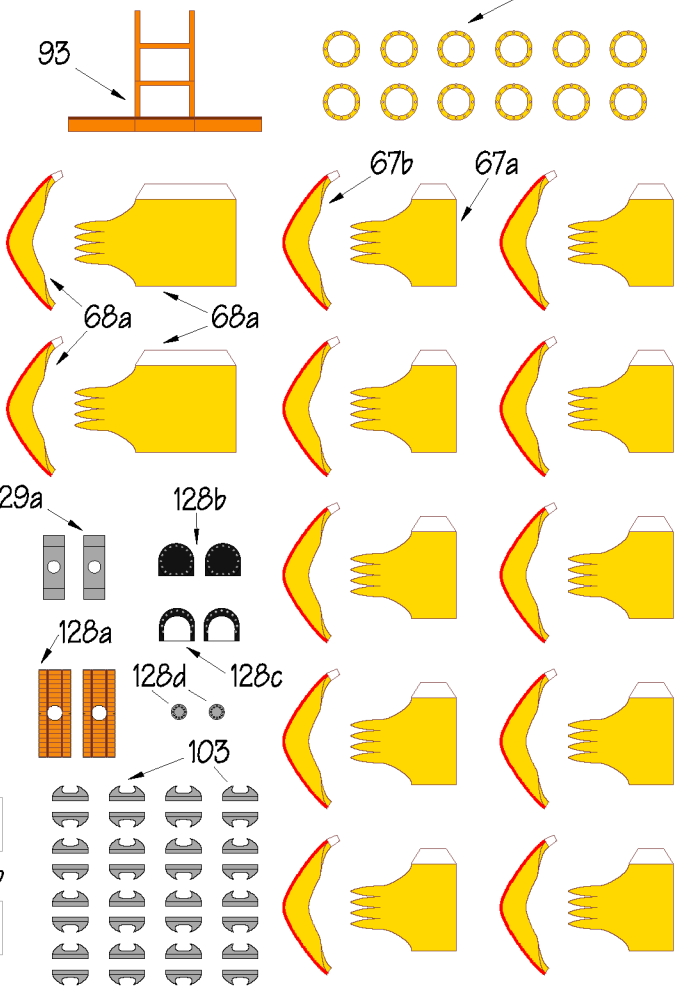
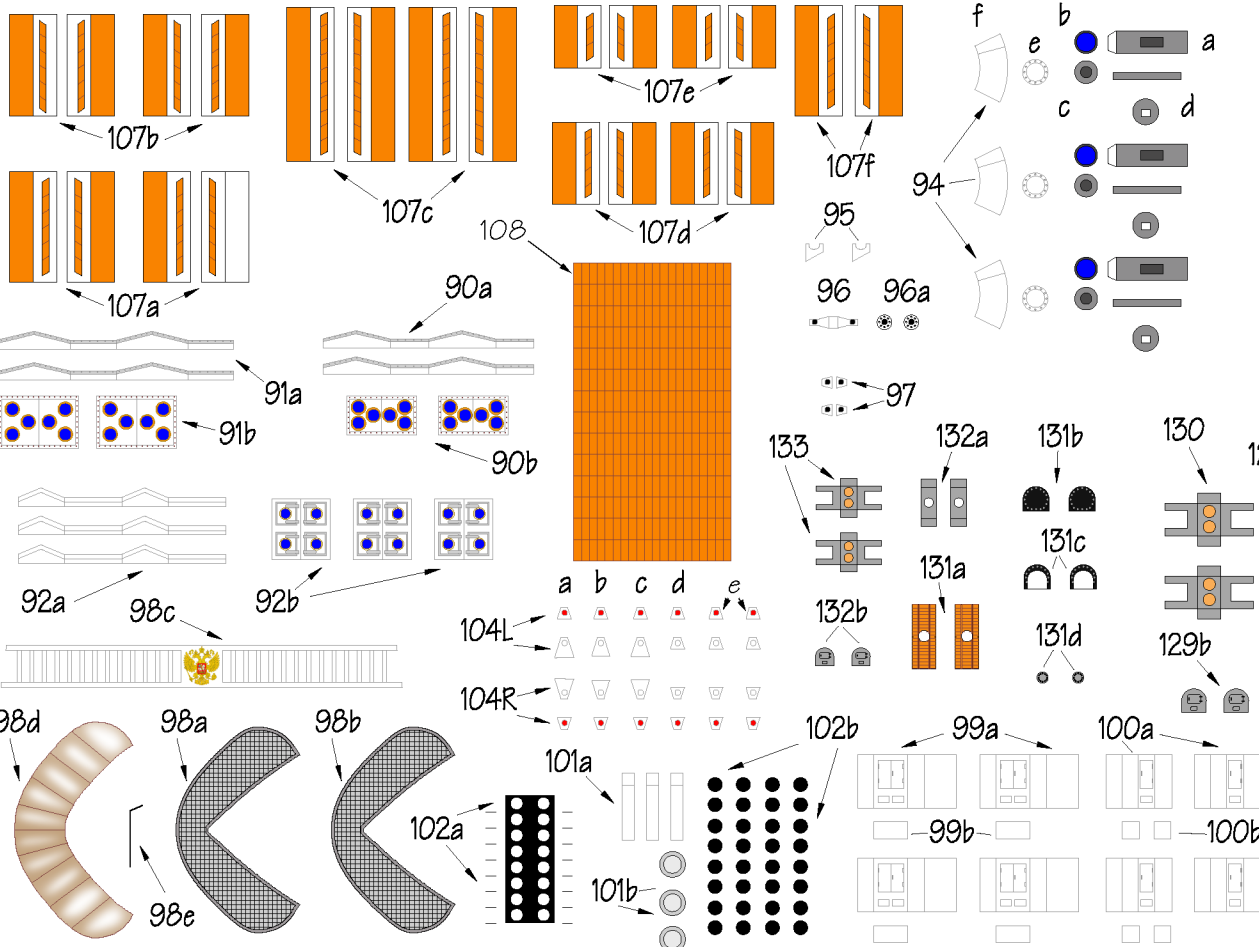
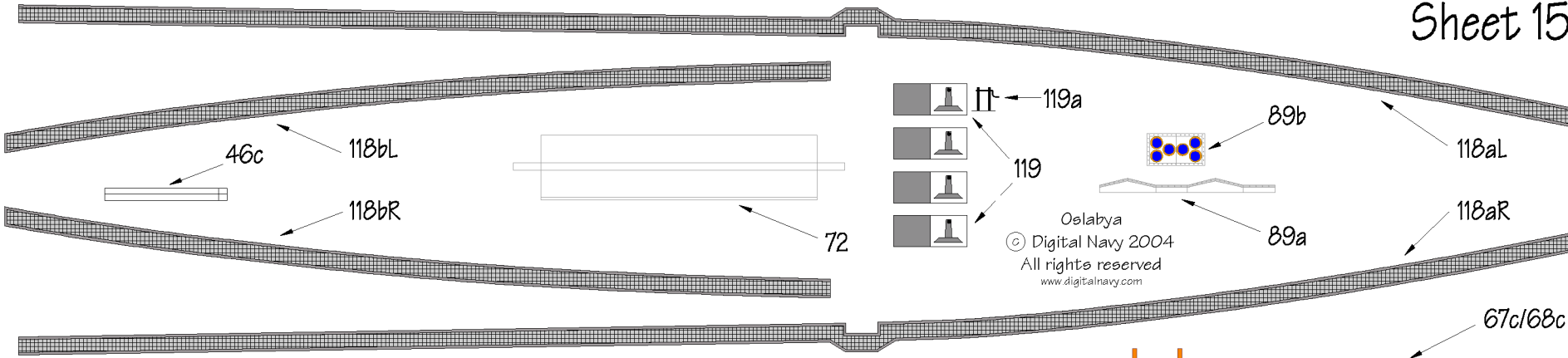


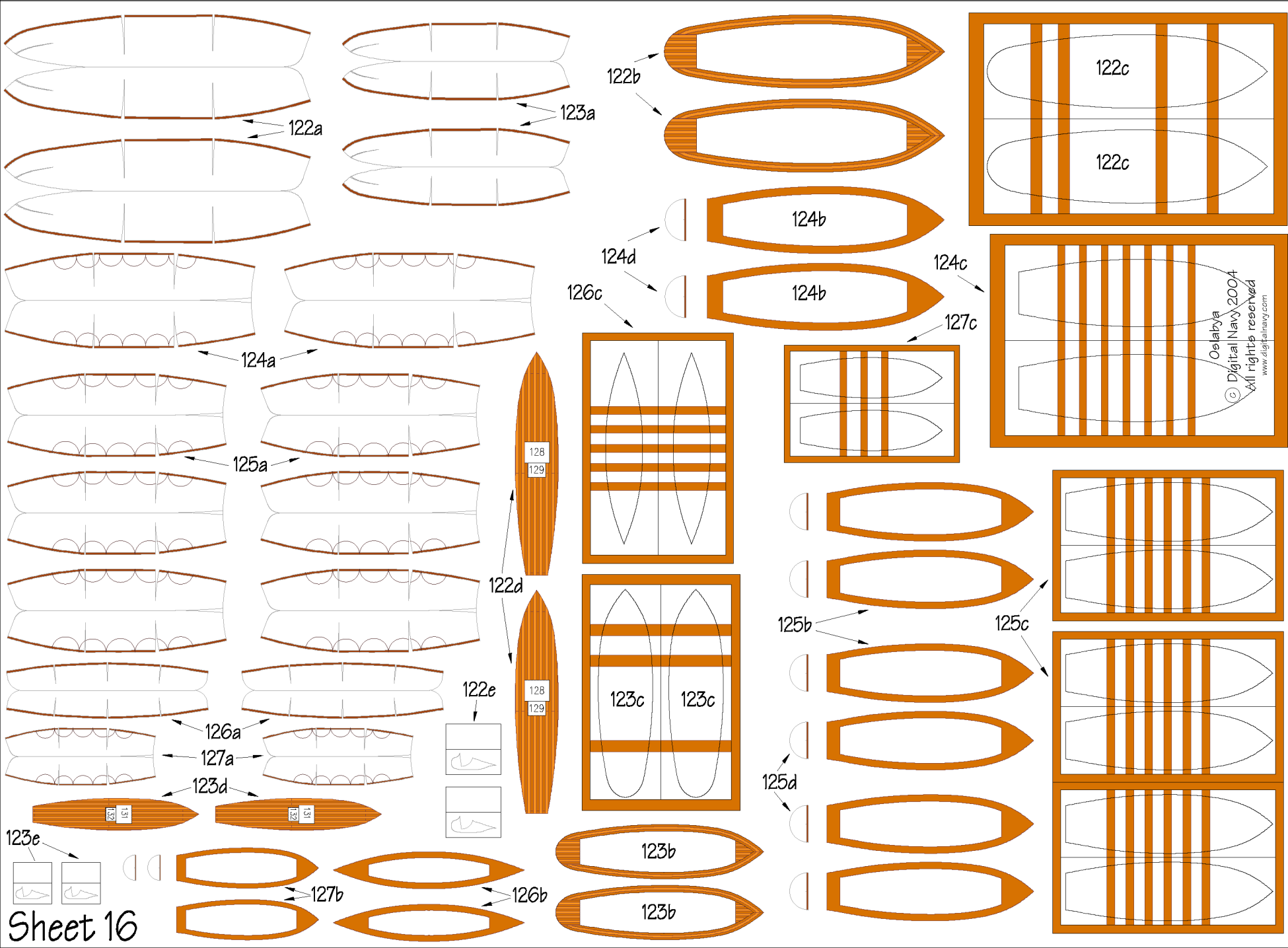




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