

## About RMS *Titanic*

*Titanic* is probably the best-known ship in modern history. Since sinking in 1912 her story has been retold many times in books and film, and has entered popular culture as a tale of human pride and tragedy.

The Royal Mail Steamer *Titanic* was the second of three massive ocean liners intended by the White Star Line to dominate the lucrative transatlantic passenger trade. *Titanic* was slightly heavier than her sister-ship *Olympic*, making her the largest ship in the world at 883 feet long and over 46,000 tons. The ships were at the leading edge of engineering technology at the time featuring reciprocating and turbine steam engines developing 50,000 horsepower, a modern electrical system powering cargo cranes and passenger elevators, and an arrangement of watertight compartments and emergency doors that caused them to be declared "virtually unsinkable".

Passenger amenities were no less advanced. First-class passengers enjoyed accommodations and meals equal to the finest hotels, and a gymnasium, swimming pool and squash court for recreation. Second class, though less lavish, was the equivalent of first class on many other liners. By comparison third class, or steerage, was rather spartan but comfortable by the standards of the day.

After sea trials *Titanic* left Southampton for her first commercial voyage on 10 April 1912, stopping at Cherbourg and Queenstown before heading across the Atlantic to New York. Shortly before midnight on 14 April an iceberg was seen in *Titanic*'s path and before the ship could turn aside the starboard side grazed the ice, opening six of the forward compartments below the waterline. When it became apparent that the pumps could not keep up with the incoming water and that the ship would founder, Captain Edward Smith ordered the evacuation of passengers by lifeboat.

Due to outdated maritime regulations *Titanic* had lifeboat capacity for far fewer than the number of people aboard. In spite of this the first lifeboats were lowered only half-full, the passengers being reluctant to leave the apparent security of the liner. While first- and second-class had easy access to the boat deck those in steerage, roused from their cabins deep in the ship, faced delays and obstructions. Most reached the deck too late to find a place in the boats.

By 2:00 a.m. the bows of the ship were submerged and the crowded stern began to rise above the water. Twenty minutes later the lights finally failed and the hull, stressed beyond its limits by the unsupported weight protruding from the sea, broke in two. The forward part sank immediately while the stern hung vertically for a short time before following. The sea was filled with struggling men, women and children but in the freezing water most would soon die of exposure. Of the 2200 passengers and crew only 700 survived the night.

The loss of this largest and most modern ocean liner caused shock worldwide. Formal inquiries were held in both Britain and the USA, and safety regulations for passenger ships were immediately strengthened. Improvements included increased lifeboat capacity, 24-hour radio watches on ships, and the establishment of an international ice patrol to warn of the presence of ice in the sea lanes.

*Titanic*'s sister ship *Olympic* enjoyed a long, successful career before finally being scrapped in 1935. The third ship in the class, *Britannic*, never entered passenger service but was taken into use as a hospital ship during the First World War, and sank in 1916 after striking a mine in the Aegean Sea.

Long after sinking *Titanic* again made newspaper headlines in 1985 when a team led by Dr. Robert Ballard discovered the wreck. Since then several expeditions have visited the site, in some cases recovering artifacts. Currently *Titanic* rests at a depth of 12,500 feet and is slowly decaying. Some experts estimate the remaining structure of the once-great liner will have collapsed by the middle of the 21st century.

## The Model

This model is a 1:1200 scale waterline replica of *Titanic*, and is approximately 9 inches long.

Model parts are contained in the document **titanic\_parts.pdf**. The optional display base is in document **titanic\_base.pdf**. Print out the parts document on 8.5"x11" or A4 size white paper card stock suitable to your printer. 67 lb. cover stock (approx. 8.5 thousandths of an inch or 0.2 mm thick) is recommended.

A word of caution: this model is not suitable for assembly by young children, due to the use of sharp tools and the complexity of some assembly steps. Previous experience with card modeling is strongly recommended. If you have any comments or suggestions regarding this kit, you can contact me by email at [models@currell.net](mailto:models@currell.net).

## Tools

Before beginning, you will need the following tools and materials:

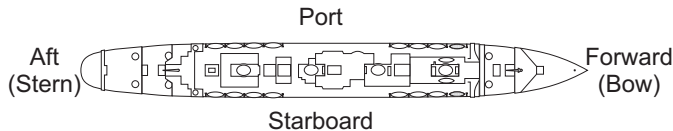
- a) white glue
- b) a glue applicator such as a small paintbrush or toothpick, and water or glue solvent on hand to rinse the brush
- c) a sharp knife for cutting
- d) a flat cutting surface
- e) a ruler or straight edge
- f) a scoring tool or blunt knife for creasing the fold lines
- g) a flat piece of wood or foam core for a building support or display base
- h) (optional) spray adhesive for attaching the display surface to the base

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## Hints

- a) Select a well-lit, comfortable work area that will remain undisturbed when you are not there.
- b) Keep your hands and tools clean when working, to avoid getting glue on visible parts of the model.
- c) It's easier to stay organized if you only cut out those parts you need for each step.
- d) Make sure your knife is sharp. When cutting straight lines, use a straight-edge.
- e) Study the diagrams carefully, and always test-fit the parts before applying glue.

## Assembly



In these instructions, the terms forward (bow) and aft (stern) refer to the front and rear ends of the ship. Port and starboard refer to the left and right sides. Scoring of parts is indicated by thin black lines outside the part's outline, and by dashed or shaded lines on the part's surface. For small parts such as the deckhouses and cranes it is recommended that outside corners ('mountain' folds) are scored by gently scribing the score line with a knife resulting in a sharp corner when folded. Score parts *before* cutting them out. In the diagrams, subassemblies are identified by a number within a circle (e.g. ②), corresponding to the step in which it was assembled.

**Step 1:** Laminate the lateral formers to heavy card stock, such that the combined thickness is about 1mm or 0.04 inches. Cut out the formers after laminating. Assemble the lengthwise former (**step 2**) taking care to only glue the central (blue shaded) area and allowing the flaps at the bottom to fold outward. Cut the upper profile after gluing and fold as shown in the diagrams. Assemble the internal structure by gluing the lateral formers into slots in the lengthwise former (**step 3**). Some pieces must be oriented such that the printed side faces aft; these are labelled as such. Attach the well deck stiffeners (**step 4**) into the appropriate slots.

At this stage the model should be attached to either a temporary work base (**step 5**) or to the optional display base (**step 6**). This prevents the frame from warping during subsequent steps. If using a temporary base, apply only a small amount of glue so the ship may be later detached easily. Attach the forecastle and poop decks to the frame (**step 7**). The forward tip of the forecastle will protrude slightly beyond the front of the frame.

The shaping and attaching of the hull surfaces are somewhat challenging. Dry-fitting and careful attention to the drawings will help. Attach the connecting strips to the main and stern sections of the starboard hull surface (**step 8**). To avoid gaps, bend the parts as closely as possible to match the contour of the frame before gluing the stern section to the main section. Repeat for the port hull parts and glue port and starboard together at the rudder only (**step 9**). Slide the hull pieces around the frame from the stern, such that the rudder is positioned underneath the stern overhang (**step 10**). The rear edge of the hull plating should align with the centre of the rearmost lateral former. Beginning at the stern and working forward, glue the hull surface to the frame. The well deck cutouts on the top of the hull should match the fore and aft bulkheads of the well decks. Finally, join the port and starboard surfaces where they meet at the bow. Form the counter plating into shape (**step 11**) and attach over the stern framework.

If you are using a temporary work base, the ship may be detached now.

Fold and attach the decks and bulkheads just behind the forward well deck (**step 12**) and in front of the aft well deck (**step 13**). The aft promenade deck B48 has a somewhat complex shape and requires precise scoring and careful folding. Attach the boat deck (**step 14**) so that the top of the longitudinal formers protrude through the holes in the deck.

**Steps 15 through 20** show the assembly of the various deckhouses to the boat deck, beginning aft and working forward. Several of these require careful folding, so close attention to the drawings is recommended. Blue locating marks are printed on the boat deck indicating the position of the deckhouses.

Bend the wheelhouse bulwark B14 to shape (**step 21**) and attach to the front of the boat deck, adding the wing roofs B13. Build and attach the officers quarters and wheelhouse to the boat deck (**step 22**) such that the front of the wheelhouse abuts the front face of the bulwark added in the previous step. It may be necessary to trim slightly the rear edge of part B51 to achieve a snug fit against the deckhouse aft. Attach the promenade deck sides (**step 23**), with the raised bulwarks protruding above the boat deck and the front edge nested beneath the bridge wing overhangs as shown in the diagram.

A typical electric crane assembly is shown in **step 24**. Attach the cranes and cargo hatches as shown in the diagram (**step 25**). Fold and attach the docking bridge to the stern (**step 26**). The forward cargo hatch, breakwater and anchor crane are added in **step 27**.

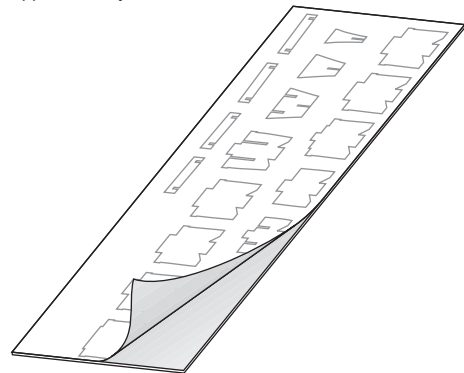
**Step 28** shows a typical funnel assembly. Note that the funnels are not identical in size. A letter is printed on the connecting strip, corresponding with the letter at the funnel's location on the deckhouse roof. Also, the funnel cap for the aft funnel is different from the other three funnels. Attach the funnels (**step 29**) with the seam facing the stern, so that the funnels slope aft slightly.

Build and attach the compass platform (**step 30**). For greater realism you may replace the bottom support B42 with four legs made from wire. A template for shaping the two masts is shown on the parts sheet. Toothpicks whittled or sanded to size, or stretched plastic sprue, are recommended for these parts. Build and attach the crow's nest and insert the masts into the holes in the deck (**step 31**). The base of the masts should rest in notches cut into the internal former. If desired, shrouds (supporting cables for the masts) can be made from fine wire or nylon line. Attach the upper ends of the shrouds to the mast and the lower ends to the outer edge of the well deck.

Construct the lifeboats as shown (**step 32**). There are three sizes of lifeboat, attached to the upper decks as indicated in the diagram.

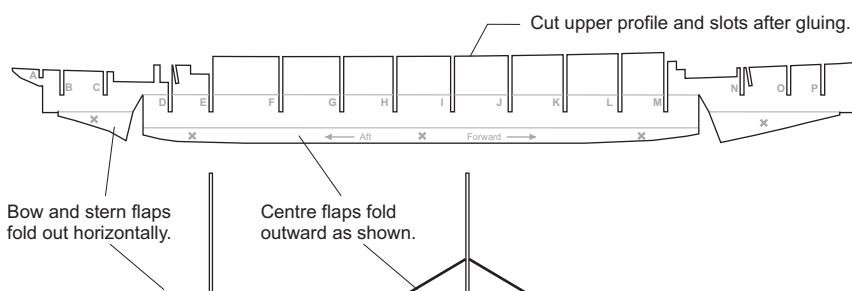
# **1** Laminate lateral formers to heavy card stock

Cut former layout from parts sheet 'A'. Combined thickness should be approximately 1mm or 0.04 inches.

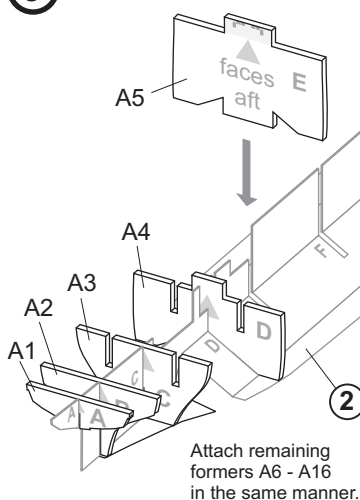


# **2** Lengthwise former

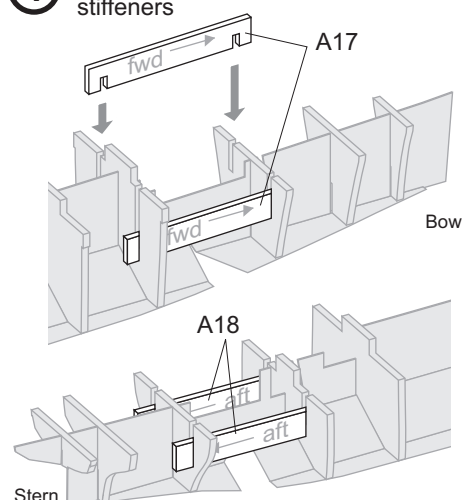
A20  
Glue only in area indicated by blue shading (other areas will fold outward).



# **3** Lateral formers



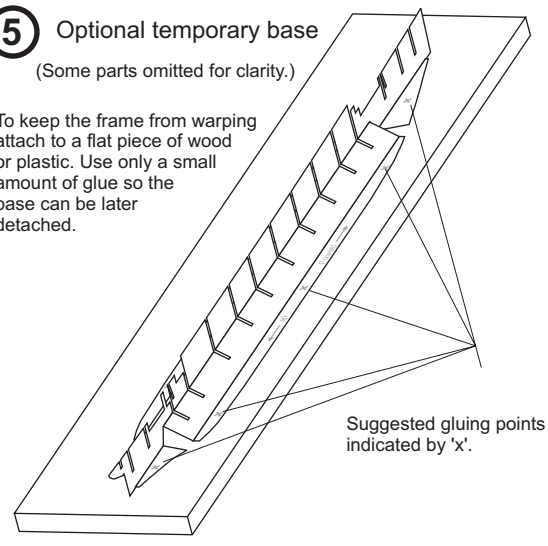
# **4** Well deck stiffeners



# **5** Optional temporary base

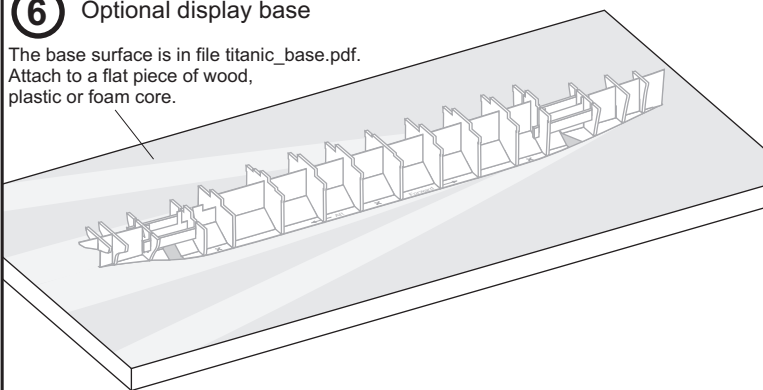
(Some parts omitted for clarity.)

To keep the frame from warping attach to a flat piece of wood or plastic. Use only a small amount of glue so the base can be later detached.

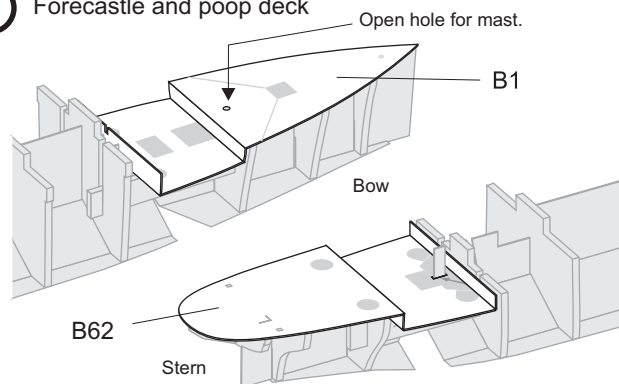


# **6** Optional display base

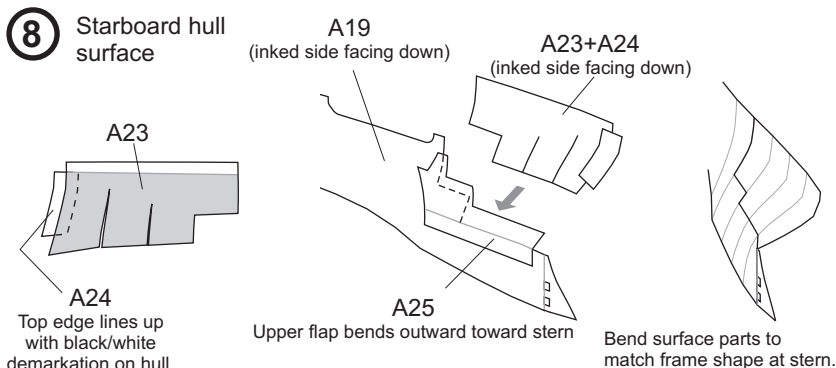
The base surface is in file titanic\_base.pdf. Attach to a flat piece of wood, plastic or foam core.



# **7** Forecastle and poop deck

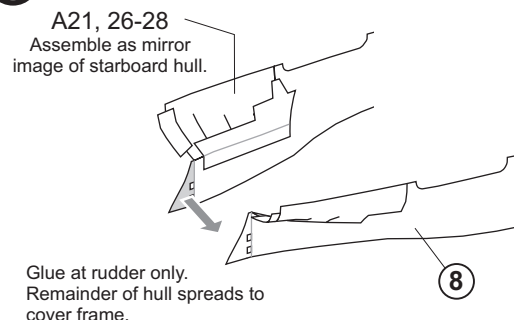


# **8** Starboard hull surface

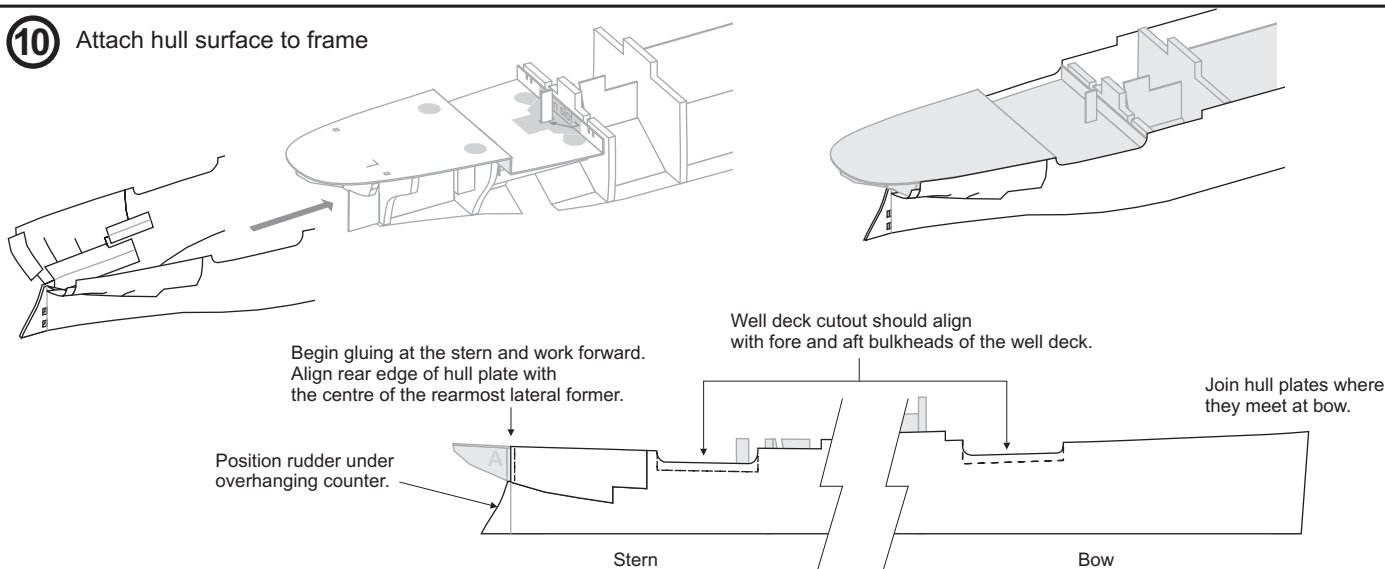


# **9** Join port and starboard hull surfaces

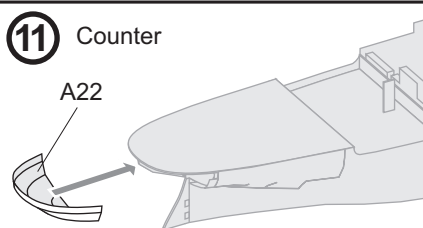
A21, 26-28  
Assemble as mirror image of starboard hull.



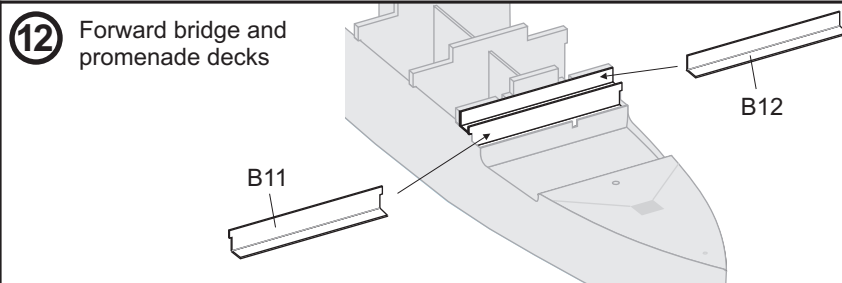
# **10** Attach hull surface to frame



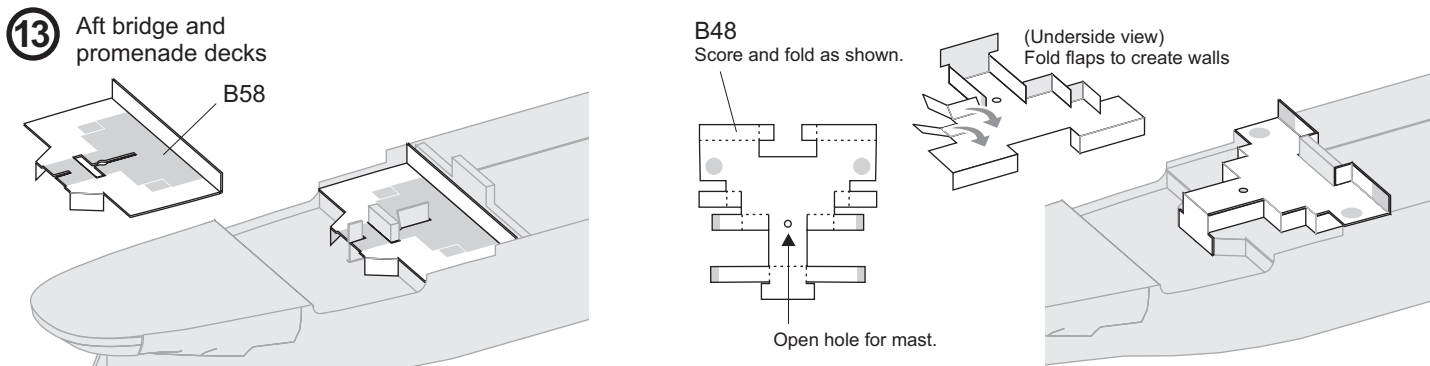
# **11** Counter



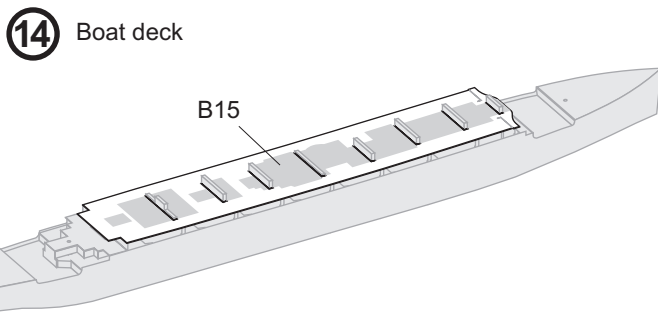
# **12** Forward bridge and promenade decks



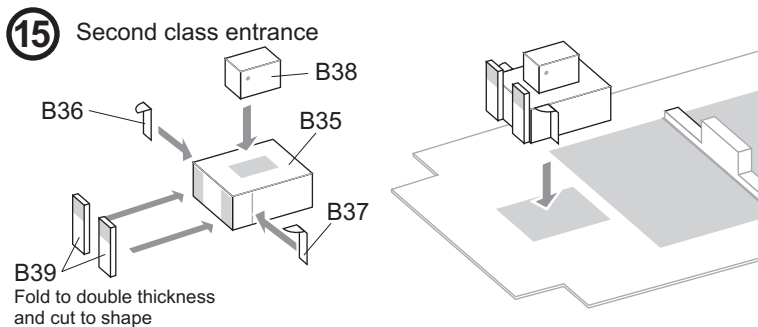
# **13** Aft bridge and promenade decks



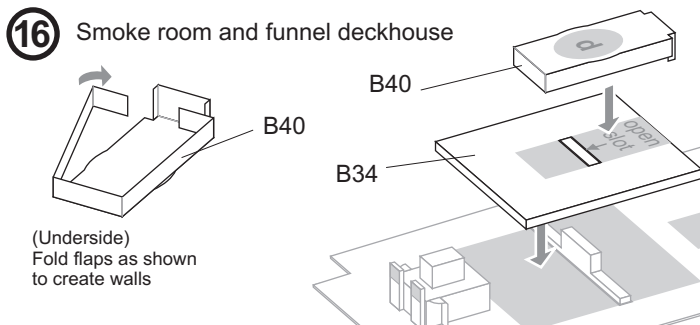
# **14** Boat deck



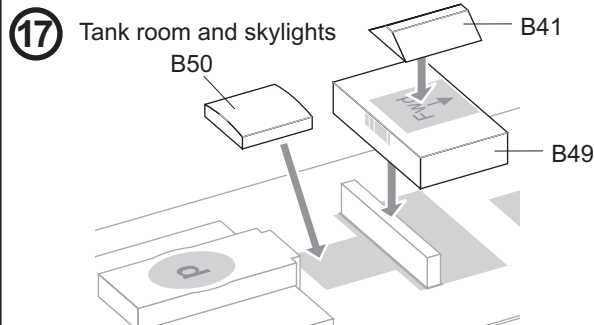
# **15** Second class entrance

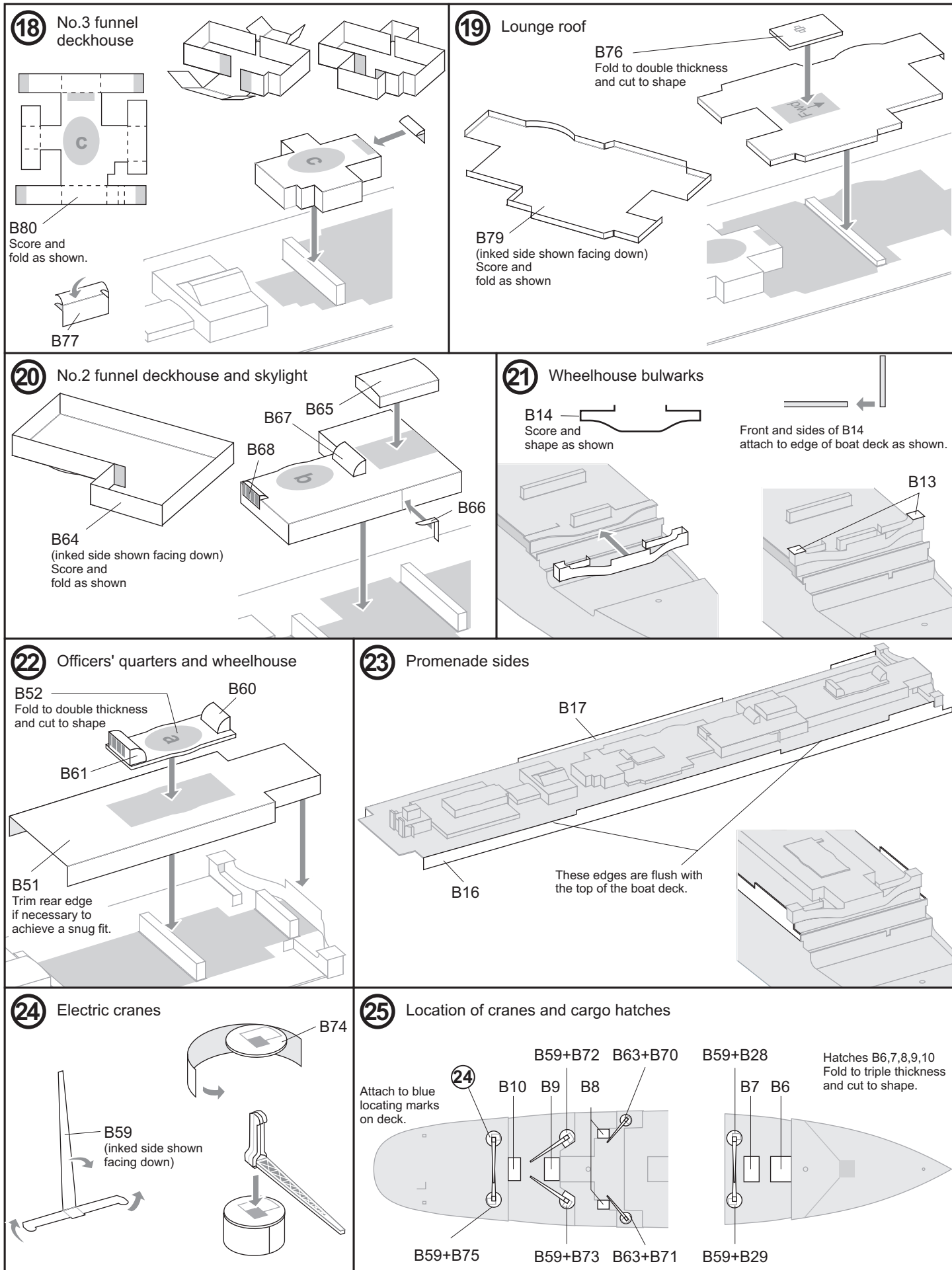


# **16** Smoke room and funnel deckhouse



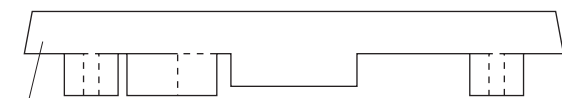
# **17** Tank room and skylights



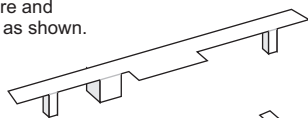




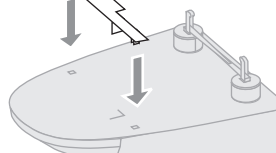
## 26 Docking bridge



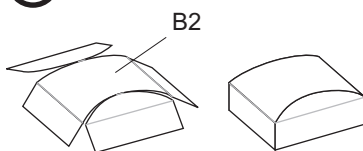
**B78**  
Score and fold as shown.



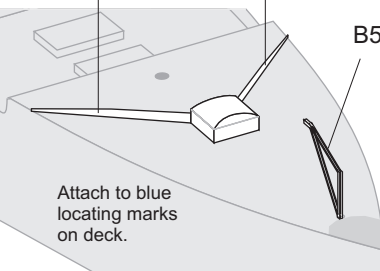
Attach to locating marks on deck.



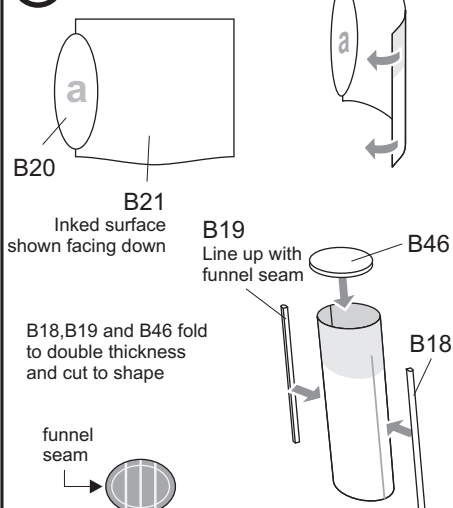
## 27 Forecastle details



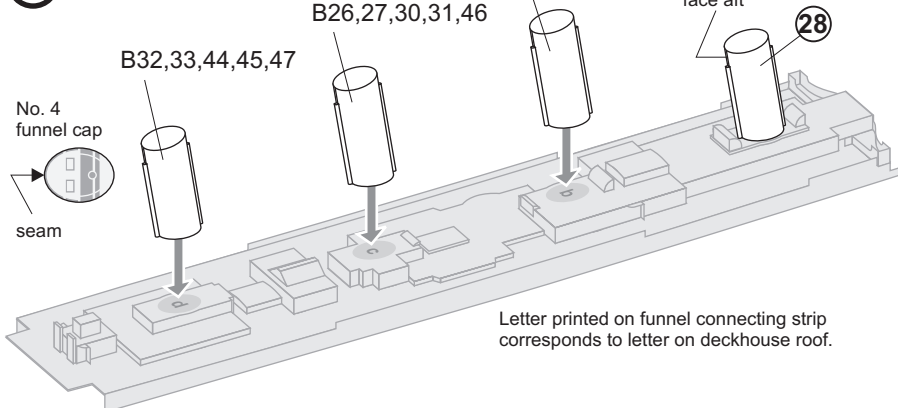
Attach to blue locating marks on deck.



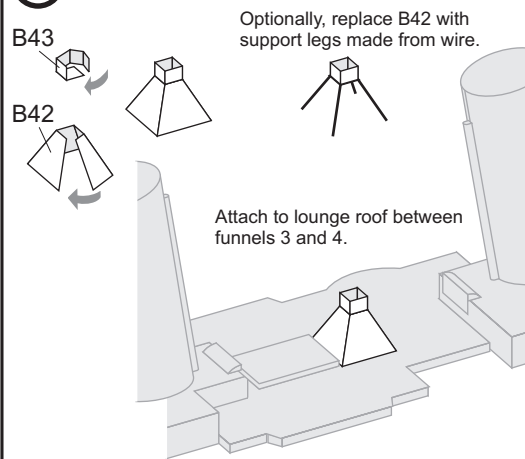
## 28 No. 1 funnel



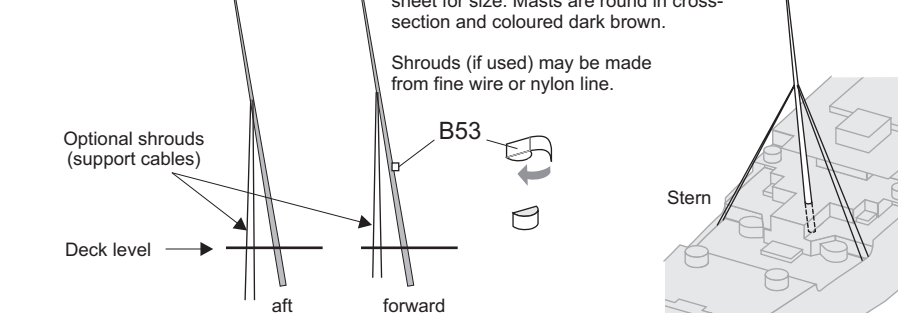
## 29 Attach funnels



## 30 Compass platform

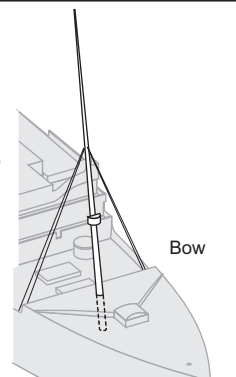


## 31 Masts and crow's nest



Insert masts into holes in deck (base of mast rests in notch in internal former). Masts slope to rear at same angle as funnels (approx. 9° from vertical).

Attach lower ends of shrouds to outer edge of well deck.



## 32 Lifeboats

