

# WILHELMSHAVEN PAPERMODELS

NUMBER ONE IN PAPER ENGINEERING

## U.S.S. CONSTITUTION

*Old Ironsides*

### History

The CONSTITUTION - an interesting ship with just as interesting a past. Usually frigates were built for warfare on the high seas, in other words to confront enemy fleets. That was not the case with the CONSTITUTION. She and five other ships were built to protect US merchant ships from pirates. Of these six original frigates, only one exists today: the CONSTITUTION in Boston.

The famous Philadelphia ship builder Joshua Humphrey was designer of these elegant ships. As he was applying for the patent, he pointed out the unusual form which was not to be found in any of the similar ships built by other countries. He stressed that inspite of her heavy, bulky construction and heavy batteries, the CONSTITUTION would be able to quickly successfully attack her opponent and then flee just as quickly. The keel was laid in the Summer of 1795 after President George Washington signed a bill establishing the US Navy and authorizing the construction of the six frigates.

During the War of 1812 (1812-1814) with England the CONSTITUTION had victorious encounters with the 38 cannon frigate "Guerriere" and also the frigate "Java". It was in the battle with the "Guerriere" off Cape Race that she earned her nickname "Old Ironsides".

In 1927 American school children raised money to recondition the ship for a tour of the United States. Congress appropriated \$300,000.00 in 1930 to complete the job. Since 1934, the CONSTITUTION has been docked in the harbor of Boston where she was built. She is the Flagship of the Commandant of the "First Naval District" and thereby the oldest active warship in the World. Furthermore, she is an American National Monument and a special symbol of Freedom.

After extensive renovation, she was towed into Massachusetts Bay on 21 July 1997. On this historic day, she again set her sails for the first time since the 1930's.

She has undergone many changes over the course of the centuries. Our model depicts the CONSTITUTION in her present state.

### Technical Data

Length: 204 ft

Beam: 50 ft 6 1/8 in

Draft: 20 ft

Launching: October 21, 1797

## Building Instruction

### Part 1 Base Plate

Score all the gluing tabs from the back and fold up.

### Parts 2 - 2k Longitudinal Bulkhead

Bend the gluing tabs on parts 2, 2a, 2d and 2g alternately according to the markings on the base plate. An opening remains between the parts where the rectangular marking are on the base plate. Fold parts 2bc, ef and hi (mast holders). Attach parts 2 b/c, 2e/f and 2h7i with the tabs at the openings to the printed side (see **Fig. 1.**). Attach parts 2j and 2k (rudder blade) only after the hulls 14 and 15 have been attached (see **Fig. 2.**).

### Parts 3 - 12 Cross Bulkheads

Slide the cross bulkheads over the longitudinal bulkhead with the printed side facing the stern, perpendicular to the longitudinal bulkhead and the base plate and glue in place.

### Parts 13 - 13k Deck, Gangways and Covers

Cut out the shaded areas on part 13 and fasten it to the cross bulkhead structure. Fold back the outer white rectangles of part a and glue together. Fold the triangular portions of part b back and glue into part a (see **Fig. 3.**). Prepare parts d-j in the same manner. Fasten the gangways in the openings of the deck (see **Annex A.**). Fold the sides of c and k back, glue edge to edge and fasten to the deck (see **Annex A.**).

#### Parts 14 - 14b Starboard Hull

Cut out the shaded section on the parts. Attach parts 14a and 14b appropriately to the backside of hull part 14. Mold the bow and stern to the shape of the cross bulkhead structure and fold the gluing tabs back. Starting with the gluing tabs, fasten the hull to the longitudinal bulkhead, cross bulkheads, base plate and deck.

#### Parts 15 - 15b Port Hull

Prepare the port hull in the same manner.

#### Parts 16 and 16a Transom Upper Part

Cut out the shaded parts of 16 and 16a and glue back to back. Fasten the rear transom to the hull and deck (see **Annex B**).

#### Part 17 Transom Lower Part

Bend part 17 slightly and fasten to the stern upper part and cross bulkhead 12. (see **Annex A** and **Annex B**).

#### Parts 18 and 18a Galley

Score the parts and fold the upper and lower parts back. Bend the middle section forward. Fasten parts 18 and 18a to the transom and the hull (**Annex A** and **Annex B**).

#### Parts 19 and 19a Prow

Fasten parts 19 and 19a to both sides of the longitudinal bulkhead (see **Annex B**).

#### Part 20 Bow Grating

Fasten the grating to the longitudinal bulkhead and the deck (see **Annex A**).

#### Parts 21 and 21a Bow

Bend the parts slightly to fit the prow, grating and hull and attach to these parts (see **Annex B**).

#### Parts 22 - 22b Bulwark

Blue part 22 back to back, allow to dry thoroughly and fasten to the prow (19), grating (20) and hull with the green side in. (see **Annex B**).

#### Parts 23 and 23a Skylights

Prepare as shown in **Fig. 4**. Position on the deck (see **Annex A**).

#### Parts 24 - 24c Capstan

Prepare as shown in **Fig. 5**. Position on the deck (see **Annex A**).

#### Parts 25 - 25e Helm

Prepare as shown in **Fig. 6**. Position on deck (**Annex A**).

#### Parts 26 - 26k Pin rails

Fold part 26 and glue back to back. Puncture the white circles with a needle. Glue a 2mm long thin wires in the holes after cutting the parts out. Fasten the pin rails to the inside of the bulwark (see **Annex A**).

#### Parts 27 - 27i Pin rails, Bell stand and Compass Columns

Glue parts 27 into square columns. Glue the columns as supports under the pin rails d, e, and on the rectangular markings on the deck. Glue part 27a to parts 27b and c to form a triple thick part. Fasten the pin rails to the supports. Round part 27h into a cone and glue. Fasten the cone (bell) in part 27g (bell stand). Attach the completed bell stand to the deck (see **Annex A**). Glue parts 27i into pointed square columns and fasten to the deck (**Annex A**).

#### Parts 28 - 28c Cutter

Fold part 28 lengthwise, and glue the tabs in half (up to the fold line) back to back. Form the body of the boat in the rear by gluing the two triangles to the tab a. After thorough drying, form the boat's body to the shape of part b, and attach part b (the gaps between the seats can be cut out). Glue part 28c back to back, cut out the parts and fasten underneath the cutter to the marking lines. The position of the cutter can be seen in **Annex A**.

#### Parts 29 and 29s Cat Head

Glue the parts into closed square beams. Insert the beams into the rectangular holes in the hull and fasten in place (see **Annex A** and **Annex B**).

#### Parts 30 - 30f Cannon

Prepare as shown in **Fig. 7** and fasten to the deck (see **Annex A**).

#### Parts 31 - 31c Cannon

Prepare as shown in **Fig. 8** and fasten to the deck (see **Annex A**).

#### Parts 32 -32b Thirty two Cannon Barrels

Round parts 32 into a truncated cone and glue. Glue disks a and b back to back. Close the small end of the truncated cone with the doubled disks. Glue the Cannon barrels to the circles on the Cannon openings in the hull (**Annex B**).

#### Parts 33 and 33a Galley Stack

Round part 33, form and glue into an elbow shaped tube (see **Fig. 9**). Position according to **Annex A**.

#### Parts 34 - 34f Channels

Glue part 34 back to back. Insert a needle through the white circles (the mast rigging will be strung through these holes later). Fasten the parts 34-34f to the white lines on the hull (see **Annex A**).

#### Parts 35 - 35d Davits

Glue parts 35, 35a and 35b to each other with the printed sides visible. Cut out parts c and d and attach to the stern (see **Annex A** and **Annex B**).

#### Parts 36 and 36a, 37 and 37a Three boats

Fold part 36 lengthwise and glue the tabs (up to the fold line) back to back. After thorough drying, form the body to the shape of part 36a and close the body with part 36a

(see **Fig 10**). Hang the boats with short pieces of thread from the davits (see **Annex B**).

#### Parts 38 - 38e Jib Boom

Score the entire length of the parts along the lines at the narrow ends of the parts, round and glue into a tube. Glue parts a and b back to back and cut out the shaded circle on part c. Construct the jib mast as shown in **Annex A and Annex B** (Notice that tube e is fastened next to part d see **Annex A**). Slide the jib mast through the hole in the bow end of the deck and fasten in place (see **Annex A**).

#### Part 39 Yard

Round part 39 like 38 into a tube and glue. Fasten 39 under the bow sprit (see **Annex A**).

#### Parts 40 - 40l, 41 - 41 l and 42 - 42n Masts and Topmast

Glue the rectangular field with parts 40a, b, d, e, g and h as well as 41a, b, d, e, g, h and 42a, b, d, g and g back to back. Cut out the shaded areas and circles. Score the entire length of parts 40, 40c and 40 f (masts) as well as parts 40i, j, k and l (yards) as indicated by the lines at the ends of the parts, round and glue into a tube. The entire construction, including a needle sticking out 1.5 cm from the end of the mast, is shown in **Annex C**. The yards are to be fasten at the height of the black rings. String the rigging (standing rigging) before attaching the yards. Prepare parts 41-41 l in the same manner. Prepare parts 42-42n in the same manner.

#### The Rigging

The standing rigging serves as support for the masts and topmast. The rigging is visible on Annex A and Annex B. The threads are to be fastened to both sides of the mast. As can be seen in Annex B, some of the threads lead through the holes of parts 34a-f and are then fastened to the marks on the hull. Others lead from the topmast through parts 40a, 41a and 42a to the mast ( see Annex C). Now you must decide whether or not to display your model with sails or not. Without sails and you can not attach the yards and fasten the rigging (see Annex B). With sails: there is a template for 1:1 scale for the sails.

Template for sails 1:1: The sails can be made from tissue paper for example. (Recommend that your first attach the sails to the yard and then fasten the yard to the mast)

#### Parts 43 - 43c Two anchors

Fold part 43 and glue back to back. Cut out the shaded parts of 43c, score, fold and glue into a closed square beam. Construct the anchor as shown in **Fig. 11**. Attach the anchors to the anchor beams 29 and 29a.

Fold the flags and pennants in half, glue back to back and position on the model as shown in Annex B.

Without sails you can string a pennant line with the pennant alphabet over the entire ship.

**We wish you lots of fun with this model kit.**