RESTRICTED

GENERAL INFORMATION

INCLUDING DESCRIPTIONS AND
TESTS OF ELECTRIC AUXILIARIES

U. S. S. GWIN, TORPEDO BOAT DESTROYER No. 71

INFORMATION RELATIVE TO ITEMS UNDER COGNIZANCE
OF THE BUREAU OF CONSTRUCTION AND REPAIR
NAVY DEPARTMENT

RESTRICTED

GWIN

[redacted]

Serial No. 38

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U. S. S. GWIN

Information relative to items under cognizance of the
Bureau of Construction and Repair
Navy Department, Washington, D. C.

1920

Finished Plan No. 41

WASHINGTON
GOVERNMENT PRINTING OFFICE
1920

INTRODUCTION.

HISTORICAL DATA.

Authorized by Act of Congress, March 5, 1915.
Contract let to Seattle Construction & Dry Dock Co., Seattle, Wash., March 8, 1915.
The contract date of completion to be November 8, 1916.
The contract time, 20 months.
Keel laid June 21, 1917.
Vessel launched December 22, 1917.
Christened by Mrs. J. S. Wood.
Date of preliminary trials, March 3, 1920.
Date of delivery to Government, March 18, 1920.
Vessel commissioned, March 20, 1920.

DIMENSIONS AND DISTANCES.

Length over all, 315 feet 6 inches.
Length between perpendiculars, 310 feet.
Length on (8 feet $\frac{1}{2}$ inch water line), 310 feet.
Breadth, extreme over guards, 31 feet $3\frac{1}{2}$ inches.
Breadth, molded, 30 feet 7 inches.
Depth, molded at side (frame 88), 19 feet $8\frac{1}{2}$ inches.
Depth, molded at center (frame 88), 20 feet $10\frac{7}{16}$ inches.
Tons per inch at (8 feet $\frac{1}{2}$ inch water line), 14.7 tons.
Wetted surface (8 feet $\frac{1}{2}$ inch water line), 10,065 square feet.
Area of normal water plane (8 feet $\frac{1}{2}$ inch water line), 6,003.3 square feet.
Area of immersed midship section, 212 square feet.
Area of rudder, 65.37 square feet.
Coefficient, block (8 feet $\frac{1}{2}$ inch water line), 0.51.
Coefficient, prismatic (8 feet $\frac{1}{2}$ inch water line), 0.60.
Coefficient, midship section, 0.862.
Coefficient water line (8 feet $\frac{1}{2}$ inch), 0.650.
Center of buoyancy above bottom of keel (8 feet $\frac{1}{2}$ inch water line), 4 feet $7\frac{1}{2}$ inches
Center of buoyancy (8 feet $\frac{1}{2}$ inch water line) forward of middle perpendicular, 2.4 inches.
Transverse metacentric height above C. B. (8 feet $\frac{1}{2}$ inch W. L), 8 feet 4 inches.
Longitudinal metacentric radius (8 feet $\frac{1}{2}$ inch W. L.), 714 feet.
Center of gravity aft of M. P. (8 feet $\frac{1}{2}$ inch W. L.), 4 feet $10\frac{9}{16}$ inches.
Frame spacing, 21 inches.
Camber, 15 inches in 30 feet.
Number of frames, 177.

LONGITUDINAL DISTANCES.

Middle perpendicular is 9 inches forward of frame No. 89.
Projection of stern at main deck abaft A. P., 2 feet 6 inches.
Projection of stem at main deck forward F. P., 3 feet.
Length of straight keel, 274 feet.

Forward end of straight keel to F. P., 14 feet.
After end of straight keel to A. P., 22 feet.
Length of bilge keel, 108 feet 6 inches.
Forward end of bilge keel to F. P., 108 feet 6 inches.
After end of bilge keel to A. P., 93 feet.
F. P. to center of foremast at main deck, 91 feet 9 inches.
F. P. to center of stack No. 1 at main deck, 110 feet 3 inches.
F. P. to center of stack No. 2 at main deck, 136 feet 6 inches.
F. P. to center of stack No. 3 at main deck, 162 feet 7½ inches.
Center of main mast at main deck to A. P., 47 feet 6 inches.
Center of shaft struts forward A. P., 19 feet 1 inch.
Propellers, forward of A. P., 17 feet 6 inches.

HEIGHTS ABOVE DESIGNER'S WATER LINE.

Bridge at center (frame No. 41), 22 feet 9 inches.
Bridge at outboard ends (frame No. 45), 21 feet 6 inches.
Forward smokestack on C. L. (frame No. 64), 39 feet 6 inches.
Crow's nest forward, 63 feet 6 inches.
Crow's nest aft, 63 feet 6 inches.
Blinker signal lights, 82 feet 3 inches.
Fighting light yard arm, 61 feet.
Radio antenna, 98 feet 6 inches.
Auxiliary radio antenna, 37 feet 6 inches.
Main deck at side (frame No. 40), 14 feet 3 inches.
Main deck at side (frame No. 145), 9 feet 1½ inches.
Top of after deck house at frame No. 147, 17 feet.
Freeboard at stem, 17 feet 3 inches.
Freeboard at stern, 8 feet 5 inches.

CONDITIONS OF LOADING.

Ship complete, ready for service in every respect, with full complement of officers and crew with their effects and consumable load, is tabulated below for normal, full, and maximum conditions.

In the design of the vessel the mean draft corresponding to the "designed water line," viz, 8 feet ½ inch, contemplates the conditions of loading given under the heading "Normal."

Items.	Normal.		Full.		Maximum.	
	Quantity.	Weight.	Quantity.	Weight.	Quantity.	Weight.
		Tons.		*Tons.*		*Tons.*
Hull, complete	.....	367. 7	.....	367. 7	.....	367. 7
Hull, fittings	.....	60. 8	.....	60. 8	.....	60. 8
Steam engineering wet	.....	364. 9	.....	364. 9	.....	364. 9
Reserve feed water	.....	12. 3	.....	18. 5	.....	30. 2
Battery	.....	40. 7	.....	40. 7	.....	40. 7
Ammunition and ordnance stores	.....	35. 9	.....	36. 3	.....	36. 3
Equipment and equipment stores	.....	27. 1	.....	27. 5	.....	27. 5
Outfit and stores	.....	42. 6	.....	53. 0	.....	65. 2
Oil, fuel	.....	173. 3	.....	260. 0	.....	276. 7
Displacement	.....	1, 125. 0	.....	1, 229. 0	.....	1, 270. 0

DESIGNED COMPLEMENT.

(X-3-a.)

Officers:	
Commanding officer	1
Wardroom officers	4
Total	5
Seaman branch:	
Chief boatswain's mate	1
Boatswain's mate, second class	1
Coxswain	1
Chief gunner's mates	2
Gunner's mates, first class	2
Gunner's mates, second class	2
Chief quartermaster (navigating)	1
Quartermaster, first class	1
Quartermasters, second class	2
Seamen	16
Ordinary seamen	13
Total	42
Artificer branch:	
Electrician, first class	1
Electricians, first-class radio	2
Electrician, second-class radio	1
Carpenter's mate, second class	1
Total	5
Artificer branch, engine-room force:	
Machinist's mates, chief	3
Machinist's mates, first class	3
Machinist's mates, second class	3
Chief water tender	1
Water tenders	5
Boiler maker	1
Blacksmith	1
Coppersmith	1
Oilers	4
Firemen, first class	10
Firemen, second class	7
Total	39
Special branch:	
Yeoman, first class, commanding officer	1
Yeoman, second class, engineering department	1
Hospital steward	1
Total	3
Commissary branch:	
Ship's cook, first class	1
Ship's cook, second class	1
Total	2
Messmen branch:	
Cabin steward	1
Cabin cook	1
Mess attendants	2
Total	4

Recapitulation.

Officers	5
Crew	95
Total	100