

IRON SHIPS.

No. 2840 Survey held at Panama Date 25th August 1888
 on the Iron Screw Steamer Tessa Master Olson
 Tonnage under tonnage deck 353.36 Built at Panama When built 1888 Launched Aug 5th 1888
 Ditto of poop 1.4 or spar deck 26.13 By whom built Barbours & Cullen Owners Barbours Steam Shipping Co
 Ditto of engine room 131.51 Port belonging to Barbours Destined Voyage Panama
 Total Register tonnage 279.44 Gross Tonnage 412.98 If surveyed while Building, Afloat, or in Dry Dock Building and afloat

Length aloft		Extreme Breadth		Depth from top of Upper Deck Beam to top of Floor		Power of Engines		No. of Decks	
Feet.	Inches.	Feet.	Inches.	Feet.	Inches.	Horse.			
101		24	6	14	0	80		1	

Dimensions of Ship per Register, length 101 breadth 24.6 depth 14.05

	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness	4 x 2 1/4	6 1/4 x 2 1/2				
„ if plate iron, breadth and thickness	4 x 2 1/4	6 1/4 x 2 1/2				
Stem, if bar iron, moulding and thickness	4 x 2 1/4	6 1/4 x 2 1/2				
„ if plate iron, breadth and thickness	4 x 2 1/4	6 1/4 x 2 1/2				
Stern-post, if bar iron, moulding and thickness	8 1/2 x 3 1/4	6 1/4 x 5				
„ if plate iron, breadth and thickness	21	21				
Distance of Frames from moulding edge to moulding edge, all fore and aft	21	21				
Frames, Size of Angle Iron, single or double	3 1/2 x 3	4 1/2 x 2 1/4	3 1/2 x 3	4 1/2 x 2 1/4	3 1/2 x 3	4 1/2 x 2 1/4
„ Reversed Iron, if to every frame and or every other frame	2 1/2 x 2 1/2	3 1/2 x 2 1/2	2 1/2 x 2 1/2	3 1/2 x 2 1/2	2 1/2 x 2 1/2	3 1/2 x 2 1/2
Floors, depth and thickness of Floor Plate at mid line	15	15	15	15	15	15
„ Ditto ditto at Bilge Keelson	4	4	4	4	4	4
„ Size of Reversed Angle Iron, and No. 1 at top of Floor Plate	2 1/2 x 2 1/2	3 1/2 x 2 1/2	2 1/2 x 2 1/2	3 1/2 x 2 1/2	2 1/2 x 2 1/2	3 1/2 x 2 1/2
Beams, Deck (No.) double Angle Iron, Plate, Tee, or Bulb Iron	6	6	6	6	6	6
„ double or single Angle Iron, on edge	2 1/4 x 2 1/4	3 1/4 x 2 1/4	2 1/4 x 2 1/4	3 1/4 x 2 1/4	2 1/4 x 2 1/4	3 1/4 x 2 1/4
„ average space between	3.6	3.6	3.6	3.6	3.6	3.6
„ Hold, or Lower Deck (No.) double Angle, Tee, Plate, or Bulb Iron	5	5	5	5	5	5
„ double or single Angle Iron on edge	2 1/4 x 2 1/4	3 1/4 x 2 1/4	2 1/4 x 2 1/4	3 1/4 x 2 1/4	2 1/4 x 2 1/4	3 1/4 x 2 1/4
„ average space between	3.6	3.6	3.6	3.6	3.6	3.6
„ Paddle, sided and moulded, thickness of Plate size of Angle Iron						
„ Engine						
Keelson, single or double plate, box, or intercostal						
„ Size of Plates	10 1/4	10 1/4	10 1/4	10 1/4	10 1/4	10 1/4
„ Size of Angle Irons	4	4	4	4	4	4
„ Side, single or double, plate, box, or intercostal						
„ Bilge (No.) at each Bilge, single, or double, plate, or box	4	4	4	4	4	4

Plates in Garboard Strakes, breadth and thickness 3 1/2 x 3/8
 Ditto from Garboard to upper part of Bilge 3 1/2 x 3/8
 „ from upper part of Bilge to a perpendicular height from upper side of Keel of 3/4 the entire depth of Hold 3 1/2 x 3/8
 „ from 3/4 the depth of Hold to lower edge of Sheerstrake 3 1/2 x 3/8
 „ Sheerstrake, breadth and thickness 3 1/2 x 3/8
 Butt Straps to outside plating, breadth and thickness 3 1/2 x 3/8
 Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness 3 1/2 x 3/8
 Angle Iron on ditto 4 x 3/8
 Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways 9 x 1/2
 Diagonal Tie Plates on ditto 9 x 1/2
 Planksheer, materials and scantlings from Bulwarks
 Waterway ditto ditto ditto
 Flat of Upper Deck, thickness and material 3/4 x 3/8 Pine
 „ how fastened to Beams butt & screw bolts
 Ceiling betwixt Decks and in Hold, thickness and material 2 1/2 x 3/8 Pine
 Clamps or Spirketting ditto 1 1/2
 Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness 17 x 1/2
 Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams 9 x 1/2
 Stringers in Hold —
 Flat of Lower Deck, thickness and material —
 Main piece of Rudder, diameter at head 4 1/4
 „ at heel 3 1/2
 (Can the Rudder be unshipped afloat Yes)
 Bulkheads, No. 5 Thickness of 3/8
 „ Height up to main deck
 „ how secured to the sides of the ship rivetted between frames
 „ size of vertical angle irons 2 1/2 x 3/8 and their distance apart 36 in
 rivetted through plates with 3/8 in. rivets, about 4 in. apart.
 The reverse angle irons on the floors extend in one length across the middle line from stringer to above the Hold Beam
 „ on the frames „ „ „ from And to the Gunwale or alternate frames
 Keelson, how are the various lengths of plates or angle irons connected? By lining pieces
 Plates, Garboard, double rivetted to keel, double at upper edge, with rivets 3/8 in. diameter, averaging 3 1/2 in. apart.
 „ Edges from Garboards to upper part of bilge, worked clencher, double or single rivetted; with rivets 3/4 in. diameter, averaging 2 1/4 in. apart.
 „ Butts from Keel to turn of bilge, worked carvel with butt straps 3/8 thick, double or single rivetted; with rivets 3/4 in. diameter, averaging 3 1/4 in. apart.
 Do the butt straps lap over and rivet through the lands of the strake below? No
 „ Edges from bilge to sheerstrake, worked carvel with a lining piece () thick, or clencher, double or single rivetted; with rivets 3/4 in. diameter, averaging 2 1/4 in. apart.
 Do the butt straps lap over and rivet through the lands of the strake below? No
 „ Edges of Sheerstrake, double or single rivetted? At upper edge Single At lower edge Double
 „ Butts from bilge to planksheers, worked carvel with butt straps 3/8 thick, double or single rivetted; with rivets 3/4 in. diameter, averaging 3 1/4 in. apart. Breadth of laps in double rivetting 5 in. Breadth of laps in single rivetting 3 1/2 in.
 Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted? Double Rivetted
 Planksheer, how secured to the plating of the sides Explain by sketch
 Waterway „ „ planksheer and to the Beams if necessary.
 Deck Beams, how secured to the side? Welded Arms rivetted to the frames
 Hold or Lower Deck ditto —
 Paddle „ „ —
 No. of breasthooks 3 crutches 3
 What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c. Frames Simpson
 Manufacturer's name or trade mark Plating Blackham
 We certify that the above is a correct description of the several particulars therein given.
 Builder's Signature Ignacio Barbours & Cullen Surveyor's Signature J. W. Little

6478 En

Workmanship. Are the lands or laps of the clenchwork in all cases in breadth at least five and a half times the diameter of the rivets in double rivetted edges and butts, and at least three and a quarter times the diameter of the rivets where single rivetting is admitted? Yes
Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? Yes
Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? Yes
Do the holes for rivetting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes and are the rivet holes well and sufficiently countersunk in the outer plate? Yes
Are there any rivets which either break into or have been put through the seams or butts of the plating? Yes

Her Masts, Bowsprit, Yards, &c., are in Good condition, and sufficient in size and length. (If they are of Iron or Steel give the Scantlings of Plating, Angle Irons, &c., and further explain by a Sketch showing how the lower Masts and Bowsprit are constructed, showing the number of Plates and Angle Irons, mode of rivetting, quality of Materials, and if stamped with Maker's name.)

Tested by A. J. Mack at
Glasgow 22 April 1868
and by J. A. Taylor at Glasgow
Lifted by Public Machine 30 April 1868

N ^o .	She has SAILS.	CABLES, &c.	Fathoms	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N ^o .	Weight Ex. Stock.	Test as per Certificate.	Wt. req'd per Rule.	Test req'd per Rule.
	Fore Sails,	Chain	210	1 1/2	22 3/4	1 1/2	22 3/4	Bowers	5	10.2.0	12.12.0	10.0.0	12.12.0
	Fore Top Sails,	Stream Chain	80	1 1/2						10.2.0	12.12.0	10.0.0	12.12.0
	Fore Topmast Stay Sails	Hempen Stream Cable	60	1				Stream	1	4.3.0		4.3.0	
	Main Sails,	Hawser	60	5									
	Main Top Sails,	Towlines	60	4				Kedges	2	2.1.0		2.1.0	
		Warp	80	3 1/2						1.1.0		1.0.0	
		All of <u>Good</u> quality.	80	2 1/2									
Her Standing and Running Rigging <u>Calcutta Hemp</u> sufficient in size and <u>Good</u> in quality.													
She has <u>One 21.0</u> Long Boat and <u>Two 30.0 Life Boats</u> of <u>One 18.0</u> Dory.													
The present state of the Windlass is <u>Good</u> Capstan <u>Good</u> and Rudder <u>Good</u> Pumps <u>New Efficient</u>													

Order for Special Survey DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought Built under
No. 552 Surveys held 2nd. On the plating during the progress of rivetting Special Survey from the
Date 23rd March 1868 while building 3rd. When the beams were in and fastened, and before the decks were laid 25th April 1868
Order for Ordinary Survey as per 4th. When the ship was complete, and before the plating was finally coated 25th August
No. 1 Section 18. 5th. After the ship was launched 1868
Date 1

State if she has a Spar Deck Yes Poop Yes or Forecastle Yes

General Remarks, Has a Water Ballast Tank amidships 20'0" deep. The beams the same size as main deck spaced 3'6" apart and the top is plated with 7/16 plates. Lands and butts single clench rivetted and a Water Ballast Tank forward similarly constructed to the tank amidships. Has fitted at stern of Bulge Outside at Lee Bulk Head 10'0" x 9'6" for a length of 6'0". The Head Beams are formed of Angle Bars 5' x 3' x 7/16 spaced 3'6" apart instead of as per Rule 5' x 5/16 with double Angle Bars 2'1/4 x 2'1/4 x 7/16 fastened to every 4th frame this arrangement was submitted and sanctioned as per Secretary's Letter dated 10th March 1868. Has a stronger Plate 10'0" x 9'6" and 3 Angle Bars 4' x 3' x 7/16 as substitutes for Head Beams in Aft Head and in Engine Room, this arrangement was submitted and sanctioned as per Secretary's Letter dated 5th May 1868. Mr. Bartus's suggestion while on his tour of inspection have been carefully attended to. The Owners do not wish the crew space decreased.

In what manner are the surfaces preserved from oxidation? Inside Painted and Red Lead
Ditto ditto Outside Red Lead and Oil Paint

I am of opinion this Vessel should be Classed B 1
The amount of the Fee£ 5 : : is received by me,
Ant. W. C. Special£ 20 : 11 :
Certificate (if required)£ 10 : 0 :
Committee's Minute 28th August 1868

Character assigned B 1
A & CP

This appears to be No. 22 in my Report recently made to Committee of Vessels seen building in Glasgow district. Same opinion she is eligible for classification as recommended above.
J. H. 27/10/68