

IRON SHIPS.

From 1st to 5/11/11

No. 20240 Survey held at Liverpool Date 8th May to 16th October 1866
 on the S. British Consul now Morialta Master

Tonnage under tonnage deck 1198.26 Built at Liverpool When built 1866 Launched 4th Augt
 Ditto of poop or spar deck 68.28
 Ditto of engine room
 Total Register tonnage 1266.54 Port belonging to Liverpool Destined Voyage San Francisco
 Gross tonnage 1266.54
 Surveyed while Building, Afloat, or in Dry Dock Specially while building

Length aloft	Feet. Inches.	Extreme Breadth	Feet. Inches.	Depth from top of Upper Deck Beam to top of Floor	Feet. Inches.	Power of Engines	Horse.	N. of Decks	2
length of ship per register, length	214.9	breadth .36	depth 22.6						

Thickness of Bar Iron, depth and thickness.....	Inches in Ship.	Thickness required per Rule.	Plates in Garboard Strakes, breadth and thickness	Inches In Ship.	16ths In Ship.	Inches required per Rule.	Thickness required per Rule.
if plate iron, breadth and thickness	8 1/2 x 3	8 1/2 x 3	Ditto from Garboard to upper part of Bilges	36	13/16	36	13/16
if bar iron, moulding and thickness	8 1/2 x 3	8 1/2 x 3	,, from upper part of Bilge to a perpendicular height from upper side of Keel of 3/8ths the entire depth of Hold	12/16	12/16	12/16	12/16
if plate iron, breadth and thickness	8 1/2 x 3	8 1/2 x 3	,, from 3/8ths depth of Hold to lower edge of Sheerstrake	11	11/16	—	11/16
in-post, if bar iron, moulding and thickness	8 1/2 x 3	8 1/2 x 3	,, Sheerstrake, breadth and thickness	35	13/16	36	13/16
,, if plate iron, breadth and thickness	24	24	Butt Straps to outside plating, breadth and thickness	24	24	24	24
ounce of Frames from moulding edge to moulding edge, all fore and aft			Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness	30	13/16	30	13/16
Size of Angle Iron, single or double	5	3 9/16	Angle Iron on ditto	5x4 1/2 x 9/16	full 5x4 1/2 x 9/16	5x4 1/2 x 9/16	full 5x4 1/2 x 9/16
Reversed Iron, if to every frame or every frame	3 1/2	3 9/16	Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways	13 1/4	10/16	12 3/4	10/16
depth and thickness of Floor Plate at mid line	24	9 1/10	Diagonal Tie Plates on ditto	13	10/16	12 3/4	10/16
Ditto ditto at Bilge Keelson	14	do	Planksheer, materials and scantlings				
Size of Reversed Angle Iron, and No. at top of Floor Plate	3 1/2	3 9/16	Waterway ditto ditto				
Deck (No.) double Angle Iron, Plate, Tee, or Bulb Iron	8 1/2	9/16	Flat of Upper Deck, thickness and material	4 Pine	44	44	
,, double or single Angle Iron, on upper edge	3 1/2	3 9/16	,, how fastened to Beams	Screws bolts with nuts			
,, average space between	4 feet	4 feet	Ceiling betwixt Decks and in Hold, thickness and material	Red Pine	38 2/2		
Hold, or Lower Deck (No.) double Angle, Tee, Plate, or Bulb Iron	9	9/16	Clamps or Spirketting ditto				
,, double or single Angle Iron on upper edge	3 1/2	3 9/16	Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness	28		10/16	
,, average space between	4 feet	4 feet	Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams	13 1/4	10/16	13 1/2	10/16
Paddle, sided and moulded, thickness of Plate size of Angle Iron			Stringers in Hold Double Angle Iron 5x4 1/2 x 9/16 full 5x4 1/2 x 9/16				
Engine Sole plate of Keelson	21	-	Flat of Lower Deck, thickness and material	4 Pine	3		
Keelson, single or double plate, box, or intercostal			Main piece of Rudder, diameter at head	6 1/2		6	
Size of Plates	2 1/2	10/16	,, " at heel	3 1/2		3 1/4	
Size of Angle Irons	5x4 1/2 x 9/16	16	(Can the Rudder be unshipped afloat Yes)				
Side, single or dble, plate, box, or intercostal	3 1/2	3 9/16	Bulkheads, N. Thickness of 7/16				
Bilge (No.) at each Bilge, single, or double, plate, or box	5 4 1/2	7/16	,, Height up Main Deck				
angle iron	5 4 1/2	7/16	,, how secured to the sides of the ship Single frames & Bucket knees				
ansoms, material Iron or, if none, in what manner compensated for.			,, size of vertical angle irons 3 1/2 x 3 1/2 and their distance apart 30 ins.				
light-heads, and Hawse Timbers Iron			Riveted through plates with (1/8 in.) rivets, about (7 in) apart.				
Frames extend in one length from keel to Gunwale			Do the butt straps lap over and rivet through the lands of the stake below? No				
reverse angle irons on the floors extend in one length across the middle line from Bilge Keelson to Bilge Keelson and from thence to hold beam stringer on remaining floors			Do the butt straps lap over and rivet through the lands of the stake below? No				
" " " on the frames " " " from Middle line to lower hold Stringer thence to Gunwale			Do the butt straps lap over and rivet through the lands of the stake below? No				
Keelson, how are the various lengths of plates or angle irons connected? By butt straps			Do the butt straps lap over and rivet through the lands of the stake below? No				
Garboard, double or riveted to keel, double or at upper edge, with rivets (1/8 7/8 ins.) diameter, averaging (4 1/3 in.) apart.			Do the butt straps lap over and rivet through the lands of the stake below? No				
Edges from Garboards to upper part of bilge, worked clencher, double or single riveted; with rivets (in.) diameter, averaging (2 5/8 ins.) apart.			Do the butt straps lap over and rivet through the lands of the stake below? No				
Butts from Keel to turn of bilge, worked carvel with butt straps (12 7/8) thick, double or single riveted; with rivets (7/8 in.) diameter, averaging (2 5/8 ins.) apart.			Do the butt straps lap over and rivet through the lands of the stake below? No				
Edges from bilge to sheerstrake, worked carvel with a lining piece () thick, or clencher, double or single riveted; with rivets (7/8 in.) diameter, averaging (2 5/8 in.) apart.			Do the butt straps lap over and rivet through the lands of the stake below? No				
Edges of Sheerstrake, double or single riveted? At upper edge Single At lower edge double			Do the butt straps lap over and rivet through the lands of the stake below? No				
Butts from bilge to planksheers, worked carvel with butt straps (25 12/16) thick, double or single riveted; with rivets (7/8 in.) diameter, averaging (2 5/8 ins.) apart. Breadth of laps in double rivetting (5 in) Breadth of laps in single rivetting (none)			Do the butt straps lap over and rivet through the lands of the stake below? No				
Butt Straps of Keelsons, Stringer and Tie Plates, double or single riveted? Double			Do the butt straps lap over and rivet through the lands of the stake below? No				
Planksheer, how secured to the plating of the sides Explain by sketch None			Do the butt straps lap over and rivet through the lands of the stake below? No				
Waterway " " planksheer and to the Beams if necessary.			Do the butt straps lap over and rivet through the lands of the stake below? No				
Deck Beams, how secured to the side? By Bulk plate Knees welded to Beams			Do the butt straps lap over and rivet through the lands of the stake below? No				
Hold or Lower Deck ditto and riveted to frames			Do the butt straps lap over and rivet through the lands of the stake below? No				
Paddle " "			No. of breasthooks Four crutches Four				

What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.? Beams & Angle Iron

Manufacturer's name or trade mark

We certify that the above is a correct description of the several particulars therein given.

Builder's Signature (sgd) Thomas Rayden & Son Surveyor's Signature (sgd) Will C. Davy's Register Foundation

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 riveted 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 fay 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? Solid nearly all in single

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? very few

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.)

Main Mast 62 ft 29 ins } of two plates $\frac{7}{16}$ thick
Fore 58 x 29 .. } and $\frac{6}{16}$ at head. 4 angle Irons run the whole length $4\frac{1}{2} \times 3 \times \frac{9}{16}$
Mizen 53 x 23 .. } Seams single riveted
Bowsprit 23 x 26 .. } and butts double riveted
Butt straps $9 \times \frac{5}{16}$

She has SAILS.

Fore & Main Yard 81 ft x 18 Cross Jack 60 ft x 15 of two plates $\frac{5}{16}$ in the middle & $\frac{4}{16}$ at ends 3 Angle Irons $3 \times 2\frac{1}{2} \times \frac{6}{16}$ Edges single riveted, treble riveted Butts in the centre & double at ends Fore & Main topsail yards 68 ft x 16. Mizen topsail yards 49 x 14 Fore Main upper Topsail yards 62 ft x 15 made as lower yards but with 2 Angle irons $3 \times 2\frac{1}{2} \times \frac{6}{16}$

ANCHORS, and their weights.

N. ^o .	Fore Sails,	Dimensions.	Inches.	Tested to Tons.	N. ^o .	Weight. Ex. Stock	Tested in Tons.
2	Chain	300	$1\frac{3}{16}$	59	Bowers,		
2	Hempen Stream Cable	90	1		3	32. 3. 24	30. 1.
2	Hawser	90	9			27. 3. 0	26. 1.
2	Towlines	90	$11\frac{1}{2}$		Stream,		
2	Warp	180	8		Kedges,		
	All of good quality.					7. 0. 8	
						3. 1. 0	

Her Standing and Running Rigging is wire & Hemp sufficient in size and good in quality.

She has Life Boats Long Boat and 2 Pinnaces & a gig

The present state of the Windlass is Good Capstans 3 87° and Rudder good Pumps 3 Ho & 2 Bilge Pumps

Order for Special Survey DATES of Surveys held while building

No. 419 Date 18/11/66

Order for Ordinary Survey as per Section 18.

No. _____ Date _____

1st. On the several parts of the frame, when in place, and before the plating was wrought

2nd. On the plating during the progress of rivetting

3rd. When the beams were in and fastened, and before the decks were laid

4th. When the ship was complete, and before the plating was finally coated

5th. After the ship was launched

Special while Building

State if she has a Spar Deck No Poop 820 or Forecastle Yes

General Remarks,

This vessel is a sister ship to the British Envoy Rep 87-20127 The Angle Irons of Keelsons are small in one flange, but are fully in thickness; there are also 3 or 4 short intercostal plates at each end $\frac{10}{16}$ instead of $\frac{11}{16}$; the main keelson is much in excess of the Rules. There is also attached to the lower Hold Stringer a Bulk plate same sizes as the Hold Beams for $1\frac{1}{2}$ feet amidships and she has also an extra Stringer in Hold of Double Angle Irons same size as Keelson Angle Iron extending from Bulkhead to abreast of Mizen Mast

In what manner are the surfaces preserved from oxidation? Inside by Cement coating below bilges & paint as

Ditto

ditto

Outside

Paint

I am of opinion this Vessel should be Classed A

The amount of the Fee £ : : is received by me,

Special £ : :

Certificate (if required) £ : :

Committee's Minute Liverpool 2nd Nov 1866

(pgd) W.C. Davey

Character assigned

62-5141
10/1/82

