

IRON SHIP.

Recd 1/1/73

No. 2845 Survey held at Whitehaven Date, First Survey 21 July 1871 Last Survey 8 January 1873

On the Screw Steamer "Asiatic" Yard Number 41 Master Coxwell

TONNAGE under Tonnage Deck } 1788.11 ONE, OR TWO DECKED, THREE DECKED VESSEL.
 Ditto of Third, Spar, or Awning Deck. }
 Ditto of Poop, or Raised Or. Dk. } 171.71 DEPTH from upper part of Keel to top of Upper Deck Beams 25.55
 Ditto of Houses on Deck. } 22.08 GIRTH of Half Midship Frame (as per Rule) 38.5
 Ditto of Forecastle } 74.30 1st NUMBER for floors 81.08
 Tonnage 2066.20 1st NUMBER, if a THREE-DECKED VESSEL deduct 7 feet from depth & 4 feet from girth as per rule for 1870-71 1/4 in. frames 67.08
 Less Crew Space deduction LENGTH 299.95
 Less Engine Room 430.90 PROPORTIONS Breadths to Length 8.74
 Register Tonnage as put on Beam } 1635.30 Depths to Length—Upper Deck to Keel 11.663
 Main Deck to top of floors 18.006

Built at Whitehaven
 When built 1871-2 Launched 19 Sept 1872
 By whom built Whitehaven Shipbuilding Co. Limited
 Owners Union Steamship Company
 Port belonging to Southampton
 Destined Voyage Southampton to Africa
 If Surveyed while Building, Afloat, or in Dry Dock. While Building S.S. No. 192

LENGTH deck as Rule 290 Breadth Moulded 34 3/4 DEPTH top of Floors to Upper Deck Beams 23 6/2 Power of Engines 200 No. of Decks with flat laid Two
 Do. do. Main Deck Beams 15 9/2 No. of Tiers of Beams Three

	Inches in Ship.	Inches per Rule.		Inches in Ship.	Inches per Rule.
PL, depth and thickness	10 x 2 1/2	10 x 2 1/2	Flat Keel Plates, breadth and thickness	35	12 36 12
M, moulding and thickness	9 1/2 x 2 1/2	9 x 2 1/2	PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied	11	11 11
STERN POST for Rudder do. do. for Propeller	10 x 5	9 x 5	fm up. part of Bilge to lr. edge of Sh'rstrake	11	11
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24	Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Upr. or Spar Dk. Sh'rstrake.	10	10 10
FRAMES, Angle Iron, for 2/3 length amidships Do. for 1/3 at each end	4 3/4	4 3/4	Up. or Spar Dk Sh'rstrake, brdth & thickness	42	12 36 12
REVERSED FRAMES, Angle Iron	4 3/4	4 3/4	Butt Straps to outside plating, breadth & thickness	11	11
ORS, depth and thickness of Floor Plate at mid line for half length amidships	24	24	Lengths of Plating	48	48
thickness at the ends of vessel	14	14	Shifts of Plating, and Stringers	48	48
depth at 2/3 the half-bdth. as per Rule	14	14	Gunwale Plate on ends of Awning Spar, or Upper Deck Beams, breadth and thickness	49 1/2	8 49 1/2 8
at extended at the Bilges	48	48	Angle Iron on ditto	4 x 4	9 4 x 4 9
MS, Upper, Spar, or Awning Deck or d'ble Ang. Iron, Plate or Tee Bulb Iron	6 1/2	7 6 1/2	Tie Plates fore and aft, outside Hatchways	16 1/2	8 16 1/2 8
or double Angle Iron on Upper edge	2 1/2	2 1/2	Diagonal Tie Plates on Beams No. of Pairs, 5	16 1/2	8 16 1/2 8
average space... 4 feet			Planksheer material and scantling		
MS, Main or Middle Deck or d'ble Ang. Iron, Plate or Tee Bulb Iron	8 1/2	9 8 1/2	Waterways do. do.		
or double Angle Iron, on Upper Edge	3	3 1/2	Flat of Upper Deck do. do.		
average space... 4 feet			How fastened to Beams		
MS, Lower Deck, Hold or Orlop or d'ble Ang. Iron, Plate or Tee Bulb Iron	8 1/2	9 8 1/2	Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	49 1/2	10 49 1/2 10
or double Angle Iron on Upper Edge	3	3 1/2	Is the Stringer Plate attached to the outside plating?	yes	
average space... 16 feet			Angle Irons on ditto, No. 2	4 x 4	9 4 x 4 9
RELSONS Centre line, single or double plate, box, or intercostal, Plates	11	13 11	Tie Plates, outside Hatchways	16 1/2	10 16 1/2 10
Upper Plate	9	9	Diagonal Tie Plates on Beams, No. of pairs	5	16 1/2 10 16 1/2 10
Lower Plate to Intercostal Keelson	6	4 9 6 4 9	Waterways materials and scantlings		
Angle Irons	5 1/2	4 9 5 1/2 4 9	Flat of Middle Deck do. do.		
Double Angle Iron Side Keelson	5 1/2	4 9 5 1/2 4 9	How fastened to Beams		
Intercostal Plate	5 1/2	4 9 5 1/2 4 9	Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	36	9 36 9
do. Angle Irons	3	3 1/2 3 1/2 3 1/2	Is the Stringer Plate attached to the outside plating?	yes	
Attached to outside plating with angle iron	3	3 1/2 3 1/2 3 1/2	Angle Irons on ditto, No. 3	4 x 4	9 4 x 4 9
BILGE Angle Irons	5 1/2	4 9 5 1/2 4 9	Stringer or Tie Plates, outside Hatchways	4 x 4	9 4 x 4 9
do. Bulb Iron	8 1/2	9 8 1/2	Flat of Lower Deck	none	
do. Intercostal plates riveted to plating for 3/4 length	8 1/2	9 8 1/2	Ceiling betwixt Decks, thickness and material	2 1/2	3 1/2
BILGE STRINGER Angle Irons	5 1/2	4 9 5 1/2 4 9	in hold do. do.	3	3 1/2
Intercostal plates riveted to plating for 1/2 length	8	9 8	Main piece of Rudder, diameter at head	4	6 1/2
do. do.	8	9 8	do. at heel	4 1/2	3 1/2
MIDDLE STRINGER Angle Irons	3	3 1/2 3 1/2 3 1/2	Can the Rudder be unshipped afloat?	yes	
Transoms, material. Knight-heads. Hawse Timbers. <u>Seak Chocks</u>			Bulkheads No. 4. Thickness of	6 1/2	4 1/2
Windlass <u>Iron</u> Pall Bitt <u>Iron</u>			Height up to Main upper deck as per rule		

The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 7/8 in. Rivets, about 6 1/2 apart.
 The REVERSED ANGLE IRONS on floors and frames extend from middle line to above the Main Stringer angle and to upper Deck stringer alternately
 KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? yes And butts properly shifted? yes
 PLATING. Garboard, double riveted to Keel, with rivets 1/8 in. diameter, averaging 5/2 ins. from centre to centre.
 Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 7/8 in. diameter, averaging 4 ins. from centre to centre.
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 4 ins. from centre to centre.
 Butts of two Strakes at Bilge for 3/5 length, treble riveted with Butt Straps 1/10 thicker than the plates they connect.
 Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7/8 in. diameter, averaging 4 3/4 ins. from cr. to cr.
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 4 3/4 ins. from cr. to cr.
 Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted.
 Butts of Main Sheerstrake, double riveted for all length amidships. Butts of Upper or Spar Sheerstrake, treble riveted 1/2 length amidships.
 Butts of Main Stringer Plate, treble riveted for all length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for 1/2 length.
 Breadth of laps of plating in double riveting 5 1/4 Breadth of laps of plating in single riveting 5 1/4
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? as prescribed in the rules
 Waterway, how secured to Beams Iron Gutter (Explain by Sketch, if necessary) Cemented Stringers and Keelsons
 Beams of the various Decks, how secured to the sides? Welded Keels riveted to frames No. of Breasthooks, Cemented Catches, at ends
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? the best quality iron and the best
 Manufacturer's name or trade mark, angle iron for the keelsons and stringers from the Stockton Malleable Iron Co. and the plating from the West Cumberland and Cumbria Iron Company, Workington.

The above is a correct description.
 Builder's Signature, Whitehaven Shipbuilding Co. Limited Surveyor's Signature, J. W. Miles
James Watterson
M. M. M. M.

Workmanship. Are the butts of plating planed or otherwise fitted? *They are planed* 10949 Iron
 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*
 Are the fillings between the ribs and plates solid single pieces? *Solid pieces*
 Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *yes*
 Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *yes*
 Do any rivets break into or through the seams or butts of the plating? *a few in the butts*

Masts, Bowsprit, Yards, &c., are _____ in *good* condition, and sufficient in size and length. If of Iron or Steel give 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 riveting, quality of Materials, and if stamped with Maker's name.

State also Length and Diameter of Lower Masts and Bowsprit *The Foremast Main Mast and lower Yards are constructed of Iron, - Sketch and dimensions herewith.*

NUMBER for EQUIPMENT	Fathoms.	Inches.	Test per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	Wght req'd per Rule.	Test req'd per Rule.
	300	1 7/8	63.5.0.0	1 3/4	55.2.0.0	Bowers ...	3	30.3.2229.6.2.2130.0.0	28.12.0.0		
						(Machine where Tested, date, and name of Superintendent.)		30.0.2428.16.1.0			
						Stream ...		25.2.0.25.3.3.0	25.2.0		
	90	11		11				1.12.0.1	12.0.0		
	90	1 1/6				Kedges ...	2	6.0.0	6.0.0		
	90	9 1/2		11				3.0.20	3.0.0		
	90	1 1/2		4							

Standing and Running Rigging *wire & Hemp* sufficient in size and *good* in quality. She has *2* Life Long Boats and *4* others
 The Windlass is *good & well secured* Capstan *Steam* and Rudder *good* Pumps *good*

Engine Room Skylights.—How constructed? *Iron Coverings & Wood sash frames* How secured in ordinary weather? *Leak top frame secured to Iron Covering*

What arrangements for deadlights in bad weather? *fitted with dead lights of wood and bulls eyes let in.*

Coal Bunker Openings.—How constructed? *of Cast Iron* How are lids secured? *by turning in lid plates* Height above deck? *about 1 inch*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Scuppers made in the sides at the height of the upper deck stringer plate, & ports cut in bulwark above.*

Cargo Hatchways.—How formed? *plate Iron Coverings Iron Carlings, and the hatches of wood*

State size Main Hatch *15.10 x 10.0* Forehatch *8.0 x 7.0* Quarterhatch *8.0 x 7.0*

If of extraordinary size, state how framed and secured? *with Carlings and half beams where required*

What arrangement for shifting beams? _____

Hatches, If strong and efficient? *They are*

Order for Special Survey No. *192* DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought *Built under*
 Date *29 April 1871* Surveys held 2nd. On the plating during the progress of riveting *Special Survey between the*
 Order for Ordinary Survey No. _____ while building 3rd. When the beams were in and fastened, and before the decks were laid *21st July 1871*
 Date _____ as per 4th. When the ship was complete, and before the plating was finally coated or cemented *and the*
 No. *4* in builder's yard. Section 18. 5th. After the ship was launched and equipped *present date*

General Remarks,

The Testing Certificates for the Anchors and Chain Cables have been produced from the Staffordshire Public Chain and Anchor Testing Company signed by MK Reade.

This vessel has been built from the same Model and Specifications as (No. 2) the "Vigretia", the recommendations of the principal Surveyors in that Case, dated 29th March 1871, being also fully complied with in this, and the scantlings have accordingly been compared with them and the Rules in force at the time the vessel was commenced.

A full Poop 93 ft before Rudder post, and topgallant, Forecastle 46 ft long, have been added, the frames beams plating stringers waterways & deck in conformity with the Section submitted; the upper deck Sheerstrake is doubled for 24 ft at the Peak of Poop, a clamp plate 12 1/2 x 8 1/6 x 29 ft is also fitted on the inside of the frames close under the upper deck beams, and a partial bulkhead has been fitted at the fore end of the Poop to give strength transversely, as recommended by the principal Surveyors.

State if one, two or three decked vessel, or if spar or awning decked, and lengths of poop, forecastle or raised quarter deck, or of double or part double bottom.

How are the surfaces preserved from oxidation? Inside *Portland Cement to rigging & Paint* Outside *Oxide of Iron & other Paint*

I am of opinion this Vessel should be Classed *100 A 1*

The amount of the Entry Fee ... £ *5* : is received by me, *from The Whitehaven Shipbuilding Company*
 Special ... £ *74* :
 Certificate ... :

(Travelling Expenses) (if any) £ *410*

Committee's Minute *10th Jan'y 1873*

Character assigned *100 A 1* *Three decks* *M.C.*