

# IRON SHIP.

No. 24359 Survey held at Liverpool Date, First Survey Aug 12 Last Survey Sept 14 1874  
 On the SS "Calabar" Yard Number — Master P. W. Hutchison  
 Tonnage under Deck 981 ONE, OR TWO DECKED, THREE DECKED VESSEL.  
 Ditto of Third, Spar, or Awning Deck. — SPAR, OR AWNING-DECKED VESSEL.  
 Ditto of Poop, or Raised Quarter. 134 HALF BREADTH (moulded) 15.6  
 Ditto of Houses on Deck — DEPTH from upper part of Keel to top of Upper Deck Beams 21.1  
 Ditto of Forecastle — GIRTH of Half Midship Frame (as per Rule) 31.2  
 Gross Tonnage 1122 1st NUMBER 67.9  
 Less Crew Space — 1st NUMBER, if THREE-DECKED VESSEL —  
 Less Engine Room — LENGTH 257.0  
 Register Tonnage 713 2nd NUMBER 1741.75  
 as cut on Beam — PROPORTIONS—Breadths to Length between 8 & 9 times  
 Depths to Length—Upper Deck to Keel 8.1 12 & 13 "  
 Main Deck ditto —  
 Built at Glasgow  
 When built 1864 Launched —  
 By whom built Randolph, Eldon & Co.  
 Owners P. W. Hutchison  
 Port belonging to London  
 Destined Voyage China via London  
 If Surveyed while Building, Afloat, or in Dry Dock.  
Afloat in drying dock

LENGTH on deck as per Rule 257 Feet. Inches. BREADTH Moulded 31 Feet. Inches. DEPTH top of Floors to Upper Deck Beams 19 Feet. Inches. 4 Power of Engines 250 Horse. N° of Decks with flat laid 2 N° of Tiers of Beams 2

Dimensions of Ship per Register, length, 260.5 breadth, 31.6 depth, 19.22

	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	16ths. required	16ths. required
KEEL, depth and thickness	9 x 2 1/2	9 x 2 1/2				
STEM, moulding and thickness	9 x 2 1/2	8 1/2 x 2 1/2				
STERN-POST for Rudder do. do.	9 x 4 1/2	8 1/2 x 5				
for Propeller	3 x 4 1/2					
Distance of Frames from moulding edge to moulding edge, all fore and aft	10	24				
FRAMES, Angle Iron, for 1/2 length amidships	4 1/2	3	7	4	3	7
Do. for 1/2 at each end	3	3	6	3	3	6
REVERSED FRAMES, Angle Iron	3	3	6	3	3	6
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	21	9	20 1/2	8		
thickness at the ends of vessel	—	—	8	—	7	
depth at 1/2 the half-bdth. as per Rule	13	—	—	—	—	
height extended at the Bilges	well up	40	—	—	—	
BEAMS, Upper, Spar, or Awning Deck Single or double Angle Iron, Plate or Tee Bulb Iron	8	—	7 1/2	—	7	
Single or double Angle Iron on Upper edge	2 1/2	2 1/2	5	3	2 1/2	5
Average space	36	—	40	—	—	
BEAMS, Main or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron	—	—	—	—	—	
Single, or double Angle Iron, on Upper Edge	—	—	—	—	—	
Average space	—	—	—	—	—	
BEAMS, Lower Deck, Hold or Orlop Single or double Angle Iron, Plate or Tee Bulb Iron	8	—	7 1/2	—	7	
Single or double Angle Iron on Upper Edge	2 1/2	2 1/2	5	3	2 1/2	5
Average space	36	—	40	—	—	
KEELSONS Centre line, single or double plate, or Intercoastal, Plates	27	—	8	25	—	8
Rider Plate	—	—	—	—	—	
Bulb Plate to Intercoastal Keelson	—	—	—	—	—	
Angle Irons	6	4	10	5	4	9
Double Angle Iron Side Keelson	—	—	—	—	—	
Side Intercoastal Plate	as per sketch	—	—	—	—	
do. Angle Irons	—	—	—	—	—	
Attached to outside plating with angle iron	—	—	—	—	—	
BILGE Angle Irons	see sketch	5	4	9		
do. Bulb Iron	—	—	—	—	—	
do. Intercoastal plates riveted to plating for length	—	—	—	—	—	
BILGE STRINGER Angle Irons	6	4	10	5	4	9
Intercoastal plates riveted to plating for length	—	—	—	—	—	
SIDE STRINGER Angle Irons	—	—	—	—	—	
Transoms, material. Knight-heads. Hawse Timbers.	Iron & Wood					
Windlass	Iron					
Pall Bitt	—					

Flat Keel Plates, breadth and thickness —  
 PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges or doubling at Bilge, or increased thickness, and length applied 2 1/2 ft. 10 in. 2 Strakes 11 in. 10  
 fin up. part of Bilge to l. edge of Sh'rstrake  
 Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Main to Upper Spar Dk Sh'rstrake. Up. Spar Dk Sh'rstrake, breadth & thickness 37 8 1/2 40 12 2 = 14 1/2  
 Butt Straps to outside plating, breadth & thickness 8 1/2  
 Lengths of Plating 8 1/2  
 Shifts of Plating, and Stringers well arranged  
 Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness 31 8 1/2 42 1/2 10 1 1/2 = 1 1/2  
 Angle Iron on ditto 4 x 4 7 5 x 4 9  
 Tie Plates fore and aft, outside Hatchways 12 6 12 10  
 Diagonal Tie Plates on Beams No. of Pairs, 3 13 6 12 10  
 Planksheer material and scantling from gutter  
 Waterways do. do. do.  
 Flat of Upper Deck do. do. 4 x 4 Pine 4  
 How fastened to Beams nut & screw bolts  
 Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness —  
 Is the Stringer Plate attached to the outside plating? —  
 Angle Irons on ditto, No. —  
 Tie Plates, outside Hatchways —  
 Diagonal Tie Plates on Beams, No. of pairs —  
 Waterways materials and scantlings —  
 Flat of Middle Deck do. do. —  
 How fastened to Beams —  
 Stringer Plates on ends of Lower Deck, Hold or Orlop Beams 24 7 27 9  
 Is the Stringer Plate attached to the outside plating? No  
 Angle Irons on ditto, No. one 3 1/2 x 7 4 x 4 9  
 Stringer or Tie Plates, outside Hatchways —  
 Flat of Lower Deck 3 x Pine  
 Ceiling betwixt Decks, thickness and material 2 1/2 3 Pine  
 in hold do. do. —  
 Main piece of Rudder, diameter at head 5 6  
 do. at heel 3 1/4 3 1/4  
 Can the Rudder be unshipped afloat? No  
 Bulkheads No. 5 Thickness of plates — 5 x 6 6  
 Height up To upper deck  
 How secured to sides of ship Four 16 frames  
 Size of Vertical Angle Irons 4 x 2 1/2 x 5 1/4 and distance apart 30 ins.  
 Are the outside Plates doubled two spaces of Frames in length? Yes

The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 3/4 in. Rivets, about 5 apart.  
 The REVERSED ANGLE IRONS on floors and frames extend from middle line to Hold beam Stringer and to Gunwale 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 1/4 in. diameter, averaging 5 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 3 ins. from centre to centre.  
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 1/2 ins. from centre to centre.  
 Butts of — Strakes at Bilge for — length, treble riveted with Butt Straps — thicker than the plates they connect.  
 Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 13/16 in. diameter, averaging 2 1/2 ins. from cr. to cr.  
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 13/16 in. diameter, averaging 3 ins. from cr. to cr.  
 Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted. Double  
 Butts of Main Sheerstrake, treble riveted for — length amidships. Butts of Upper Spar Sheerstrake, treble riveted 1/2 length amidships.  
 Butts of Main Stringer Plate, treble riveted for — length amidships. Butts of Upper Spar Stringer Plate, treble riveted for Whole length.  
 Breadth of laps of plating in double riveting 4 1/2 Breadth of laps of plating in single riveting 2 1/2

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double  
 Waterway, how secured to Beams — (Explain by Sketch, if necessary.)  
 Beams of the various Decks, how secured to the sides? By welded knees No. of Breasthooks, 3 Crutches, —  
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Very good  
 Manufacturer's name or trade mark, No marks seen

The above is a correct description.

Builder's Signature, — Surveyor's Signature, E. J. Meeley



**Workmanship.** Are the butts of plating planed or otherwise fitted? *Not planed but are close fitted*  
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? *Single pieces*  
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *Where the rivets were renewed*  
Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *The workmanship was very good.*  
Do any rivets break into or through the seams or butts of the plating?

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 fore and main masts are of Iron, and  
the mizen mast of Pine, and are in good condition.*

*Certified by Mr. Pearce Lloyd's Surveyor  
not having seen these chains tested.*

*13414 Lm*

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N <sup>o</sup> .	Weight, Ex. Stock.	Test per Certificate.	Weight req'd per Rule.	Test req'd per Rule.
N <sup>o</sup> .	SAILS.	CABLES, &c.	315	1 3/4	55 1/10	2702	Bowers	1	30.3.7	30 3/4	25 1/2	25 3/20
	Fore Sails,	Chain ...	Test as per certificate appended.									
	Fore Top Sails,	(State Machine where Tested, Date, & name of Superintendent.)	Thos. H. Macleod, 7 Feb'y 1864									
	Fore Topmast Stay Sails	Hmptn Strm Cbl	90	11	10			1	28.2.20	29 1/2	27.2.20	28 12/20
	Main Sails,	Hawser	90	8	3		Stream	1	11.2.10		10.10	
	Main Top Sails,	Towlines	90	5	5		Kedges	1	6.3.10		5.2	
		Warp						1	3.0.4		2.3	
		quality <i>best</i>										

Standing and Running Rigging *Wire & hemp* sufficient in size and *good* in quality. She has *4* Long Boats and in *good* order.

The Windlass is *Good*. "Hawfields" Capstans *Good* and Rudder *Good* Pumps *Good*

Engine Room Skylights.—How constructed? *Wood framed* How secured in ordinary weather? —

What arrangements for deadlights in bad weather? *Iron guards*

Coal Bunker Openings.—How constructed? *Cast iron lids* How are lids secured? *By catch bolts* Height above deck? *Level*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Side ports & scuppers*

Cargo Hatchways.—How formed? *Wood Comings*

State size Main Hatch *9 ft + 8 ft* Fore hatch *6 ft + 6 ft* Quarter hatch *6 ft 6 in + 6 ft 6 in*

If of extraordinary size, state how framed and secured? —

What arrangement for shifting beams? —

Hatches, If strong and efficient? *Good and part new.*

Order for Special Survey No.

Date

Order for Ordinary Survey No.

Date

No. in builder's yard

DATES of Surveys  
held while building  
as per Section 18.

- 1st. On the several parts of the frame, when in place, and before the plating was wrought
- 2nd. On the plating during the process of riveting
- 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 or cemented..
- 5th. After the ship was launched and equipped

General Remarks, (State quality of workmanship &c.)

*Now done. Peeling all removed and part renewed, vessel chipped and scraped where necessary, cement removed in places, plating drilled in several sections and thicknesses ascertained as per tracing appended, a large number of the rivets in floor of bottom both in Boiler space and between B. renewed, upper deck from poop to forecabin nearly all renewed of Y. Pine, windlass repaired & refitted, cables ranged out & examined, cement renewed where required, and vessel painted inside and outside.*

*The scantlings have been compared by the Rules and found to conform favorably therewith. Of course vessels not built according to the Rules deficiencies will exist but we think the deficiencies herein are compensated by the excesses—seeing the spacing of frames, floors & beams are much less than if built by Rule, and their series in excess of same—also that the sheerstrake and upper deck stringer plate are doubled.*

*Three of the landing edges of the outside plating between bilge and sheerstrake are single riveted which should be double as per Rule.*

*She has now had a thorough overhaul and found in good and firm condition, has been well built, and is fully equipped we therefore lay to submit her for the Committee's favorable consideration whether she may not be Classed 100A1.*

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

*Has two decks—also full poop and full forecabin*

How are the surfaces preserved from oxidation? Inside *Paint & Cement* Outside *Paint*

I am of opinion this Vessel should be Classed *100A1*

The amount of the Entry Fee ... £ 5/- is received by me, *John*

Special ... £ 21/- : 20/10 1874

Certificate ...

(Travelling Expenses)  
(if any) £

Committee's Minute *Liverpool 20th Dec 1874*

General Committee *Oct 22 1874*

Character assigned *100A1* Figure *1* when

*machinery completed*

*Machinery Certificate attached*

*SS N-3-1874*

Lloyd's Register  
Foundation