

IRON SHIP.

1845-8

No. 11640 Survey held at Sunderland Date, First Survey September 13th 1876 Last Survey May 23rd 1877

On the Ship CÆSAREA Yard N^o 87. Master De Gruchy

TONNAGE under Tonnage Deck } 1210.98
Ditto of Third, Spar, or Awning Deck. }
Ditto of Deck, or Raised Qr. Dk. } 49.60
Ditto of House on Deck } 33.42
Ditto of Forecastle }
Gross Tonnage } 1294.00
Less Crew Space } 36.76
Less Engine Room }
Register Tonnage } 1257.24
as cut on Beam }

ONE, OR TWO DECKED, THREE DECKED VESSEL.
SPAR, OR AWNING DECKED VESSEL.
HALF BREADTH (moulded) 18.00
DEPTH from upper part of Keel to top of Upper Deck Beams 24.34
GIRTH of Half Midship Frame (as per Rule) . . . 37.25
1st NUMBER 79.59
1st NUMBER, if a THREE-DECKED VESSEL [deduct 7 feet]
LENGTH 218.5
2nd NUMBER 17,309
PROPORTIONS—Breadths to Length . . . under 7 1/2
Depths to Length—Upper Deck to Keel . . . 11-9
Main Deck ditto

Built at Sunderland
When built 1877 Launched 14 April
By whom built Doyford & Sand
Owners W^m Pellier of Jersey
Port belonging to London
Destined Voyage Bombay
Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 218 6 BREADTH Moulded 36 0 DEPTH top of Floors to Upper Deck Beams 22 3 Power of Engines . . . Horse. N^o. of Decks with flat laid Iron N^o. of Tiers of Beams Iron

Dimensions of Ship per Register, length, 229.5 breadth, 36.2 depth, 22.1

	Inches in Ship.	Inches per Rule.		Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	9 1/2 x 2 1/2	9 x 2 1/2	FRAMES, Angle Iron, for 1/2 length amidships	5 3 8	5 3 8
STEM, moulding and thickness	8 1/2 x 2 1/2	8 1/2 x 2 1/2	Do for 1/2 at each end	5 3 7	5 3 7
STERN-POST for Rudder do. do.	8 1/2 x 2 1/2	8 1/2 x 2 1/2	REVERSED FRAMES, Angle Iron	3 1/2 3 8	3 1/2 3 8
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24	FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	24 10	24 10
FRAMES, Angle Iron, for 1/2 length amidships	5 3 8	5 3 8	thickness at the ends of vessel	9.8	9.8
Do for 1/2 at each end	5 3 7	5 3 7	depth at 3/4 the half-bdth. as per Rule	13	12
REVERSED FRAMES, Angle Iron	3 1/2 3 8	3 1/2 3 8	height extended at the Bilges	8 1/2 8	8 1/2 8
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	24 10	24 10	BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3 3 7	3 3 7
thickness at the ends of vessel	9.8	9.8	Single or double Angle Iron on Upper edge	3 3 7	3 3 7
depth at 3/4 the half-bdth. as per Rule	13	12	Average space	Alternate frames	
height extended at the Bilges	8 1/2 8	8 1/2 8	BEAMS, Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3 3 7	3 3 7
BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3 3 7	3 3 7	Single or double Angle Iron, on Upper Edge	3 3 7	3 3 7
Single or double Angle Iron on Upper edge	3 3 7	3 3 7	Average space	Alternate frames	
Average space	Alternate frames		BEAMS, Lower Deck, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3 3 7	3 3 7
BEAMS, Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3 3 7	3 3 7	Single or double Angle Iron on Upper Edge	3 3 7	3 3 7
Single or double Angle Iron, on Upper Edge	3 3 7	3 3 7	Average space	Alternate frames	
Average space	Alternate frames		BEAMS, Lower Deck, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3 3 7	3 3 7
BEAMS, Lower Deck, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3 3 7	3 3 7	Single or double Angle Iron on Upper Edge	3 3 7	3 3 7
Single or double Angle Iron on Upper Edge	3 3 7	3 3 7	Average space	Alternate frames	
Average space	Alternate frames		KEELSONS Centre line, angle or double plate, box, or Intercoastal, Plates	17 12	17 12
KEELSONS Centre line, angle or double plate, box, or Intercoastal, Plates	17 12	17 12	Rider Plate	11 12	11 12
Rider Plate	11 12	11 12	Bulb Plate to Intercoastal Keelson	5 4 9	5 4 9
Bulb Plate to Intercoastal Keelson	5 4 9	5 4 9	Angle Irons	5 4 9	5 4 9
Angle Irons	5 4 9	5 4 9	Double Angle Iron Side Keelson	5 4 9	5 4 9
Double Angle Iron Side Keelson	5 4 9	5 4 9	Side Intercoastal Plate	3 1/2 3 8	3 1/2 3 8
Side Intercoastal Plate	3 1/2 3 8	3 1/2 3 8	do. Angle Irons	3 1/2 3 8	3 1/2 3 8
do. Angle Irons	3 1/2 3 8	3 1/2 3 8	Attached to outside plating with angle iron	3 1/2 3 8	3 1/2 3 8
Attached to outside plating with angle iron	3 1/2 3 8	3 1/2 3 8	BILGE Angle Irons	5 4 9	5 4 9
BILGE Angle Irons	5 4 9	5 4 9	do. Bulb Iron	5 4 9	5 4 9
do. Bulb Iron	5 4 9	5 4 9	do. Intercoastal plates riveted to plating for length	5 4 9	5 4 9
do. Intercoastal plates riveted to plating for length	5 4 9	5 4 9	BILGE STRINGER Angle Irons	5 4 9	5 4 9
BILGE STRINGER Angle Irons	5 4 9	5 4 9	Intercoastal plates riveted to plating for length	5 4 9	5 4 9
Intercoastal plates riveted to plating for length	5 4 9	5 4 9	SIDE STRINGER Angle Irons	5 4 9	5 4 9
SIDE STRINGER Angle Irons	5 4 9	5 4 9			

Flat Keel Plates, breadth and thickness . . . 36 11 36 11
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied 1/2 length 3 Strk 1 3 Strk 1
fin up. part of Bilge to l. edge of Sh'rstrake 10 10
Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake. 40 12 40 12
Upper Spar Dk Sh'rstrake, breadth & thickness
Butt Straps to outside plating, breadth & thickness 3 1/2 1 3/4 8. 13 9 1/2 1 3/4 8. 13
Lengths of Plating Five spaces of frame
Shifts of Plating, and Stringers Two spaces of frame
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness . . . 44 10 44 10
Angle Iron on ditto 5.4.9 5.4.9
Tie Plates fore and aft, outside Hatchways . . 13 10 13 10
Diagonal Tie Plates on Beams No. of Pairs, Planksheer material and scantling Gutter Gunwale
Waterways do. do. 4 1/2 P. 4
Flat of Upper Deck do. do. Iron nut and screw bolts
How fastened to Beams
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 32 9 32 9
Is the Stringer Plate attached to the outside plating?
Angle Irons on ditto, No.
Stringer or Tie Plates, outside Hatchways . . 13 9 13 9
Flat of Lower Deck 3 R.P. 3
Ceiling betwixt Decks, thickness and material . . 2 R.P. battens 1/2 in. 2 1/2 solid to Bilges
Main piece of Rudder, diameter at head . . . 6 6
do. at heel 3 3
Can the Rudder be unshipped afloat? yes
Bulkheads No. 1 Thickness of 7.6
Height up Upper Deck
How secured to sides of ship between double frames
Size of Vertical Angle Irons 3 1/2 x 3 1/4 and distance apart 30 ins.
Are the outside Plates doubled two spaces of Frames in length? yes

Transoms, material. Knight-heads. Hawse Timbers. Iron
Windlass Hayfields' patent Secured to plates &c
The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 7/8 in. Rivets, about 7 apart.
The REVERSED ANGLE IRONS on floors and frames, extend from middle line to Upper Deck on all frames
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 1/8 in. diameter, averaging 5 1/2 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 3 7/8 ins. from centre to centre.
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 7/8 ins. from centre to centre.
Butts of Three Strakes at Bilge for half length, treble riveted with Butt Straps 7/16 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 3 7/8 ins. from cr. to cr.
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 7/8 ins. from cr. to cr.
Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted.
Butts of Main Sheerstrake, treble riveted for half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.
Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for length.
Breadth of laps of plating in double riveting 5 1/4 Breadth of laps of plating in single riveting Nil
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double and Treble Riveted
Waterway, how secured to Beams Gutter Gunwale (Explain by Sketch, if necessary.)
Beams of the various Decks, how secured to the sides? Ends turned down riveted to frames No. of Breasthooks, Five Crutches, Four
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Stockton Mal. & Co.
Manufacturer's name or trade mark, Makers of angles, Bulbs and Plates.

The above is a correct description.
Builder's Signature, William Doyford Surveyor's Signature, Joseph Green
Surveyor to Lloyd's Register of British and Foreign Shipping.

1802472-0054

Workmanship. Are the butts of plating planed or otherwise fitted? *planed* 472
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? *yes* 18458 Iron
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? *in a few cases at the butts only*

Masts, Bowsprit, Yards, &c., are *Iron* 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 *See sketch appended*
Mast plate 1/16 bent cold with grain 45°
" " " " across " 56°
Yard " 3/16 " " with " 130°
" " " " across " 60°
See Letters 15th and 19th Jan 77
The Bowsprit and Mast caps of this Vessel are Solid Tringings
Good and efficient.

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
SAILS.		270		59 1/8	270-1 1/16	59 1/8	Bowers	1	32.2.0	30.10.00	32.0.0	30 1/10
Fore Sails,		Chain		82 3/4	82 3/4	82 3/4		1	31.1.0	29.11.1.0	32.0.0	30 1/10
Fore Top Sails,		Chain		82 3/4	82 3/4	82 3/4		1	27.2.26	26.18.3.0	27.1.0	26 1/10
Fore Topmast Stay Sails		Chain		82 3/4	82 3/4	82 3/4		1	27.2.26	26.18.3.0	27.1.0	26 1/10
Main Sails,		Chain		82 3/4	82 3/4	82 3/4		1	27.2.26	26.18.3.0	27.1.0	26 1/10
Main Top Sails,		Chain		82 3/4	82 3/4	82 3/4		1	27.2.26	26.18.3.0	27.1.0	26 1/10
and		Chain		82 3/4	82 3/4	82 3/4		1	27.2.26	26.18.3.0	27.1.0	26 1/10
Standing and Running Rigging		Chain		82 3/4	82 3/4	82 3/4		1	27.2.26	26.18.3.0	27.1.0	26 1/10
The Windlass is		Chain		82 3/4	82 3/4	82 3/4		1	27.2.26	26.18.3.0	27.1.0	26 1/10
Engine Room Skylights.		Chain		82 3/4	82 3/4	82 3/4		1	27.2.26	26.18.3.0	27.1.0	26 1/10
What arrangements for deadlights in bad weather?		Chain		82 3/4	82 3/4	82 3/4		1	27.2.26	26.18.3.0	27.1.0	26 1/10
Coal Bunker Openings.		Chain		82 3/4	82 3/4	82 3/4		1	27.2.26	26.18.3.0	27.1.0	26 1/10
Scuppers, &c.		Chain		82 3/4	82 3/4	82 3/4		1	27.2.26	26.18.3.0	27.1.0	26 1/10
Cargo Hatchways.		Chain		82 3/4	82 3/4	82 3/4		1	27.2.26	26.18.3.0	27.1.0	26 1/10
State size Main Hatch		Chain		82 3/4	82 3/4	82 3/4		1	27.2.26	26.18.3.0	27.1.0	26 1/10
If of extraordinary size, state how framed and secured?		Chain		82 3/4	82 3/4	82 3/4		1	27.2.26	26.18.3.0	27.1.0	26 1/10
What arrangement for shifting beams?		Chain		82 3/4	82 3/4	82 3/4		1	27.2.26	26.18.3.0	27.1.0	26 1/10
Hatches, If strong and efficient?		Chain		82 3/4	82 3/4	82 3/4		1	27.2.26	26.18.3.0	27.1.0	26 1/10

Standing and Running Rigging *S. J. Wand Rope* sufficient in size and *good* in quality. She has *4* *Long* Boats and *1* *fitted* *as a life boat*

The Windlass is *Harfield's patent* Capstan *good* and Rudder *good* Pumps *good and sufficient*

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

What arrangements for deadlights in bad weather?

Coal Bunker Openings.—How constructed? *How are lids secured?* *Height above deck?*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Scuppers and Ports in the Bulwarks*

Cargo Hatchways.—How formed? *Iron plates, in the usual manner*

State size Main Hatch *16 ft x 10 1/2 feet* Forehatch *8 feet x 6 feet* Quarterhatch *8 ft x 6 feet.*

If of extraordinary size, state how framed and secured? *Main hatch has shifting Beam and a*
What arrangement for shifting beams? *fine and off Carving*

Hatches, If strong and efficient? *Strong and efficient*

Order for Special Survey No. <i>1844</i>	1st. On the several parts of the frame, when in place, and before the plating was wrought	<i>Built under S. J. and Surveyor 1876 Sep. 13 Oct. 6 10 14 18 20 24</i>
Date <i>22nd August 76</i>	2nd. On the plating during the process of riveting	<i>26 Nov. 6 9 10 15 17 21 23 29 30 Dec. 4 11 14 19 22 77 Jan. 4 5 11 12 15 19 23 26 30 Feb.</i>
Order for Ordinary Survey No. <i>1</i>	3rd. When the beams were in and fastened, and the decks were laid	<i>15 9 13 15 16 22 24 27 March 14 12 15 22 23 28 April 14 6 9 12 16 18 20 24 28 May 1 3</i>
Date <i>✓</i>	4th. When the ship was complete, and before the plating was finally coated or cemented	<i>7 10 14 23</i>
No. <i>84</i> in builder's yard.	5th. After the ship was launched and equipped	

General Remarks (State quality of workmanship, &c.) *Good. See Letters 11th Sep. 2nd Aug. 76.*

This Vessel has a Raised Quarter Deck 48 feet long; a Deck House 43 1/2 feet by 14 1/4 ft; a Monkey-Forecastle 27 feet long

State if one, two, or three, decked vessel, or if open, or awning decked, and the lengths of *see above* fore, or raised quarter deck, and the length of double, or part double bottom.

How are the surfaces preserved from oxidation? Inside *Cement to Bilges paint above* Outside *Composition paint on Bottom; paint above*

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

The amount of the Entry Fee ... £ *5* : 0 : 0 is received by me, *HW*

Special ... £ *56* : 8 : 6 *23rd May 1877*

Certificate ...

(Travelling Expenses, if any, £ ...)

Committee's Minute *25th May, 1877.*

Character assigned *100A*

Joseph Keen.

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