

IRON SHIP.

No. 11536 Survey held at Sunderland Date, First Survey December 27/75 Last Survey November 1875

On the Barge "Beech Holm" Master G. A. Sorenson

TONNAGE under Tonnage Deck	<u>739.69</u>
Ditto of Third, Spar, or Awning Deck.	<u> </u>
Ditto of Upper Raised Qr. Dk.	<u>28.24</u>
Ditto of House on Deck	<u>10.15</u>
Ditto of Forecastle	<u>25.27</u>
Gross Tonnage	<u>803.35</u>
Less Crew Space	<u>40.16</u>
Less Engine Room	<u> </u>
Register Tonnage as cut on Beam	<u>763.19</u>

ONE TWO DECKED, TWO DECKED VESSEL.	
SPAR, OR AWNING DECKED VESSEL.	
HALF BREADTH (moulded)	<u>15.32</u>
DEPTH from upper part of Keel to top of Upper Deck Beams	<u>20.50</u>
GIRTH of Half Midship Frame (as per Rule)	<u>32.15</u>
1st NUMBER	<u>67.97</u>
1st NUMBER, if a THREE-DECKED VESSEL (deduct 7 feet)	<u> </u>
LENGTH	<u>185. -</u>
2nd NUMBER	<u>125.74</u>
PROPORTIONS—Breathths to Length	<u>6</u>
Depths to Length—Upper Deck to Keel	<u>9</u>
Main Deck ditto	<u> </u>

Built at Sunderland
 When built 1876 Launched Oct. 1875
 By whom built James Langley
 Owners R. H. Gayner, West
 Port belonging to Sunderland
 Destined Voyage Ceylon
 If Surveyed while Building, Afloat, or in Dry Dock.

PLANS CASE

LENGTH on deck as per Rule	Feet. <u>185</u> Inches. <u> -</u>	BREADTH Moulded	Feet. <u>30</u> Inches. <u>6</u>	DEPTH top of Floors to Upper Deck Beams	Feet. <u>18</u> Inches. <u>11</u>	Power of Engines	Horse. <u> -</u>	N ^o . of Decks with flat laid	<u>Over</u>
Dimensions of Ship per Register, length, <u>193.3</u> breadth, <u>30.8</u> depth, <u>18.75</u>								N ^o . of Tiers of Beams	<u>Two</u>

	Inches in Ship.			Inches per Rule.		
	In Ship.	In Ship.	16ths In Ship.	Inches required per Rule	Inches required per Rule	16ths required per Rule
KEEL, depth and thickness	<u>8x23/8</u>	<u>8x23/8</u>	<u>7</u>	<u>8x23/8</u>	<u>8x23/8</u>	<u>7</u>
STEM, moulding and thickness	<u>7x23/8</u>	<u>7x23/8</u>	<u>7</u>	<u>7x23/8</u>	<u>7x23/8</u>	<u>7</u>
TERN-POST for Rudder do. do.	<u>7x23/8</u>	<u>7x23/8</u>	<u>7</u>	<u>7x23/8</u>	<u>7x23/8</u>	<u>7</u>
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>22 ins</u>			<u>22 ins</u>		
FRAMES, Angle Iron, for 1/2 length amidships	<u>4</u>	<u>3</u>	<u>7</u>	<u>4</u>	<u>3</u>	<u>7</u>
Do. for 1/2 at each end	<u>4</u>	<u>3</u>	<u>7</u>	<u>4</u>	<u>3</u>	<u>7</u>
REVERSED FRAMES, Angle Iron	<u>4</u>	<u>3</u>	<u>7</u>	<u>4</u>	<u>3</u>	<u>7</u>
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	<u>20 1/2</u>	<u>20 1/2</u>	<u>8</u>	<u>20 1/2</u>	<u>20 1/2</u>	<u>8</u>
Thickness at the ends of vessel	<u>7</u>	<u>7</u>	<u>7</u>	<u>7</u>	<u>7</u>	<u>7</u>
Depth at 3/4 the half-bdth. as per Rule	<u>10 1/4</u>	<u>10 1/4</u>	<u>7</u>	<u>10 1/4</u>	<u>10 1/4</u>	<u>7</u>
Height extended at the Bilges	<u>a fair taper</u>			<u> </u>		
IRONS, Upper, Spar, or Awning Deck double Angle Iron, Plate or Tee Bulb Iron	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>
do. double Angle Iron on Upper edge	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>
Average space	<u>alternate frames</u>			<u> </u>		
BEAMS, Main, or Middle Deck	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Angle or d'ble Ang. Iron, Plate or Tee Bulb Iron	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
do. double Angle Iron, on Upper Edge	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Average space	<u> </u>			<u> </u>		
IRONS, Lower Deck, Hold, or Orlop	<u>8 1/2</u>	<u>8</u>	<u>8</u>	<u>8 1/2</u>	<u>8</u>	<u>8</u>
do. double Angle Iron, Plate or Tee Bulb Iron	<u>4</u>	<u>3</u>	<u>7</u>	<u>4</u>	<u>3</u>	<u>7</u>
do. double Angle Iron on Upper Edge	<u>4</u>	<u>3</u>	<u>7</u>	<u>4</u>	<u>3</u>	<u>7</u>
Average space	<u>every eighth frame</u>			<u> </u>		
KEELSONS Centre line, single or double plate, box, or intercostal, Plates	<u>13</u>	<u>10</u>	<u>10</u>	<u>13</u>	<u>10</u>	<u>10</u>
do. Rider Plate	<u>9 3/4</u>	<u>10</u>	<u>10</u>	<u>9 3/4</u>	<u>10</u>	<u>10</u>
do. Bulb Plate to Intercostal Keelson	<u>4 1/2</u>	<u>3 1/2</u>	<u>7</u>	<u>4 1/2</u>	<u>3 1/2</u>	<u>7</u>
do. Angle Irons	<u>4 1/2</u>	<u>3 1/2</u>	<u>7</u>	<u>4 1/2</u>	<u>3 1/2</u>	<u>7</u>
do. Double Angle Iron Side Keelson	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
do. Side Intercostal Plate	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
do. do. Angle Irons	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
do. Attached to outside plating with angle iron	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
BILGE Angle Irons	<u>4 1/2</u>	<u>3 1/2</u>	<u>7</u>	<u>4 1/2</u>	<u>3 1/2</u>	<u>7</u>
do. Bulb Iron	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
do. Intercostal plates riveted to plating for length	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
BILGE STRINGER Angle Irons	<u>4 1/2</u>	<u>3 1/2</u>	<u>7</u>	<u>4 1/2</u>	<u>3 1/2</u>	<u>7</u>
Intercostal plates riveted to plating for length	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
SIDE STRINGER Angle Irons	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

	Inches. In Ship.	16ths. In Ship.	Inches. required	16ths. required
Flat Keel Plates, breadth and thickness	<u>40</u>	<u>10</u>	<u>32</u>	<u>10</u>
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied	<u>alternately</u>	<u>9x8</u>	<u>alternately</u>	<u>9x8</u>
from up. part of Bilge to lr. edge of Sh'rstrake	<u>9x8</u>	<u> </u>	<u>9x8</u>	<u>9x8</u>
Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake.	<u>36</u>	<u>11</u>	<u>36</u>	<u>10</u>
Up. or Spar Dk Sh'rstrake, brdth & thickness	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Butt Straps to outside plating, breadth & thickness	<u>9 1/2 x 6 1/2</u>	<u>7 1/2 x 11</u>	<u>9 1/2 x 6 1/2</u>	<u>7 1/2</u>
Lengths of Plating	<u>2 spaces</u>			
Shifts of Plating, and Stringers	<u>2 spaces</u>			
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	<u>36</u>	<u>8</u>	<u>36</u>	<u>8</u>
Angle Iron on ditto	<u>4 1/2 x 3 1/2</u>	<u>7</u>	<u>4 1/2 x 3 1/2</u>	<u>7</u>
Tie Plates fore and aft, outside Hatchways	<u>10</u>	<u>8</u>	<u>10</u>	<u>8</u>
Diagonal Tie Plates on Beams No. of Pairs,	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Planksheer material and scantling	<u>Gutter gunwale</u>			
Waterways do. do.	<u>3 1/2 x 3 1/2</u>			
Flat of Upper Deck do. do.	<u> </u>			
How fastened to Beams	<u>Galvanized screw bolts & nuts</u>			
Stringer Plate on ends of Main or Middle Deck	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Beams, breadth and thickness	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Is the Stringer Plate attached to the outside plating?	<u>Yes</u>			
Angle Irons on ditto, No.	<u>3</u>	<u> </u>	<u>3 1/2 x 3 1/2</u>	<u>7</u>
Tie Plates, outside Hatchways	<u>4 1/2 x 3 1/2</u>	<u>7</u>	<u>4 1/2 x 3 1/2</u>	<u>7</u>
Diagonal Tie Plates on Beams, No. of pairs	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Waterways materials and scantlings	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Flat of Middle Deck do. do.	<u> </u>	<u> </u>	<u> </u>	<u> </u>
How fastened to Beams	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Stringer Plates on ends of Lower Deck, Hold or Upper Deck Beams	<u>27</u>	<u>7</u>	<u>27</u>	<u>7</u>
Is the Stringer Plate attached to the outside plating?	<u>Yes</u>			
Angle Irons on ditto, No.	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Stringer or Tie Plates, outside Hatchways	<u>2 1/2</u>	<u> </u>	<u> </u>	<u> </u>
Flat of Lower Deck	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Ceiling betwixt Decks, thickness and material	<u> </u>	<u> </u>	<u> </u>	<u> </u>
in hold do. do.	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Main piece of Rudder, diameter at head	<u>4 3/4</u>	<u> </u>	<u>4 3/4</u>	<u> </u>
do. at heel	<u>2 3/4</u>	<u> </u>	<u>2 3/4</u>	<u> </u>
Can the Rudder be unshipped afloat?	<u>Yes</u>			
Bulkheads No. <u>1</u> Thickness of <u>6 1/2</u>	<u> </u>			
Height up <u>Upper deck</u>	<u> </u>			
How secured to sides of ship	<u>Between double frames</u>			
Size of Vertical Angle Irons	<u>3 x 3 x 9/16 and distance apart 30 ins.</u>			
Are the outside Plates doubled two spaces of Frames in length?	<u>Yes</u>			

Transoms, material. Knights heads. Hawse Timbers. Iron
 Windlass Emmerson & Walker Pall Bitt Iron
 The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 1/4 in. Rivets, about 6 apart.
 The REVERSED ANGLE IRONS on floors and frames extend near middle line to Hold B^m Stringer A.I. 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 in. diameter, averaging 5 ins. from centre to centre.
 Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from centre to centre.
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 1/4 ins. from centre to centre.
 Butts of 2 Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 5/16 thicker than the plates they connect.
 Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 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 1/2 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.
 Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for length.
 Breadth of laps of plating in double riveting 1 1/2 Breadth of laps of plating in single riveting

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? double & treble throughout
 Waterway, how secured to Beams Gutter gunwale (Explain by Sketch, if necessary.)
 Beams of the various Decks, how secured to the sides? Turned down ends and riveted to frames & stringer plates
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Plates by Consett Iron Comp^y.
 Manufacturer's name or trade mark Angles & Bulbs by J. Snyack & Co.

The above is a correct description.
 Master's Signature, James Langley Surveyor's Signature, James Sibun
 Surveyor to Lloyd's Register of British and Foreign Shipping.

Workmanship. Are the butts of plating planed or otherwise fitted? Planed
 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? Yes
 Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes very well
 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 17407 Iron

Masts, Bowsprit, Yards, &c., are of 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 please see sketch attached; the seams of the Bowsprit are single riveted, but compensated by layer angles
dia 3 1/2 x 3 x 5/16

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.
2	Fore Sails,	270	15/8	47 1/2	270-1 1/16	47 5/10	Bowers	1	26.20	26.0.0.0	25.2.0	25 3/20
2	Fore Top Sails,							1	26.0.24	25.16.1.0	25.2.0	25 3/20
2	Fore Topmast Stay Sails	90	1					1	19.0.14	19.19.2.21	21.3.0	22 3/20
2	Main Sails,	90	10				Stream	1	11.0.0		10.2.0	
2	Main Top Sails,	90	5 1/2				Kedges		5.1.0		5.1.0	
	and others as usual	90	4 1/2						2.3.0		2.3.0	

Breaking strain applied to 3 links of each 15 fathoms 6 1/2 tons, tested at R.W.C. P.T. and signed by J. Hartness Capt 16/76
Tested at R.W.C.P. by J. Hartness and Certificate dated May 26th 1876 and 18th 76 respectively

Standing and Running Rigging of Iron and Rope sufficient in size and good in quality. She has one Long Boat and two others
 The Windlass is Hummerson & Walker's Patent Capstan of 2 kind and Rudder good Pumps 2 Main good.

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? 4 Ports and 3 Scuppers on each side.

Cargo Hatchways. How formed? Iron plate Comings & Headledges
 State size Main Hatch 11'0" x 7'0" Forehatch 5'6" x 4'6" Quarterhatch 7'4" x 4'6"

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

What arrangement for shifting beams? Oil

Hatches, If strong and efficient? Yes

Order for Special Survey No. 2605 Date 16th Decr. 1875
 Order for Ordinary Survey No. _____ Date _____
 No. 214 in builder's yard.

DATES of Surveys held while building as per Section 16.	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
	<u>Built under pl. and surveyed 1875 Decr 20th 76 Jan 15th 77 Feb 21st 77</u>	<u>March 14th 1876 April 3rd 76 May 12th 76</u>	<u>June 27th 76 July 15th 76 Aug 1st 76</u>	<u>Sept 5th 76</u>	<u>Oct 24th 76</u>

General Remarks (State quality of workmanship, &c.) This vessel is constructed with a raised Quarter deck about 37 feet in length; Top-gallant fore-castle about 26 feet in length, and a House on deck 19'6" x 12'0"; is fitted with Hummerson & Walker's Patent windlass, and diagonal tie-plates are fitted to the Fore and Main mast partners upon the upper deck, where the masts are to be wedged; She is built in accordance with the rules and the tracing of Midships Deck attached. The workmanship is of good quality and the Iron of which the masts are constructed has been submitted to both hot & cold tests and proved satisfactory

State if one, two, or three decked vessel, or if open or covering decked; and the lengths of quarter, fore-castle, or raised quarter deck, and the length of double, or part deck

How are the surfaces preserved from oxidation? Inside Portland Cement to upper turn Outside 3 Coats of paint

I am of opinion this Vessel should be Classed *100 A, 1, of Riggs & Paine above

The amount of the Entry Fee ... £ 5 : - : - is received by me, HW James Liburn

Special ... £ 38 : 3 : - 1st Decr. 1876
 Certificate ... - : - : -

(Travelling Expenses, if any, £ - - -)

Committee's Minute 5th December 1876

Character assigned 100 A 1
ALP

