

IRON SHIPS.

No. 2994 Survey held at West Hartlepool Date, First Survey 14th March Last Survey 11th Sept 1871
 the Steamer "Lisbon" Master Russell

under age Deck } <u>1294.28</u>	ONE, OR TWO DECKED, SPAR, OR AWNING- DECKED VESSELS.	THREE DECKED VESSELS.	Built at <u>West Hartlepool</u>
of Third Spar, Awning Deck. }	Half moulded breadth <u>15-10</u>	Half Moulded Breadth.... <u>15-10</u>	When built <u>1871</u> Launched <u>22nd July 1871</u>
to of Poop, or raised Qr. Dk. }	Depth from upper part of Keel to top of Upper Deck Beams <u>18-4</u>	Total Depth if three or more Decks <u>25-4</u>	By whom built <u>Dutton Gray & Co</u>
to of Houses on Deck } <u>39.55</u>	Girth of Half Midship Frame (as per Rule) .. <u>29-6</u>	Total Girth of Half Mid- ship Frame <u>36-6</u>	Owners <u>John Hall & Co</u>
to of Forecastle	1st Number <u>63-0</u>	3rd Number <u>77-0</u>	Port belonging to <u>London</u>
ose Tonnage <u>1333.78</u>	Length <u>240.6</u>	Length <u>240.6</u>	Destined Voyage <u>Spain</u>
ow Space, } <u>47.38</u>	2nd Number <u>12-10</u>	4th Number <u>186.77</u>	If Surveyed while Building, Afloat, or in Dry Dock.
as per Rule }	Depths to Length <u>14 1/2</u> <u>10 1/4</u>	Breadths to Length <u>14 1/2</u>	
on Tonnage, } <u>426.01</u>			
Beam.. }			
Room <u>426.01</u>			
er Tonnage, as a } <u>859.59</u>			
eamer, cut on Beam }			

Length on deck as per Rule, <u>240</u>	Feet. <u>31</u> Inches. <u>9</u>	Moulded Breadth, <u>31</u>	Feet. <u>31</u> Inches. <u>9</u>	Depths from top of Floors to Upper and Main Deck Beams, as per Rule <u>23</u>	Feet. <u>23</u> Inches. <u>6</u>	Power of Engines, <u>120</u>	Horse. <u>120</u>	Nº. of Decks with flat laid <u>Three</u>	Nº. of Tiers of Beams <u>Three</u>
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ensions of Ship per Register, length, 241-8 breadth, 32-1 depth, 23-2

	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.
if bar iron, depth and thickness	<u>8 1/2 x 2 3/4</u>	<u>8 1/2 x 2 3/4</u>						
centre through plate, depth and thickness	<u>7 1/2 x 2 3/4</u>	<u>7 1/2 x 2 3/4</u>						
if bar iron, moulding and thickness	<u>6 1/2 x 3 3/4</u>	<u>7 1/4 x 4 3/4</u>						
in-post for Rudder do. do.	<u>6 1/2 x 3 3/4</u>	<u>7 1/4 x 4 3/4</u>						
ern-post for Propeller	<u>13 1/2 x 3 1/2</u>	<u>12 3/4</u>						
istance of Frames from moulding edge to moulding edge, all fore and aft	<u>23</u>	(Class <u>100 A</u>)						
ames, size of Angle Iron, for 1/2 length amidships	<u>4</u>	<u>3</u>	<u>1 1/2</u>	<u>4</u>	<u>3</u>	<u>1 1/2</u>	<u>4</u>	<u>3</u>
Do. for 1/2 at each end	<u>4</u>	<u>3</u>	<u>1 1/2</u>	<u>4</u>	<u>3</u>	<u>1 1/2</u>	<u>4</u>	<u>3</u>
Reversed Frames, size of Angle Iron	<u>3</u>	<u>3</u>	<u>1 1/2</u>	<u>3</u>	<u>3</u>	<u>1 1/2</u>	<u>3</u>	<u>3</u>
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	<u>22</u>	<u>10 1/2</u>	<u>22</u>	<u>10 1/2</u>	<u>22</u>	<u>10 1/2</u>	<u>22</u>	<u>10 1/2</u>
Do. at the ends	<u>22</u>	<u>10 1/2</u>	<u>22</u>	<u>10 1/2</u>	<u>22</u>	<u>10 1/2</u>	<u>22</u>	<u>10 1/2</u>
Do. do. do. at Bilge Keelson	<u>20</u>	<u>10</u>	<u>20</u>	<u>10</u>	<u>20</u>	<u>10</u>	<u>20</u>	<u>10</u>
Do. height extended at the Bilges	<u>44</u>	<u>44</u>						
Beams, Upper, Spar, or Awning Deck (No. <u>63</u>)	<u>7</u>	<u>7 1/2</u>	<u>7</u>	<u>7 1/2</u>	<u>7</u>	<u>7 1/2</u>	<u>7</u>	<u>7 1/2</u>
single or double Angle Iron, Plate or Tee Bulb Iron	<u>2 1/2</u>	<u>2 1/2</u>	<u>5 1/2</u>	<u>2 1/2</u>	<u>5 1/2</u>	<u>2 1/2</u>	<u>5 1/2</u>	<u>2 1/2</u>
Single or double Angle Iron on Upper edge	<u>46</u>	<u>46</u>						
Average space	<u>46</u>	<u>46</u>						
Beams, Main or Middle Deck (No. <u>61</u>) single, or double Angle Iron, Plate or Tee Bulb Iron	<u>7 1/2</u>	<u>8 1/2</u>	<u>7 3/4</u>	<u>7 1/2</u>	<u>7 3/4</u>	<u>7 1/2</u>	<u>7 3/4</u>	<u>7 1/2</u>
Single, or double Angle Iron, on Upper Edge ..	<u>3</u>	<u>3</u>	<u>6 1/2</u>	<u>3</u>	<u>6 1/2</u>	<u>3</u>	<u>6 1/2</u>	<u>3</u>
Average space	<u>46</u>	<u>46</u>						
Beams, Lower Deck, Hold or Orlop (No. <u>47</u>)	<u>7 1/2</u>	<u>8 1/2</u>	<u>7 3/4</u>	<u>7 1/2</u>	<u>7 3/4</u>	<u>7 1/2</u>	<u>7 3/4</u>	<u>7 1/2</u>
single or double Angle Iron, Plate or Tee Bulb Iron	<u>3</u>	<u>3</u>	<u>6 1/2</u>	<u>3</u>	<u>6 1/2</u>	<u>3</u>	<u>6 1/2</u>	<u>3</u>
Single or double Angle Iron on Upper Edge	<u>46</u>	<u>46</u>						
Average space	<u>46</u>	<u>46</u>						
Keelson Centre line, single or double plate, box, or Intercoastal, size of Plates	<u>15</u>	<u>12 1/2</u>	<u>15</u>	<u>12 1/2</u>	<u>15</u>	<u>12 1/2</u>	<u>15</u>	<u>12 1/2</u>
Do. Bulb Plate to Intercoastal Keelson	<u>15</u>	<u>12 1/2</u>	<u>15</u>	<u>12 1/2</u>	<u>15</u>	<u>12 1/2</u>	<u>15</u>	<u>12 1/2</u>
Do. Size of Angle Irons	<u>15</u>	<u>12 1/2</u>	<u>15</u>	<u>12 1/2</u>	<u>15</u>	<u>12 1/2</u>	<u>15</u>	<u>12 1/2</u>
Do. Side Intercoastal Keelson, size of Plates ..	<u>27</u>	<u>15</u>	<u>3 1/2</u>	<u>15</u>	<u>3 1/2</u>	<u>15</u>	<u>3 1/2</u>	<u>15</u>
Do. Angle Irons on tops of Floors	<u>15</u>	<u>12 1/2</u>	<u>15</u>	<u>12 1/2</u>	<u>15</u>	<u>12 1/2</u>	<u>15</u>	<u>12 1/2</u>
Do. Bilge Keelson, Bulb Iron	<u>8</u>	<u>7 3/4</u>	<u>8</u>	<u>7 3/4</u>	<u>8</u>	<u>7 3/4</u>	<u>8</u>	<u>7 3/4</u>
Do. do. Intercoastal plates riveted to plating for length	<u>5</u>	<u>3 1/2</u>	<u>8 1/2</u>	<u>5</u>	<u>3 1/2</u>	<u>8 1/2</u>	<u>5</u>	<u>3 1/2</u>
Do. do. Angle Irons	<u>5</u>	<u>3 1/2</u>	<u>8 1/2</u>	<u>5</u>	<u>3 1/2</u>	<u>8 1/2</u>	<u>5</u>	<u>3 1/2</u>
Side Stringers (No. <u>one</u>) size of Angle Irons	<u>5</u>	<u>3 1/2</u>	<u>8 1/2</u>	<u>5</u>	<u>3 1/2</u>	<u>8 1/2</u>	<u>5</u>	<u>3 1/2</u>
Do. Intercoastal plates riveted to plating for length	<u>5</u>	<u>3 1/2</u>	<u>8 1/2</u>	<u>5</u>	<u>3 1/2</u>	<u>8 1/2</u>	<u>5</u>	<u>3 1/2</u>
Transoms, material <u>Plate</u> or, if none, in what manner compensated for.								
Night-heads <u>Plate</u> Hawse Timbers <u>Plate</u>								
Windlass <u>Patent Emerson & White</u> Fall Bitt <u>none</u>								
The Frames extend in one length from <u>Keel</u> to <u>gunwale</u>								
The Reverse Angle Irons on the floors and frames extend <u>across</u> the middle line to <u>above main deck stringers</u> and to <u>gunwale</u> alternately								
Keelsons. Are the various lengths of Plates and Angle Irons properly connected? <u>yes</u> And are their butts properly shifted? <u>yes</u>								
Plates, Garboard, double or <u>single</u> Riveted to Keel, double or <u>single</u> at upper edge, with Rivets (<u>1</u> in.) diameter, averaging (<u>5</u> ins.) from centre to centre.								
Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or <u>single</u> Riveted; with Rivets (<u>3/4</u> in.) diameter, averaging (<u>5 3/8</u> ins.) from centre to centre.								
Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes (<u>10 x 1/2</u>) thick, double or <u>single</u> Riveted; with Rivets (<u>3/4</u> in.) diameter averaging (<u>3 3/8</u> ins.) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? <u>no</u>								
Do. of <u>three</u> Strakes at Bilge for <u>half</u> length, treble riveted with Butt Straps <u>to</u> thicker than their plates. <u>4</u> butts <u>double & treble riveted</u> .								
Do. Edges from bilge to Main Sheerstrake, worked carvel with a lining piece (<u>10 x 1/2</u>) thick, or clencher, double or <u>single</u> riveted; with rivets (<u>3/4</u> in.) diameter, averaging (<u>3 3/8</u> ins.) from centre to centre.								
Do. Edges of Sheerstrake, Main, double or <u>single</u> Riveted. Upper, double or <u>single</u> Riveted. At upper edge <u>single</u> At lower edge <u>double</u>								
Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps (<u>7 3/4 x 9/16</u>) thick, double or <u>single</u> Riveted; with Rivets (<u>3/4</u> in.) diameter, averaging (<u>3 1/2</u> ins.) from centre to centre.								
Do. Butts of Main Sheerstrake, double or treble Riveted. Butts of Upper or Spar Sheerstrake, and Upper Deck Stringer Plate, double or treble Riveted for <u>half</u> length amidships. Breadth of laps of plating in double Riveting (<u>4 3/4</u>) Breadth of laps of plating in single Riveting (<u>2 3/4</u>)								
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? <u>Double & Treble</u>								
Planksheer, how secured to the plating of the sides. Waterway, how secured to the planksheer and to the Beams. (Explain by Sketch, if necessary.)								
Beams of the various Decks, how secured to the sides? <u>Beam End turned & secured to sides</u> No. of Breasthooks, <u>five</u> Crutches, <u>two</u>								
What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? <u>Good</u>								
Manufacturer's name or trade mark, <u>John McAlister & Co. Glasgow</u>								
We certify that the above is a correct description of the several particulars therein given.								
Builder's Signature, <u>Dutton Gray & Co</u> Surveyor's Signature, <u>A. J. G. G. G. G.</u>								

1620-64N201

Workmanship. Are the butts of plating planed or otherwise fitted? Planed 9381 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
Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? Solid in one length
Do the holes for riveting 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 plate and punched from the faying surfaces? yes
Are there any rivets which either break into or have been put through the seams or butts of the plating? A few in butts

Her Masts, Bowsprit, Yards, &c., are in good condition, and sufficient in size and length. If they are of ^{6/16} 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 riveting, quality of Materials, and if stamped with Maker's name. See Drawings
State also Length and Diameter of Lower Masts and Bowsprit See Drawings

Made with three plates in the round 6/16 at wedging tapered to 5/16 at head, edges double riveted 3/4 inch spaced & in centre to 10. Butts double riveted 5/8 then treble at deck with one plate doubled.
20544 The anchors & cables are to the small number furnished by Committee See Secretaries letter 24th July 1871.

Number for equipment		Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N ^o .	Weight Ex. Stock.	Test as per Certificate.	Weight req'd per Rule.	Test req'd per Rule.
SAILES.												
CABLES, &c.												
Chain		270	1 9/16	40-10-0-0	1 9/16	40-10-0-0	Bowers	3	21-1-14 21-3-14 18-2-0	21-10-0-14 22-5-0-14 10-0-5-0	21-0-0 21-0-0 10-0-0	21-12-0-0 21-12-0-0 9-0-0-0
Fore Sails, (State Machine where Tested, and name of Superintendent).		<u>At Sunderland 17th April 1871 John Hartnup Superintendent</u>										
Fore Top Sails, Hempen Stream		90	1				(State Machine where Tested, and name of Superintendent).					
Fore Topmast Stay Sails		90	1				<u>At Sunderland 17th April 1871 John Hartnup Superintendent</u>					
Main Sails, Cable		90	1				Stream	1	9-0-14		9-0-0	
Main Top Sails, Hawser		90	1									
Main Top Sails, Towlines		90	1									
Main Top Sails, Warp		90	1									
All of <u>good</u> quality.		120	3 1/2				Kedges	2	4-2-14 2-1-14		4-2-0 2-1-0	

Her Standing and Running Rigging Wire & Hemp sufficient in size and good in quality. She has five Long Boats and good Pumps 2 of 7 in. Metal One of Double Acting Piston

The present state of the Windlass is good Capstan good and Rudder good Engine Room Skylights.—How constructed? 3 1/2 feet from beams 3 1/2 in. How secured in ordinary weather? Flush Eyes

What arrangements are there for deadlights in such for bad weather? Flush Eyes

Coal Bunker Openings.—How constructed? Iron pipes let into hull How are lids secured? Iron covers How high above deck? Flush, all inside

Scuppers, &c.—What arrangements are there beyond the scuppers on deck, for clearing upper deck of water, in case of a sea coming on board? None in butts

Cargo Hatchways.—How formed? 7/16 Plate riveted to beams State size 11 ft. 6 in. x 9 ft. 6 in. at top 19 ft. 3 in. x 12 ft. 6 in.

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

What arrangement for shifting beams? 7/16 Plate in centre the whole depth of beams

Hatches, themselves, whether strong and efficient? Good Main Hatchways.—State size 23 ft. 2 in. x 12 ft. 4 in. height 9 ft. 6 in.

Order for Special Survey No. 367 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought, Special Survey
Date 14th July 1871 Surveys held 2nd. On the plating during the progress of riveting Seen twice each week during building
Order for Ordinary Survey No. while building 3rd. When the beams were in and fastened, and before the decks were laid
Date as per 4th. When the ship was complete, and before the plating was finally coated or cemented
No. 116 in builder's yard. Section 18. 5th. After the ship was launched and equipped

General Remarks, Forecastle frames all to the 1st height. Beams single angles 3 x 3 1/2 x 7/16. Stringer on end of 20. 26 x 7/16 Plating 5/16 Deck 3 in. Pine.
Fitted with water ballast tanks in fore & after hold frames cut off connection made with three plates. Side plates 7/16 angles on 20. 3 1/2 x 3 1/2 x 7/16 Web plates 6/16 angles on 20. 3 x 3 x 6/16 Top plating 6/16.
Two strakes of bilge plating increased to 1/2 in thickness in way of Engine & boiler space, & 1/2 before & abaft 20 for half length.

Don't forget

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

In what manner are the surfaces preserved from oxidation? Inside Painted with red lead Outside other part with zinc

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, J. M. P. & Co.

Special£ 57 : 3 : 0
Certificate : : I concur in the opinion that this vessel should be Classed 100 A 1.

(Travelling Expenses) (if any) £ None

Committee's Minute 26th September 1871

Character assigned 100 A 1

TRM ML

25/9/71 d's Register Foundation