

IRON SHIPS.

No. 37808 Survey held at London Date, First Survey 1870 Last Survey 21st Sept 1871
On the Iron Steamer "Viceroy" Master S. H. Bayly's

Length on Deck as per Rule <u>318</u> Breadth <u>37.6</u> Depth <u>27.7</u> Horse Power of Engines <u>240</u> No. of Decks with flat laid <u>2</u> No. of Tiers of Beams <u>2</u>	ONE, OR TWO-DECKED, SPAR OR AWNING-DECKED VESSELS. Half moulded breadth <u>18.8</u> Depth from upper part of Keel to top of Upper Deck Beams <u>22.99</u> Girth of Half Midship Frame (as per Rule) <u>36.33</u> 1st Number <u>78.12</u> Length <u>318</u> 2nd Number <u>2484216</u> Depths to Length <u>15000</u>	THREE DECKED VESSELS. Half Moulded Breadth <u>18.8</u> Total Depth if three or more Decks <u>29.99</u> Total Girth of Half Midship Frame <u>43.33</u> 3rd Number <u>92.12</u> Length <u>318</u> 4th Number <u>2929416</u> Breadths to Length <u>8.4</u>	Built at <u>London</u> When built <u>1871</u> Launched <u>21st July</u> By whom built <u>P. & H. Green</u> Owners <u>P. & H. Green</u> Port belonging to <u>London</u> Destined Voyage <u>India</u> If Surveyed while Building, Afloat, or in Dry Dock.
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Dimensions of Ship per Register, length 318.8 breadth 37.6 depth 27.7 upper deck 20.0 main deck 20.0
 Moulded Breadth 37.6 Depth from top of Floors to Upper and Main Deck Beams, as per Rule 27.9 Power of Engines 240 No. of Decks with flat laid 2 No. of Tiers of Beams 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
Keel, if bar iron, depth and thickness	8x3	11x2 1/2	10x2 1/2	10x2 1/2	10x5 1/2	10x5 1/2	10x5 1/2	10x5 1/2
Do. if centre through plate, depth and thickness	10x2 1/2	10x2 1/2	10x5 1/2	10x5 1/2	10x5 1/2	10x5 1/2	10x5 1/2	10x5 1/2
Stem, if bar iron, moulding and thickness	10x5 1/2	10x5 1/2						
Stern-post for Rudder do. do.	10x5 1/2	10x5 1/2						
Stern-post for Propeller	10x5 1/2	10x5 1/2						
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24	24	24	24	24	24	24
Names, size of Angle Iron, for 1/2 length amidships	5x3	5x3	5x3	5x3	5x3	5x3	5x3	5x3
Do. for 1/4 at each end	5x3	5x3	5x3	5x3	5x3	5x3	5x3	5x3
Reversed Frames, size of Angle Iron	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3	3 1/2 x 3
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	28x9/16	27x9/16	27x9/16	27x9/16	27x9/16	27x9/16	27x9/16	27x9/16
Do. at the ends	9/16	9/16	9/16	9/16	9/16	9/16	9/16	9/16
Do. do. do. at Bilge Keelson	10 1/2 x 9/16	10 1/2 x 9/16	10 1/2 x 9/16	10 1/2 x 9/16	10 1/2 x 9/16	10 1/2 x 9/16	10 1/2 x 9/16	10 1/2 x 9/16
Do. height extended at the Bilges	4 1/2 ft	4 ft	4 ft	4 ft	4 ft	4 ft	4 ft	4 ft
Beams, Upper, Spar, or Awning-Deck (No. 1) single or double Angle Iron, Plate or Tee Bulb Iron	7 1/2 x 7/16	7 1/2 x 7/16	7 1/2 x 7/16	7 1/2 x 7/16	7 1/2 x 7/16	7 1/2 x 7/16	7 1/2 x 7/16	7 1/2 x 7/16
Single or double Angle Iron on Upper edge	3 1/2 x 9/16	3 1/2 x 9/16	3 1/2 x 9/16	3 1/2 x 9/16	3 1/2 x 9/16	3 1/2 x 9/16	3 1/2 x 9/16	3 1/2 x 9/16
Average space	4 ft	4 ft						
Beams, Main or Middle Deck (No. 2) single or double Angle Iron, Plate or Tee Bulb Iron	9 1/2 x 9/16	9 1/2 x 9/16	9 1/2 x 9/16	9 1/2 x 9/16	9 1/2 x 9/16	9 1/2 x 9/16	9 1/2 x 9/16	9 1/2 x 9/16
Angle, or double Angle Iron, on Upper Edge	3 1/2 x 7/16	3 1/2 x 7/16	3 1/2 x 7/16	3 1/2 x 7/16	3 1/2 x 7/16	3 1/2 x 7/16	3 1/2 x 7/16	3 1/2 x 7/16
Average space	4 ft	4 ft						
Beams, Lower Deck, Hold or Orlop (No. 10) single or double Angle Iron, Plate or Tee Bulb Iron	10 x 9/16	10 x 9/16						
Angle or double Angle Iron on Upper Edges	4 x 9/16	4 x 9/16						
Average space	20 ft	20 ft						
Keelson Centre line, single or double plate, box, or Intercoastal, size of Plates	25 x 1/2	25 x 1/2						
Do. Side Plate to Intercoastal Keelson	8 1/2 x 7/16	8 1/2 x 7/16	8 1/2 x 7/16	8 1/2 x 7/16	8 1/2 x 7/16	8 1/2 x 7/16	8 1/2 x 7/16	8 1/2 x 7/16
Do. Size of Angle Irons	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16
Do. Side Intercoastal Keelson, size of Plates	25 x 1/2	25 x 1/2						
Do. Angle Irons on tops of Floors	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16
Do. Bilge Keelson, Bulb Iron	10 1/2 x 9/16	10 1/2 x 9/16	10 1/2 x 9/16	10 1/2 x 9/16	10 1/2 x 9/16	10 1/2 x 9/16	10 1/2 x 9/16	10 1/2 x 9/16
Do. do. Intercoastal plates riveted to plating for 1/2 length amidships	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16
Do. do. Angle Irons	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16
Side Stringers (No. 1) size of Angle Irons	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16	6 x 4 x 9/16
Do. Intercoastal plates riveted to plating for 1/2 length amidships	9 x 9/16	9 x 9/16						

Transoms, material or, or, if none, in what manner compensated for.
 Knight-heads Hawse Timbers
 Windlass W. & H. Harfield's Pall Bitt not any

The Frames extend in one length from Keel to Gunnwale, Riveted through plates with 3/8 in. Rivets, about 7/2 apart.
 The Reverse Angle Irons on the floors and frames extend from the middle line from Bilge to Bilge and to the Main Deck and to Deck Stringers alternately

Are the various lengths of Plates and Angle Irons properly connected? Yes And are their butts properly shifted? Yes
 Edges, Garboard, double or Riveted to Keel, double or at upper edge, with Rivets 1/2 in. diameter, averaging 4.4 ins. from centre to centre.
 Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets 7/8 in. diameter, averaging 4 ins. from centre to centre.
 Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes 3/16 thick, double or single Riveted; with Rivets 7/8 in. diameter averaging 4 ins. from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? They lay in the strakes.

Edges of Sheerstrake, Main, double or single Riveted. Upper, double or single Riveted. At upper edge single At lower edge double
 Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps 1/4 thick, double or single Riveted; with Rivets 7/8 in. diameter, averaging 4 ins. from centre to centre.
 Butts of Main Sheerstrake, double or treble Riveted. Butts of Upper or Spar Sheerstrake, and Upper Deck Stringer Plate, double or treble Riveted for half length amidships. Breadth of laps of plating in double Riveting 5 1/2 in. Breadth of laps of plating in single Riveting 1 1/2 in.

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? part treble and part double riveted
 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? by cross pieces and by Bolt Plates No. of Breasthooks, 3 Crutches, 3

What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Cast Iron
 Manufacturer's name or trade mark, Hopkins & Co.

We certify that the above is a correct description of the several particulars therein given.
 Builder's Signature, P. & H. Green Surveyor's Signature, M. H. Green

5620-644NOR

9385 Iron

Workmanship. Are the butts of plating planed or otherwise fitted? part planed the remainder hammered
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
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 the butts.

Her Masts, Bowsprit, Yards, &c., are in good condition, and sufficient in size and length. If they are of 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.

State also Length and Diameter of Lower Masts and Bowsprit Main Mast 135ft - 27in diam
Main Mast 141 - - - - -
Mizen Mast 115 - - - - -

See Remarks attached
Lloyd's Cert Poplar
Brit. Supr. 26 Aug 1871.

Rate Docks Jardine
"Public Dock"
John M. Connors
Resident Engineer

No.	SAILS.	CABLES, &c.	Fathoms.	Inches.	Tons Test as per Certificate.	In. req'd per Rule.	Tons Test req'd per Rule.	ANCHORS, &c.	No.	Weight. Ex. Stock.	Test as per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
	Fore Sails,	Chain	157	1 1/2	63 2/3	1 7/8	63 2/3	Bowers		20 2 21	33 5/8	24 0 0	23 1 1/2
	Fore Top Sails,	(State Machine where Tested, and name of Superintendent).	157	1 1/2	63 2/3	1 7/8	63 2/3	(State Machine where Tested, and name of Superintendent).		35 1 26	32 5/8	24 0 0	23 1 1/2
	Fore Topmast Stay Sails	Hempen Stream Cable	90	1 3/4	18			Stream		20 2 21	29 1/2	28 1 0	27
	Main Sails,	Hawser		13		11	Each			13 2 16		13 2 0	
	Main Top Sails,	Towlines		11 1/2		11	90 tons			7 0 0		6 3 0	
		Warp		7 1/2		7 1/2				3 2 0		3 1 0	
		All of <u>good</u> quality.						Kedges					

Her Standing and Running Rigging Pinna and Home sufficient in size and good in quality. She has three Long Boats and three others

The present state of the Windlass is good Capstan good and Rudder good Pumps 4th and 5th in each compartment

Engine Room Skylights.—How constructed? Strong and efficient How secured in ordinary weather? with hook-levers of iron

What arrangements are there for deadlights in such for bad weather? Teak dead lights fitted with Bull Eyes.

Coal Bunker Openings.—How constructed? iron frame and plate How are lids secured? with lock How high above deck? flush

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? See hatchway ports on each side exclusive of gangway ports.

Cargo Hatchways.—How formed? iron frame and plate. State size 13ft 10in x 10ft 10in 15ft 6in x 10ft 10in
If of extraordinary size, state how framed and secured? and 7ft 9in x 7ft 9in

What arrangement for shifting beams? the win beam across main hatch 18 x 5/8 with double angle iron 3 x 3 x 7/8

Hatches, themselves, whether strong and efficient? Strong and efficient Main Hatchways.—State size 15ft x 10ft 10in

Order for Special Survey No.	DATES of	1st.	2nd.	3rd.	4th.	5th.
	Surveys held	On the several parts of the frame, when in place, and before the plating was wrought	On the plating during the progress of riveting	When the beams were in and fastened, and before the decks were laid	When the ship was complete, and before the plating was finally coated or cemented	After the ship was launched and equipped
	while building					
	as per					
	Section 18.					

General Remarks. This vessel is well built and is fitted with a full fore-castle 45ft x 8ft the beams of which are of tub-plate 6 x 3/4 with double angle iron 2 1/2 x 2 1/2 x 5/8 on upper edge and attached to alternate frames.

She has a water ballast tank in fore hold extends from fore most bulkhead to about 44ft abaft same the framing is of angle iron 3 x 3 x 5/8 and plating 9/16 thick. The latter secured home against the stiver-plating and efficiently riveted thereto. Cross-plates 7/8 thin compensated for by the introduction of three main frames throughout the range of the ship each being 5 x 3 x 9/16 and averaging 5ft in length. Upper sheer strake on upper edge with plating 1 1/2 x 1 1/2 for 80ft amidships and tapering to 5/8 at about 25ft on the fore side of same and for the same distance aft as compensation for ports 17 x 14 cut through the side to afford light and ventilation to the cabin and the strake next down double with 5/8 plating (full depth) for 80ft amidships.

It will be seen that this vessel is 15 depths in length provision for which was made in the "Recomparing Approval" in the "Ship Section" in strict accordance with which (as also with that of the Rules) she has been built excepting some slight alteration in fitting the middle line keels as desired by the Owners; and being fully equipped she is recommended that she be classed as named below.

State if one, two or three decked vessel, or if spar or awning decked, and lengths of and fore-castle or raised quarter deck, or of double or part double bottom

In what manner are the surfaces preserved from oxidation? Inside Paint and cement Outside Paint and Gallor

I am of opinion this Vessel should be Classed W.A. Three Decked

The amount of the Entry Fee £ 5 : - : - is received by me,
Special £ 26 : 18 : 0
Certificate

(Travelling Expenses) (if any) £
Committee's Minute 21st September 1871

Character assigned W.A. 1
Mc 30/11
Rules 1870

M. Warner
I concur in the opinion that this vessel should be classed as recommended.
W.A. 1 Three Decked
John M. Connors
26/9/71
Lloyd's Register Foundation