

IRON SHIPS.

Compared with the Rules and Table of 1860, and 12 1/2 ft. 1863

No. 18302 Survey held at Port of London Date October 1 1863
on the Ship "Hutcheson" Master T. A. L.

Tonnage Gross 1056 1/2 Engine Room Register 1056 1/2 Built at Port of London

When Built 1863 By whom built Messrs. Clover & Co. Owners Messrs. B. & C. English

Port belonging to Liverpool Destined Voyage Calcutta.

If Surveyed Afloat or in Dry Dock On the Building is slip and in dry dock.

Length aloft	Feet.	Inches.	Extreme Breadth	Feet.	Inches.	Depth from top of Upper Deck Beam to top of Floor	Feet.	Inches.	Power of Engines	Horse Power
197 1/2			33 1/2			23 1/2				
Distance of Frames or Ribs from moulding edge to moulding edge, all fore and aft	Inches in Ship.	Inches required per Rule.	21		21	Stem, if bar iron, moulding and thickness	8 1/2	3	8 1/2	3
Floors, Size of Angle Iron, and No. at bottom of Floor Plate	Inches in Ship.	Inches required per Rule.	5	3	5	if plate iron, breadth and thickness				
depth and thickness of Floor Plate at mid line	Inches in Ship.	Inches required per Rule.	23	x	11 1/2	23	x	11 1/2		
depth and thickness of Floor Plate at Bilge Keelson	Inches in Ship.	Inches required per Rule.	9	x	11 1/2	5	x	11 1/2		
Size of Reversed Angle Iron, and No. at top of Floor Plate	Inches in Ship.	Inches required per Rule.	3 1/2	3	3 1/2	3	3	3 1/2		
Frames, Size of Angle Iron, single or double	Inches in Ship.	Inches required per Rule.	5	3	5	3	3	5		
Reversed Iron, & to every frame	Inches in Ship.	Inches required per Rule.	3 1/2	3	3 1/2	3	3	3 1/2		
Beams, Deck (No.) double Angle Iron	Inches in Ship.	Inches required per Rule.	8	x	9 1/2	8 1/2	x	9 1/2		
at alternate or Bulb Iron with double Angle	Inches in Ship.	Inches required per Rule.	3 1/2	3	3 1/2	3	3	3 1/2		
frames Iron on top	Inches in Ship.	Inches required per Rule.	8	x	9 1/2	8 1/2	x	9 1/2		
depth & thickness of plate amidships	Inches in Ship.	Inches required per Rule.	8	x	9 1/2	8 1/2	x	9 1/2		
double or single Angle Iron, on lower edge	Inches in Ship.	Inches required per Rule.	10	x	9 1/2	10	x	9 1/2		
average space between	Inches in Ship.	Inches required per Rule.	42		42			42		
if wood (No.) sided & moulded	Inches in Ship.	Inches required per Rule.								
Hold, or Lower Deck (No.)	Inches in Ship.	Inches required per Rule.	3 1/2	3	3 1/2	3	3	3 1/2		
at alternate double Angle Iron or Bulb Iron	Inches in Ship.	Inches required per Rule.	8	x	9 1/2	8	x	9 1/2		
frames with double Angle Iron on top	Inches in Ship.	Inches required per Rule.	10	x	9 1/2	10	x	9 1/2		
depth & thickness of plate amidships	Inches in Ship.	Inches required per Rule.	8	x	9 1/2	8	x	9 1/2		
double or single Angle Iron, on lower edge	Inches in Ship.	Inches required per Rule.	10	x	9 1/2	10	x	9 1/2		
average space between	Inches in Ship.	Inches required per Rule.	42		42			42		
if wood (No.) sided & moulded	Inches in Ship.	Inches required per Rule.								
Paddle, wood, sided and moulded	Inches in Ship.	Inches required per Rule.								
or if Iron, size of Plate	Inches in Ship.	Inches required per Rule.								
Engine	Inches in Ship.	Inches required per Rule.								
Keelson, wood, sided & moulded, iron, size of plate, if Box, give sketch & dimensions	Inches in Ship.	Inches required per Rule.	13 1/2	x	9 1/2	13 1/2	x	9 1/2		
Side or Bilge	Inches in Ship.	Inches required per Rule.	5	4 1/2	5	4 1/2	5	4 1/2		
Number	Inches in Ship.	Inches required per Rule.	5	4 1/2	5	4 1/2	5	4 1/2		

Transoms, material or, if none, in what manner compensated for. Iron plates and frames
Knight-heads " Iron plates Bulkheads, No. Two Thickness of 3/16 & 1/8 in. fore one to height of upper deck
Hawse Timbers " are they free from defects? yes how secured to the sides of the ship? Double frame

The Frames or Ribs extend in one length from Keel to gunwale rivetted through plates with (1/8 in.) rivets, about (6) apart.
The reverse angle irons on the floors extend in one length across the middle line from Bilge to Bilge (upper part) from centre to gunwale.

" " " on the frames " " " from Intercostal to Intercostal (middle) from floor and up to Hold beam string.
Keelson, how are the various lengths of plates or angle irons connected? By Butt straps and the angle iron straps.

Plates, Garboard, double or single rivetted to keel & at upper edge, with rivets (1/8 in.) diameter averaging (3/8 in.) from centre to centre of rivet.
Edges from Garboards to upper part of bilge, worked carvel with a lining piece (1/2 in.) thick, or clencher, double or single rivetted; rivets (1/8 in.) diameter, averaging (3/8 in.) from centre to centre of rivets.

Butts from Keel to turn of bilge, worked carvel with a lining piece (1/2 in.) thick, double or single rivetted; rivets (1/8 in.) diameter, averaging (3/8 in.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? In flat of bottom only
Edges from bilge to planksheer, worked carvel with a lining piece (1/2 in.) thick, double or single rivetted; rivets (1/8 in.) diameter, averaging (3/8 in.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below?

Butts from bilge to planksheers, worked carvel with a lining piece (1/2 in.) thick, or clencher, double or single rivetted; rivets (1/8 in.) diameter averaging (3/8 in.) from centre to centre of rivets. Breadth of laps in double rivetting (5) Breadth of laps in single rivetting ()

Planksheer, how secured to the plating of the sides Explain by sketch, See sketch on the other side.
Waterway " planksheer and to the Beams if necessary.

Side trussing breadth and thickness of plates how secured? None.
Deck trussing " " 3 pairs of diagonal ties in each deck 12 x 1/16 in. way of struts.

Deck Beams, how secured to the side? By three plates forged out of the Bulb-iron Beams & Co.
Hold or Lower Deck " " " " " "

Paddle " " " " " "
No. of breasthooks crutches how are pointers compensated? In all cases the fore & aft struts & c. connected at
What description of iron is used for the angle iron and plate iron in the vessel? Cast-iron and Messrs. Builders Signature

George R. Clover
IRON 436-0470

Workmanship.

Are the lands or laps of the clenchwork in all cases in breadth at least five times the diameter of the rivets in double rivetted edges and butts, and at least three times the diameter of the rivets where single rivetting is admitted? yes.

Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? generally very

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 rivetting plate to frames, lining pieces, or plate to plate, &c., conform well to each other? generally very good and are the rivet holes well and sufficiently countersunk in the outer plate? yes

Are there any rivets which either break into or have been put through the seams or butts of the plating? yes Chain rivetted in butts and edges and anyone hardly any to be found in butts, and none

Her Masts, Yards, &c., are in good condition, and sufficient in size and length.

She has SAILS.

CABLES, &c.

ANCHORS, and their weights.

N ^o .		Private Test	Fathoms.	Inches.	Wood's patent from Store, and	N ^o .	Weight.
	Fore Sails,	Chain <u>provid. 5 5 5 2 2</u>	300	1 3/4	private Test - 30 fms	1	33-3
	Fore Top Sails,	Hempen Stream Cable <u>provid. 1 1/2</u>	90	1	Bower, " 29 "	1	32-0
	Fore Topmast Stay Sails,	Hawser	90	1 1/2	" 29 "	1	32-0
	Main Sails,	Towlines	90	1 9	Stream, <u>Wood's patent</u>	1	9-3
	Main Top Sails,	Warp	90	1 8	" " "	1	5-1
	and	All of <u>good</u> quality.	90	6	Kedge, " " "	1	2-5

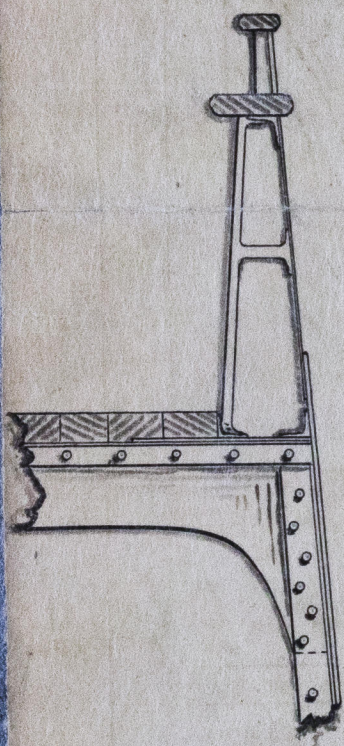
Her Standing and Running Rigging of hemp wire sufficient in size and good in quality.

She has One Long Boat and 3 Others

The present state of the Windlass is good Capstan good and Rudder good Pumps good of Iron 4 in Main Hold and one in fore Compartment

General Remarks, Statement and Date of Repairs, extent of corrosion (if any) both internally and externally, and condition of rivets.

DATES of Surveys held while building, as per Section 17.	1st.	On the several parts of the frame, when in place, and before the plating was wrought	Under special survey the whole of the time her building, from March 18 th 1862
	2nd.	On the plating during the progress of rivetting	
	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	
	5th.	After the ship was launched	



This vessel has a flush deck, with houses fore and aft and a house on deck. The space between frames 21st as allowed for Committee's Letter bearing date Feb^{ry} 20th 1863. In other respects it has been compared with the Rules and Table of the 17th Sep^r 1862. She is well built and in my opinion eligible for the Class recommended.

J. F. Light

In what manner are the surfaces preserved from oxidation? By paint, and by Portland Cement in the hold

I am of opinion this Vessel should be classed *12 A1

The amount of the Fee£ 5 : is received by me, recommends her for the same,

Special£ 52 17 : 1/10/62 MA
Certificate (if required)£ Gratis

Committee's Minute 6th October 18 63

Character assigned A 1



I concur in the above recommendation
5 Oct 1863 J. F. Light
Lloyd's Register of Shipping