

# IRON SHIPS.

Rec 22/7/69

No. 10998 Survey held at Newcastle Date 25<sup>th</sup> August 1868 to 28<sup>th</sup> June 1869  
 on the Iron Screw Steamer "China" Master Milne  
 Tonnage under tonnage deck 1441.15 Built at Newcastle When built 1869 Launched 13<sup>th</sup> May  
 Ditto of quarter deck 57.80 By whom built Messrs Richardson & Co Owners Messrs Apcar & Co  
 Ditto of poop, forecabin, or other erections on upper deck 479.66 Port belonging to London Destined Voyage Calcutta  
 Ditto of spar deck 1471.43 If surveyed while Building, Afloat, or in Dry Dock while building  
 Gross tonnage, less crew space 991.77  
 Total Register tonnage, as entered on beam 27.52

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.	N <sup>o</sup> . of Decks	Inches. In Ship.	16ths. In Ship.	Inches. required per Rule.	16ths. required per Rule.
Length aloft	200	0	Extreme Breadth	35	0	Depth from top of Upper Deck Beam to top of Floor	20	0	Power of Engines	280	N <sup>o</sup> . of Decks				
(Dimensions of Ship per Register, length 290 breadth 35.2 depth 20.9)															
<del>Plates through and side plates</del>															
Keel, if bar iron, depth and thickness	38 x 1 1/2		38 x 1 1/2		38 x 1 1/2		38 x 1 1/2		38 x 1 1/2		36		13/16	36	13/16
„ if plate iron, breadth and thickness	9 x 1 1/2		9 x 1 1/2		9 x 1 1/2		9 x 1 1/2		9 x 1 1/2		12/16				12/16
Stem, if bar iron, moulding and thickness	9 x 3		9 x 3		9 x 3		9 x 3		9 x 3		11/16				11/16
„ if plate iron, breadth and thickness	9 x 6		9 x 6		9 x 6		9 x 6		9 x 6		10/16				10/16
tern-post, if bar iron, moulding and thickness	9 x 6		9 x 6		9 x 6		9 x 6		9 x 6		36		12/16	36	12/16
„ if plate iron, breadth and thickness	21		21		21		21		21		36		12/16	36	12/16
Distance of Frames from moulding edge to moulding edge, all fore and aft	21		21		21		21		21		36		12/16	36	12/16
Frames, Size of Angle Iron, single or double	5 3 1/2 9/16		5 3 1/2 9/16		5 3 1/2 9/16		5 3 1/2 9/16		5 3 1/2 9/16		36		12/16	36	12/16
„ „ Reversed Iron, to every frame or every frame	3 1/2 3 1/2		3 1/2 3 1/2		3 1/2 3 1/2		3 1/2 3 1/2		3 1/2 3 1/2		36		12/16	36	12/16
Floors, depth and thickness of Floor Plate at mid line	23 1/4 x 11 x 9		23 1/4 x 11 x 9		23 1/4 x 11 x 9		23 1/4 x 11 x 9		23 1/4 x 11 x 9		36		12/16	36	12/16
„ Ditto ditto at Bilge Keelson	11		11		11		11		11		36		12/16	36	12/16
„ Size of Reversed Angle Iron, and No. one at top of Floor Plate	3 1/2 3 1/2		3 1/2 3 1/2		3 1/2 3 1/2		3 1/2 3 1/2		3 1/2 3 1/2		36		12/16	36	12/16
Beams, Deck (N <sup>o</sup> . 19) double Angle Iron, Plate, Tee, or Bulb Iron	9 x 9/16		9 x 9/16		9 x 9/16		9 x 9/16		9 x 9/16		36		12/16	36	12/16
„ double or single Angle Iron, on top edge	3 1/4 3 1/4 3/8		3 1/4 3 1/4 3/8		3 1/4 3 1/4 3/8		3 1/4 3 1/4 3/8		3 1/4 3 1/4 3/8		36		12/16	36	12/16
„ average space between	on alternate frames		on alternate frames		on alternate frames		on alternate frames		on alternate frames		36		12/16	36	12/16
fold, or Lower Deck (N <sup>o</sup> . 16) double Angle, Tee, Plate, or Bulb Iron	9 x 9/16		9 x 9/16		9 x 9/16		9 x 9/16		9 x 9/16		36		12/16	36	12/16
„ double or single Angle Iron on top edge	3 1/4 3 1/4 3/8		3 1/4 3 1/4 3/8		3 1/4 3 1/4 3/8		3 1/4 3 1/4 3/8		3 1/4 3 1/4 3/8		36		12/16	36	12/16
„ average space between	on alternate frames		on alternate frames		on alternate frames		on alternate frames		on alternate frames		36		12/16	36	12/16
Paddle, sided and moulded, thickness of Plate size of Angle Iron	38 x 1 1/2		38 x 1 1/2		38 x 1 1/2		38 x 1 1/2		38 x 1 1/2		36		12/16	36	12/16
Keelson, single or double plate, box or intercostal	18 x 1/2		18 x 1/2		18 x 1/2		18 x 1/2		18 x 1/2		36		12/16	36	12/16
„ Size of Plates	18 x 10/16		18 x 10/16		18 x 10/16		18 x 10/16		18 x 10/16		36		12/16	36	12/16
„ Size of Angle Irons	5 1/2 4 1/2 9/16		5 1/2 4 1/2 9/16		5 1/2 4 1/2 9/16		5 1/2 4 1/2 9/16		5 1/2 4 1/2 9/16		36		12/16	36	12/16
Side, single or double, plate, box or intercostal	22 x 1/16		22 x 1/16		22 x 1/16		22 x 1/16		22 x 1/16		36		12/16	36	12/16
„ Bilge (No. one) at each Bilge, single, or double, plate, or box	5 1/2 4 1/2 9/16		5 1/2 4 1/2 9/16		5 1/2 4 1/2 9/16		5 1/2 4 1/2 9/16		5 1/2 4 1/2 9/16		36		12/16	36	12/16
Planksheers, material iron or, if none, in what manner compensated for.	9 x 9/16		9 x 9/16		9 x 9/16		9 x 9/16		9 x 9/16		36		12/16	36	12/16
Plates in Garboard Strakes, breadth and thickness															
Ditto from Garboard to upper part of Bilges															
„ from upper part of Bilge to a perpendicular height from upper side of Keel of 3/4ths the entire depth of Hold															
„ from 3/4ths depth of Hold to lower edge of Sheersrake															
Sheersrake, breadth and thickness															
Butt Straps to outside plating, breadth and thickness															
Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness															
Angle Iron on ditto															
Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways															
Diagonal Tie Plates on ditto															
Planksheers, materials and scantlings															
Waterway ditto ditto															
Flat of Upper Deck, thickness and material															
„ „ how fastened to Beams															
Ceiling betwixt Decks and in Hold, thickness and material															
Clamps or Spirketting															
Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness															
Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams															
Stringers in Hold															
Flat of Lower Deck, thickness and material															
Main piece of Rudder, diameter at head															
„ „ „ at heel															
(Can the Rudder be unshipped afloat)															
Bulkheads, N <sup>o</sup> . 4 Thickness of															
„ Height up to upper deck, two to main deck, & after one above															
„ how secured to the sides of the ship															

Plates, Garboard, double rivetted to keel, double at upper edge, with rivets (1/2 in.) diameter, averaging (4 1/4 in.) apart.  
 Edges from Garboards to upper part of bilge, worked clench, double or single rivetted; with rivets (1/2 in.) diameter, averaging (3 1/4 in.) apart.  
 Butts from Keel to turn of bilge, worked carvel with butt straps (12 x 13/16) thick, double or single rivetted; with rivets (1/2 in.) diameter, averaging (3 1/4 in.) apart.  
 Edges from bilge to sheerstrake, worked carvel with a lining piece ( ) thick, or clench, double or single rivetted; with rivets (1/2 in.) diameter, averaging (3 1/4 in.) apart.  
 Edges of Sheerstrake, double or single rivetted? At upper edge double At lower edge double  
 Butts from bilge to planksheers, worked carvel with butt straps (10 x 12/16) thick, double or single rivetted; with rivets (1/2 in.) diameter, averaging (3 1/4 in.) apart. Breadth of laps in double rivetting (5 1/2) Breadth of laps in single rivetting (3 1/2)  
 Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted? double rivetted  
 Planksheer, how secured to the plating of the sides Explain by sketch by bolts through the sheerstrakes and deck  
 Waterway, planksheer and to the Beams if necessary. Stringers, the former clench on waterways.  
 Deck Beams, how secured to the side? ends turned down and rivetted to frames  
 Hold or Lower Deck ditto ends turned down and rivetted to frames  
 Paddle, No. of breasthooks 4 crutches 4  
 What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.? Bessemer's Register  
 Manufacturer's name or trade mark Messrs. John & Co., the plating from the same iron works.  
 We certify that the above is a correct description of the several particulars therein given.  
 Builder's Signature William Richardson & Co. Surveyor's Signature J. P. Reed  
 IRON 444-0265



**Workmanship.** Are the lands or laps of the clenchwork in all cases in breadth at least five and a half times the diameter of the rivets in double rivetted edges and butts, and at least three and a quarter 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? 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 single pieces

Do the holes for rivetting plate to frames, butt straps, or plate to plate, &c., conform well to each other? fairly so 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? a few

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 rivetting, quality of Materials, and if stamped with Maker's name.

*Tested at the Vetherton P. H. M. R. Reade Sept.*

N <sup>o</sup> .	She has SAILS.	CABLES, &c.	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N <sup>o</sup> .	Weight. Ex. Stock.	Test as per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
	Fore Sails,	Chain .....	300	1 1/4	57.40.0	1 1/4	57 2/3	Bowers .....	3	28.0.4	27.3.121	27.3.0	28.1.2.0
	Fore Top Sails,	<u>Iron</u>											
	Fore Topmast Stay Sails	<u>Hemp</u> Stream Cable	40	1		1							
	Main Sails,	Hawser .....	90	10		10		with stock					
	Main Top Sails,	Towlines .....	90	8		6		Stream	1	10.1.24		11.0.0	
		Warp .....	90	6									
		All of <u>good</u> quality.	90	5				with stock	2	6.2.14		5.2.0	
								Kedges	2	2.3.20		2.3.0	

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

She has two life Long Boat and two others

The present state of the Windlass is good Capstan good and Rudder good Pumps 4 and an engine

Order for Special Survey DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought } built  
 No. 674 Surveys held 2nd. On the plating during the progress of rivetting } under  
 Date 10 Sept 1868 while building 3rd. When the beams were in and fastened, and before the decks were laid } special  
 Order for Ordinary Survey as per 4th. When the ship was complete, and before the plating was finally coated } survey  
 No. — Section 18. 5th. After the ship was launched

State if she has a Spar Deck no Poop no or Forecastle no

**General Remarks,**

*This is a sister vessel to the "Hindustan," report No 10P20, and is precisely similar in all respects, including the water ballast tanks before and abaft engine room, and the iron fore and main masts, of which a sketch accompanied the report alluded to.*

*It will be observed that the stream anchor is a little under the prescribed weight, which circumstance, owing to my absence in London, was not discovered until after the vessel's departure.*

In what manner are the surfaces preserved from oxidation? Inside by Day's cement and Paint  
 Ditto ditto Outside by Red oxide and paint

I am of opinion this Vessel should be Classed B.I.

The amount of the Fee .....£ 5: .. is received by me,

Special .....£ 73: 11: ..

Certificate (if required) .....£ ..

Committee's Minute 23rd July 1869

Character assigned B

*R. P. Reade*

*Sum of opinion this steam hull of Iron is eligible for class as recommended above*

*to be built by W. Richardson & Co. Newcastle on Tyne*