

SHIPS.

1864

Survey held at Belast Date 24th October Recd 7/11/64

the New Iron Ship "Charwar" Master H. W. Campbell

Tonnage under tonnage deck 1214 - 45 Built at Belast When built 1864 Launched 3rd September

Ditto of poop or spar deck 78 - 61 By whom built Harland & Wolff Owners The Iron Ship Company of Bombay

Ditto of engine room - Port belonging to Bombay Destined Voyage Bombay via Liverpool

Total Register tonnage 1293 - 6 If surveyed while Building, Afloat, or in Dry Dock While building

| 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 ^o . of Decks |
|--|--------------------------|---------------------------|---------------------------|----------------------|----------|---|----------|----------|------------------|--------|---------------------------|
| (Dimensions of Ship per Register, length <u>226</u> - <u>2</u> breadth <u>34</u> - <u>2</u> depth <u>23</u> - <u>3</u>) | <u>223</u> | <u>-</u> | <u>34</u> | <u>2</u> | <u>2</u> | <u>23</u> | <u>3</u> | <u>6</u> | | | <u>4</u> |
| Keel, \bar{N} bar iron, depth and thickness | Inches in Ship. | Inches required per Rule. | | | | | | | | | |
| " if plate iron, breadth and thickness | <u>11</u> - <u>2 1/2</u> | <u>9</u> - <u>3</u> | | | | | | | | | |
| Stem, \bar{N} bar iron, moulding and thickness | <u>11</u> - <u>2 1/2</u> | <u>9</u> - <u>3</u> | | | | | | | | | |
| " if plate iron, breadth and thickness | <u>9</u> - <u>3</u> | <u>9</u> - <u>3</u> | | | | | | | | | |
| Stern-post, \bar{N} bar iron, moulding and thickness | <u>9</u> - <u>3</u> | <u>9</u> - <u>3</u> | | | | | | | | | |
| " if plate iron, breadth and thickness | <u>21</u> | <u>21</u> | | | | | | | | | |
| Distance of Frames from moulding edge to moulding edge, all fore and aft | <u>21</u> | <u>21</u> | | | | | | | | | |
| Frames, Size of Angle Iron, single or double | Inches in Ship. | Inches required per Rule. | 16ths. required per Rule. | | | | | | | | |
| " " Reversed Iron, \bar{N} to every frame or every frame | <u>5</u> - <u>3 1/2</u> | <u>9</u> - <u>7</u> | <u>5</u> - <u>3 1/2</u> | <u>9</u> - <u>7</u> | | | | | | | |
| Floors, depth and thickness of Floor Plate at mid line | <u>25</u> | <u>11</u> - <u>7</u> | <u>25</u> | <u>11</u> - <u>7</u> | | | | | | | |
| " Ditto ditto at Bilge Keelson | <u>4 1/2</u> | <u>11</u> - <u>7</u> | | | | | | | | | |
| " Size of Reversed Angle Iron, and No. <u>2</u> at top of Floor Plate | <u>3 1/2</u> - <u>3</u> | <u>8</u> - <u>7</u> | <u>3 1/2</u> - <u>3</u> | <u>8</u> - <u>7</u> | | | | | | | |
| Beams, Deck (N ^o . <u>2</u>) double Angle Iron, Plate, Tee, or Bulb Iron | <u>9</u> | <u>9</u> - <u>7</u> | <u>9</u> | <u>9</u> - <u>7</u> | | | | | | | |
| " " double or single Angle Iron, on <u>Upper</u> edge | <u>3 1/2</u> - <u>3</u> | <u>4</u> - <u>7</u> | <u>3</u> - <u>3</u> | <u>6</u> - <u>7</u> | | | | | | | |
| " " average space between | <u>4 1/2</u> | | | | | | | | | | |
| " Hold, or Lower Deck (N ^o . <u>2</u>) double Angle, Tee, Plate, or Bulb Iron | <u>9</u> | <u>9</u> - <u>7</u> | <u>9</u> | <u>9</u> - <u>7</u> | | | | | | | |
| " " double or single Angle Iron on <u>Upper</u> edge | <u>3 1/2</u> - <u>3</u> | <u>4</u> - <u>7</u> | <u>3</u> - <u>3</u> | <u>6</u> - <u>7</u> | | | | | | | |
| " " average space between | <u>4 1/2</u> | | | | | | | | | | |
| " Paddle, sided and moulded, thickness of Plate size of Angle Iron | | | | | | | | | | | |
| " Engine | | | | | | | | | | | |
| Keelson, single or double plate, box, or intercostal | | | | | | | | | | | |
| " Size of Plates | | | | | | | | | | | |
| " Size of Angle Irons | | | | | | | | | | | |
| " Side, single or double, plate, box, or intercostal | | | | | | | | | | | |
| " Bilge (No. <u>2</u>) at each Bilge, single, or double, plate, or box | | | | | | | | | | | |

Transoms, material Iron or, if none, in what manner compensated for.Knight-heads, and Hawse Timbers IronThe Frames extend in one length from Keel to GunwalesThe reverse angle irons on the floors extend in one length across the middle line from 2 1/2 to 3 1/2 feet on each side alternately to hold the keelsons" " " on the frames " " " from Keel to GunwalesKeelson, how are the various lengths of plates or angle irons connected? With butt straps and double rivettedPlates, Garboard, double or rivetted to keel, double or and at upper edge, with rivets (1/4 in.) diameter, averaging (3 1/4 in.) apart." Edges from Garboards to upper part of bilge, worked Mencher, double or single rivetted; with rivets (1/8 in.) diameter, averaging (3 in.) apart." Butts from Keel to turn of bilge, worked carvel with butt straps (1/4 & 1/8) thick, double or single rivetted; with rivets (1/8 in.) diameter, averaging (3 in.) apart. Do the butt straps lap over and rivet through the lands of the strake below? Alternately" Edges from bilge to sheerstrake, worked carvel with a lining piece () thick, or clencher, double or single rivetted; with rivets (1/8 in.) diameter, averaging (3 in.) apart. Do the butt straps lap over and rivet through the lands of the strake below? Alternately" 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 (1/4, 1/8, 1/16) thick, double or single rivetted; with rivets (1/8 in.) diameter, averaging (3 in.) apart. Breadth of laps in double rivetting (5 in.) Breadth of laps in single rivetting (3 1/2 in.)Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted?

Planksheer, how secured to the plating of the sides

Waterway " " planksheer and to the Beams { Explain by sketch }

Deck Beams, how secured to the side? Knee plates welded & rivetted to framesHold or Lower Deck ditto The same as above & diagonal bracing to masts andPaddle " " No. of breasthooks 4 crutches 4What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c. Partly Whitehead & StaffordManufacturer's name or trade mark Angle Iron Mostly Masedon (Scotland)

We certify that the above is a correct description of the several particulars therein given.

Builder's Signature Harland & Wolff Surveyor's Signature W. Linton

IRON 439-0004

Workmanship. Are the rivetted edges and butts, and at least three and a quarter times the diameter of the rivets. Do the edges of the carvel work and of the butts lay close together throughout their length without any making good of deficiencies? Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? Filled in solid. Do the holes for rivetting 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 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.

The lower Mast, lower Yards and Bowsprit, are made of Iron. Fore & main Mast plates 3/8 thick. Three angle Irons 3 1/2 x 3 1/2 in each about 42 feet long. Mizzen Mast plates 5/8 thick. Three angle Irons 3 1/2 x 3 1/2 in about 36 feet long. Bowsprit 3/8 thick. Two angle Irons for entire length 3 1/2 x 3 1/2 in. Fore & main lower Yards 5/8 tapering to 1/2 at ends. Crossjack Yard 4/8 tapering to 3/8. Ruffs Double, Triple & Quad ruffs rivetted where most strength is required, plates said to be best. Not stamped. Made by Hammerdon Staffordshire.

She has SAILS.

CABLES, &c. Laid by the Morley Dock Co. ANCHORS, and their weights.

| No. | Winkerhead | Fathoms. | Inches. | Tested to Tons. | No. | Weight. | Tested to Tons. |
|--------------------------|----------------------|----------|---------|-----------------|---------------------|---------|-----------------|
| Fore Sails, | Chain | 309 | 1 1/2 | 59 | Bowers, Wood. Stock | 1 | 40.1.24 36.2 |
| Fore Top Sails, | Hempen Stream Cable | 90 | 1 1/8 | | | 1 | 38.1.20 34.15 |
| Fore Topmast Stay Sails, | Hawser | 90 | 8 | | | 1 | 43.2.24 33.8 |
| Main Sails, | Towlines | 90 | 10 1/2 | | Stream, | 1 | 13.0.6 |
| Main Top Sails, | Warp | 90 | 4 1/2 | | Kedges, | 1 | 6.3.19 |
| and | All of Good quality. | | | | | 1 | 3.2.11 |

Her Standing and Running Rigging Found to be sufficient in size and Good in quality.

She has 2 Life Boats 26 feet Long Boat and 1 Cutter 26 x 15 x 24 feet. And 2 others 20 x 24 feet each.

The present state of the Windlass is Good Capstans Good and Rudder Good Pumps Two Cast Metal One Lead

| Order for Special Survey | DATES of | 1st. | On the several parts of the frame, when in place, and before the plating was wrought | March 26 th 1864 |
|---------------------------|----------------|------|--|-----------------------------|
| No. _____ | Surveys held | 2nd. | On the plating during the progress of rivetting | May 14 th " |
| Date _____ | while building | 3rd. | When the beams were in and fastened, and before the decks were laid | March 26 th " |
| Order for Ordinary Survey | as per | 4th. | When the ship was complete, and before the plating was finally coated | August 12 th " |
| No. _____ | Section 18. | 5th. | After the ship was launched | October 26 th " |
| Date 26 March | | | | |

State if she has a Spar Deck a Poop and or Forecastle

General Remarks.

This Vessel has eight diagonal tie plates 13 1/2 x 4 1/2 in. on upper deck beams. Ridge keelson bulb iron 9 x 8 in rivetted between two bars of angle iron 5 1/2 x 4 1/2 x 9/16 in for about 100 feet on each side amidships, and from thence angle Irons rivetted back to back to ends of Vessel. Middle line keelson 20 x 7/8 in deep amidships, tapering to 12 x 7/8 in at ends. About midway between the middle line keelson and the bilge keelson two bars of angle iron 5 1/2 x 4 1/2 x 9/16 in all fore and aft, with wash plates 9/16 x 1/2 x 4 1/2 in rivetted between, for about 100 feet on each side amidships. Butts of upper deck stringer triple rivetted, for about the same length amidships.

In place of Intercostal keelsons, there are in addition to the wash plates between the floors in line of sister keelsons, Bars of 9 x 1/2 bulb Iron as described above secured between the bilge keelson angle Irons.

Fore Mast 83 feet 3 in long, 30 in diameter

Main " 84 " 30 in " 30 in "

Mizzen " 44 " 9 in " 24 in "

In what manner are the surfaces preserved from oxidation? Inside Above this twice Coated with mineral Paint

Ditto

ditto

Outside

Ditto

Ditto

Top sides Coated with black paint.

I am of opinion this Vessel should be Classed A1

The amount of the Fee £ 5 : 0 : is received by me, Alex Sinton

Special £ 10 : 10 :

Certificate (if required) £ 5 : 5 :

Committee's Minute 15th November 1864

24 November

Character assigned A1

The Gross Tonnage of this ship is 1293 by Section 24 of the Act of 1862 and upon 3 require intercostal tie keelsons which it does not appear she has not got, but she has wash plates extending with double angle bars 9 x 1/2 above floors where the intercostal keelsons should be placed, they may be considered as part compensation. The surveyor does not state if the Builder's attention has been called to this deficiency. But the ship is otherwise strong and sound.