

# IRON SHIP.

(Received at London Office,

Survey held at *Belfast* Date, First Survey *April 28* Last Survey *Decr 24* 18*87*

On the *Four masted sailing ship India*

TONNAGE under Tonnage Deck *2886.80*

Ditto of Third, Spar, or Awning Deck.

Ditto of Poop, or Raised Or. Dk. *120.40*

Ditto of Houses on Deck *60.00*

Ditto of Forecastle

Gross Tonnage *3067.50*

Less Crew Space *60.19*

Less Engine Room

Register Tonnage (as out on Beam) *3007.31*

ONE, OR TWO DECKED, THREE DECKED VESSEL, SPAR, OR AWNING-DECKED VESSEL.

Half Breadth (moulded) *22.5*

Depth from upper part of Keel to top of Upper Deck Beams *29.19*

Girth of Half Midship Frame (as per Rule) *45.7*

1st Number *97.29*

1st Number, if a 3-Decked Vessel deduct 7 feet *59*

Length *316.16*

2nd Number *304.59*

Proportions— Breadths to Length *7.07*

Depths to Length—Upper Deck to Keel *10.9*

Main Deck ditto

Master *Alben Mackenzie - 43-107*

Built at *Belfast*

When built *1887* Launched *Nov 19*

By whom built *Harland & Wolff*

Owners *S. & J. Brookbank*

Residence *Liverpool*

Port belonging to *Liverpool*

Destined Voyage *Calcutta via Liverpool*

If Surveyed while Building, Afloat, or in Dry Dock.

*Specially Surveyed while Building*

| LENGTH                                  | Feet. | Inches. | BREADTH | Feet. | Inches. | DEPTH                             | Feet. | Inches. | Power of | Horse. | Nº. of Decks with flat laid | Nº. of Tiers of Beams |
|---|-------|---------|---------|-------|---------|-----------------------------------|-------|---------|----------|--------|-----------------------------|-----------------------|
| at deck as per Rule                     | 316   | 2       | Moulded | 40    |         | top of Floors to Upper Deck Beams | 26    | 10      | Engines  |        | Two                         | Three                 |
| Dimensions of Ship per Register, length | 329.3 |         | breadth | 45.2  |         | depth                             | 26.7  |         |          |        |                             |                       |
|   |       |         |         |       |         |                                   |       |         |          |        |                             |                       |

| KEEL, depth and thickness  | Inches in Ship | Inches per Rule |
|--|----------------|-----------------|
| STEM, moulding and thickness   | 9 x 3 3/8      | 11 x 2 3/4      |
| STERN-POST for Rudder do. do.  | 9 x 3 3/8      | 11 x 2 3/4      |
| " for Propeller  | 24             | 24              |
| Distance of Frames from moulding edge to moulding edge, all fore and aft |                |                 |

| AMES, Angle Iron for 1/2 length amidships  | Inches in Ship | Inches per Rule |
|--|----------------|-----------------|
| o. for 1/2 at each end   | 5 1/2 x 3 1/2  | 5 1/2 x 3 1/2   |
| REVERSED FRAMES, Angle Steel   | 4 x 3 1/2      | 4 x 3 1/2       |
| FLOORS, depth and thickness of Floor Plate at mid line for half length amidships | 20             | 10              |
| " thickness at the ends of vessel  | 14             | 8               |
| " depth at 1/2 the half-bdth. as per Rule  | 14             | 8               |
| " height extended at the Bilges  | 14             | 8               |

| BEAMS, Upper, Spar, or Awning Deck                | Inches in Ship | Inches per Rule |
|---|----------------|-----------------|
| Single or d'ble Ang. Iron, Plate or Tee Bulb Iron | 11 x 10        | 10 1/2 x 10     |
| Single or double Angle Iron on Upper edge         |                |                 |
| Average space                                     |                |                 |
| BEAMS, Main, or Middle Deck                       | Inches in Ship | Inches per Rule |
| Single or d'ble Ang. Iron, Plate or Tee Bulb Iron | 11 x 10        | 10 1/2 x 10     |
| Single, or double Angle Iron, on Upper Edge       |                |                 |
| Average space                                     |                |                 |

| BEAMS, Lower Deck                                 | Inches in Ship | Inches per Rule |
|---|----------------|-----------------|
| Single or d'ble Ang. Iron, Plate or Tee Bulb Iron | 11 x 10        | 10 1/2 x 10     |
| Single or double Angle Iron on Upper Edge         |                |                 |
| Average space                                     |                |                 |
| BEAMS, Hold, or Orlop                             | Inches in Ship | Inches per Rule |
| Single or d'ble Ang. Iron, Plate or Tee Bulb Iron | 11 x 10        | 10 1/2 x 10     |
| Single or double Angle Iron on Upper Edge         |                |                 |
| Average space                                     |                |                 |

| KEELSONS   | Inches in Ship | Inches per Rule |
|--|----------------|-----------------|
| Centre line, single or double plate, box, or intercostal, plates | 22             | 14              |
| Rider Plate  | 14             | 14              |
| Bulb Plate to Intercostal Keelson                                |                |                 |
| Angle Irons  | 6 1/2 x 4      | 6 1/2 x 4       |
| Double Angle Iron Side Keelson                                   | 6 1/2 x 4      | 6 1/2 x 4       |
| Side Intercostal Plate   |                |                 |
| do. Angle Irons  | 3 1/2 x 3 1/2  | 3 1/2 x 3 1/2   |
| Attached to outside plating with angle iron                      | 6 1/2 x 4      | 6 1/2 x 4       |

| BILGE  | Inches in Ship | Inches per Rule |
|--|----------------|-----------------|
| Angle Iron   | 6 1/2 x 4      | 6 1/2 x 4       |
| do. Bulb Iron  |                |                 |
| do. Intercostal plates riveted to plating for length |                |                 |
| BILGE STRINGER Angle Irons                           | 6 1/2 x 4      | 6 1/2 x 4       |
| Intercostal plates riveted to plating for length     |                |                 |

| SIDE STRINGER | Inches in Ship | Inches per Rule |
|---------------|----------------|-----------------|
| Angle Irons   | 6 1/2 x 4      | 6 1/2 x 4       |

The FRAMES extend in one length from *Keel* to *gunwale* Riveted through plates with *1* in. Rivets, about *4* in. apart, and all rev. frames to fore and aft.

The REVERSED ANGLE IRONS on floors and frames extend *across* middle line to *the gunwale* and to *on every frame* alternately.

KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? *yes* And butts properly shifted? *yes*

PLATING. Garboard, double riveted to Keel, with rivets *1 1/4* in. diameter, averaging *5* ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clench, double riveted; with rivets *1* in. diameter, averaging *4* ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets *1* in. diameter averaging *3 1/2* ins. from centre to centre.

Butts of all Strakes at Bilge for *entire* length, treble riveted with Butt Straps *1/20* thicker than the plates they connect.

Edges from Bilge to Main Sheerstrake, worked clench, double or single riveted; with rivets *1* in. diameter, averaging *4* ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets *1* in. diameter, averaging *3 1/2* ins. from cr. to cr.



Workmanship. Are the butts of plating planed or otherwise fitted? *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*  
Are the fillings between the ribs and plates solid single pieces? *yes*  
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *yes*  
Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *yes*  
Do any rivets break into or through the seams or butts of the plating? *no*

Masts, Bowsprit, Yards, &c., are *of steel* in *good* condition, and sufficient in size and length. If of Iron or Steel give Scantling, 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 material and if stamped with Maker's name.

State also Length and Diameter of Lower Masts and Bowsprit *Bowsprit 12 ft long in one 42 ft extreme by 27, 3 plates in round 12 to 32 and 3 angles 3 1/2 x 3 1/2. The main & mizen pole masts 131.3, 133.9 and 130*

*respectively by 32 diam, 3 plates in the round 16 to 32 and 3 angles in each 5 x 3 1/2 in the foremast 130 x 28 3 plates in the round 16 to 32 3 angles 3 1/2 x 3 1/2 in the foremast and 42 x 3 1/2 in foremast. All plates tested at the works and masts doubled at the partners and heels as required.*

| NUMBER & LETTER FOR EQUIPMENT | SAILS.                   | CABLES, &c.  | Pathoms      | Inches. | Test per Certificate. | Inches per Rtg. | Machine where Tested and Superintendant, also Number of Certificate. | ANCHORS.   | N <sup>o</sup> . | Weight. Ex. Stock. | Test per Certificate. | W'ght req'd per Rule. | Machine where Tested and Superintendant, also Number of Certificate. |
|-------------------------------|--------------------------|--|--------------|---------|-----------------------|-----------------|--|------------|------------------|--------------------|-----------------------|-----------------------|--|
|                               | Fore Sails,              | Chain  | 150-1        | 2 1/2   | 120.10.0              | 300 x 2 1/2     | Nov 9. 07  | Bower      |                  |                    |                       |                       |  |
|                               |                          | (State Machine where Tested, Date, or No. of Certificate, & Name of Superintendant.) |              |         | 85.2.2                | " - 14 - "      | " - 14 - "   | Anchors    | 1                | 12.3.20            | 37.14.20              | 42                    | Nov 3.   |
|                               | Fore Top Sails,          | Iron Stream Chain  | 149-5        | 2 1/2   | " - 14 - "            | " - 14 - "      | " - 14 - "   |            | 1                | 12.1.0             | 37.0.0                | 42                    | " - 3 -  |
|                               |                          | or Steel Wire  | 120          | 1 1/2   | 34.2.2                | 120 x 1 1/2     | " - 14 - "   |            | 1                | 10.3.1             | 23.0.0                | 42                    | " - 9 -  |
|                               | Fore Topmast Stay Sails, | Cable  | Hetherington |         | Q. Lewis              | Superint.       |  | Stream     |                  |                    |                       |                       |  |
|                               |                          | Towline, Hemp.   | 90           | 15      | 90 x 13               |                 |  | Anchor     | 1                | 13.2.14            | 15.5.3                | 21                    | Nov 11   |
|                               | Main Sails,              | or Steel Wire  | 90           | 12      | 90 x 12               |                 |  | Kedge      | 1                | 6.3.20             | 9.5.0                 | 0                     | " - 11   |
|                               |                          | Hawser   | 90           | 8       | 90 x 8                |                 |  | 2nd Kedge. | 1                | 1.3.2              | 6.0.3                 | 21                    | " - 11   |
|                               | Main Top Sails, and      | Warp   | 180          | 6       | 90 x 8                |                 |  |            |                  |                    |                       |                       |  |
|                               |                          | quality  | good         | 180     | 8 1/2                 |                 |  |            |                  |                    |                       |                       |  |

Standing and Running Rigging *wire hemp* sufficient in size and *good* in quality. She has *two* Long Boats and *two* others

The Windlass is *patent and good* Capstan *good* and Rudder *good* Pumps *good*

Engine Room Skylights. How constructed? *How secured in ordinary weather?*

What arrangements for deadlights in bad weather?

Coal Bunker Openings. How constructed? *How are lids secured?* *Height above deck?*

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? *5 Scuppers 7 freeing ports, & 3 Spring pipes each side*

Cargo Hatchways. How formed? *of plates and angles, Comings 30 above top of wood*

State size Main Hatch *19.6 x 12.0* Forehatch *7.6 x 6.0* Quarterhatch *11.6 x 10.0* & *7.6 x 7*

If of extraordinary size, state how framed and secured? *One deep web plate in the main hatch and one fore and after in all.*

What arrangement for shifting beams?

Hatches, If strong and efficient? *yes 3" solid*

Order for Special Survey No. *204* Date *April 21. 07*

Order for Ordinary Survey No. *204* Date *20. 07*

No. *204* in builder's yard. State dates of letters respecting this case *April 2<sup>nd</sup>, 22<sup>nd</sup>, 25<sup>th</sup> and June 14<sup>th</sup> 1887*

General Remarks (State quality of workmanship, &c.) *This ship has been built in accordance with the accompanying approved tracing of midship section; and the masts and yards with the accompanying approved tracing of same, in compliance with the Secretary's letters dated as above; and the Rules in all other respects, including the Committee's Circulars on Steel, have been adhered to.*

*She is a two decked vessel having three tiers of beams, a foremast 35 long, Poop 53 long; and 3 deck houses amidships 17 x 9, 30 x 17 & 17.*

*Lower Yards 88 x 20 1/2 diam 2 plates in the round 16 to 32 and 2 angles 3 x 2 1/2.*

*Lower Topsail Yards 76.6 x 17 1/2 - 2 - " - " - " - 10 to 32 - " - 2 - " - 3 x 2 1/2.*

*Upper - " - " - 68 x 16 1/2 - 2 - " - " - " - 9 to 32 - " - 2 - " - 2 1/2 x 2 1/2.*

*All plates tested at the works and doubled in way of truss hoops as required.*

*The materials used in the construction of this vessel, and the workmanship are very good.*

*Quarter pillars have been fitted as shown on the approved section.*

*State if one, two, or three decked vessel, or if open, or running decked; and the lengths of poop, bridge, forecabin, or raised quarter deck. (If double bottom, state particulars on separate form.)*

How are the surfaces preserved from oxidation? Inside *Cement and paint* Outside *paint.*

I am of opinion this Vessel should be Classed *+ 100 A 1*

The amount of the Entry Fee *£ 5* is received by me, *James Sharpin*

Special *£ 101 : 13 : 6* 24.12.1887

(to be sent as per margin). Certificate *£ 100 A 1*

(Travelling Expenses, if any, £ *100 A 1*)

Committee's Minute *280s 1st 3rd B*

Character assigned *280s 1st 3rd B*

*LA x CP*

*Steel*

*280s 1st 3rd B*

*LA x CP*

*Steel*

*280s 1st 3rd B*

*LA x CP*

*Steel*

*280s 1st 3rd B*

*LA x CP*

*Steel*

*280s 1st 3rd B*

*LA x CP*

*Steel*

*280s 1st 3rd B*

*LA x CP*

*Steel*

*280s 1st 3rd B*

*LA x CP*

*Steel*

*280s 1st 3rd B*

*LA x CP*

*Steel*

*280s 1st 3rd B*

*LA x CP*

*Steel*

*280s 1st 3rd B*

*LA x CP*

*Steel*

*280s 1st 3rd B*