

IRON SHIPS.

Rec 15/2/12

See vessel to India (Class No. 3418)
Section thereon

No. 116 Survey held at Dunbarton Date, First Survey 1st April 11 Last Survey 13th Feb 12

On the S.S. Amara Master S. Gale

| | | | | |
|---|----------------|---|--|--|
| Tonnage under Tonnage Deck | 1323.26 | ONE OR TWO DECKED, SPAR, OR AWNING-DECKED VESSELS. | THREE DECKED VESSELS. | Built at <u>Dunbarton</u> |
| Ditto of Third Spar, or Lining Deck | | Half moulded breadth ... <u>15.10</u> | Total Depth if three or more Decks ... | When built <u>1871</u> Launched <u>20th Decr 71</u> |
| Ditto of Poop, or Revised Cr. Dk. | | Depth from upper part of Keel to top of Upper Deck Beams ... <u>24.33</u> | Total Girth of Half Mid-ship Frame ... | By whom built <u>Wm Denny & Bros</u> |
| Ditto of Houses on Deck | <u>12.13</u> | Girth of Half Midship Frame (as per Rule) ... <u>34.66</u> | 3rd Number ... | Owners <u>Galbraith &</u> |
| Ditto of Forecastle | | 1st Number ... <u>73.99</u> | Length ... | Port belonging to <u>Glasgow</u> |
| Gross Tonnage | <u>1335.39</u> | Length ... <u>268.5</u> | (107 Rules) | Destined Voyage <u>Clas. Bangor</u> |
| Crew Space, as per Rules | <u>43.96</u> | 2nd Number ... <u>19865</u> | 4th Number ... | Surveyed while Building, Afloat, or in Dry Dock |
| Register Tonnage, as per Rules | <u>1323.26</u> | Depths to Length, under 12 | Breadths to Length under 9 | |
| Engine Room | <u>427.32</u> | | | |
| Register Tonnage, as a Steamer, cut on Beam | <u>264.11</u> | | | |

| | | | | | | | | | | | |
|----------------------------|----------------------------|-----------------|-------------------------|---|---------------------------|------------------|-------------------|-----------------------------|----------|-----------------------|----------|
| Length on deck as per Rule | Feet. Inches. <u>268.5</u> | Moulded Breadth | Feet. Inches. <u>30</u> | Depths from top of Floors to Upper and Main Deck Beams, as per Rule | Feet. Inches. <u>23.5</u> | Power of Engines | Horse. <u>150</u> | Nº. of Decks with flat laid | <u>2</u> | Nº. of Tiers of Beams | <u>2</u> |
|----------------------------|----------------------------|-----------------|-------------------------|---|---------------------------|------------------|-------------------|-----------------------------|----------|-----------------------|----------|

Dimensions of Ship per Register, length, 271.5 breadth, 30.15 depth, 22.6

| | 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 | <u>10x2 1/2</u> | <u>10x2 1/2</u> | | | | | | |
| Do. if centre through plate, depth and thickness | <u>9x2 1/2</u> | <u>9x2 1/2</u> | | | | | | |
| Stem, if bar iron, moulding and thickness | <u>9x5</u> | <u>9x5</u> | | | | | | |
| Stern-post for Rudder do. | <u>9x5</u> | <u>9x5</u> | | | | | | |
| Stern-post for Propeller | <u>9x5</u> | <u>9x5</u> | | | | | | |
| Distance of Frames from moulding edge to moulding edge, all fore and aft | <u>24</u> | <u>24</u> | | | | | | |
| Frames, size of Angle Iron, for 2/3 length amidships | <u>5</u> | <u>5</u> | <u>3</u> | <u>3</u> | <u>8</u> | <u>8</u> | | |
| Do. for 1/4 at each end | <u>5</u> | <u>5</u> | <u>3</u> | <u>3</u> | <u>7</u> | <u>7</u> | | |
| Reversed Frames, size of Angle Iron | <u>3 1/2</u> | <u>3 1/2</u> | <u>3</u> | <u>3</u> | <u>8</u> | <u>8</u> | | |
| Floors, depth and thickness of Floor Plate at mid line for half the length amidships | <u>22</u> | <u>22</u> | <u>10</u> | <u>10</u> | <u>2 1/2</u> | <u>10</u> | | |
| Do. at the ends | <u>4 1/2</u> | <u>4 1/2</u> | <u>8</u> | <u>8</u> | <u>8</u> | <u>8</u> | | |
| Do. do. do. at Bilge Keelson | <u>10</u> | <u>10</u> | <u>10</u> | <u>10</u> | <u>10</u> | <u>10</u> | | |
| Do. height extended at the Bilges | <u>4 1/2</u> | <u>4 1/2</u> | | | <u>4 3/4</u> | | | |
| Beams, Upper, Spar, or Awning Deck (No.) | | | | | | | | |
| single or double Angle Iron, Plate or Tee Bulb Iron | <u>7</u> | <u>7</u> | <u>7</u> | <u>7</u> | <u>7</u> | <u>7</u> | | |
| Average space | <u>4 1/2</u> | <u>4 1/2</u> | <u>5</u> | <u>5</u> | <u>2 1/2</u> | <u>5</u> | | |
| Beams, Main or Middle Deck (No.) | | | | | | | | |
| single or double Angle Iron, Plate or Tee Bulb Iron | <u>7 1/2</u> | <u>7 1/2</u> | <u>7</u> | <u>7</u> | <u>7</u> | <u>7</u> | | |
| Average space | <u>4 1/2</u> | <u>4 1/2</u> | <u>5</u> | <u>5</u> | <u>2 1/2</u> | <u>5</u> | | |
| Beams, Lower Deck, Hold or Orlop (No.) | | | | | | | | |
| single or double Angle Iron, Plate or Tee Bulb Iron | <u>7 1/2</u> | <u>7 1/2</u> | <u>7</u> | <u>7</u> | <u>7</u> | <u>7</u> | | |
| Average space | <u>4 1/2</u> | <u>4 1/2</u> | <u>5</u> | <u>5</u> | <u>2 1/2</u> | <u>5</u> | | |
| Keelson Centre line, single or double plate, box, or Intercostal, size of Plates | <u>2 1/2</u> | <u>2 1/2</u> | <u>9</u> | <u>9</u> | <u>2 1/2</u> | <u>9</u> | | |
| Do. Bulb Plate to Intercostal Keelson | <u>8</u> | <u>8</u> | <u>9</u> | <u>9</u> | <u>7 1/2</u> | <u>9</u> | | |
| Do. Size of Angle Irons | <u>5 1/2</u> | <u>5 1/2</u> | <u>4</u> | <u>4</u> | <u>9</u> | <u>9</u> | | |
| Do. Side Intercostal Keelson, size of Plates | <u>2 1/2</u> | <u>2 1/2</u> | <u>9</u> | <u>9</u> | <u>9</u> | <u>9</u> | | |
| Do. Angle Irons on tops of Floors | <u>5 1/2</u> | <u>5 1/2</u> | <u>4</u> | <u>4</u> | <u>9</u> | <u>9</u> | | |
| Do. Bilge Keelson, Bulb Iron | | | | | | | | |
| Do. do. Intercostal plates riveted at fore end to plating for 1/2 length | <u>10 1/2</u> | <u>10 1/2</u> | <u>8</u> | <u>8</u> | <u>8</u> | <u>8</u> | | |
| Do. do. Angle Irons | <u>5 1/2</u> | <u>5 1/2</u> | <u>4</u> | <u>4</u> | <u>9</u> | <u>9</u> | | |
| Side Stringers (No.) size of Angle Irons | <u>5 1/2</u> | <u>5 1/2</u> | <u>4</u> | <u>4</u> | <u>9</u> | <u>9</u> | | |
| Do. Intercostal plates riveted to plating for length | | | | | | | | |

Transoms, material Iron or, if none, in what manner compensated for.

Knight-heads None Hawse Timbers Wood chocks

Windlass Capstan Pall Bar

The Frames extend in one length from Keel to Main Deck String Riveted through plates with 3/8 in. Rivets, about 6 apart.

The Reverse Angle Irons on the floors and frames extend from the middle line in every frame to above lower deck and to Main Deck alternately

Keelsons. Are the various lengths of Plates and Angle Irons properly connected? Yes And are their butts properly shifted? Yes

Plates, Garboard, double or single Riveted to Keel, double or single at upper edge, with Rivets 1/2 in. diameter, averaging 3 1/2 ins. from centre to centre.

Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets 7/8 in. diameter, averaging 3 1/2 ins. from centre to centre.

Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes 1 1/2 thick, double or single Riveted; with Rivets 7/8 in. diameter averaging 3 1/2 ins. from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? No

Do. of None Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 1 1/2 thicker than their plates.

Do. Edges from bilge to Main Sheerstrake, worked carvel with a lining piece 1 1/2 thick, or clencher, double or single riveted; with rivets 1 1/2 in. diameter, averaging 3 ins. from centre to centre.

Do. Edges of Sheerstrake, Main, double or single Riveted. Upper, double or single Riveted. At upper edge single At lower edge double

Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps 1 1/2 thick, double or single Riveted; with Rivets 1 1/2 in. diameter, averaging 3 ins. from centre to centre.

Do. Butts of Main Sheerstrake, double or treble Riveted. Butts of Upper or Spar Sheerstrake, and Upper Deck Stringer Plate, double or treble Riveted for 1/2 length amidships. Breadth of laps of plating in double Riveting 3 1/2 Breadth of laps of plating in single Riveting —

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted 2

Planksheer, how secured to the plating of the sides. Waterway, how secured to the planksheer and to the Beams. (Explain by Sketch, if necessary.) See Section of India

Beams of the various Decks, how secured to the sides? Faced bracket knees No. of Breasthooks, four Crutches, after floor

What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Blanchard extend to height of after bulkhead

Manufacturer's name or trade mark Cuscutt Blochawin

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

Builder's Signature, Wm Denny & Bros Surveyor's Signature, Wm Ross

Workmanship. Are the butts of plating planed or otherwise fitted? Planed
 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? Mid length pieces
 Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? They do and are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? They are
 Are there any rivets which either break into or have been put through the seams or butts of the plating? A few at corners of 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

Masts of Oregon Pine 9799 Iron

| | | (107 Rules) | | | | | ANCHORS, No. Weight. Test as per Certificate. W'ght req'd per Rule. Test req'd per Rule. | | | | |
|----------------------|-------------------------|---|---------|--------------------------|---------------------|----------------------|--|------------|--------------------------|-----------------------|----------------------|
| Number for equipment | | Fathoms. | Inches. | Test as per Certificate. | In. req'd per Rule. | Test req'd per Rule. | &c. Rocker | Ex. Stock. | Test as per Certificate. | W'ght req'd per Rule. | Test req'd per Rule. |
| No. | SAILS. | 150 | 1 9/16 | 44 | 300 | 1 9/16 | 42 | 24.2.7 | 24.2.1.21 | 23 1/2 | 23 1/20 |
| | CABLES, &c. | 150 | 1 9/16 | 44. | | | Bowers | 23.3.0 | 23.13.3.0 | 4 | " |
| No. | Fore Sails, | (State Machine where Tested, and name of Superintendent). <u>S.P.T. Co. T. No. 5489 5490. Signed S. Tregenna</u> | | | | | | | | | |
| | Fore Top Sails, | | | | | | | | | | |
| No. | Fore Topmast Stay Sails | 90 | 1 | | 90 | 1 | Stream | 20.0.2 | 20.17.1.21 | 19.5.25 | 20 1/20 |
| | Main Sails, | | 1 1/2 | | | 10 | Stream | 11-0-0 | | 10 | |
| No. | Main Top Sails, | | 3- | | | 6 | Kedges | 5. 0. 17 | | 3- | |
| | and | 60 | 9 | | | 6 | | 2. 3. 0 | | 2 1/2 | |

Her Standing and Running Rigging is sufficient in size and good in quality. She has Iron Long Boat and
 The present state of the Windlass is Capstan good and Rudder good Pumps good
Engine Room Skylights.—How constructed? in deep iron Comings How secured in ordinary weather? Secured to comings
 What arrangements are there for deadlights in such for bad weather? Bullseyes in iron dead lights
Coal Bunker Openings.—How constructed? in main deck How are lids secured? by bolts 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?
four feet and three iron pipes on each side
Cargo Hatchways.—How formed? of iron Comings State size 18 1/2 x 27- and less
 If of extraordinary size, state how framed and secured? —
 What arrangement for shifting beams? one of wood in large hatch in both upper and lower decks
Hatches, themselves, whether strong and efficient? Yes **Main Hatchways.**—State size 18 1/2 x 27-

Order for Special Survey No. 445 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought Built under
 Date 22nd July 1871 Surveys held 2nd. On the plating during the progress of riveting Special survey.
 Order for Ordinary Survey No. — while building 3rd. When the beams were in and fastened, and before the decks were laid between
 Date — as per 4th. When the ship was complete, and before the plating was finally coated or cemented 4th April 1871
 No. 156 in builder's yard. Section 18. 5th. After the ship was launched and equipped and 13th February 1872
(44 Visits)

General Remarks,
 This is a sister vessel to "India" (Clas. No. 3410) to which report the tracing of midship section is attached.
 The certificates of test for the cables are endorsed "Nineteen links selected by me out of the 300 fathoms" &c. like at 75 tons 10 Cwt
Signed Samuel Tregenna

State if one, two or three decked vessel, or if spar or awning decked, and lengths of poop, fore-castle or raised quarter deck, or of double or part double bottom.
 In what manner are the surfaces preserved from oxidation? Inside Cement & Paint Outside Paint
 I am of opinion this Vessel should be Classed +100A 2 Decks

The amount of the Entry Fee£ 5 : 0 : 0 is received by me,
Feb 1872 Special£ 58 : 1 : 6
 Certificate gratis
 (Travelling Expenses)
 (if any) £ 7. 7.
 Committee's Minute 16th February 1872
 Character assigned 100A 2 Decks
100A. 1.
16/2/72
Feb 1872

