

IRON SHIP.

No. 4562 Survey held at Dunbarton Date, First Survey 9th July Last Survey 17th Dec 1877
On the Bk Clydebank Master J. M. Robie

TONNAGE under 811.83 ONE, OR TWO DECKED, THREE DECKED VESSEL.
Tonnage Deck 811.83 SPAR, OR AWNING DECKED VESSEL.
Ditto of Third, Spar, or Awning Deck 60.05 HALF BREADTH (moulded) 15.00
Ditto of Poop, or Raised Or. Dk. 21.20 DEPTH from upper part of Keel to top of Upper Deck Beam 21.29
Ditto of Houses on Deck 21.20 GIRTH of Half Midship Frame (as per Rule) 31.97
Ditto of Forecastle 21.20 1st NUMBER 69.24
Gross Tonnage 893.08 1st NUMBER, if a THREE DECKED VESSEL 69.24
Less Crew Space 29.70 LENGTH 105
Less Engine Room 29.70 2nd NUMBER 12009
Register Tonnage as out on Beam 863.38 PROPORTIONS—Breadths to Length 5.70
Depths to Length—Upper Deck to Keel 2.60
Main Deck ditto 2.60

Built at Dunbarton
When built 1877 Launched 20th Nov
By whom built Birrell Stearns & Co
Owners G. G. McFarlane
Port belonging to Glasgow
Destined Voyage Dub. Ceylon
If Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 105 BREADTH—Moulded 31.96 DEPTH top of Floors to Upper Deck Beams 19.5 Power of Engines 100A N° of Decks with flat laid 2
N° of Tiers of Beams 2

Dimensions of Ship per Register, length, 105.2 breadth, 32.2 depth, 19.25

	Inches in Ship	Inches per Rule
KEEL, depth and thickness	<u>8 x 2 3/4</u>	<u>8 x 2 3/4</u>
STEM, moulding and thickness	<u>7 x 2 3/4</u>	<u>7 x 2 3/4</u>
STERN-POST for Rudder do. do. for Propeller	<u>7 x 2 3/4</u>	<u>7 x 2 3/4</u>
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>22</u>	<u>22</u>
FRAMES, Angle Iron, for 1/2 length amidships Do. for 1/2 at each end Irregularly rolled	<u>4 1/2 x 3</u>	<u>4 1/2 x 3</u>
REVERSED FRAMES, Angle Iron	<u>3 x 3</u>	<u>3 x 3</u>
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships thickness at the ends of vessel depth at 3/4 the half-bdth. as per Rule height extended at the Bilges	<u>21 x 9</u>	<u>21 x 9</u>
BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron Single or double Angle Iron on Upper edge Average space	<u>4 1/2 x 3</u>	<u>4 1/2 x 3</u>
BEAMS, Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron Single or double Angle Iron, on Upper Edge Average space	<u>4 1/2 x 3</u>	<u>4 1/2 x 3</u>
BEAMS, Lower Deck, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron Single or double Angle Iron on Upper Edge Average space	<u>4 1/2 x 3</u>	<u>4 1/2 x 3</u>
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates Rider Plate Bulb Plate to Intercoastal Keelson Angle Irons Irregularly rolled Double Angle Iron Side Keelson Side Intercoastal Plate Attached to outside plating with angle iron	<u>14 x 10</u>	<u>14 x 10</u>
BILGE Angle Irons Irregularly rolled do. Bulb Iron fore & aft do. Intercoastal plates riveted to plating for length	<u>4 1/2 x 3 1/2</u>	<u>4 1/2 x 3 1/2</u>
BILGE STRINGER Angle Irons Intercoastal plates riveted to plating for length	<u>4 1/2 x 3 1/2</u>	<u>4 1/2 x 3 1/2</u>
SIDE STRINGER Angle Irons	<u>4 1/2 x 3 1/2</u>	<u>4 1/2 x 3 1/2</u>

	Inches in Ship	16ths in Ship	Inches per Rule	16ths per Rule
Flat Keel Plates, breadth and thickness	<u>32</u>	<u>10</u>	<u>32</u>	<u>10</u>
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied	<u>32</u>	<u>10</u>	<u>32</u>	<u>10</u>
fin up part of Bilge to l. edge of Sh'rstrake Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake. Up. or Spar Dk Sh'rstrake, brdth & thickness	<u>36</u>	<u>10</u>	<u>36</u>	<u>10</u>
Butt Straps to outside plating, breadth & thickness Lengths of Plating Shifts of Plating, and Stringers Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	<u>16 1/4</u>	<u>9 1/4</u>	<u>16 1/4</u>	<u>9 1/4</u>
Angle Iron on ditto Tie Plates fore and aft, outside Hatchways Diagonal Tie Plates on Beams No. of Pairs Planksheer material and scantling Waterways do. do. Flat of Upper Deck do. do. How fastened to Beams Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness Is the Stringer Plate attached to the outside plating?	<u>4 1/2 x 3 1/2</u>	<u>4 1/2 x 3 1/2</u>	<u>4 1/2 x 3 1/2</u>	<u>4 1/2 x 3 1/2</u>
Angle Irons on ditto, No. Tie Plates, outside Hatchways Diagonal Tie Plates on Beams, No. of pairs Waterways materials and scantlings Flat of Middle Deck do. do. How fastened to Beams Stringer Plates on ends of Lower Deck, Hold or Orlop Beams Is the Stringer Plate attached to the outside plating?	<u>2</u>	<u>10</u>	<u>2</u>	<u>10</u>
Angle Irons on ditto, No. Stringer or Tie Plates, outside Hatchways Flat of Lower Deck Ceiling betwixt Decks, thickness and material in hold do. do. Main piece of Rudder, diameter at head do. at heel Can the Rudder be unshipped afloat? Bulkheads No. 1 Thickness of Height up How secured to sides of ship Size of Vertical Angle Irons and distance apart Are the outside Plates doubled two spaces of Frames in length?	<u>2</u>	<u>10</u>	<u>2</u>	<u>10</u>

Transoms, material. Knight-heads. Hawse Timbers. Iron Castings
Windlass Greenheart Pall Bitt Greenheart

The FRAMES extend in one length from Keel to Deck Stringer Riveted through plates with 3/4 in. Rivets, about 6 apart.
The REVERSED ANGLE IRONS on floors and frames extend from across middle line to upper deck in every 2 frames and to lower deck beams 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 in. diameter, averaging 5 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clench, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from centre to centre.
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 1/4 ins. from centre to centre.
Butts of 2 Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 16 thicker than the plates they connect.
Edges from bilge to Main Sheerstrake, worked clench, double or single riveted; with rivets 3/4 in. diameter, averaging 3 1/2 ins. from cr. to cr.
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 1/2 ins. from cr. to cr.
Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted.
Butts of Main Sheerstrake, treble riveted for 1/2 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.
Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for length.
Breadth of laps of plating in double riveting 4 1/2 Breadth of laps of plating in single riveting 4 1/2

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Part treble the rest double
Waterway, how secured to Beams Gutter Waterway (Explain by Sketch, if necessary.)
Beams of the various Decks, how secured to the sides? Laced brackish knees No. of Breasthooks, four Crutches, three
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Drumpeles Consett
Manufacturer's name or trade mark, Drumpeles Consett Mast & Yards Phoenix & Co

The above is a correct description.

Signature, Minchell & Co Surveyor's Signature, N. Minchell
Surveyor to Lloyd's Register of British and Foreign Shipping

Workmanship. Are the butts of plating planed or otherwise fitted? *Planed where practicable*
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* 19787 *Ln*
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? *Very few these at butts of plates*

Masts, Bowsprit, Yards, &c., are *now* in *good* condition, and sufficient in size and length. If of Iron or Steel give 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
Fore Mast 60' 5" x 24" 3 plates in section 6 1/2"; Butts lapped and treble riveted edges double riveted
Main Mast 60' 6" x 24" 3 plates in section 6 1/2"; Butts lapped and treble riveted edges double riveted
Bowsprit 21' 0" x 27" 7 1/2"
Fore Main Mast 43' 0" x 18" 2 plates in section 5 1/2"; Butts lapped and treble riveted edges single riveted
Lower Bowsprit 60' 6" x 15" 4 1/2" Brand of Iron Phoenix B.D. tested for value

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.	N°.	Weight.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
N°.	SAILS.	CABLES, &c.	30.	1 1/2	66 1/2 4 1/2	270 1 1/2 66 1/2 4 1/2	Rodney Bowers LPHLV.	4177	23. 3. 6	23. 10. 1	23 1/2	23 1/2
	Fore Sails,	Chain 240	1 1/2	66 1/2 4 1/2				4171	23. 2. 11	23. 5. 3	21	
	Fore Top Sails,							4172	21. 3. 6	22. 4. 0	21	21 1/2
	Fore Topmast	20 fath.			26 1/2	246 ch. R. S. L. H. V.						
	Stay Sails	Hampr Strm Cbl 90	7/8	20 1/2 1 1/2	90 1 1/2 47. 10			4173	7. 3. 14	10. 0. 1. 7	10 1/2	
	Main Sails,	Hawser ...			11. 77. 10.							
	Main Top Sails,	Towlines ...	90	0	0			Stream ...	4174	3. 3. 25	5 1/2	
	and	Warp ...	90	5-	5-			Kedges ...	4170	2. 0. 15	2 1/2	
		quality <i>Good</i>										

Standing and Running Rigging *Five Stays* sufficient in size and *Good* in quality. She has *four* Long Boatland Pumps *5" Wallace's*
The Windlass is *Good* Capstan *3* *Good* and Rudder

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? *4 Scuppers 3 fath. and 2 moving pipes on each side*

Cargo Hatchways.—How formed? *Plate and angle iron*
State size Main Hatch *14' 0" x 11'* Forehatch *6' x 5' 6"* Quarterhatch *6' x 5' 6"*

If of extraordinary size, state how framed and secured? *Platbeam in main hatchway*
What arrangement for shifting beams?

Hatches, If strong and efficient? *Yes*

Order for Special Survey No. <i>129</i>	1st. On the several parts of the frame, when in place, and before the plating was wrought	<i>July 9. 26. 30. Aug 2. 8. 16. 23. 27. Sept 3. 6. 12.</i>
Date <i>June 1877</i>	2nd. On the plating during the process of riveting	<i>17. 20. 26. Oct 1. 4. 8. 12. 18. 22. 29. Nov 1. 5. 8.</i>
Order for Ordinary Survey No. <i>✓</i>	3rd. When the beams were in and fastened, and before the decks were laid....	<i>15. 23 26. 29. Dec 6. 10. 13. 17 1877</i>
Date <i>✓</i>	4th. When the ship was complete, and before the plating was finally coated or cemented..	
No. <i>26</i> in builder's yard.	5th. After the ship was launched and equipped	

General Remarks (State quality of workmanship, &c.)
The Workmanship is good. She is built in accordance with the accompanying approved midship section and sheer plan

On account of this vessel striking the Wood Quay opposite where she was launched she was placed in Kelvinhaugh Ship and a few rivets in the rudder and its struts renewed and further through taking fire part of the fore deck and cabin fittings were also renewed

36' 0" Moulding 21' Midship beam 27' x 14' 2"
State if one, two, or three, decked vessel, or if spar, or iron decked; and the lengths of poop, forecabin, or raised quarter deck, and the length of double, or part double bottom.

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

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

The amount of the Entry Fee ... £ *5* : : : is received by me, *W. S. Thompson*

Special ... £ *43* : 3 : : Dec 1877

Certificate ... *Builder*

(Travelling Expenses, if any, £ *✓*).

Committee's Minute 21st December, 1877,

Character assigned *100 A*

W. S. Thompson

This vessel appears eligible to be classed as recommended by 100 A. 1. Lloyd's Register of Shipping