

STEEL SHIP. 22818

Rec 25/2/19
1879

No. 4812 Survey held at Glasgow On the S. "Bay of Cadiz"

Date, First Survey 12th April 1878 Last Survey 24th Feb'y

Master Joseph Cotton

TONNAGE under 1531.96

Tonnage Deck

Ditto of Third, Spar, or Awning Deck

Ditto of Poop, or Raised Or. Deck

Ditto of Houses on Deck

Ditto of Forecastle

Gross Tonnage 1700.05

Less Crew Space

Less Engine Room

Register Tonnage as cut on Beam 1625.88

ONE, OR TWO DECKED, THREE DECKED VESSEL.

SPAR, OR AWNING-DECKED VESSEL.

HALF BREADTH (moulded) 20.00

DEPTH from upper part of Keel to top of Upper Deck Beams 25.50

GIRTH of Half Midship Fram (as per Rule) 39.00

1st NUMBER 84.50

2nd NUMBER 21040

PROPORTIONS—Breadths to Length 6.2

Length 249

2nd NUMBER 21040

PROPORTIONS—Breadths to Length 6.2

Depths to Length—Upper Deck to Keel

Main Deck ditto 9.7

Built at Glasgow

When built 1878 Launched 13th Dec 1878

By whom built J. G. Thomson

Owners J. G. Bulloch & Co.

Port belonging to London

Destined Voyage Rangoon

Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 249 • BREADTH—Moulded... 40 • DEPTH top of Floors to Upper Deck Beams 23 5 Do. do. Main Deck Beams 23 5 Power of Engines ... Horse. N°. of Decks with flat laid Two N°. of Tiers of Beams Two

Dimensions of Ship per Register, length, 260.4 breadth, 40.3 depth, 22.7

	Inches in Ship.	Inches per Rule.		Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	9 1/2 x 2 1/2	9 1/2 x 2 1/2	FLAT KEEL PLATES, breadth and thickness	36 19	36 19
STEM, moulding and thickness	9 x 2 1/2	9 x 2 1/2	PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges	16 18 20	16 18
STERN-POST for Rudder do. do.	9 x 2 1/2	9 x 2 1/2	" of doubling at Bilge, or increased thickness, and length applied	—	—
" " for Propeller	—	—	" fin up part of Bilge to Ir. edge of Sh'rstrake	16 18	16 18
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24	" Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Main to Upper or Spar Deck Sh'rstrake	40 21	40 21
FRAMES, Angle Iron, for 1/2 length amidships	6 3 12	6 3 12	" Upper or Spar Deck Sh'rstrake, breadth & thickness	—	—
Do. for 1/2 at each end	5 3 12	5 3 12	Butt Straps to outside plating, breadth & thickness	16 1/4 x 22 1/2	16 1/4 x 22 1/2
REVERSED FRAMES, Angle Iron	3 1/2 3 1/2 13	3 1/2 3 1/2 13	Lengths of Plating	14 ft.	10 ft.
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	25 x 16	25 x 16	Shifts of Plating, and Stringers	Two spaces	Two spaces
" thickness at the ends of vessel	—	—	Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	—	—
" depth at 1/2 the half-bdth. as per Rule	12 1/2	12 1/2	Angle Iron on ditto	—	—
" height extended at the Bilges	Twice	Twice	Tie Plates fore and aft, outside Hatchways	—	—
BEAMS, Upper, Spar, or Awning Deck	—	—	Diagonal Tie Plates on Beams No. of Pairs	—	—
Single or double Angle Iron, Plate or Tee Bulb Iron	—	—	Plank-sheer material and scantling	—	—
Single or double Angle Iron on Upper edge	—	—	Waterways do. do.	—	—
Average space	—	—	Flat of Upper Deck do. do.	—	—
BEAMS, Main, or Middle Deck	9 x 14	9 x 14	How fastened to Beams	—	—
Single or double Angle Iron, Plate or Tee Bulb Iron	—	—	Stringer Plate on ends of Main or Middle Deck	52 16	52 16
Single or double Angle Iron on Upper edge	—	—	Beams, breadth and thickness	—	—
Average space	48	48	Is the Stringer Plate attached to the outside plating?	Yes	Yes
BEAMS, Lower Deck, Hold, or Orlop	10 x 14	10 x 14	Angle Irons on ditto, No. 1	5 1/2 x 13	5 1/2 x 13
Single or double Angle Iron, Plate or Tee Bulb Iron	—	—	Tie Plates, outside Hatchways with additional plating of Beams as per amended sketch	—	—
Single or double Angle Iron on Upper edge	—	—	Diagonal Tie Plates on Beams, No. of Pairs	—	—
Average space	48	48	Waterways materials and scantlings	—	—
KEELSONS Centre line, single or double plate, box, or Intercostal, Plates	18 x 21	18 x 21	Flat of Middle Deck do. Yellow Pine	4 1/2	4
" Rider Plate	12 x 21	12 x 21	How fastened to Beams	—	—
" Bulb Plate to Intercostal Keelson	—	—	Stringer Plates on ends of Lower Deck, Hold, or Orlop Beams	37 14	37 14
" Angle Irons	5 1/2 4 14	5 1/2 4 14	Is the Stringer Plate attached to the outside plating?	Yes	Yes
" Double Angle Iron Side Keelson	5 1/2 4 14	5 1/2 4 14	Angle Irons on ditto, No. 2	4 x 4 x 15	4 x 4 x 15
" Side Intercostal Plate	—	—	Stringer or Tie Plates, outside Hatchways	14 15	14 15
do. Angle Irons	3 1/2 3 1/2 12	3 1/2 3 1/2 12	Flat of Lower Deck Yellow Pine	3	3
Attached to outside plating with angle iron	—	—	Ceiling betwixt Decks, thickness and material	Spanning	—
LGE Angle Irons	5 1/2 4 14	5 1/2 4 14	" in hold	2 1/2	2 1/2
" do. Bulb Iron	—	—	Main piece of Rudder, diameter at head	6 1/2	6 1/4
" do. Intercostal plates riveted to plating for 1/2 length	—	—	do. at heel	3 1/4	3 1/4
STRINGER Angle Irons	5 1/2 4 13	5 1/2 4 13	Can the Rudder be unshipped afloat?	Yes	Yes
Intercostal plates riveted to plating for 2/3 length	12 x 14	12 x 14	Bulkheads No. 1 Thickness of	7-6	7-6
STRINGER Angle Irons	5 1/2 4 13	5 1/2 4 13	" Height up, to main deck	16	16
Intercostal plates riveted to plating for 2/3 length	12 x 14	12 x 14	" How secured to sides of ship, by double frames	—	—
ms, material. Knight-heads. Hawse Timbers. Steel	—	—	" Size of Vertical Angle Irons 3 1/2 x 3 1/2 and distance apart 30 ins.	—	—
ss Harfields Patent Pall Bitt	—	—	" Are the outside Plates doubled two spaces of Frames in length?	Yes	Yes

FRAMES extend in one length from Keel to Gunwale Riveted through plates with 3/4 in. Rivets, about 6 apart.

VERSED ANGLE IRONS on floors and frames extend from middle line to Main deck

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

G. Garboard, double riveted to Keel, with rivets 1/8 in. diameter, averaging 5 1/2 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 1/2 ins. from centre to centre.

Butts of Three Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 2/32 thicker than the plates they connect.

Edges from bilge to Main Sheerstrake, worked clencher, double riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from cr. to cr.

Edges of Main Sheerstrake, double 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 5 1/2 Breadth of laps of plating in single riveting

traps of Keelsons, Stringer and Tie Plates, treble, double Riveted?

erway, how secured to Beams Gutter (Explain by Sketch, if necessary.)

ams of the various Decks, how secured to the sides? By knees turned down No. of Breasthooks, Five Crutches, Five

hat description of STEEL is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Manufactured by the

Manufacturer's name or trade mark, Steel Company of Scotland (Limited) "Siemens" process stamped

The above is a correct description.

Builder's Signature, J. G. Thomson Surveyor's Signature, J. G. Thomson

Surveyor to Lloyd's Register of British and Foreign Shipping.

IRON 483-0031

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*

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* 22818 Iron

Do any rivets break into or through the seams or butts of the plating? *None*

Masts, Bowsprit, Yards, &c., are *all* 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 *Three masts Ship rigged*

The Masts Bowsprit and Yards are of Steel (Siemens process) hot and cold tested and are of the dimensions and scantlings as per approved sketches (2nos) herewith

Tested at Newton by D. G. Lewis

NUMBER for EQUIPMENT 22442

N ^o .	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.	N ^o .	Weight.	Test per Certificate.	Wt req'd per Rule.	Test req'd per Rule.
		Chain								Ex. Stock.			
Two	Fore Sails,	300	1 1/2	67 1/2	270-1 1/2	67 1/2	10	1 1/2 Bowers	1	36.3.10	33.13.1.24	36 1/2	33 1/2
	Fore Top Sails,	300	1 1/2	94 1/2	270-1 1/2	94 1/2	10	5 1/2	1	36.3.9	30.10.0.7	36 1/2	33 1/2
Suits	Fore Topmast Stay Sails	390	1 1/2	13 1/2	75-1 1/2	13 1/2	27	1 1/2	1	31.0.24	29.11.1.0	31	—
	Main Sails,	90	4 1/2	90-4 1/2	180-6	5 1/2	—	Total =	104	3.15	Total	104	—
	Main Top Sails,	180	3 1/2	180-5 1/2	90-5	—	—	Stream	1	13.3.11	15.10.1.7	14	—
and	Warp	90	5	90-5	—	—	—	Kedges	1	5.2.20	8.0.2.14	7	—
	quality New	90	5	90-5	—	—	—	12 1/2	1	2.2.6	—	3 1/2	—

Standing and Running Rigging *Wire & Hemp* sufficient in size and *best* in quality. She has *Five* Boats *two with buoyancy*

The Windlass is *Good* Capstans *6 no.* and Rudder *Good* Pumps *Stones new Patent*

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? *Scuppers Swath ports & 3 side pipes each side*

Cargo Hatchways.—How formed? *Plate steel and steel angles*

State size Main Hatch *20 x 10* Forehatch *8 x 6* Quarterhatch *12 x 8*

If of extraordinary size, state how framed and secured? *A divisional web plate at main hatch.*

What arrangement for shifting beams? *Yes.*

Hatches, If strong and efficient? *Yes.*

Order for Special Survey No. *167*

Date *July 2/78*

Order for Ordinary Survey No.

Date

No. *167* in builder's yard.

- DATES OF SURVEYS held while building as per Section 18.
- 1st. On the several parts of the frame, when in place, and before the plating was wrought
 - 2nd. On the plating during the process of riveting
 - 3rd. When the beams were in and fastened, and before the decks were laid...
 - 4th. When the ship was complete, and before the plating was finally coated or cemented...
 - 5th. After the ship was launched and equipped

1878—April 12. 17. 22. 23. 26 May 2. 10. 16. 23. 30
June 6. 13. 18. 24. 27 July 4. 10. 23. 25 Aug. 1. 6. 8
Sept 13. 14. 16. 20. 23. 28. 30 Sept 3. 5. 10. 14. 19.
Sept 24 Oct 1. 3. 9. 11. 15. 18. 22. 29. 31 Nov 5. 8
Nov 12. 14. 19. 22. 27. 29 Dec 2. 6. 9. 11. 19. 30
1879—Jan 4. 9. 16. 30. Feb. 5. 12. 18. 22. 24.

General Remarks (State quality of workmanship, &c.)

The workmanship is of good quality—Built in accordance with the approved sketches of midship and longitudinal sections herewith and in general conformity with the Rules with a view to the grade contemplated.

Some additions have been made to the thicknesses of the shell plating and a foundation plate fitted to the middle line keelson since the drawings were approved which are shown in the sketch of midship section in blue ink.

In consequence of the Steel (Siemens process) of which this vessel is chiefly composed being comparatively a new material used in shipbuilding special attention has been given as to its quality as exhibited in punching shearing rolling and working generally in addition to the Tests made inserted in the accompanying Form which have proved it to be satisfactory. A number of these hot and cold forged tests were inspected by the Visitors Committee when here in August 1878 at the builders premises.

The requirements of Notice No 392 as to "ships built of steel" have been complied with.

State if one, two, or three decked vessel, or if spar, or running 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 & Coating*

I am of opinion this Vessel should be Classed *100 A 1 (Steel)*

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

Special ... £ 65 : 13 : - July 1879

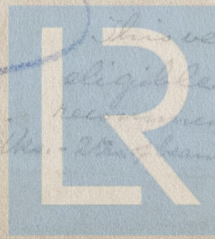
Certificate ... *Gratis*

(Travelling Expenses, if any, £ 6. 6. 4.)

Committee's Minute 25th February, 1879.

Character assigned *100 A 1*
By two of 2nd Anchors *Steel*

Surveyor to Lloyd's Register of British and Foreign Shipping.



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