

IRON SHIP.

No. 3685 Survey held at Dumbarton Date, First Survey 22nd July 72 Last Survey 2nd July 1873
 On the Spar decked S^r Julio Diniz Yard Number 74 Master J Contente

TONNAGE under Deck 724.15
 Ditto of Third Spar, or Awning Deck 377.77
 Ditto of Poop, or Raised Or. Dk. 5.50
 Ditto of House on Deck 1107.42
 Gross Tonnage 1107.42
 Less Crew Space for fees 1101.92
 Less Engine Room 354.37
 Register Tonnage (as cut on Beam) 747.55

ONE, OR TWO DECKED, THREE DECKED VESSEL.
 SPAR, OR AWNING DECKED VESSEL.
 HALF BREADTH (moulded) 14.65
 DEPTH from upper part of Keel to top of Main Upper Deck Beams 17.66
 GIRTH of Half Midship Frame (as per Rule) 28.34
 1st NUMBER 6085
 1st NUMBER, if a THREE DECKED VESSEL deduct 7 feet
 LENGTH (1871 Rules) 233
 2nd NUMBER 14170
 PROPORTIONS—Breadths to Length Under 8
 Depths to Length—Upper Deck to Keel Under 8
 Main Deck ditto Under 14

Built at Dumbarton
 When built 1872.3 Launched 29th March
 By whom built J & R Swan
 Owners Progresso Maritimo do Porto
 Port belonging to Oporto
 Destined Voyage Clas Oporto
 If Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 233 BREADTH Moulded 29.3 DEPTH top of Floors to Upper Deck Beams 25.48 Do. do. Main Deck Beams 16.16 Power of Engines x Horse. x No. of Decks with flat laid 3 No. of Tiers of Beams 3
 Dimensions of Ship per Register, length, 244 breadth, 29.5 depth, 16.05 *x Will be forwarded*

	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2
STEM, moulding and thickness	1 1/2 x 2 1/2	1 1/2 x 2 1/2	1 1/2 x 2 1/2	1 1/2 x 2 1/2	1 1/2 x 2 1/2	1 1/2 x 2 1/2	1 1/2 x 2 1/2	1 1/2 x 2 1/2	1 1/2 x 2 1/2	1 1/2 x 2 1/2	1 1/2 x 2 1/2	1 1/2 x 2 1/2
STERN-POST for Rudder do. do.	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4
for Propeller	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4	8 1/2 x 4
Distance of Frames from moulding edge to moulding edge, all fore and aft	23	23	23	23	23	23	23	23	23	23	23	23
FRAMES, Angle Iron, for 1/2 length amidships	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
Do. for 1/2 at each end	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
REVERSED FRAMES, Angle Iron	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	10	10	10	10	10	10	10	10	10	10	10	10
thickness at the ends of vessel	6	6	6	6	6	6	6	6	6	6	6	6
depth at 1/2 the half-bdth. as per Rule	4	4	4	4	4	4	4	4	4	4	4	4
height extended at the Bilges	36	36	36	36	36	36	36	36	36	36	36	36
BEAMS, Upper, Spar, or Awning Deck	6	6	6	6	6	6	6	6	6	6	6	6
Single or double Angle Iron, Plate or Tee Bulb Iron	6	6	6	6	6	6	6	6	6	6	6	6
Single or double Angle Iron on Upper edge	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
Average space	46	46	46	46	46	46	46	46	46	46	46	46
BEAMS, Main or Middle Deck	7	7	7	7	7	7	7	7	7	7	7	7
Single or double Angle Iron, Plate or Tee Bulb Iron	7	7	7	7	7	7	7	7	7	7	7	7
Single or double Angle Iron on Upper Edge	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
Average space	46	46	46	46	46	46	46	46	46	46	46	46
BEAMS, Lower Deck, Hold or Orlop	6	6	6	6	6	6	6	6	6	6	6	6
Single or double Angle Iron, Plate or Tee Bulb Iron	6	6	6	6	6	6	6	6	6	6	6	6
Single or double Angle Iron on Upper Edge	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
Average space	46	46	46	46	46	46	46	46	46	46	46	46
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates	23	23	23	23	23	23	23	23	23	23	23	23
" Rider Plate	7	7	7	7	7	7	7	7	7	7	7	7
" Bulb Plate to Intercoastal Keelson	7	7	7	7	7	7	7	7	7	7	7	7
" Angle Irons	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
" Double Angle Iron Side Keelson	16	16	16	16	16	16	16	16	16	16	16	16
" Side Intercoastal Plate	5	5	5	5	5	5	5	5	5	5	5	5
" do. Angle Irons	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
" Attached to outside plating with angle iron	3	3	3	3	3	3	3	3	3	3	3	3
BILGE Angle Irons	5	5	5	5	5	5	5	5	5	5	5	5
" do. Bulb Iron	7	7	7	7	7	7	7	7	7	7	7	7
" do. Intercoastal plates riveted to plating for length	7	7	7	7	7	7	7	7	7	7	7	7
BILGE STRINGER Angle Irons	5	5	5	5	5	5	5	5	5	5	5	5
Intercoastal plates riveted to plating for 1/2 length. also forward	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2
SIDE STRINGER Angle Irons												
Transoms, material. Knight-heads. Hawse Timbers.	Iron											
Windlass Iron Patent Pall Bitt												

Is the Stringer Plate attached to the outside plating? Yes
 Angle Irons on ditto, No. 2
 Tie Plates, outside Hatchways 11.9
 Diagonal Tie Plates on Beams, No. of pairs 3 1/2
 Waterways materials and scantlings See Remarks
 Flat of Middle Deck do. See Remarks
 How fastened to Beams See Remarks
 Stringer Plates on ends of Lower Deck, Hold or Orlop Beams 20 1/2
 Is the Stringer Plate attached to the outside plating? Yes
 Angle Irons on ditto, No. 2
 Stringer or Tie Plates, outside Hatchways 11.9
 Flat of Lower Deck See Remarks
 Ceiling betwixt Decks, thickness and material See Remarks
 in hold do. do. See Remarks
 Main piece of Rudder, diameter at head 3 1/2
 do. at heel 3
 Can the Rudder be unshipped afloat? No
 Bulkheads No. 4 Thickness of 3/16
 Height up Upper Middle Deck after me cover at 10
 How secured to sides of ship Double Frames except for me which has single frames and bolts
 Size of Vertical Angle Irons 3 x 3 1/2 x 6 and distance apart 30 ins.
 Are the outside Plates doubled two spaces of Frames in length? Yes
 The FRAMES extend in one length from Keel to Spar Deck Riveted through plates with 3/4 in. Rivets, about 6 apart.
 The REVERSED ANGLE IRONS on floors and frames extend across the middle line to Spar Deck, Stringer and above main deck alternately
 KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? 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 1/2 ins. from centre to centre.
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 1/2 ins. from centre to centre.
 Butts of Three Strakes at Bilge for half length, treble riveted with Butt Straps 1/2 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 half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted for half length amidships.
 Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for half length.
 Breadth of laps of plating in double riveting 3 1/2 4 1/2 Breadth of laps of plating in single riveting 3 1/2 2 1/2
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double and back treble rivets
 Waterway, how secured to Beams Butt Straps (Explain by Sketch, if necessary.)
 Beams of the various Decks, how secured to the sides? Fixed backstays No. of Breasthooks, 5 Crutches, 4
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Blackburn's
 Manufacturer's name or trade mark, Blackburn's

The above is a correct description.
 Builder's Signature, J & R Swan Surveyor's Signature, H. Munro

IRON SHIP-0401

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? Solid pieces
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? A few at corners of butts 11619 Jan

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

Masts of Pitch Pine

$$14.65 + 24.91 + 35.79 = 75.35$$

$$75.35 \times 233 =$$

Date of contract 10th May 1872 Dates of tests 10th & 10th March 1873

NUMBER for EQUIPMENT 17336

N ^o .	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	Wght req'd per Rule.	Test req'd per Rule.
136.	Fore Sails,	Chain	42	1 9/16	44	2 1/2	1 1/2	Bowers	320	24 1. 24	24. 6. 1	23 1/2	23 1/2
136.	Fore Top Sails,	(Machine where Tested, date, and name of Superintendent.)	42	1 9/16	44	2 1/2	1 1/2	(Machine where Tested, date, and name of Superintendent.)	324	24 1. 16	24. 6. 1	23 1/2	23 1/2
136.	Fore Topmast Stay Sails	Hempen Stream Cable	91. 2	1	10.	90	1	Stream	321	24 2. 14	22. 1. 14	19. 3. 25	20 1/2
136.	Main Sails,	Hawser	90	9 1/2		92			323	18. 2. 7		10	
136.	Main Top Sails,	Towlines	90	6		6			322	5.		5	
136.	and	Warp						Kedges	319	2. 2. 4		2 1/2	

Standing and Running Rigging is Warship sufficient in size and good in quality. She has Six Long Boat Pumps

The Windlass is new Patent Capstan new and Rudder good Pumps good

Engine Room Skylights. How constructed? Iron Cornings How secured in ordinary weather? by screws

What arrangements for deadlights in bad weather? Portable hooves with lubricator

Coal Bunker Openings. How constructed? On spar deck How are lids secured? by bolts Height above deck? 4 feet

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? The vessel has only scuppers

Cargo Hatchways. How formed? Iron Cornings

State size Main Hatch 11 x 7 1/2 Forehatch 7 1/2 x 6 Quarterhatch 11 x 4 1/2

If of extraordinary size, state how framed and secured? Not of extraordinary size

What arrangement for shifting beams? Yes

Hatches, If strong and efficient? Yes

Order for Special Survey No. 858 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought Sept 72. 3rd 6. 10. 13

Date 25th June 1873 Surveys held 2nd. On the plating during the progress of riveting Oct 4. 11. 15. 18. 22. 29. 31. Nov 7. 11. 14. 18

Order for Ordinary Survey No. 1 while building 3rd. When the beams were in and fastened, and before the decks were laid 21. 25. 28 Dec 2. 5. 9 12 17

Date 1 as per 4th. When the ship was complete, and before the plating was finally coated or cemented Jan 73. 9. 13. 20. 23

No. 1 in builder's yard. Section 18. 5th. After the ship was launched and equipped 27. 31 Feb 4. 7. 11. 14. 18. 21 Mar 3. 6. 10. 13. 14. 18. 24

Mar 27. Apr 4. May 19. 26. June 3. 10. 19. 23. 25. July 9th. 1873

General Remarks,

This vessel has been built in accordance with the accompanying
Dimensions section and sheer tracing as approved for Secretary's letter
dated 14th June 72 and the requirements contained therein, in account
of the erections on the spar deck, have been carried out as proposed.

This is a two or three decked vessel, or if spar on-cum decked, and lengths of poop, forecastle or raised quarter deck, or of double or part double bottom.

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

I am of opinion this Vessel should be Classed +100A1 Spar decked

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

Special ... £ 52 : " : "

Certificate ... Gratis

(Travelling Expenses) (if any) £ 4.4.0

Committee's Minute 11th July 1873

Character assigned 100A1 Spar decked

M.C. AICP NDW 10/7/73

This vessel appears to be eligible to Class as recommended viz. 100A.1. "Spar decked"

Lloyd's Register Foundation