

IRON SHIP.

See 21/1/72

21 Survey held at Warrtepool Date, First Survey 29th April 1872 Last Survey 19th Nov^r 1872
 Steamer "Penedo" Yard Number 33 Master Wain
 Tonnage under Deck 825.43 ONE, OR TWO DECKED, THREE DECKED VESSEL.
 Ditto of Third, Spar, or Awning Deck. 87.72 SPAR, OR AWNING-DECKED VESSEL.
 Ditto of Poop, or Raised Qr. Dk. 87.57 HALF BREADTH (moulded) 14.11 Feet.
 Ditto of Houses on Deck 27.48 DEPTH from upper part of Keel to top of Upper Deck Beams 18.9
 Ditto of Forecastle 1028.52 GIRTH of Half Midship Frame (as per Rule) 29.9
 Gross Tonnage 1028.52 1st NUMBER 63.5
 Less Crew Space 46.95 1st NUMBER, if a THREE-DECKED VESSEL deduct 2 feet 61.5
 Less Engine Room 1329.13 LENGTH 223.9
 Register Tonnage 652.44 2nd NUMBER 14184
 as put on Beam } PROPORTIONS—Breadths to Length over 14
 Depths to Length—Upper Deck to Keel 11
 Main Deck ditto 11
 Built at Warrtepool
 When built 1872 Launched 21st Sept^r
 By whom built Witby Alexander & Co.
 Owners Brazil Steam Ship Co. Limited
 Port belonging to Liverpool
 Destined Voyage South America
 If Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 223 Feet. 9 Inches. BREADTH Moulded 29 Feet. 10 Inches. DEPTH top of Floors to Upper Deck Beams 18 Feet. 9 Inches. Do. do. Main Deck Beams 18 Feet. 9 Inches. Power of Engines 110 Horse. N^o. of Decks with flat laid One N^o. of Tiers of Beams Two

Dimensions of Ship per Register, length 223.5 breadth, 29.8 depth, 16-8

	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 3/8	8 x 2 3/8	4 1/4 x 2 1/4	4 1/4 x 2 1/4	8 1/4 x 4 1/8	8 1/4 x 4 1/8	8 1/4 x 4 1/8	8 1/4 x 4 1/8
STEM, moulding and thickness	4 1/4 x 2 1/4	4 1/4 x 2 1/4	4 1/4 x 2 1/4	4 1/4 x 2 1/4	8 1/4 x 4 1/8	8 1/4 x 4 1/8	8 1/4 x 4 1/8	8 1/4 x 4 1/8
STERN-POST for Rudder do. do. for Propeller	8 1/4 x 4 1/8	8 1/4 x 4 1/8	8 1/4 x 4 1/8	8 1/4 x 4 1/8	8 1/4 x 4 1/8	8 1/4 x 4 1/8	8 1/4 x 4 1/8	8 1/4 x 4 1/8
Distance of Frames from moulding edge to moulding edge, all fore and aft	23"	23"	23"	23"	23"	23"	23"	23"
FRAMES, Angle Iron, for 1/2 length amidships Do. for 1/4 at each end	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3
REVERSED FRAMES, Angle Iron	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships thickness at the ends of vessel depth at 1/2 the half-bdth. as per Rule height extended at the Bilges	18 x 9/16	18 x 9/16	18 x 9/16	18 x 9/16	18 x 9/16	18 x 9/16	18 x 9/16	18 x 9/16
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	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3
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	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3
BEAMS, Lower Deck, Hold or Orlop angle or d'ble Ang. Iron, Plate or Tee Bulb Iron angle or double Angle Iron on Upper Edge Average space	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3
KEELSONS Centre line, single or double plate, box, or intercostal, Plates Rider Plate Bulb Plate to Intercostal Keelson Angle Irons Double Angle Iron Side Keelson Side Intercostal Plate do. Angle Irons Attached to outside plating with angle iron	13 1/2 x 1/2	13 1/2 x 1/2	13 1/2 x 1/2	13 1/2 x 1/2	13 1/2 x 1/2	13 1/2 x 1/2	13 1/2 x 1/2	13 1/2 x 1/2
BILGE Angle Irons do. Bulb Iron do. Intercostal plates riveted to plating for length	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
BILGE STRINGER Angle Irons Intercostal plates riveted to plating for length	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
SIDE STRINGER Angle Irons	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
Transoms, material. Knight-heads. Hawse Timbers. Windlass Emerson & Walthers Pall Bitt								

The FRAMES extend in one length from Keel to Gunnale Riveted through plates with 3/4 in. Rivets, about 6 apart.
 The REVERSED ANGLE IRONS on floors and frames extend across middle line to 6" above H.B. stringer and to gunnale 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 clencher, 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 Strakes at Bilge for half length, treble riveted with Butt Straps 1/16 thicker than the plates they connect.
 Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 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 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 4 7/8 Breadth of laps of plating in single riveting 2 3/4

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double and treble
 way, how secured to Beams Bolted and nutted (Explain by Sketch, if necessary.)
 of the various Decks, how secured to the sides? Turned, knuswelded No. of Breasthooks, Five Crutches, Three
 at description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Good
 ufacturer's name or trade mark, O.V.C. W.W.V.C. Warrtepool. Shorne

The above is a correct description.
 Signature, Witby Alexander & Co. Surveyor's Signature, James McNeil
 Lloyd's Register Foundation

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 facing surfaces? Yes
Do any rivets break into or through the seams or butts of the plating? A few in butts

Masts, Bowsprit, Yards, &c., are Pitch & Oak 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 Main Mast 70 feet Dia 19 1/2 inches 71 feet 6 inches Dia 19 1/2 inches

10785 Iron
Superintendent
Inspector
Surveyor
Builder
Owner
Agent
Broker
Charterer
Superintendent
Inspector
Surveyor
Builder
Owner
Agent
Broker
Charterer

NUMBER for EQUIPMENT		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.	W'ght req'd per Rule.	Test req'd per Rule.
SAILS.												
CABLES, &c.												
Chain		270	1 7/16	40-10-0-0	1 8/16	40-10-0-0	Bowers	3	21-2-14	22-1-1-14	21-0-0	21-12-0-0
Fore Sails,							(Machine where Tested, date, and name of Superintendent.)					
Fore Top Sails,												
Fore Topmast Stay Sails												
Main Sails,												
Main Top Sails,												
Hempen Stream Cable		60	1				Stream	1	2-2-17		4-2-0	2-1-0
Hawser		80	7/8									
Towlines		80	7/8									
Warp		160	1 1/2				Kedges	2	4-2-22		4-2-0	2-1-0
quality												

Standing and Running Rigging Wire & Hemp sufficient in size and Good in quality. She has Two Long Boats and Two Long Boats and Two Long Boats
The Windlass is Good Capstan Good and Rudder Good Pumps Two of metal good
Engine Room Skylights.—How constructed? 3 1/2 Pitch Pine & Lathing How secured in ordinary weather? Beap gratings
What arrangements for deadlights in bad weather? Deadlights
Coal Bunker Openings.—How constructed? Iron casing How are lids secured? Glasps Height above deck? 9 1/2 in
Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? Ports and scuppers in Bulwarks

Cargo Hatchways.—How formed? 1/16 Plates
State size Main Hatch 23' x 11' Comings 30" Forehatch 15' 3" x 8' Com. 30" Quarterhatch 23' x 11' Com. 24"
If of extraordinary size, state how framed and secured?
What arrangement for shifting beams? One in Centre of hatch 1/16 plate, whole depth of coming
Hatches, if strong and efficient? Good

Order for Special Survey No. 422 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought Special Survey
Date 25 March 1872 Surveys held 2nd. On the plating during the progress of riveting Seen in all
Order for Ordinary Survey No. while building 3rd. When the beams were in and fastened, and before the decks were laid Stages during
Date as per 4th. When the ship was complete, and before the plating was finally coated or cemented building
No. 33 in builder's yard. Section 18. 5th. After the ship was launched and equipped

General Remarks, Has a raised quarter deck, frames all to top height, Beams bulb 6 x 1/16, double angle irons 2 1/2 x 2 1/2 x 1/16. Stringer plates 28 x 1/16. Side plates 9 x 1/16. Diagonal ties 9 x 1/16. Stringer angles 4 x 3 x 1/16. Side plating 1/16 1/16 x 1/16. Deck flat 3" U.P.
Forecastle, frames all to top height, Beams single angles 5 x 3 x 1/16, three under windlass bulb 6 x 1/16 D.A. 2 1/2 x 2 1/2 x 1/16. Stringer plates 20 x 1/16 Angles on same 4 x 3 x 1/16. Side plates 4 x 1/16. Side plating 1/16. Deck flat 3"
Water Ballast Tanks fitted in fore and after holds, frames cut, connection made with knee plates. Side plates 1/16. angles 4 x 3 x 1/16. Web plates 1/16 angles 2 1/2 x 2 1/2 x 1/16. Top plating 1/16
Iron deck over Engine and Boiler space 1/16 thick 50 in length, Main sheerstrake doubled in way of Break 26 feet 1/16 thick. Stringer plates at Break of Raised Deck, overlap 4 frame spaces, connected by vertical plate, double angles top and bottom. Hold beam stringer overlap 6 frame spaces. Butts in way of brake all treble rivetted
Nicky Alexander
28 1/2 feet 84 1/2 in

State if one, two or three decked vessel, or if spar or awning decked, and lengths of poop, forecabin or raised quarter deck, or of double or part double bottom.

How are the surfaces preserved from oxidation? Inside Flat cemented with Portland Cement Outside Paint
I am of opinion this Vessel should be Classed 90 A1

The amount of the Entry Fee ... £ 5 : 0 : 0 is received by me,
Special ... £ 49 : 1 : 0
Certificate ...
(Travelling Expenses)
(if any) £

Committee's Minute 22nd Novr 1872
Character assigned 90 A1
Admiral
BM
Mc
ps double bottom

See Secretary's Letter 18th March 1872

