

IRON SHIPS.

No. 11349 Survey held at Newcastle Date, First Survey 27th July 70 Last Survey 27th July 1871
 On the "Carrago Nova" Master Wm Reed
 Tonnage under Tonnage Deck 1618.19 ONE, OR TWO DECKED, SPAR, OR AWNING-DECKED VESSELS. Half moulded breadth 16.4 Built at Newcastle
 Ditto of Spar Deck, or Awning Deck. 12.20 Total Depth if three or more Decks 26.3 When built 1870 Launched Nov 25
 Ditto of Poop, or Raised Qr. Dk. 12.20 Total Girth of Half Midship Frame 39.0 By whom built Mr C. M. Palmer & Co
 Ditto of Houses on Deck 12.20 3rd Number 81.8 Owners James Hall
 Ditto of Forecastle 12.20 Length 263.7 Port belonging to London
 Gross Tonnage 1630.47 1st Number 64.8 Destined Voyage East Indies
 Crew Space, as per Rule 55.54 2nd Number 17.878 If Surveyed while Building, Afloat, or in Dry Dock. while building
 Register Tonnage, cut on Beam 238.51 4th Number 21.570
 Engine Room 1336.42 Depths to Length 15.2 Breadths to Length 7.9

Feet. Inches. Moulded Breadth 33 2 Depths from top of Floors to Upper and Main Deck Beams, as per Rule 24 4 Power of Engines 120 N^o. of Decks two
 Dimensions of Ship per Register, length 265.6 breadth 33.2 depth 24.3 N^o. of Tiers of Beams two
 Stem, if bar iron, depth and thickness 9 1/2 x 2 1/2 Inches in Ship. Inches required per Rule. 16ths required per Rule.
 Stern-post for Rudder do. 9 1/2 x 2 1/2
 Stern-post for Propeller do. 9 x 4 3/4
 Distance of Frames from moulding edge to moulding edge, all fore and aft 23 (Class 90A)
 Frames, size of Angle Iron, for 1/2 length amidships 4 3 7 4 3 7
 Do. for 1/4 at each end 4 3 7 4 3 7
 Reversed Frames, size of Angle Iron 3 3 7 3 3 7
 Floors, depth and thickness of Floor Plate at mid line for half the length amidships 23 1/2 x 10 23 1/2 x 10
 Do. at the ends 9 x 8
 Do. do. do. at Bilge Keelson see section
 Do. height extended at the Bilges see section
 Beams, Upper, Spar, or Awning Deck (No. 60) single or double Angle Iron, Plate or Tee Bulb Iron 6 1/2 x 6 6 1/2 x 6
 Single or double Angle Iron on Upper edge 2 1/2 2 1/2 5 2 1/2 2 1/2 5
 Average space on alternate frames
 Beams, Main or Middle Deck (No. 59) single or double Angle Iron, Plate or Tee Bulb Iron 8 x 8 8 x 8
 Single or double Angle Iron on Upper Edge 3 3 6 3 3 6
 Average space on alternate frames
 Beams, Lower Deck, Hold or Orlop (No. 17) single or double Angle Iron, Plate or Tee Bulb Iron 8 x 8 8 x 8
 Single or double Angle Iron on Upper Edge 3 3 6 3 3 6
 Average space see plan approved
 Keelson Centre line, single or double plate, and lower or Intercoastal, size of Plates 32 x 9 16 x 13
 Do. Bulb Plate to Intercoastal Keelson 8 x 8 8 x 8
 Do. Size of Angle Irons 5 1/2 3 1/2 10 5 1/2 4 9
 Do. Side Intercoastal Keelson, size of Plates not required
 Do. Angle Irons on tops of Floors see section
 Do. Bilge Keelson, Bulb Iron see section
 Do. do. Intercoastal plates riveted to plating for length 5 4 9 5 4 9
 Side Stringers (No. one) size of Angle Irons 5 4 9 5 4 9
 Do. Intercoastal plates riveted to plating for length 5 4 9 5 4 9
 Transoms, material iron or, if none, in what manner compensated for.
 Knight-heads iron Hawse Timbers iron
 Windlass iron Pall Bitt iron
 The Frames extend in one length from Keel to gunwale
 The Reverse Angle Irons on the floors and frames extend across the middle line to M.D.S. Sphera and to the gunwale alternately
 Keelsons. Are the various lengths of Plates and Angle Irons properly connected? yes And are their butts properly shifted? yes
 Plates, Garboard, double Riveted to Keel, double at upper edge, with Rivets 1 1/2 x 3/4 diameter, averaging 5 1/2 ins. from centre to centre.
 Do. Edges from Garboards to upper part of Bilge, worked Clencher, double Riveted; with Rivets 7/8 x 3/4 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 10 x 13 thick, double Riveted; with Rivets 7/8 x 3/4 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 3 Strakes at Bilge for half length, treble riveted with Butt Straps 1/2 thicker than their plates.
 Do. Edges from bilge to Main Sheerstrake, worked carvel with a lining piece () thick, or clencher, double Riveted; with rivets 3/4 in. diameter, averaging 3 ins. from centre to centre.
 Do. Edges of Sheerstrake, Main, double 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 10/16 thick, double Riveted; with Rivets 3/4 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 and treble Riveted for 1/2 length amidships. Breadth of laps of plating in double Riveting 4 1/2 x 5 1/4 Breadth of laps of plating in single Riveting none
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? double and treble riveted
 Planksheer, how secured to the plating of the sides. Waterway, how secured to the planksheer and to the Beams. (Explain by Sketch, if necessary.)
 Beams of the various Decks, how secured to the sides? welded keels riveted No. of Breasthooks 5 Crutches 4
 What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Palmer & Co's
 Manufacturer's name or trade mark, Palmer & Co's
 We certify that the above is a correct description of the several particulars therein given.
 Builder's Signature, Wm M. Palmer Surveyor's Signature, Wm Reed

IRON 448-0043

Workmanship. Are the butts of plating planed or otherwise fitted?

Do the edges of the barrel work and of the butts lay close together throughout their length without requiring any making good of deficiencies?
Do the fillings between the ribs and plates fill in solid with single pieces?
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other?
well and sufficiently countersunk in the plate and punched from the faying surfaces?
Are there any rivets which either break into or have been put through the seams or butts of the plating?

Her Masts, Bowsprit, Yards, &c., are in condition, and sufficient in size and length. If they are of Iron or Steel give the
Scanlings 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



plates 11.10 long and 1/8 thick Foremast 25 feet long
Angle iron 4 x 3 x 7/16 Mainmast 24 " "
Lands single riveted
Butts double riveted, but treble in way of partners

Number for equipment

SAILS. CABLES, &c.
Fore Sails, Chain
Fore Top Sails, (State Machine where
Fore Topmast, Tested, and name of
Stay Sails, Superintendent).
Main Sails, Hempen Stream
Main Top Sails, Cable
Towlines, Hawser
Warp, All of quality.

Fathoms. Inches. Test as per Certificate. In. req'd per Rule. Test req'd per Rule.
300 15/8 47.10.0.0 15/8 47 1/2
90 10 1/2
90 8 1/2
140 4 1/2

ANCHORS, N°. Weight. Test as per Certificate. Wght req'd per Rule. Test req'd per Rule.
&c. 3 25.2.7 25.5.0.0 25.2.0 25.2
Bowers, 25.2.0 25.3.3.0 25.2.0 25
21.3.21 22.6.0.7 21.2.20 21
(State Machine where Tested, and name of Superintendent).
with stth Stream, 1 10.2.4 10.2.0
with stth Kedges, 2 5.1.2 5.1.0
2.2.3.3 2.3.0

Her Standing and Running Rigging sufficient in size and good in quality. She has 2 life long Boat, and 3 others
The present state of the Windlass is good Capstan good and Rudder good Pumps good and sufficient

Engine Room Skylights.—How constructed? solid oak & hullages How secured in ordinary weather? bolted down

What arrangements are there for deadlights in such for bad weather? Jarpaullins

Coal Bunker Openings.—How constructed? cast iron How are lids secured? studs & bolts How high above deck? 5 1/2

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?
none required

Cargo Hatchways.—How formed? as usual State size Fore 9 x 7. Mizzen 16 1/2 x 10 1/2

If of extraordinary size, state how framed and secured? ordinary size

What arrangement for shifting beams? plate casing depth of coming, with half round iron below & double a. s. a.

Hatches, themselves, whether strong and efficient? yes—of iron Main Hatchways.—State size 22.6 x 10.0 do

Order for Special Survey No. 702 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought
Date 26 July 1890 Surveys held 2nd. On the plating during the progress of riveting
Order for Ordinary Survey No. 701 3rd. When the beams were in and fastened, and before the decks were laid
as per 4th. When the ship was complete, and before the plating was finally coated or converted
No. 26 in builder's yard 5th. After the ship was launched and equipped

General Remarks.

This vessel is fitted with a double bottom extending for a length of 17 1/3 feet amidships, top plating 1/8, and efficiently connected to the frames &c on the plan usually adopted by Messrs Palmer & Co. of London. Hold beams arranged as per plan attached, submitted and approved.

The Owners approve the arrangement as to thickness of upper and main decks.

In what manner are the surfaces preserved from oxidation? Inside by Portland cement Outside by paint and copper

I am of opinion this Vessel should be Classed 90A.1.

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

Special£ 64: 6

Certificate

(Travelling Expenses) (if any) £ —

Committee's Minute 14 Feb 1891

Character assigned 90A.1

part double bottom

auth paint
by Portland cement
Outside by paint and copper
H. Reed
This vessel has been built under Special Survey Plans & previously examined & will be observed that the thickness of the plating & the beams have been secured in accordance with the requirements of the Lloyd's Register Foundation