

IRON SHIP.

No. 15431 Survey held at Newcastle Date, First Survey 15 June Last Survey 23 Dec. 1881

On the *Sen. S. Principia*

TONNAGE under Tonnage Deck 2606.44
 Tonnage Deck 12.80
 Tonnage of Poop, or 93.34
 Tonnage of Houses 36.19
 Tonnage on Deck
 Tonnage of Forecastle
 Gross Tonnage 2748.77
 Net Tonnage 1789.98
 Crew Space
 Engine Room
 Master Tonnage
 Net on Beam

ONE OR TWO DECKED, THREE DECKED VESSEL.
SPAR, OR AWNING DECKED VESSEL.

Half Breadth (moulded) 19.50
 Depth from upper part of Keel to top of Upper Deck Beams 28.83
 Girth of Half Midship Frame (as per Rule) 43.58
 1st Number 91.91
 1st Number, if a 3-Decked Vessel deduct 7 feet 84.91
 Length 314.16
 2nd Number 266.75
 Proportions— Breadths to Length 8.05
 Depths to Length—Upper Deck to Keel 10.89
 Main Deck ditto 14.72

Master H. Kerruish
 Built at Newcastle
 When built 1881 Launched 8 Nov. 1881
 By whom built Messrs. Palmers & Co. (Ld.)
 Owners Messrs. Newton & Co.
 Residence 19 Rattery Street
 Port belonging to London
 Destined Voyage Bombay
 If Surveyed while Building, Afloat, or in Dry Dock.

LENGTH Feet. Inches. 314 7
BREADTH Feet. Inches. 39 2
DEPTH top of Floors to Upper Deck Beams 26 8
 Do. do. Main Deck Beams 19 4
 Power of Engines 300
 No. of Decks with flat laid 2
 No. of Tiers of Beams 3

Dimensions of Ship per Register, length, 314.7 breadth, 39.2 depth, 26.7

	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule
KEEL, depth and thickness	11 x 2 3/4	11 x 2 3/4	11 x 2 3/4	11 x 2 3/4	11 x 2 3/4	11 x 2 3/4
KEEL, moulding and thickness	11 x 2 3/4	11 x 2 3/4	11 x 2 3/4	11 x 2 3/4	11 x 2 3/4	11 x 2 3/4
FORE-POST for Rudder do. do.	11 x 5 1/2	11 x 5 1/2	11 x 5 1/2	11 x 5 1/2	11 x 5 1/2	11 x 5 1/2
" " for Propeller	11 x 5 1/2	11 x 5 1/2	11 x 5 1/2	11 x 5 1/2	11 x 5 1/2	11 x 5 1/2
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24	24	24	24	24
FRAMES, Angle Iron, for 1/2 length amidships	5 3 1/2 8	5 3 1/2 8	5 3 1/2 8	5 3 1/2 8	5 3 1/2 8	5 3 1/2 8
Do. for 1/2 at each end	5 3 1/2 7	5 3 1/2 7	5 3 1/2 7	5 3 1/2 7	5 3 1/2 7	5 3 1/2 7
REVERSED FRAMES, Angle Iron	3 1/2 3 1/2 8	3 1/2 3 1/2 8	3 1/2 3 1/2 8	3 1/2 3 1/2 8	3 1/2 3 1/2 8	3 1/2 3 1/2 8
DOORS, depth and thickness of Floor Plate	25 10	25 10	25 10	25 10	25 10	25 10
Do. mid line for half length amidships	25 10	25 10	25 10	25 10	25 10	25 10
Thickness at the ends of vessel	8	8	8	8	8	8
Depth at 3/4 the half-bdth. as per Rule	13	12 1/2	13	12 1/2	13	12 1/2
Height extended at the Bilges	a fair taper	a fair taper	a fair taper	a fair taper	a fair taper	a fair taper
FRAMES, Upper, Spar, or Awning Deck	8 8	8 8	8 8	8 8	8 8	8 8
Do. or d'ble Ang. Iron, Plate or Tee Bulb Iron	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6
Do. or double Angle Iron on Upper edge	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6
Average space	alternate frames	alternate frames	alternate frames	alternate frames	alternate frames	alternate frames
FRAMES, Main, or Middle Deck	9 1/2 9	9 1/2 9	9 1/2 9	9 1/2 9	9 1/2 9	9 1/2 9
Do. or d'ble Ang. Iron, Plate or Tee Bulb Iron	3 1/2 3 1/2 7	3 1/2 3 1/2 7	3 1/2 3 1/2 7	3 1/2 3 1/2 7	3 1/2 3 1/2 7	3 1/2 3 1/2 7
Do. or double Angle Iron, on Upper Edge	3 1/2 3 1/2 7	3 1/2 3 1/2 7	3 1/2 3 1/2 7	3 1/2 3 1/2 7	3 1/2 3 1/2 7	3 1/2 3 1/2 7
Average space	alternate frames	alternate frames	alternate frames	alternate frames	alternate frames	alternate frames
FRAMES, Lower Deck	10 10	10 10	10 10	10 10	10 10	10 10
Do. or d'ble Ang. Iron, Plate or Tee Bulb Iron	4 4 10	4 4 10	4 4 10	4 4 10	4 4 10	4 4 10
Do. or double Angle Iron on Upper Edge	4 4 10	4 4 10	4 4 10	4 4 10	4 4 10	4 4 10
Average space	as per Profile	as per Profile	as per Profile	as per Profile	as per Profile	as per Profile
STRINGS, Centre line, single or double plate, box, or Intercoastal, Plates	26 1/2 14	26 1/2 14	26 1/2 14	26 1/2 14	26 1/2 14	26 1/2 14
Rider Plate	14 1/2 14	14 1/2 14	14 1/2 14	14 1/2 14	14 1/2 14	14 1/2 14
Bulb Plate to Intercoastal Keelson	6 4 10	6 4 10	6 4 10	6 4 10	6 4 10	6 4 10
Angle Irons	6 4 10	6 4 10	6 4 10	6 4 10	6 4 10	6 4 10
Double Angle Iron Side Keelson	6 4 10	6 4 10	6 4 10	6 4 10	6 4 10	6 4 10
Side Intercoastal Plate	6 4 10	6 4 10	6 4 10	6 4 10	6 4 10	6 4 10
do. Angle Irons	6 4 10	6 4 10	6 4 10	6 4 10	6 4 10	6 4 10
Attached to outside plating with angle iron	3 1/2 3 1/2 8	3 1/2 3 1/2 8	3 1/2 3 1/2 8	3 1/2 3 1/2 8	3 1/2 3 1/2 8	3 1/2 3 1/2 8
ANGLE IRONS	6 4 10	6 4 10	6 4 10	6 4 10	6 4 10	6 4 10
do. Bulb Iron	9 1/2 9	9 1/2 9	9 1/2 9	9 1/2 9	9 1/2 9	9 1/2 9
do. Intercoastal plates riveted to plating for 3/16 length	3 1/2 3 1/2 8	3 1/2 3 1/2 8	3 1/2 3 1/2 8	3 1/2 3 1/2 8	3 1/2 3 1/2 8	3 1/2 3 1/2 8
STRINGER Angle Irons	6 4 10	6 4 10	6 4 10	6 4 10	6 4 10	6 4 10
Intercoastal plates riveted to plating for 3/16 length	9	9	9	9	9	9
STRINGER Angle Irons	9	9	9	9	9	9

FRAMES extend in one length from Keel to Gunwale Riveted through plates with 7/8 in. Rivets, about 6 1/4 apart.

REVERSED ANGLE IRONS on floors and frames extend near middle line to main deck and to Upper deck alternately

STRINGS. 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 1/8 in. diameter, averaging 5 1/4 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 3 Strakes at Bilge for 1/2 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 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 & 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 1/2 length.

Breadth of laps of plating in double riveting 5 1/4 Breadth of laps of plating in single riveting 5 1/4

Raps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? No. of Breasthooks, 5 Crutches, 3 & 2 transoms

Description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Palmers, Jarrow

Manufacturer's name or trade mark above is a correct description.

Surveyor's Signature, James Sibbald

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

Are the butts of plating planed or otherwise fitted? *All Butts, & edges of plates are planed.*

Do the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? *Yes*

Are the joints between the ribs and plates solid single pieces? *Yes*

Do the riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *Yes very well*

Are the rivets well and sufficiently countersunk in the plate and punched from the faying surfaces? *Yes*

Do the rivets work into or through the seams or butts of the plating? *A very few*

Are the rivets efficient in size and length. *If of Iron or Steel give Scantling of Rivets.*

State also Length and Diameter of Lower Masts and Bowsprit
and 24 in. Diam^s respectively; Plates 11" 4 1/2" in length & 3/16, 7/16 & 1/2 in
thickness in foremast & 3/16 & 5/16 in main mast. Butt straps 1/2" thicker and
treble rivetted, landing edges double rivetted. Makers. Palmers Janon
Boilers
Registered

[illegible]

and quality *good* ^{16.00 8.00} sufficient in size and *good* in quality. She has ^{12.00 8.00} Standing and Running Riggings *wire & hemp* Capstan *good* and Rudder *good* Pumps *metal & good*
The Windlass is *good* How secured in ordinary weather? *with thumb screw*

The Windlass is good Capstan good and good How secured in ordinary weather? with thumb & screw

Engine Room Skylights. How constructed? on bridge deck How secured in ordinary weather? with thumb & screw

How constructed? solid Teak shutters & thick circular glass Height above deck? 14 in

Engine Room Skylights.—How constructed? *Solid Teak shutters & thick canvas*

What arrangements for deadlights in bad weather? *Solid hatch covers* Height above deck? *14 ins* all

Cool Bunker Openings.—How constructed? *Plate framing* How are lids secured? *Solid hatches*

How many openings? *10 Ports & 6 Scupperns on each side* of ship?

Coal Bunker Openings.—How constructed? *Plating*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *10 Ports & 6 Scuppers on each side*

Cargo Hatchways.—How formed? *Iron plate coverings & Headledges*
Forehatch 12' 0" x 9' 0" Quarterhatch 28' 10" x 12' 0" & 16' 0" x 12' 0" all

Cargo Hatchways.—How formed? *Chow* Forehatch *12' 0" x 9' 0"* Quarterhatch *20' 10" x 12' 0"*
State size **Main Hatch** *24' 0" x 12' 0"*
How framed and secured? *—*

What arrangement for shifting beams? *Deep web plates as per profile*

What arrangement for shifting beams? *23 1/4 solid*

Hatches, If strong and efficient? *23 1/4 solid*

On the several parts of the frame, when in
1881 June 15. 23. 28 July 6. 8. 14. 16. 19. 25. 28
Sept 1. 5. 2

Order for Special Survey No. 1508
Date 17th Jan'y 1887
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

Date 17th Jan'y 1861 of Survey while building Section 2nd. On the plating during the process of riveting 8. 13. 15. 17. 19. 22. 26. 28. 30 Dec 3. 5. 10

Order for Ordinary Survey No. 3rd. When the beams were in and fastened, and before the decks were laid... 12. 18. 22. 26. Nov 1. 3. 7. 9. 11. 15. 16. 18. 2

4th. When the ship was complete, and before the 12. 13. 15. 18. 20. 21. 23

Order for Ordinary Survey No. _____

Date _____

DATES OF WORK DONE WHILE SHIP WAS PER SEAMEN'S ORDER

4th. When the ship was complete, and before the plating was finally coated or cemented.. } 12. 18. 22. 26. Dec.

5th. After the ship was launched and equipped } 22. 26. Dec 5-6. 8. 12. 13. 15. 18. 20. 21. 23

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No. 448 in builder's yard. Date held as 1 5th. After the ship was launched and equipped

General Remarks (State quality of workmanship, &c.) This vessel has been constructed in

General Remarks (State quality of workmanship, &c.) *Conforms with the rules and approved tracings of Member*

accordance with the plans and specifications of the
 section of Profile; She has a deep water-ballast tank in
 the fore part of the hull, and a large breakhead of

Section of Profile; the main
 base hold, extending from the foremost Buckhead of

fore hold, extending
 engine room, forward for about 24 ft. & of the height of the

Engine room, forward of the main hold beam stringer; Ballast tanks are also fitted through the Engines & Boilers

Hold Beam hanger, & under the Engines & Boilers
the length of the After Hold, & under the height of the

the length of the pipe tested to a Head of Water not less than the height of water in the tank. The results were very satisfactory.

load draught of the vessel & proved very satisfactory.

She has a short Poop about 60 ft
3: " " " " 72 ft in length and an

in length; Bridge House about 72 ft. in length and ^{was} ~~is~~ about 46 ft. in length, and the

open Top-gallant-Port-castle about 46 ft in length, and was

open top - fine
workmanship and materials throughout an of a go.
I like a good "Larrier" report W.P. 15457

description. A sister vessel to "Darius" report W. 1540.

State if one, two, or three decked vessel, or if square, or running decked; and the lengths of poop, bridge, forecabin, and forecastle, on each deck. (If double bottom, state particulars on separate sheet.)

How are the surfaces preserved from oxidation? Inside Portland Cement to upper Outside Cover of 1

I am of opinion this Vessel should be Classed *100 A I. turn of helms & main above*
The amount of the Entry Fee ... *£ 5- - -* is received by me, *WCS* *James Liburn*

The amount of the Entry Fee £ 3- - - - is received by me,
Special £ 91 : 15- - 24th Decr 1881

Ames & Co
Surveyor to Lloyd's Register of British and Foreign Shipping

Der Special ...
Certificate *grati-* : - : -
(to be sent as per margin).
Tuesday December 27th 1881.

(Travelling Expenses, if any, £ ———). Tuesday, December, 27th. 1881.

Committee's Minute

100 A-1 as recommended
250s
2 For Bond up date

Committee's Minute
date received 27/12/87
Character assigned 27/12/87
3 Trs Bmg
21 Trs OK
27/12/87

Character assigned
at Leopold 2 Dec Lloyd A. Ober 1 Nov 54
3 Dec 1 Nov 54 11/2/57