

IRON SHIP.

No. *1438* Survey held at *Stockton* Date, First Survey *3rd January* Last Survey *21st July* 1880
On the Ship *"Moolta"* Master *John Cannell*

TONNAGE under Tonnage Deck *1589.35*
Ditto of Third, Spar, or Awinng Deck. *81.60*
Ditto of Poop, or *11.41*
Ditto of Houses on Deck *36.63*
Ditto of Forecastle *1724.99*
Gross Tonnage *57.39*
Less Crew Space *1667.60*

ONE OR TWO DECKED, THREE DECKED VESSEL.
SPRUE OR AWINNG DECKED VESSEL.
Feet.
HALF BREADTH (moulded) *19.4 3/4*
DEPTH from upper part of Keel to top of Upper Deck Beams *26.7*
GIRTH of Half Midship Frame (as per Rule) *40.1 1/2*
1st NUMBER *86.1 1/4*
1st NUMBER, if a 3 DECKED VESSEL, deduct 7 feet.

Built at *Stockton*
When built *1880* Launched *8th June*
By whom built *Richardson Duck & Co*
Owners *British & Eastern Shipping Co. Ltd*
Port belonging to *Liverpool*
Destined Voyage *Calcutta*
If Surveyed while Building, Afloat, or in Dry Dock.

Register Tonnage *1667.60*
as cut on Beam

LENGTH *242.6*
2nd NUMBER *20879*
PROPORTIONS—Breadths to Length *6.2*
Depths to Length—Upper Deck to Keel *9.1*
Main Deck ditto

LENGTH on deck as per Rule *242.6* BREADTH Moulded *38 9 1/2* DEPTH top of Floors to Upper Deck Beams *24.8* Power of Engines *—* Horse. *—* No. of Decks with flat laid *Two* No. of Tiers of Beams *Two*

Dimensions of Ship per Register, length *251.0* breadth, *39.05* depth, *24.05*

	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	<i>9 1/2 x 2 1/2</i>	<i>9 1/2 x 2 1/2</i>								
STEM, moulding and thickness	<i>9 x 2 1/2</i>	<i>9 x 2 1/2</i>								
STERN-POST for Rudder do. do.	<i>9 x 2 1/2</i>	<i>9 x 2 1/2</i>								
Distance of Frames from moulding edge to rounding edge, all fore and aft	<i>24</i>	<i>24</i>								
FLOORS, Angle Iron, for 1/2 length amidships	<i>5 1/2 x 3 1/2</i>	<i>5 1/2 x 3 1/2</i>								
for 1/4 at each end	<i>5 1/2 x 3 1/2</i>	<i>5 1/2 x 3 1/2</i>								
REVERSED FRAMES, Angle Iron	<i>3 1/2 x 3 1/2</i>	<i>3 1/2 x 3 1/2</i>								
FLOORS, depth and thickness of Floor Plate	<i>28 x 9</i>	<i>28 x 9</i>								
mid line for half length amidships	<i>8</i>	<i>8</i>								
thickness at the ends of vessel	<i>14</i>	<i>14</i>								
depth at 1/2 the half-bdth. as per Rule	<i>54</i>	<i>54</i>								
height extended at the Bilges	<i>9 x 9</i>	<i>9 x 9</i>								
BEAMS, Upper, Spar or Awinng Deck	<i>3 1/2 x 3</i>	<i>3 1/2 x 3</i>								
Single or double Angle Iron on Upper edge	<i>48</i>	<i>48</i>								
Average space										
BEAMS, Main or Middle Deck	<i>9 1/2 x 9</i>	<i>9 1/2 x 9</i>								
Single or double Angle Iron, Plate or Tee Bulb Iron	<i>5 1/2 x 3 1/2</i>	<i>5 1/2 x 3 1/2</i>								
Single or double Angle Iron on Upper edge	<i>48</i>	<i>48</i>								
Average space										
BEAMS, Lower Deck, Hold or Orlop	<i>9 1/2 x 9</i>	<i>9 1/2 x 9</i>								
Single or double Angle Iron, Plate or Tee Bulb Iron	<i>5 1/2 x 3 1/2</i>	<i>5 1/2 x 3 1/2</i>								
Single or double Angle Iron on Upper edge	<i>48</i>	<i>48</i>								
Average space										
KEELSONS Centre line, single or double plate, box or Intercoastal, Plates	<i>18 x 13</i>	<i>18 x 13</i>								
Rider Plate	<i>12 x 13</i>	<i>12 x 13</i>								
Bulb Plate to Intercoastal Keelson	<i>8</i>	<i>8</i>								
Angle Irons	<i>5 1/2 x 4</i>	<i>5 1/2 x 4</i>								
Double Angle Iron Side Keelson	<i>5 1/2 x 4 1/2</i>	<i>5 1/2 x 4 1/2</i>								
Side Intercoastal Plate	<i>5 1/2 x 4 1/2</i>	<i>5 1/2 x 4 1/2</i>								
do. Angle Irons	<i>5 1/2 x 4 1/2</i>	<i>5 1/2 x 4 1/2</i>								
Attached to outside plating with angle iron	<i>5 1/2 x 4 1/2</i>	<i>5 1/2 x 4 1/2</i>								
BILGE Angle Irons	<i>5 1/2 x 4 1/2</i>	<i>5 1/2 x 4 1/2</i>								
do. Bulb Iron	<i>9 1/2 x 9</i>	<i>9 1/2 x 9</i>								
do. Intercoastal plates riveted to plating for length	<i>9 1/2 x 9</i>	<i>9 1/2 x 9</i>								
STRINGER Angle Irons	<i>5 1/2 x 4 1/2</i>	<i>5 1/2 x 4 1/2</i>								
Intercoastal plates riveted to plating for length	<i>9 1/2 x 9</i>	<i>9 1/2 x 9</i>								
STRINGER Angle Irons	<i>5 1/2 x 4 1/2</i>	<i>5 1/2 x 4 1/2</i>								
Intercoastal plates riveted to plating for length	<i>9 1/2 x 9</i>	<i>9 1/2 x 9</i>								
Transoms, material. Knight-heads. Hawse Timbers.	<i>Iron</i>	<i>Iron</i>								
Windlass <i>Greenheart</i> Pall Bitt <i>Iron</i>										

Flat Keel Plates, breadth and thickness *56 12 36 12*
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, increased thickness, and length applied 1/2 *10.11 10x11.11 11x10.11 11x10.11*
fm up. part of Bilge to l. edge of Sh'rstrake. *40 13 40 13*
Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake. *16 1/4 11 1/4 14.13.12.10 16 1/4 11 1/4 14.12.10*
Up. or Spar Dk Sh'rstrake, brdth & thickness *120 120 4.8 4.8 3.6 10 3.6 10*
Butt Straps to outside plating, breadth & thickness *5 1/4 9 5 1/4 9*
Lengths of Plating *14 10 14 10*
Shifts of Plating, and Stringers *14 10 14 10*
Gunwale Plate on ends of Awinng Spar or Upper Deck Beams, breadth and thickness *4 4 7 1/2 7 1/2*
Angle Iron on ditto *14 10 14 10*
Tie Plates fore and aft, outside Hatchways *14 10 14 10*
Diagonal Tie Plates on Beams No. of Pairs *35 9 35 9*
Planksheer material and scantling *4x4 9 4x4 9*
Waterways do. do. *14 9 14 9*
Flat of Upper Deck do. do. *3 3 3 3*
How fastened to Beams *Bottom 3 3 3 3*
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness *7x6 7x6*
Is the Stringer Plate attached to the outside plating? *Yes*
Angle Irons on ditto, No. *14 9 14 9*
Tie Plates, outside Hatchways *3 3 3 3*
Diagonal Tie Plates on Beams, No. of pairs *6 6 6 6*
Waterways materials and scantlings *3 3 3 3*
Flat of Middle Deck do. do. *3 3 3 3*
How fastened to Beams *3 3 3 3*
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams *7x6 7x6*
Is the Stringer Plate attached to the outside plating? *Yes*
Angle Irons on ditto, No. *14 9 14 9*
Tie Plates, outside Hatchways *3 3 3 3*
Flat of Lower Deck *3 3 3 3*
Ceiling betwixt Decks, thickness and material *3 3 3 3*
in hold do. do. *3 3 3 3*
Main piece of Rudder, diameter at head *6 6 6 6*
do. at heel *3 3 3 3*
Can the Rudder be unshipped afloat? *Yes*
Bulkheads No. *one* Thickness of plates *7x6 7x6*
Height up *Deck*
How secured to sides of ship *Double frames*
Size of Vertical Angle Irons *3 1/2 x 3 1/2 x 4 1/2* 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 *Cumwall* Riveted through plates with *7/8* in. Rivets, about *7* apart.

REVERSED ANGLE IRONS on floors and frames extend *across* middle line to *Cumwall* and to *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 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 7/8* ins. from centre to centre.

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

Edges from bilge to Main Sheerstrake, worked clencher, double *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 7/8* 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 *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 1/4* Breadth of laps of plating in single riveting

Butt Straps of Keelsons, Stringer and Tie Plates, treble *double* Riveted? *Angle shifted strapped and riveted*

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

ms of the various Decks, how secured to the sides? *Welded frames riveted to frames* No. of Breasthooks, *None* Crutches, *None*

at description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *West's Marks* *Stockton* *Malleable*

manufacturer's name or trade mark, *Polakow Bowerfield & Swan Brothers*

The above is a correct description.

Owner's Signature, *Richardson Duck & Co* Surveyor's Signature, *M. J. Cannon*

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

IRON 494-0174

Workmanship. Are the butts of plating planed or otherwise fitted? *Yes*
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*
Do any rivets break into or through the seams or butts of the plating? *Yes several in Butts at Beam Keel*

Masts, Bowsprit, Yards, &c., are *new* 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. *For Head etc*

State also Length and Diameter of Lower Masts and Bowsprit *Particulars Submitted & approved*

Foremast 87' x 31' diam *Fore & Main Yards 81' x 20' dia*
Main " 89' x 31' " *Fore & Main Lower Yards 69' x 17' "* *Bowsprit 33' x 6" x 28'*
Mizzen " 78' x 28' " *Aftersprit 40' "* *64' x 16' "*
Upper Lower Topmast 40' " *55' x 13' "*

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Suprntd.
SAILS.							Bower Anchors					
N ^o .	Chain	135	1 1/8	67.10.0.0	270.1 1/8	67 5/8	1 36.2.22 33.11.3.14 36.2.0 33.8.0.0					
2	Fore Sails,	135	1 1/8	67.10.0.0	270.1 1/8	67 5/8	1 36.0.20 33.5.2.14 36.2.0 33.8.0.0					
2	Fore Top Sails,	75	1 1/16	30.6.0.0	75.1 1/16	20 3/16	1 31.0.18 29.11.1.0 31.0.0 29.8.0.0					
2	Fore Topmast Stay Sails,	90	9 1/2		90-10 1/2		Stream					
	Hawser ...	90	6		90-6 1/2		1 11.1.7 13.5.0.0 11.1.0 13.2.0.0					
2	Main Sails,	90	11		90 11		Kedge					
	Towlines	90	4				1 5.3.4 8.2.3.7 5.2.0 7.16.0.0					
2	Main Top Sails, and other as leg ^d	90	4				Ditto					
	Warp ...	90	4				1 2.3.5 5.7.2.0 2.3.0 5.5.0.0					

Standing and Running Rigging *Wire Hemp Mould* sufficient in size and *good* in quality. She has *Two Life Long* Boats and *three others*

The Windlass is *good* Capstan *good* and Rudder *good* Pumps *good*

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? *Five ports Mooring Pipes and Scuppers on each side*

Cargo Hatchways. How formed? *Iron*

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

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams? *Dep Web plate at Main Hatchway & fore & aft*

Hatches, If strong and efficient? *Yes 3" thick*

Order for Special Survey No. *180*

Date *16th Dec 1879*

Order for Ordinary Survey No. *261*

Date *21st July 1880*

No. *261* in builder's yard.

- 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

First Survey 30th Jan'y 1880

Last Survey 21st July 1880

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

Finished with Loop and Topgallants Forecables all frames extending to the top height plating 6/6 and completed in accordance with Messrs. Johnson as approved by the Committee

Richardson Dock Co

Classing Committee
6th August 1880

100A! without replating
Harmon & Macph
TBW

State if one, two, or three decked vessel, or if spar, or running decked; and the lengths of poop, forecable, or raised quarter deck, and the length of double, or part double bottom.

How are the surfaces preserved from oxidation? Inside *With Cement & Paint* Outside *With Paint*

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

The amount of the Entry Fee ... £ 5 : - is received by me, *1880*

Special ... £ 66 : 14 : - *29th July 1880*

Certificate ...

(Travelling Expenses, if any, £)

Committee's Minute *Tuesday, August 3rd, 1880.*

Character assigned *100A 1*

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

This vessel appears to be eligible to be classed 100A - The
hawsers and warp are not in accordance with
Table 22. In other respects the vessel is in
for the figure 1.

2 Decks, 2 Vrs of Bns
3/8/80
66