

IRON SHIP.

13678
Per 7/12/74No. 12670 Survey held at Newcastle Date, First Survey 15th June/74 Last Survey 17th Nov^r 1874
On the S.S. "Grident" Master Reid

TO-NAGE under Tonnage Deck 1769.07
Ditto of Third, Spar, or Awning Deck.
Ditto of Deep, or Raised (or Dk.)
Ditto of Houses on Deck 57.53
Ditto of Forecastle
Gross Tonnage 1826.60
Less Crew Space 76.32
Less Engine Room 584.51
Register Tonnage as cut on Beam 1165.77

ONE, OR TWO DECKED, THREE DECKED VESSEL.
SPAR, OR AWNING DECKED VESSEL.
HALF BREADTH (moulded)... 16.40
DEPTH from upper part of Keel to top of Upper Deck Beams 26.45
GIRTH of Half Midship Frame (as per Rule) 39.00
1st NUMBER 81.85
1st NUMBER, if a THREE-DECKED VESSEL 7.00 [deduct 7 feet 74.85]
LENGTH 281.75
2nd NUMBER 21088
PROPORTIONS—Breadths to Length 8.5
Depths to Length—Upper Deck to Keel 10.6
Main Deck ditto 14.4

Built at Newcastle
When built 1874 Launched 26th Sep/74
By whom built Palmers Shipbuilding & Iron Co^{rs} Limited.
Owners Hall Bros, Quay-side, Newcastle
Port belonging to London
Destined Voyage Aden
Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as 281 9 BREADTH Moulded... 32 10 DEPTH top of Floors to Upper Deck Beams 24 6
per Rule... 281 9 Do. do. Main Deck Beams 17 6 Power of Engines 150 Horse. N^o. of Decks with flat laid 400
N^o. of Tiers of Beams 300
Dimensions of Ship per Register, length, 282.2 breadth, 33.3 depth, 24.2

KEEL, depth and thickness 9 1/2 x 2 1/2
STEM, moulding and thickness 9 x 2 1/2
STERN-POST for Rudder do. do. 9 x 5
for Propeller 24
Distance of Frames from moulding edge to moulding edge, all fore and aft 24 (Class 100A)

FRAMES, Angle Iron, for 1/2 length amidships Do. for 1/2 at each end 4 1/2 3 8/16 4 1/2 3 8/16
REVERSED FRAMES, Angle Iron 4 1/2 3 8/16 4 1/2 3 8/16
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships 2 3/2 9/16 2 3/2 9/16
thickness at the ends of vessel 8/16 7/16 10/16 under Bulkheads
depth at 1/2 the half-bdth. as per Rule
height extended at the Bilges as per Section

BEAMS, Upper, Spar, or Awning Deck Single or double Ang. Iron, Plate or Tee Bulb Iron 6 1/2 6/16 6 1/2 6/16
Single or double Angle Iron on Upper edge 2 1/2 2 1/2 5/16 2 1/2 2 1/2 5/16
Average space... 48 48
BEAMS, Main, or Middle Deck Single or double Ang. Iron, Plate or Tee Bulb Iron 5 1/2 3 1/2 8/16 5 1/2 3 1/2 8/16
Single, or double Angle Iron, on Upper Edge 24 24
Average space... 24 24
BEAMS, Lower Deck, Hold, or Orlop Single or double Ang. Iron, Plate or Tee Bulb Iron 8 8/16 8 8/16
Single or double Angle Iron on Upper Edge 3 3 6/16 3 3 6/16
Average space... 14 14 16 ft 14 16 ft 16 ft
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates 32 8/16 8/16
" Rider Plate 8/16 8/16
" Bulb Plate to Intercoastal Keelson 5 1/2 4 9/16 5 1/2 4 9/16
" Angle Irons 5 1/2 4 9/16 5 1/2 4 9/16
" Double Angle Iron Side Keelson
" Side Intercoastal Plate Double Bottom
" do. Angle Irons
" Attached to outside plating with angle iron as per Section

BILGE Angle Irons do. Bulb Iron
do. Intercoastal plates riveted to plating for the length of double bottom 22 7/16 5 1/2 4 9/16 5 1/2 4 9/16
BILGE STRINGER Angle Irons Intercoastal plates riveted to plating for 3 1/2 the length. 8/16 8/16
SIDE STRINGER Angle Irons

Transoms, material. Knight-heads. Hawse Timbers. Iron
Windlass Patent Iron Pall Bitt

The FRAMES extend in one length from Gunwale to Gunwale Riveted through plates with 7/8 3/4 in. Rivets, about 6 apart.
The REVERSED ANGLE IRONS on floors and frames extend across middle line to above main deck stringer, and to Gunwale 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 1/8 in. diameter, averaging 5 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 7/8 3/4 in. diameter, averaging 3 1/2 3/4 ins. from centre to centre.
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 3/4 in. diameter averaging 3 1/2 3/4 ins. from centre to centre.
Butts of Three Strakes at Bilge for half length, treble riveted with Butt Straps 7/16 thicker than the plates they connect.
Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7/8 3/4 in. diameter, averaging 3 1/2 3/4 ins. from cr. to cr.
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 3/4 in. diameter, averaging 3 1/2 3/4 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 1/2 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted 1/2 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 6 times Breadth of laps of plating in single riveting 3 1/2 times

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble and Double
Waterway, how secured to Beams Iron Gutter (Explain by Sketch, if necessary.)
Beams of the various Decks, how secured to the sides? Irons riveted to frames No. of Breasthooks, 5 Crutches, 44
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Plates and Angles by
Manufacturer's name or trade mark, Palmers Shipbuilding & Iron Co^{rs} Limited.

The above is a correct description.

Builder's Signature,

Surveyor's Signature,

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

Workmanship. Are the butts of plating planed or otherwise fitted? planed 13678 Jan
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? a few in butts

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 Upper Mast Length 82 feet, Dia 25 in
Main do do 73 1/2 do 25 in
Mizen do do 54 do 19 in

Schooner Tripped.

Formed with two plates in the round 7/16 and 6/16 thick
double riveted edges, double, and triple riveted butts.

NUMBER for EQUIPMENT 23061		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	Weight req'd per Rule.	Test req'd per Rule.
N ^o .	SAILS.	CABLES, &c.		270	13/4	55 5/8	270. 13/4	55 5/8				
	Fore Sails,	Chain		Breaky Stran	77 1/8							
	Fore Top Sails,	Lloyd's Spec P.H. R. Russell Sup ^e		212 1/2	26 1/2	1874.						
	Fore Topmast Stay Sails	Hamp Strm Cbl		90	1 1/16		90. 1 1/16					
	Main Sails,	Hawser ...		90	10 1/2		90. 11					
	Main Top Sails,	Towlines ...		90	8		90. 7					
and		Warp ...		90	6 1/2							
		quality <u>Good</u>										

Standing and Running Rigging Wire & Hemp sufficient in size and Good in quality. She has two Long Boats and three others
The Windlass is Good Capstan Good and Rudder Good Pumps Good and Efficient

Engine Room Skylights. How constructed? Iron Coaming. Leak Skylight over. How secured in ordinary weather? bolted down

What arrangements for deadlights in bad weather? Deadlights in each Sash

Coal Bunker Openings. How constructed? Iron Coamings How are lids secured? Iron bars Height above deck? 15"

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? Ports, and Scuppers cut in Bulwarks.

Cargo Hatchways. How formed? Iron Coamings

State size Main Hatch 17-6 x 9-6 Forehatch 10-0 x 7-0 Quarterhatch 13-0 x 9-6

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

What arrangement for shifting beams? Shifting Beam in Hatches

Hatches, If strong and efficient? Yes.

Order for Special Survey No. <u>10118</u>	DATES of Surveys held while building as per Section 18.	1st. On the several parts of the frame, when in place, and before the plating was wrought	<u>Built under Special Survey</u>
Date <u>16 Jan 1874</u>		2nd. On the plating during the process of riveting	<u>1874 June 15. 18. 22. 30. July 1. 2. 6. 10. 14. 16.</u>
Order for Ordinary Survey No. <u>—</u>		3rd. When the beams were in and fastened, and before the decks were laid...	<u>17. 24. 27. 30. Aug 3. 14. 18. 20. 26. 28. Sep 1. 2. 4.</u>
Date <u>—</u>		4th. When the ship was complete, and before the plating was finally coated or cemented...	<u>10. 14. 18. 22. 25. 29. Oct 1. 6. 14. 16. 19. 20. 22.</u>
No. <u>311</u> in builder's yard.		5th. After the ship was launched and equipped	<u>20. Nov 10. 13. 17.</u>

General Remarks (State quality of workmanship, &c.) She is fitted with a double bottom in fore and after Holds, also in Engine room (two frame spaces excepted) of the united lengths of 184 feet, side plate 7/16" top plating 6/16" thick. Satisfactory compensation is given for the break of the double bottom in the Engine room.

Monkey Forecastle 32 feet long, and Bridge Deck about 40 ft long fitted amidships.

She is well built, and worthy of the Class recommended.

The Tracing of Midship Section approved by the Committee is attached.

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

How are the surfaces preserved from oxidation? Inside Cement & paint Outside Red lead & paint

I am of opinion this Vessel should be Classed 100 A.1. Three Decks, part Double Bottom.

The amount of the Entry Fee ... £ 5 : : : is received by me, T. P. B. G.

on 17 Dec 1874 Special ... £ 60 : 15 : : 5 Dec 1874 Certificate ...

(Travelling Expenses, if any, £ —).

Committee's Minute 8th December 18 74

Character assigned 100 A.1.

© This vessel appears to comply with the 100 A.1. as recommended by Lloyd's Register of Shipping 1/12/74