

IRON SHIPS.

Rev 26/8/11

No. 3745 Survey held at Penfrew Date, First Survey 21st Sep 70 Last Survey 26th Aug 1871

On the S. S. "Mesopotamia" Master Philips

Tonnage under Tonnage Deck	1212.58	ONE, OR TWO DECKED, SPAR, OR AWNING-DECKED VESSELS.	THREE DECKED VESSELS.
Ratio of Third Spar, or Awning Deck.		Half moulded breadth.... 14.75	Total Depth if three or more Decks..... 25.33
to of Poop, or Raised Qr. Dk.		Depth from upper part of Keel to top of Upper Deck Beams..... 18.33	Total Girth of Half Midship ship Frame..... 26.37
of Houses Deck....	4.43	Girth of Half Midship Frame (as per Rule)..... 29.37	3rd Number..... 76.45
of Forecastle		1st Number..... 62.45	Length..... 228.5
Tonnage	1217.01	2nd Number.... 14.269	4th Number.... 17.468
Crew Space, as per Rule	62.22	Depths to Length. 13.7 for	Breadths to Length..... 7.74
Register Tonnage, as per Rule	1212.58		
Engine Room	389.44		
Register Tonnage, as a Steamer, cut on Beam	765.55		

Built at Penfrew

When built 1871 Launched June 30/8/71

By whom built Henderson, Coulson & Co.

Owners Lynch Bros.

Port belonging to London

Destined Voyage London to China

If Surveyed while Building, Afloat, or in Dry Dock.

Length on deck as per Rule	228	Feet. Inches. Moulded Breadth	29	6	Feet. Inches. Depths from top of Floors to Upper and Main Deck Beams, as per Rule	16	9	Power of Engines	160	Horse.	Nº. of Decks with flat laid	Two	Nº. of Tiers of Beams	Three
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Dimensions of Ship per Register, length, 230.6 breadth, 30.1 depth, 23.35

	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness	8 x 2 3/8	8 x 2 3/8		
Do. if centre through plate, depth and thickness	8 x 2 3/8	7 1/4 x 2 3/8		
Stern-post for Rudder do. do.	8 x 4 3/4	7 1/4 x 4 3/4		
Stern-post for Propeller	23	23		
Distance of Frames from moulding edge to moulding edge, all fore and aft		(Class 90A)		
Frames, size of Angle Iron, for 1/2 length amidships	4 3 7/16	4 3 7/16		
Do. for 1/2 at each end	4 3 6/16	4 3 6/16		
Reversed Frames, size of Angle Iron	3 3 7/16	3 3 7/16		
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	20 8/16	21 3/4 10/16		
Do. at the ends	7/16	8/16 9/16		
Do. do. do. at Bilge Keelson	8/16 7/16	8/16 9/16		
Do. height extended at the Bilges	Twice	Twice		
Beams, Upper, Spar, or Awning Deck (No. 1) single or double Angle Iron, Plate or Tee Bulb Iron	5 4 7/16	5 4 6/16		
Single or double Angle Iron on Upper edge	✓ 4 6	✓ 4 6		
Average space	4 6	4 6		
Beams, Main or Middle Deck (No. 2) single or double Angle Iron, Plate or Tee Bulb Iron	7 5 8/16	7 5 7/16		
Single, or double Angle Iron, on Upper Edge	✓ 4 6	✓ 4 6		
Average space	4 6	4 6		
Beams, Lower Deck, Hold or Orlop (No. 3) single or double Angle Iron, Plate or Tee Bulb Iron	7 5 8/16	7 5 7/16		
Single or double Angle Iron on Upper Edge	2nd 2 1/4 14th frame	2nd 2 1/4 14th		
Average space	16 14/16	15 12/16		
Keelson Centre line, single or double plate, box, or intercostal, size of Plates	13 1/2 11/16	7 3/4 8/16		
Do. Bulb Plate to Intercostal Keelson	6 4 9/16	5 4 9/16		
Do. Size of Angle Irons	5 8/16	5 8/16		
Do. Side Intercostal Keelson, size of Plates	5 13/16 7/16	5 3 1/2 7/16		
Do. Angle Irons on tops of Floors	9 9/16	7 7/16		
Do. Bilge Keelson, Bulb Iron	5 3 1/2 7/16	5 3 1/2 7/16		
Do. do. Intercostal plates riveted to plating for length	5 3 1/2 7/16	5 3 1/2 7/16		
Do. do. Angle Irons	5 3 1/2 7/16	5 3 1/2 7/16		
Side Stringers (No. one) size of Angle Irons	16 3 1/5 length	3 1/5 length		
Do. Intercostal plates riveted to plating for length	16 3 1/5 length	3 1/5 length		
Transoms, material	Iron	or, if none, in what manner compensated for.		
Knight-heads	Iron	Hawse Timbers	Iron	
Windlass	Patent	Iron Pall Bitt	Capstan	
The Frames extend in one length from	Centre line	to	Upper D ^{ck}	
The Reverse Angle Irons on the floors and frames extend from	the middle line	to	Main D ^{ck} and to Upper D ^{ck} alternately	
Keelsons. Are the various lengths of Plates and Angle Irons properly connected?	Yes	And are their butts properly shifted?	Yes	
Plates, Garboard, double or	Riveted to Keel, double or	at upper edge, with Rivets (3/4 in.) diameter, averaging (3/4 ins.) from centre to centre.		
Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets (3/4 in.) diameter, averaging (3/4 ins.) from centre to centre.				
Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes (1/16 in.) thick, double or single Riveted; with Rivets (3/4 in.) diameter averaging (3/4 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 1/2 length, treble riveted with Butt Straps 7/16 thicker than their plates.				
Do. Edges from bilge to Main Sheerstrake, worked carvel with a lining piece (1/16 in.) thick, or clencher, double or single riveted; with rivets (3/4 in.) diameter, averaging (3/4 ins.) from centre to centre.				
Do. Edges of Sheerstrake, Main, double or single 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 (8/16) thick, double or single Riveted; with Rivets (3/4 in) diameter, averaging (3/4 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 or treble Riveted for 1/2 length amidships. 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 & Double 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?	Riveted to Frame	No. of Breasthooks,	5	Crutches,
What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.?	B. Boiler			
Manufacturer's name or trade mark,	Pennhead & Wapenda			

We certify that the above is a correct description of the several particulars therein given.

Builder's Signature, Henderson Coulson & Co. Surveyor's Signature, J. M. Moverly

Workmanship. Are the butts of plating planed or otherwise fitted? Planed 9305
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
Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? Single pieces
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes and are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? Yes
Are there any rivets which either break into or have been put through the seams or butts of the plating? a few

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

Tested at Newcastle 15th May/71 } Tested at Newcastle 17th May/71
by R^{ce} Burrell. } by R^{ce} Burrell.

No.	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	No.	Weight. Ex. Stock.	Test as per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
	Fore Sails,	Chain	270	1 1/2	15.5.3.20	1 1/2	40 1/2	Bowers	1	21.0.7	21.13.4.21	21.0.0	21 6/10
	Fore Top Sails,	(State Machine where Tested, and name of Superintendent).						(State Machine where Tested, and name of Superintendent).	1	21.0.0	21.12.2.0	21.0.0	21 6/10
	Fore Topmast Stay Sails	Hempen Stream	90	1	12.0.0.0			Stream	1	18.0.21	19.4.1.14	17.3.11	18 18/20
	Main Sails,	Chain Cable	90	9 1/2		15/16							
	Main Top Sails,	Hawser	90	6		9							
		Towlines	90	4 1/2		5/8							
		Warp	90										
		All of <u>good</u> quality.											

Her Standing and Running Rigging Wire & Hemp sufficient in size and Good in quality. She has 2 Large Boats and 2 others
The present state of the Windlass is Good Capstan Good and Rudder Good Pumps Good & Efficient.

Engine Room Skylights.—How constructed? Iron plates, Lead How secured in ordinary weather? By Bars
What arrangements are there for deadlights in such for bad weather? Wood & glass over thick glass

Coal Bunker Openings.—How constructed? Iron castings How are lids secured? By Button How high above deck? Flush

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? Flush upper deck

Cargo Hatchways.—How formed? Plate and angle iron State size 8' 0" x 7' 0"
If of extraordinary size, state how framed and secured? Yes

What arrangement for shifting beams? Two fitted in main Hatch

Hatches, themselves, whether strong and efficient? Yes Main Hatchways.—State size 22 ft x 8 3/4 ft

Order for Special Survey No. 421 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought Under Special
Date Deck 10/70 Surveys held 2nd. On the plating during the progress of riveting Survey from
Order for Ordinary Survey No. ✓ while building 3rd. When the beams were in and fastened, and before the decks were laid 21st Sep^r 1870
Date ✓ as per 4th. When the ship was complete, and before the plating was finally coated or cemented ✓
No. 117 in builder's yard. Section 18. 5th. After the ship was launched and equipped 26th Aug^r 1871.

General Remarks,
This vessel has been Built in accordance with the appended Midship Section which was submitted and approved by the Committee, the Chief Surveyors remarks conveyed to me in your letter of 25th Jan^r 1871 have been carried out so as to enable the vessel to Class as 3 D^{ce} S. S.

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.

In what manner are the surfaces preserved from oxidation? Inside Cement & Paint Outside Red lead & oil paint

I am of opinion this Vessel should be Classed 90A.1 3 D^{ce}

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

Special£ 55 : 6 : 6
Certificate £ 10 : 0 : 0

(Travelling Expenses)
(if any) £ 5 : 5 : 2

Committee's Minute 29 August 1871

Character assigned 90A.1
3 decked

2019
This vessel has been built in accordance with the appended section approved by the Committee. I therefore concur in the opinion that she should be classed 90A.1.