

IRON SHIPS.

Rec 6/1/70

No. 9769 Survey held at Sunderland Date June 26th to Novem. 18th 1869
 on the Iron Screw S^r. "Pelam" Master A Bone

Tonnage under tonnage deck 693.70 Built at Sunderland When built 1869 Launched 4th Oct 1869.
 Ditto of poop or spar deck 44.40
 Ditto of engine room 54.60 By whom built Jas^r Laing Esq^r Owners J. S. Hall and Co
 Ditto of engine room 792.70
 Total Register tonnage 763.34 Port belonging to London Destined Voyage London
 Engine Room 763.34
 Tonnage cut on Beam 62.91
 Surveyed while Building, Afloat, or in Dry Dock While Building.

Length aloft 204 - Extreme Breadth 29 - Depth from top of Upper Deck Beam to top of Floor 16-9 Power of Engines 90 No. of Decks one

Dimensions of Ship per Register, length 204.7 breadth 29.0 depth 16.8

	Inches in Ship		Inches required per Rule		Inches in Ship		Inches required per Rule		Horse.	No. of Decks	
	Inches	16ths	Inches	16ths	Inches	16ths	Inches	16ths			
Keel, if bar iron, depth and thickness	7 1/4	2 3/4	7 1/4	2 3/4							
Keel, if plate iron, breadth and thickness											
Keel, if bar iron, moulding and thickness	7 1/4	2 3/4	7	2 3/4							
Keel, if plate iron, breadth and thickness											
Keel-post, if bar iron, moulding and thickness	9 1/2	4 1/4	40 dupes								
Keel-post, if plate iron, breadth and thickness											
Distance of Frames from moulding edge to moulding edge, all fore and aft	21		21								
Frames, Size of Angle Iron, single or double	4	3	4	3							
Reversed Iron, if to every frame and every alternate frame	to upper turn of Bilges		to upper turn of Bilges								
Floors, depth and thickness of Floor Plate at mid line	18 1/4	8	18 1/4	8							
Ditto ditto at Bilge Keelson	10	8		8							
Size of Reversed Angle Iron, and No. at top of Floor Plate	3	2 3/4	6	3	2 3/4	6					
Beams, Deck (No. 53) double Angle Iron, Plate, Tee, or Bulb Iron	2 1/4	2 3/4	5	2 1/2	2 3/4	5					
Double or single Angle Iron, on upper edge	alternate frames		alternate frames								
Average space between	alternate frames		alternate frames								
Hold, or Lower Deck (No. 29) double Angle, Tee, Plate, or Bulb Iron	7	7	7	7							
Double or single Angle Iron, on upper edge	3	2 3/4	6	3	2 3/4	6					
Average space between	3/6 and 7/10		3/6 and 7/10								
Keel, sided and moulded, thickness of Plate, size of Angle Iron											
Keel, Engine											
Keel, on, single or double plate, box, or intercostal	Standing on Floors		Standing on Floors								
Size of Plates	13	11	12 1/2	11							
Size of Angle Irons	3 1/2	5	8 1/4	3 1/2	8						
Side, single or double, plate, box, or intercostal											
Bilge (No. one) at each Bilge, single, or double, plate, or box	3 1/2	5	8 1/4	3 1/4	8						
Bulb or plain plate for 1/2 length	Iron		Iron								
Keel, material, or, if none, in what manner compensated for	Iron		Iron								
Keel-heads, and Hawse Timbers	Iron		Iron								
Keel-frames extend in one length from	Keel		Keel								
Keel-frames, reverse angle irons on the floors extend in one length	near middle line		near middle line								
Keel-frames, on the frames, and, on	from alternate frames		from alternate frames								
Keel-frames, on, how are the various lengths of plates or angle irons connected?	Butt straps		Butt straps								
Keel-Garboard, double or single rivetted to keel, double or	at upper edge, with rivets (3/4 ins.) diameter, averaging (2 1/2) apart.		at upper edge, with rivets (3/4 ins.) diameter, averaging (2 1/2) apart.								
Keel-Edges from Garboards to upper part of bilge, worked clencher, double or single rivetted; with rivets (3/4 in.) diameter, averaging (3 ins.) apart.	Do the butt straps lap over and rivet through the lands of the strake below?		Do the butt straps lap over and rivet through the lands of the strake below?								
Keel-Butts from Keel to turn of bilge, worked carvel with butt straps (9 and 10/16) thick, double or single rivetted; with rivets (3/4 in.) diameter, averaging (3 ins.) apart.	Do the butt straps lap over and rivet through the lands of the strake below?		Do the butt straps lap over and rivet through the lands of the strake below?								
Keel-Edges from bilge to sheerstrake, worked carvel with a lining piece () thick, or clencher, double or single rivetted; with rivets (3/4 in.) diameter, averaging (2 1/2) (3 in.) apart.	Do the butt straps lap over and rivet through the lands of the strake below?		Do the butt straps lap over and rivet through the lands of the strake below?								
Keel-Edges of Sheerstrake, double or single rivetted? At upper edge double At lower edge double											
Keel-Butts from bilge to planksheers, worked carvel with butt straps (7, 8, 9, 10, 11/16) thick, double or single rivetted; with rivets (10, 12, 14/16 in.) diameter, averaging (2 1/2) (3) (3 1/2) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100) (101) (102) (103) (104) (105) (106) (107) (108) (109) (110) (111) (112) (113) (114) (115) (116) (117) (118) (119) (120) (121) (122) (123) (124) (125) (126) (127) (128) (129) (130) (131) (132) (133) (134) (135) (136) (137) (138) (139) (140) (141) (142) (143) (144) (145) (146) (147) (148) (149) (150) (151) (152) (153) (154) 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Plates in Garboard Strakes, breadth and thickness 30 10 30 10
 Ditto from Garboard to upper part of Bilges 9 9
 from upper part of Bilge to a perpendicular height from upper side of Keel of 3/4ths the entire depth of Hold 8 8
 from 3/4ths depth of Hold to lower edge of Sheerstrake 48 4
 Sheerstrake, breadth and thickness 33 10 1/2 30 9 3/4
 Butt Straps to outside plating, breadth and thickness 9 8 9/10 7 1/2 7 1/16
 Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness 29 9 29 9
 Angle Iron on ditto 21 9 21 9
 Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways 3 1/2 4 1/2 3 1/2 4 1/2
 Diagonal Tie Plates on ditto 10 1/2 8 10 1/2 8
 Planksheer, materials and scantlings Gutter gunwale
 Waterway ditto ditto Gutter gunwale
 Flat of Upper Deck, thickness and material 3 1/2 4.8
 how fastened to Beams iron nuts & screw bolts
 Ceiling betwixt Decks and in Hold, thickness and material 2 1/2 Red Pine to upper turn of bilges only
 Clamps or Spirketting ditto 22 9 21 9
 Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness 22 9 21 9
 Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams 4 1/2 3 1/2 4 1/2 3 1/2
 Stringers in Hold 3 1/2 5 4 1/2 3 1/2
 Flat of Lower Deck, thickness and material 5 1/8 5
 Main piece of Rudder, diameter at head 3 3
 at heel 3 3
 (Can the Rudder be unshipped afloat Yes)
 Bulkheads, No. 4 Thickness of 6/16
 Height up to Upper Deck 3 2 1/6
 how secured to the sides of the ship between double frames
 size of vertical angle irons 3 2 3/4 6 and their distance apart 2 1/6

Planksheer, how secured to the plating of the sides Explain by sketch
 Waterway, planksheer and to the Beams if necessary
 Beams, how secured to the side? Bracket knees which are rivetted to main frames &c
 or Lower Deck ditto Do Do Do Do
 Riddle Nil No. of breasthooks 3 crutches 2
 What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.? Angles, Sprack and Co. Plates, Bonsett Iron Co.
 Manufacturer's name or trade mark Bulls and Stringer angles, Cook, Wilson & Bell; and pair Palmer Shipbuilding Co
 We certify that the above is a correct description of the several particulars therein given.
 Builder's Signature Jas James Laing Surveyor's Signature Joseph Allen

IRON 445 - 0234

7622 Lin

Workmanship. Are the lands or laps of the clenwork in all cases in breadth at least five and a half times the diameter of the rivets in double rivetted edges and butts, and at least three and a quarter times the diameter of the rivets where single rivetting is admitted? 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

Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? One piece

Do the holes for rivetting 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 outer plate? Yes

Are there any rivets which either break into or have been put through the seams or butts of the plating? There are 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 rivetting, quality of Materials, and if stamped with Maker's name.)

Testing Certificate of Chains and Anchors were produced issued from the Sunderland Testing House, on the Certificate of Chains it is stated that a portion of the Chain was proved to the breaking strain and showed a margin of 41. per Cent beyond Admiralty Test for 1 1/2 Chain Signed J Hartnuff

N ^o .	SAILS.	CABLES, &c.	Fathoms.	Inches.	Tested to Tons.	ANCHORS, and their weights.	N ^o .	Weight.		Tested to Tons.
								Ex. Stock	Tons.	
	Fore Sails,	Chain 270 = 17/16	270	1 5/16	34	Bowers,	1	17.2.21	18.15.17	
	Fore Top Sails,	Hemp Stream Cable	40	1 5/16		Shackle 2 1/2 lb	1	16.3.14	18.2.3	
	Fore Topmast Stay Sails,	Hawser .. each	90	6 1/2 5 1/2 1/2		third = 15.1.6	1	14.3.21	16.10.0	
	Main Sails,	Towlines	60	10		Stream,	1	7.0.10		
	Main Top Sails,	Warp	40	4		Kedges,		3.1.25		
	and	All of <u>Good</u> quality.						1.3.0		

Her Standing and Running Rigging Galvane & Hemp sufficient in size and good in quality.

She has one (life) Long Boat and two others

The present state of the Windlass is Patent Capstan Shannon & Co and Rudder good Pumps 2 in addition to Engine

Order for Special Survey	DATES of	1st.	2nd.	3rd.	4th.	5th.
No. <u> </u>	Surveys held	On the several parts of the frame, when in place, and before the plating was wrought	On the plating during the progress of rivetting	When the beams were in and fastened, and before the decks were laid	When the ship was complete, and before the plating was finally coated	After the ship was launched
Date <u> </u>	while building					
Order for Ordinary Survey	as per					
No. <u> </u>	Section 18.					
Date <u> </u>						

State if she has a Spar Deck no Poop Liverpool house or Forecastle yes

General Remarks, This Vessel is sister ship to "Lady Olive" Reg^d No 9728 her length exceeds seven breadth, and twelve depth; and in order that she may conform to the Rules for the above excessive proportions the stringer plate on ends of upper deck beams should have been 1 1/16" thick for half length amidships and 9/16" at the ends; it is of the latter thickness all fore and aft; the Sheerstrake is however 3" wide throughout, and 1/16" thicker than required, which perhaps may be considered as compensation for the above deficiency; there is also a bulwark brought on the side of the ledge keelson thus (instead of between) for half the length amidships, except in the water ballast tank where a vertical wash plate is substituted in lieu thereof. The stringers in hold are 1/16" thicker than required by Rules. She has two water ballast tanks one before the Engine Room, and one abaft, the latter extending to after part of Ship. The Rudder is forged with the main piece in one but there is no stay fitted therein. The Engine Room hatch is protected by a bridge with iron bulkheads around it, conforming to the Rules. The whole of the Anchors and Cables are light. Please see letter on this subject, appended.

In what manner are the surfaces preserved from oxidation? Inside Cement to the Bilges; paint above.
Ditto ditto Outside Bottom Lead Composition; paint above.

I am of opinion this Vessel should be Classed B and as the Anchors and Cables are light respectfully call the Committee's attention thereto.
The amount of the Fee £ 5 : 0 : 0 is received by me, J.P.H.
Special £ 5 : 5 : 0
Certificate (if required) £ 0 : 5 : 0
Joseph Kelly.

Committee's Minute 7th January 18th 40

Character assigned B

I am of opinion the ship of this class is eligible for classification as recommended above. The Committee will please observe the regulations. The Anchors and Cables.