

TUES. JAN 28 1902

No. 42912

661

## Spar, or Awning Dk. IRON OR STEEL STEAMER.

State if Report is also sent on the Machinery of the Vessel. Yes.

Port of Newcastle Date of completion of Report 27<sup>th</sup> January 1902 Received at London Office  
Survey held at Newcastle on Tyne Date, First Survey 13<sup>th</sup> June 1901 Last Survey 23<sup>rd</sup> January 1902  
In the S.S. "Ligria" (Messrs Armstrong Whitworth & Co. No 716) Rig Pale masts without sails.

ONNAGE under Tonnage Deck...  
o. between Tonnage Dk. and 3rd, 4th, Spar or Awning Dk.  
otal under Upper Dk.  
o. of Poop  
o. of Bridge House  
o. of Forecasts  
o. of Houses on Deck  
o. of excess of Hatchways  
Do. above Crown of Engine Room...  
Gross Tonnage 2804.94  
Crew Space 76.64  
Less above Crown of Engine Room...  
ONNAGE FOR FEES... 2728.30  
Less Engine Room 897.58  
Less Navigation Spaces 39.16

SPAR, AWNING OR PART AWNING-DECKED VESSEL,  
or a Vessel having a continuous Shade Deck.

CLASS 100A1

FEET.

Half Breadth (moulded) 21.75  
Depth from upper part of Keel to top of Main Deck Beams 19.90  
Girth of Half Midship Frame (as per Rule) 38.33  
1st Number 79.98  
Length 298.33  
2nd Number 23860  
Proportions—Breadths to Length 6.86

Depths to Length—Main Deck to top of Keel 14.99Destined Voyage Brain Gulf If Surveyed while Building, Afloat, or in Dry DockMaster LeeYear of Appointment (1) As Master in service of owner of present vessel—18  
(2) As Master of this vessel—1902.Built at Newcastle on TyneWhen built 1902 Launched 11<sup>th</sup> Dec. 1901.By whom built Messrs Armstrong Whitworth & Co.Owners Bucknall Bros.Managers Bucknall Bros.Residence London.Port belonging to London.

LENGTH on Deck 298 Feet. 4 Inches. BREADTH—Moulded 43 Feet. 6 Inches. DEPTH, top of Floors to Spar or Awning Dk. Beams 19 Feet. 9 Inches. Power of Engines 2 Horse. No. of Decks with flat laid 2. No. of Tiers of Beams 2 rivets.  
Dimensions of Ship per Register, Length 300 breadth 43.75 depth 24.7 Spar or Awning Dk. Moulded depth, ft. 19 ins. 0 To Main Deck. Round up of Beam, Main Dk. 11 ins.

FRAMING.						FORGINGS AND CASTINGS.							
	Inches in Ship.	Inches in Ship.	20ths in Ship.	Inches per Rule Or as Approved.	Inches per Rule Or as Approved.		Inches in Ship.	Inches in Ship.	20ths in Ship.	Inches per Rule Or as Approved.	Inches per Rule Or as Approved.		
FRAME, Angles, or Bars, for $\frac{1}{2}$ length amidships	6	3	11	6	3	11	KEEL, Bar or Side Plates, depth and thickness	10	2	7	10	2	7
Do. for $\frac{1}{2}$ at each end	6	3	10	6	3	10	STEM, moulding and thickness	10	6		10	6	
Do. in way of Double Bottoms at Solid Floors	3	3	8	3	3	8	STERN-POST for Rudder do. do.	10	6		10	6	
Distance of Frames from moulding edge to moulding edge, all fore and aft	24			24			" for Propeller	8	2		8	2	
REVERSED FRAME, Angles	bulk angle frames						MAIN PIECE of Rudder, diameter at head	6	3	4	6	3	4
DEEP FRAMING, depth of girder							do. at heel	6	3	4	6	3	4
FLOORS, depth and thickness of Floor Plate at mid-line for $\frac{1}{2}$ length amidships							RUDDER, how constructed	best steel, single plate.					
" in way of Engines and Boilers							Can the Rudder be unshipped afloat?	Yes.					
" thickness at the ends of vessel							KEELSONS AND STRINGERS.						
" depth at $\frac{1}{2}$ the half-bdth. as per Rule							CENTRE LINE KEELSON, Vertical Plate above floors, Through Plate, or Intercoastal Plate						
height extended to the Bilge							" Rider Plate						
FLOORS & BRACKETS, in Cell Dble Bottoms	38		7	38		7	" Bulb Plate to Intercoastal Keelson						
Distance apart	24			24			" Horizontal Plates on Floors						
CENTRE GIRDER, in Double bottom, depth and thickness	38		10	38		10	" Angles						
" Angles, Top	4	4	9	4	4	9	" SIDE KEELSON, Angles						
" Bottom	6	4	9	6	4	9	" Bulb or Plate above floors, for length						
SIDE GIRDERS, number and thickness	3	3	8	3	3	8	" Intercoastal Plate, for length						
" Angles	3	3	8	3	3	8	" Attached to outside plating with Angle						
MARGIN PLATE, depth (exclusive of flange) and thickness	3	3	8	3	3	8	BILGE KEELSON, Angles						
" Angles	3	3	8	3	3	8	" Bulb or Plate above floors, for length						
INNER BOTTOM PLATING, breadth and thickness of Middle Line Strake	36		9	36		9	" Intercoastal Plate, for length						
" thickness in Engine and Boiler space							" Attached to outside plating with Angle						
BEAMS, Spar or Awning Deck, Single Angle, Bulb Angle, Plate or Tee Bulb	6	3	9	6	3	9	BILGE STRINGER Angles						
" Angles on upper edge	24			24			" Bulb Plate, for length						
Average space	8	3	11	8	3	11	" Intercoastal Plate, for length						
BEAMS, Main Deck, Single Angle, Bulb Angle, Plate or Tee Bulb	24			24			" Attached to outside plating with Angle						
" Angles on upper edge	24			24			2 SIDE STRINGER Angles (Face)	6	4	10	6	4	10
Average space	8	3	11	8	3	11	" Bulb or Intercoastal Plate, for length	18		8	18		8
BEAMS, Lower Deck, Single Angle, Bulb Angle, Plate or Tee Bulb	3	3	8	3	3	8	" Attached to outside plating with Angle	3	3	8	3	3	8
" Angles on upper edge	24			24			Spar, or Awning Deck Stringer Plates, breadth and thickness	43		10	43		10
Average space	8	3	11	8	3	11	" Angle on ditto	4	4	9	4	4	9
BEAMS, Hold, or Orlop, Plate or Tee Bulb	24			24			" Tie Plates, fore and aft, outside Hatchways						
" Angles on upper edge	24			24			" Diagonal Tie Plates, No. of pairs						
Average space	8	3	11	8	3	11	" Deck, Iron or Steel, for Full length			7			7
BEAMS, Poop Deck, Angle, Bulb Angle, Plate or Tee Bulb	24			24			" Wood Deck, Material and thickness						
" Angles on upper edge	24			24			Main Deck Stringer Plate, breadth & thickness	43		9	43		9
Average space	8	3	11	8	3	11	" Angles on ditto, No. 2	4	4	9	4	4	9
BEAMS, Bridge Deck, Angle, Bulb Angle, Plate or Tee Bulb	24			24			" Tie Plates, outside Hatchways						
" Angles on upper edge	24			24			" Diagonal Tie Plates, No. of pairs						
Average space	8	3	11	8	3	11	" Deck, Iron or Steel, for Full length			6			6
BEAMS, Forecastle Deck, Angle, Bulb Angle, Plate or Tee Bulb	24			24			" Wood Deck, Material and thickness						
" Angles on upper edge	24			24			Lower Deck Stringer Plates, breadth & thickness						
Average space	8	3	11	8	3	11	" Angles on ditto, No.						
PILLARS, In tween Deck, size and spacing	2	3	4	2	3	4	" Tie Plates, outside Hatchways						
" Hold	4	2	4	4	2	4	" Deck, Material and thickness						
" Quarter, tween Dks., "	4	2	4	4	2	4	Hold, or Orlop Stringer Plate, breadth & thickness						
" in Hold	4	2	4	4	2	4	" Angles on ditto, No.						
WEB-FRAMES, In Fore Body, No. and spacing	10	per plan		10	per plan		" Tie Plates, outside Hatchways						
" No. of Side Stringers	20	18	8	20	18	8	" Deck, Material and thickness						
B FRAMES, In E. & B. Space, No. & spacing	3	per plan		3	per plan		Poop Deck Stringer Plate, breadth & thickness						
" breadth & thickness	18	8		18	8		" Angles on ditto						
EB FRAMES, In After Body, No. and spacing	8	per plan		8	per plan		" Tie Plates						
" breadth & thickness	18	8		18	8		" Deck, Material and thickness						
" No. of Side Stringers	20	18	8	20	18	8	Bridge Deck Stringer Plate, breadth & thickness						
" Size of Angles on Tee Bars to Web Frames	6	4	10	6	4	10	" Angle on ditto						
BRACKET PLATES to Stringers between Web Frames, depth and thickness	12		8	12		8	" Tie Plates						



PLATING.										RIVETING.												
AS IN SHIP.					PER RULE OR AS APPROVED.					EDGES.					BUTTS.							
STRAKES.		AMIDSHIP.		FORWARD.		AFT.		AMIDSHIP.		Single or Double.		Breadth of Lap.		RIVETS.		BUTTS.		STRAPS.		IF LAPPED.		
		Breadth.		Thickness.		Thickness.		Breadth.		Thickness.		Inches.		Inches.		Inches.		Inches.		Inches.		
FLAT PLATE KEEL (If Bar Keel, state Riveting)		36	16	13	13	36	16	13	13	Double	6	1	4	Double	1	3 1/2	19	19	11 1/4	7 1/2		
GARBOARD OF A STRAKE		60	12	11	12	60	12	11	12	"	5 1/4	1/2	3 1/2	Double	1	3 1/2	19	19	11 1/4	7 1/2		
State actual thickness in way of Double Bottom.		60	10	10	12	60	10	10	12	"	"	"	"	"	"	"	"	"	"	"	"	"
B "		60	10	10	12	60	10	10	12	"	"	"	"	"	"	"	"	"	"	"	"	"
C "		60	10	10	12	60	10	10	12	"	"	"	"	"	"	"	"	"	"	"	"	"
D "		60	12	10	13	60	12	10	13	"	"	"	"	"	"	"	"	"	"	"	"	"
E "		60	12	10	12	60	12	10	12	"	"	"	"	"	"	"	"	"	"	"	"	"
F "		60	11	9	11	60	11	9	11	"	"	"	"	"	"	"	"	"	"	"	"	"
G "		60	11	9	11	60	11	9	11	"	"	"	"	"	"	"	"	"	"	"	"	"
H "		48	11	9	9	48	11	9	9	"	"	"	"	"	"	"	"	"	"	"	"	"
Shear Strake J Main		42	12	9	9	42	12	9	9	"	"	"	"	Double	"	"	"	"	"	"	"	"
K "		59	11	8	8	59	11	8	8	"	"	"	"	Double	"	"	"	"	"	"	"	"
Shear Strake L Spar		40	13	9	9	40	13	9	9	"	"	"	"	Double	"	"	"	"	"	"	"	"
M "										"	"	"	"	"	"	"	"	"	"	"	"	"
N "										"	"	"	"	"	"	"	"	"	"	"	"	"
O "										"	"	"	"	"	"	"	"	"	"	"	"	"
P "										"	"	"	"	"	"	"	"	"	"	"	"	"
Q "										"	"	"	"	"	"	"	"	"	"	"	"	"
DOUBLING OF Flat Plate Keel																						
Length and thickness of Bilges																						
of Sheerstrakes																						
of Strake below																						
POOP SIDES																						
BRIDGE SIDES																						
FORECASTLE SIDES																						
Manufacturer's name or trade mark of the Iron or Steel (state process of manufacture of Steel) used for Frames, Floors, Beams, Keelsons, Tie and Stringer Plates, Plating, &c. <i>Siemens Martin Steel.</i>										Spar or Awning (Butts, treble riveted for <i>half</i> length amidship. Stringer Plate (Straps, single, double or overlapped for <i>full</i> length amidship. Main Stringer (Butts, treble riveted for <i>half</i> length amidship. Plate (Straps, single, double or overlapped for <i>full</i> length amidship.												
Butts of Bilge & Side Stringers and Tie Plates, treble or double riveted? <i>Double riveted.</i>										Inner Bottom Plating, riveting of Edges <i>Double riveted.</i> Butts <i>Double riveted.</i> Centre Girder Butts, <i>Double riveted.</i> Keelson Butts, <i>Double riveted.</i> Frames, riveted through Plates with <i>1 1/2</i> in. Rivets, about <i>6</i> apart. Rivets, state whether Iron or Steel <i>Iron.</i>												
FRAMES extend in one length from <i>Bilge to Keel</i> and from <i>Bilge to Gunwale.</i>										REVERSED FRAMES on floors and frames extend from <i>Bulk angle frames etc as per approved plans.</i>												
MASTS, SPARS, &c.																						
LOWER MASTS		Material.		Total Length		DIAMETER AND THICKNESS.		At Partners.		Heel.		Hounds.		Head.		No. of Plates in round.		ANGLES.		RIVETING.		
Fore		Steel		68'-0"		18 x 4 1/2		14 x 7 1/2		—		15 x 7 1/2		2		—		Single		Double		
Main		Steel		69'-0"		18 x 4 1/2		14 x 7 1/2		—		15 x 7 1/2		2		—		Single		Double		
Mizen																						
Topmast																						
Yards and Remainder of Spars		<i>Pine Pine.</i>																				
Rigging, Material and Size, Shrouds		<i>4 1/2" Steel wire</i>																				
Sails		<i>Good</i>		<i>Suit of one</i>																		
EQUIPMENT No. 28714 LETTER C.																						
ANCHORS.																						
Number of Certificate.		Anchors.		Weight, Ex. Stock		Weight of Stock		Test, per Certificate		Weight Req. by Rule		Description of Anchor.		Makers.		Where and when tested and Superintendent.						
153		1st Bower		Cwts. qrs. lbs.		Cwts. qrs. lbs.		Tons. cwt. qrs. lbs.		Cwts. qrs. lbs.		38 1 1 0		42 2 0		Byers & Co. Sunderland 23/5/01 R. Swellford.						
63		2nd "		42 1 0		"		37 6 1 0		42 2 0		"		"		"						
200		3rd "		36 1 7		"		33 7 0 21		36 1 0		"		"		"						
		Collective weight		121 3 7				121 1 0														
17806		Stream		11 0 7		2 2 14		13 0 0 0		10 3 0		Rogers		Jas Abbott & Co. New Walker 22/7/01 W. J. Relf.								
17814		Kedge		5 2 7		1 2 0		7 18 1 21		5 2 0		"		"		"						
		2nd Kedge																				
CHAIN CABLES.																						
Number of Certificate.		Fathoms.		Size.		Test per Certificate		Weight of Chain Cable		Fathoms and Size per Rule.		Description.		Makers of Cables.		When and where tested, and Superintendent.						
9559		120		1 1/2		80%		225-1-0		220 @ 1 1/2		Slab: Jas Abbott & Co. 21/10/01 New Walker, W. J. Relf.		TOWLINE		100 4 33						
9450		120		1 1/2		80%		225-1-0		220 @ 1 1/2		"		HAWSE		(2) 90 7						
														WARP		(2) 90 6						
Iron-Clad Cable (as Steel Wire)		90		4 1/2		35		75 @ 4 1/2														
HAWERS AND WARPS.																						
Number of Certificate.		Fathoms.		Size.		Test per Certificate		Weight of Chain Cable		Fathoms and Size per Rule.		Description.		Makers of Cables.		When and where tested, and Superintendent.						
9559		120		1 1/2		80%		225-1-0		220 @ 1 1/2		Slab: Jas Abbott & Co. 21/10/01 New Walker, W. J. Relf.		TOWLINE		100 4 33						
9450		120		1 1/2		80%		225-1-0		220 @ 1 1/2		"		HAWSE		(2) 90 7						
														WARP		(2) 90 6						
Boats 5 in number & Good.																						
Pumps, Number one down on one hand pump. Diameter of Barrel and Tail Pipe 6" x 3" and 5" x 2 1/2".																						
Windlass is Patent Steam Capstan																						
Engine Room Skylights—How constructed? Steel coamings & top.																						
What arrangements for deadlights in bad weather? Strong glass bulletproof etc.																						
Coal Bunker Openings—How constructed? Steel coamings How are lids secured? Battened Height above deck? 18"																						
Number of Suppers, and number and dimensions of Freeing Ports, etc. 5 each side.																						
Ceiling in Holds, thickness and material 2 1/2" Pine Part-laid Ceiling 'tween Decks, thickness and material 2" pine.																						
Cargo Hatchways—How formed? Steel coamings.																						
State size No. 1 Hatch (Forward) 20'-0" x 14'-0" No. 2 Hatch 25'-0" x 16'-0" No. 3 Hatch 24'-0" x 16'-0" No. 4 Hatch 20'-0" x 16'-0"																						
Number of Web Plates, Shifting Beams and Fore and Afters to each Hatch One web plate to nos 1 & 4 hatches; two web plates to nos 2 & 3 hatches; three fore & afters to each hatch.																						
No. of Breasthooks 6 No. of Crutches 3																						
Bulwarks, height above deck and description Anchions & Rail Main Rail, material and size.																						
The above is a correct description.																						
Builder's Signature (here only) W. D. ARMSTRONG, WHITEWORTH & CO. Limited																						
Surveyor's Signature Bernard C. Laws, I. M. Neil																						
Surveyor to Lloyd's Register of British & Foreign Shipping.																						

Correspondence.—State dates and initials of letters respecting this case (Reference should be made to any correspondence connected with this case)

M 19/11/1900, 28/11/1900, 30/11/1900, 14/12/1900, 2/1/1901, 25/3/1901. E 2/4/1901.

Workmanship. Are the butts of plating planed or otherwise fitted? *Planed.*

Is the riveted work properly closed? *Yes*

Are the liners between the frames 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 plating? *A few.*

Are the butts of Plating, Stringers, &c., properly shifted and strapped? *Yes*

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

*This vessel has been constructed in accordance with the approved plans attached, the Secretary's letter, and in other respects with the rules for the 100A1 Spar Deck Class and the material and workmanship throughout are good.*

*A copy of the letter from the owners agreeing to dispense with the close ceiling on tank top in some parts of this vessel is attached to this report.*

*The Decks & waterways have been tested by water and found satisfactory; and the pumps and watertight doors have been tested and found in good working order.*

*This vessel is a sister vessel to the S.S. "Euphrates" Messrs. Armstrong Whitworth & Co. No. 42798.*

The Surveyor should state the Number of Report and Name of any Sister Vessel.

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop ☒ ft., R.Q.D. or Break ☒ ft., Bridge Dk. ☒ ft., Forecastle *29* ft. (in feet and tenths). When the Poop is joined to the B.D., this should be distinctly stated

No. and Material of Decks (if Iron or Steel) and whether wholly or partially covered with wood, and No. of tiers of Beams (this information is to be given as it should appear in the Register Book) *100A1 (Steel) & Spar Deck (Steel) & Wood frames.*

Official No.

Signal Letters ☒

How are the surfaces preserved from oxidation? Inside *Cement & paint*

Outside *Paint*

PARTICULARS OF WATER BALLAST.—State whether the Double bottom is constructed on the cellular system *Cellular*

Where fitted.	Length.	Water Capacity.	Where fitted.	Length.	Water Capacity.
	Feet.	Tons.		Feet.	Tons.
Double bottom, aft.	86	163	Fore peak tank.		
Double bottom, forward.	132	296	After peak tank.	10	5.5
Double bottom, under Engines and Boilers.	34	84	Midship deep tank.		
Double bottom, if under Engines only.			Other tanks, if fitted, <i>fresh water</i>	6	12.5
Double bottom, if under Boilers only.			(If necessary, furnish further information by sketch.)		

State whether the above have been tested as required by the Rules. *Yes.*

Order for Special Survey No. <i>2229</i>	1st. On the several parts of the frame, when in place, and before the plating was wrought	1901 June 18 July 5 1892 Aug 16 1901 Sept 16 1901 Oct 25
Date <i>9-4-01</i>	2nd. On the plating during the process of riveting	1891 Jan 10 1892 Jan 10 1893 Jan 10 1894 Jan 10 1895 Jan 10 1896 Jan 10 1897 Jan 10 1898 Jan 10 1899 Jan 10 1900 Jan 10 1901 Jan 10
Order for Ordinary Survey No.	3rd. When the beams were in and fastened, and before the decks were laid	
Date	4th. When the ship was complete, and before the plating was finally coated or cemented	
No. <i>416</i> in builder's yard	5th. After the ship was launched and equipped	
		Total No. of Visits <i>42</i>

The amount of Entry Fee <i>5</i>	Fees applied for, <i>27 JAN 1902</i>	Certificate to be sent to <i>Newcastle-on-Tyne.</i>
Special Survey Fee <i>495</i>	Received by me, <i>31.1.02</i>	
Travelling Expenses, if any <i>£</i>		
I am of opinion this Vessel should be Classed <i>+ 100A1 Steel Spar Deck.</i>		
With, or without Freeboard, as condition of Class <i>without freeboard.</i>		
	<i>FRI. JAN 31 1902</i>	

Committee's Minute

Character assigned

*100A1 Steel*

*Spar Deck*

*+ 2 m.c. 1.02*

*2 D*

Hull Certificate, 1/3/02.

W646=01.69 2/2