

Spar, ~~Awning or~~  
Part Awning Dk.

## IRON OR STEEL STEAMER.

(Received at London Office)

Date of completion of Report

Port of SunderlandNo. 16514 Survey held at SunderlandDate, First Survey 25 Sept 1891Last Survey 20 May 1892On the Steel Screw Steamer "BASUTO"Rig Schooner (2 masts)

TONNAGE under

Tonnage Deck

Do Between Tonnage Dk.

and 3rd, 4th, Spar or

Awning Dk.

Total under Upper Dk.

Do. of Poop

Do. of Raised Qr.

Dk. or Break

Do. of Bridge House

Do. of Houses on Deck

Do. of excess of Hatchways

Do. of Forecastle

Do. above Crown of

Engine Room

Gross Tonnage

Less Crew Space

Less above Crown of

Engine Room

TONNAGE FOR FEES

Less Engine Room

Less Navigation Spaces

Register Tonnage

as cut on Beam

SPAR, ~~AWNING OR PART AWNING-DECKED VESSEL,~~

or a Vessel having a continuous Shade Deck.

CLASS 100 A

FEET.

Half Breadth (moulded) 20.16

Depth from upper part of keel to top of Main Deck Beams 20.96

Girth of Half Midship Frame (as per Rule) 37.42

1st Number 78.54

Length 308

2nd Number 24190

Proportions—Breadths to Length 7.63

Depths to Length—Main Deck to top of Keel 14.69

Destined Voyage

If Surveyed while Building, Afloat, or in Dry Dock

Master not found

Year of Appointment

Built at SunderlandWhen built 1892 Launched 13 FebruaryBy whom built James LaingOwners British & Colonial Steam Navigation Co. Ltd.

Managers

Residence 22 Crutched FriarsPort belonging to London

LENGTH on Deck	Feet.	Inches.	BREADTH	Feet.	Inches.	DEPTH, top of Floors to Spar or Awn. Dk. Beams	Feet.	Inches.	Power of Engines	Horse.	No. of Decks with flat laid	No. of Tiers of Beams
as per Rule	308	0	Moulded	40	4	Do. do. Main Deck Beams	25	6	500	500	Two	Two

Dimensions of Ship per Register, Length 310.0 breadth 40.5 depth 25.5 Spar or Awn. Dk. Moulded depth, ft. 20 ins. 0 To Main Dk. Round up of Beam, Main Dk. 11 ins.

## FORGINGS AND CASTINGS.

KEEL, Bar or Side Plates, depth and thickness

STEM, moulding and thickness

STERN-POST for Rudder do. do.

for Propeller

MAIN PIECE of Rudder, diameter at head

do. at heel

RUDDER, how constructed

Can the Rudder be unshipped afloat?

## FRAMING.

FRAME Angles, or L Bars for length amidships

Do. for 1/2 at each end

Do. in way of Double Bottoms

Distance of Frames from moulding edge to

moulding edge, all fore and aft

REVERSED FRAME Angles

FLOORS, depth and thickness of Floor Plate

at mid-line for 1/2 length amidships

in way of Engines and Boilers

thickness at the ends of vessel

depth at 1/2 the half-bdth. as per Rule

height extended at the Bilges

FLOORS &amp; BRACKETS, in Cell Dble Bottoms

Distance apart

CENTRE GIRDER, in Double bottom, depth

and thickness

Angles, Top 4 x 4 x 9 Bottom

SIDE GIRDERS, number and thickness

Angles

MARGIN PLATE, depth (exclusive of flange)

and thickness

Angles

INNER BOTTOM PLATING, breadth and

thickness of Middle Line Strake

thickness in Engine and Boiler space

Remainder in Holds

BEAMS, Spar or Awning Deck, Single Angle

Bulb Angle, Plate or Tee Bulb

Angles on upper edge

Average space

BEAMS, Main Deck, Single Angle, Bulb

Angle, Plate or Tee Bulb

Angles on upper edge

Average space

BEAMS, Lower Deck, Single Angle, Bulb

Angle, Plate or Tee Bulb

Angles on upper edge

Average space

BEAMS, Hold, or Orlop, Plate or Tee Bulb

Angles on upper edge

Average space

BEAMS, Poop Deck, Angle, Bulb Angle, Plate

or Tee Bulb

Angles on upper edge

Average space

BEAMS, Bridge Deck, Angle, Bulb Angle,

Plate, or Tee Bulb

Angles on upper edge

Average space

BEAMS, Forecastle Deck, Angle, Bulb Angle,

Plate or Tee Bulb

Angles on upper edge

Average space

PILLARS, in 'tween Decks, Size and Spacing

Hold

WEB FRAMES, in Fore Body, No. and spacing

br'dth and thickness

No. of Side Stringers

WEB FRAMES, in After Body, No. and spacing

br'dth and thickness

No. of Side Stringers

Size of Angles or Tee Bars to Web Frames

BRACKET PLATES to Stringers between

Web Frames, depth and thickness

## KEELSONS AND STRINGERS.

CENTRE LINE KEELSON, Vertical Plate above

Floors, Through Plate, or Intercoastal Plate

Rider Plate

Bulb Plate to Intercoastal Keelson

Horizontal Plates on Floors

Angles

SIDE KEELSON, Angles

Bulb or Plate above floors, for length

Intercoastal Plate, for length

Attached to outside Plating with Angle

BILGE KEELSON, Angles

Bulb or Plate above floors, for length

Intercoastal Plate, for length

Attached to outside Plating with Angle

BILGE STRINGER Angles

Bulb Plate, for length

Intercoastal Plate, for length

Attached to outside Plating with Angle

SIDE STRINGER Angles

Bulb or Intercoastal Plate, for length

Spar, or Awning Deck Stringer Plates, on

ends of Beams, breadth and thickness

Angle on ditto

Tie Plates, fore and aft, outside Hatchways

Diagonal Tie Plates on Bms. No. of prs.

Flat of Deck, Iron or Steel, for whole len.

Wood Material and thickness

How fastened to Beams

Main Deck Stringer Plate, breadth &amp; thickness

Angles on ditto, No. 2

Tie Plates, outside Hatchways

Diagonal Tie Plates on Bms. No. of prs.

Flat of Deck, Iron or Steel, for whole len.

Wood Material and thickness

How fastened to Beams

Lower Deck Stringer Plates, br'dth &amp; thickn's

Angles on ditto, No.

Tie Plates, outside Hatchways

Flat of Deck, Material and thickness

How fastened to Beams

Hold, or Orlop Stringer Plate, br'dth &amp; thickn's

Angles on ditto, No.

Tie Plates, outside Hatchways

Flat of Deck, Material and thickness

How fastened to Beams

Poop Deck Stringer Plate, breadth &amp; thickness

Angles on ditto

Tie Plates

Flat of Deck, Material and thickness

Bridge Deck Stringer Plate, br'dth &amp; thickness

Angle on ditto

Tie Plates

Flat of Deck, Material and thickness

Forecastle Deck Stringer Plate, br'dth &amp; thickn's

Angle on ditto

Tie Plates

Flat of Deck, Material and thickness

PLATING.

FLAT PLATE KEEL, breadth and thickness

Dblg or inered thickn's &amp; len. appl.

PLATES in Garboard Strakes, breadth &amp; thickn's

from Garboard to lower part of Bilges

State Thickness of Plating in way of Double Bottom

Bilges, No. of Strakes and thickness

Of doubling at Bilge, or increased thickness,

and length applied

from up part of Bilge to edge of Strake

Main Sheerstrake, breadth and thickness

Of doubling at Sh'th &amp; lng. appl.

from Main to Spar Dk. or Awn. Dk. Sh'rsk.

Spar or Awn. Dk. Sh'rsk, br'dth &amp; thickn's

doubled at end of bridge

Poop sides

Bridge sides

Forecastle sides

Lengths of Plating



**BULKHEADS.** No. in Vessel Five

No. Reqd. by Rule Five

Ceiling betwixt Decks, thickness and material Iron plates

" in hold do. do. 3 1/2" Corrugated

Close ceiling in hold 2 1/2" iron

Number of Breasthooks Six

" Crutches Two and deep floors

W. T. BULKHEADS }  
PARTITIONS ..  
LONGITUDINAL

Thickness 7-6  
20

Angles { Vrtcl. 5 x 5 x 9/16  
Hrztntl. 7 x 5 x 9/16

Spacing { 30  
48

Height up. all to spar deck

Sngl. or Dbl. Frames. Double

Are the outside Plates doubled two spaces of Frames in length? yes

The FRAMES extend in one length from bilge to bilge thence to gunwale Riveted through Plates with 7/8 in. Rivets, about 6 1/2 apart

The REVERSED ANGLE on floors and frames extend from 2 bar frames fitted from margin plate to gunwale for 244 ft amidships; aft all reversed bars to spar deck; forward, to spar deck & keel, at alternately

RIVETING OF EDGES AND BUTTS OF SHELL PLATING AND BUTTS OF STRINGER PLATES, TIE PLATES, KEELSONS, &c.

Garboard, double riveted to Bar Keel or Flat Plate 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, all 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, treble or double riveted; treble for length; with rivets 7/8 in. dia., averaging 5 1/2 ins. from cr. to cr.

" " " overlapped for whole length, treble riveted for whole length; with rivets 7/8 in. dia., averaging 5 1/2 ins. from cr. to cr.

Butts of " " Strakes at Bilge for whole length, treble riveted with Butt Straps thicker than the plates they connect.

Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from centre to centre.

Butts from Bilge to Main Sheerstrake, worked carvel, treble or double riveted; treble for length; with rivets 7/8 in. dia., averaging 5 1/2 ins. from cr. to cr.

" " " overlapped for whole length, treble riveted for whole length; with rivets 7/8 in. dia., averaging 5 1/2 ins. from cr. to cr.

Edges of Main Sheerstrake, double or single riveted. Spar or Awning Sheerstrake, double or single riveted.

Butts of Main Sheerstrake, treble riveted for whole length amidships. Butts of Spar or Awning Sheerstrake, treble riveted 3/4 length amidships.

Butts of Main Stringer Plate, treble riveted for 3/4 length amidships. Butts of Spar or Awning Stringer Plate, treble riveted for 3/4 length.

" " " Single or Double Straps for length amidships. " " " Single or Double Straps for length.

Butts of Inner Bottom Plating double riveted for half length. Butts of Centre Girder double overlap riveted.

Breadth of edge laps of Shell Plating in double riveting 5 1/2. Breadth of edge laps of Shell Plating in single riveting 9.

Butt Straps of Shell Plating, breadth and thickness 16 1/4 x 17-11. Butts, if lapped, breadth of laps 9.

Butt Straps of Keelsons, Stringer and Tie Plates, treble or double, riveted treble and double.

Manufacturer's name or trade mark of the Iron or Steel (state process of manufacture of Steel) used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Hermann-Martin :- Steel plates by J. Spencer Stans, Cornett & Co. & Moore & Co. - Steel Bars by Tormann Long & Co. & Steel Co. of Scotland. - Iron plates Moore & Co. & Hill & Co. Newport Rolling Mills.

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 facing surfaces? yes

Do any rivets break into or through the seams or butts of plating? a few in butts only

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

MASTS, SPARS, &c.

	Material.	Total length.	DIAMETER AND THICKNESS.				No. of Plates in round.	ANGLE.		RIVETING.	
			At Partners.	Heel.	Hounds.	Head.		Number.	Size.	Seams.	Butts.
LOWER MASTS, ...	Fore .....	Iron 71'-6"	20 x 5/16	16 x 5/16	-	12 1/2 x 3/16	two	-	-	Single	Treble & double
	Main .....	4 70'-6"	20 x 5/16	16 x 5/16	-	12 1/2 x 3/16	two	-	-	Single	Double

Lowermast.

Topmasts, Yards and Remainder of Spars none

Rigging, Material and Size, Shrouds Galvanized wire 3/2

Sails. One Suit of Schooner Sails and the following spare sails Stays 4 1/2

EQUIPMENT No. 30634 LETTER U

ANCHORS.

Number of Certificate.	Weight, Ex Stock Cwts. qrs. lbs.	Test per Certificate Tons. Cwts. qrs. lbs.	WEIGHT REQ'D BY RULE			Description of Anchor.	Makers.	Where and when tested and Superintendent.
			Cwts.	qrs.	lbs.			
22929 1st Bower ..	51 0 0	43 0 0	45	2	0	Reliance pat.	W. L. Payers	AWCPT 26-11-91 J. Harrison
22930 2nd "	30 2 14	42 16 1	46	2	0	"	"	AWCPT 30-11-91 " "
22936 3rd "	42 2 14	37 11 3	39	0	0	"	"	AWCPT 2-12-91 " "
4th "	Mechanical tests applied to above		anchors			by E. R. Pitt Zepher		27-10-91 and 6-11-91
Coll tie weight	144 1 0		130	0	0			
23021 Stream ...	11 2 0	3 0 0	11	1	0	Common	J. Green	AWCPT 17-12-91 J. Harrison
23022 Kedge .....	5 2 14	1 1 14	5	2	0	"	"	D° 21-12-91 " "
23023 2nd Kedge ..	2 3 0	0 3 0	2	3	0	"	"	D° 21-12-91 " "

If Patent State Name of Patentee.

HAWSERS AND WARPS.

Number of Certificate.	Fathoms.	Size.	Test per Certificate Tons.	Weight of Chain Cable.	Fathoms & Size Per Rule.	Description.	Makers of Cables.	Where and when tested, and Superintendent.	Material.	Fathoms.	Size.	Fathoms & Size Per Rule.
9571	151	1 1/2	942 9 6 7/8	287 3 0	300 1 1/2	Steel Link	J. Green	AWCPT 29-12-91 J. Harrison	TOWLINE*	100	3 1/2	100-3 1/2
9572	152 1/2	1 1/2	942 9 1 7/8	286 2 2 7/8	300 1 1/2	Steel Link	J. Green	tested & certified by Webster & Co. London	Hawser	100	2 3/4	100-2 3/4
23024 Steam-Screw Churn or Steel Wire..	90	4 1/2	35		90-4 1/2	Steel wires						
Towline* (steel wire)	100	4	33		100-4							

Boats Two life boats & two others

Pumps, Number six

The Windlass is Harfield & Co

Engine Room Skylights. How constructed? Iron plates & bars

What arrangements for deadlights in bad weather? Iron shutters and bullseyes

Coal Bunker Openings. How constructed? Iron plates & bars How are lids secured? atches & bottom Height above deck? 18"

Number of Scuppers, and number and dimensions of Freeing Ports, &c. Three freeing ports forward and three aft 33 x 18 ca.

Stores scupper on each side.

Cargo Hatchways. How formed? plates & bars in usual manner Hatches. If strong and efficient? yes Thickness 2 1/2 inch

State size No. 1 Hatch (Forward) 16'-0" x 16'-0" No. 2 Hatch 26'-0" x 16'-0" No. 3 Hatch 26'-0" x 16'-0" No. 4 Hatch 18'-0" x 16'-0"

Number of Web Plates, Shifting Beams, and Fore and Afters to each Hatch One shifting beam with deep houses in Nos 1 & 2

Two web plates in Nos 2 &

Order for Special Survey No. 3459  
Date 6 October 91  
Order for Ordinary Survey No. 1  
Date 1  
No. 514 in builder's yard.

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  
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

State dates and initials of letters respecting this case 1891 (m) 30<sup>th</sup> Sept 19<sup>th</sup> Sept (a) 17<sup>th</sup> Oct 5<sup>th</sup> Nov

General Remarks (State quality of workmanship, &c.) This steel spar decked screw steamer has been built in accordance with the approved plans, the Secretary's letters dated as above stated, and in other respects in conformity with the Rules for the 100 A class. The steel used in the construction has been manufactured by the firms mentioned in this report and tested at the works as required. The workmanship is good. Briggs patent enamel cement has been used inside the ballast tanks, at the request of the Owners.

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop 30 ft., R.Q.D. or Break ft., Bridge Dk. 34 ft., F'castle 36 ft., (in feet and tenths) where the Poop is on top of the R.Q.D., or when the Poop or R.Q.D. 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) 1 DE (STEEL) & SPAR DECK (IRON) & WEB FRAMES  
Official No. ; Signal Letters

PARTICULARS OF WATER BALLAST—  
Double bottom, aft, length and water capacity in tons Double bottom, forward, length and water capacity in tons  
Double bottom, under engines and boilers, length and water capacity in tons If under Engines only, or Boilers only, state which  
Double bottom, constructed on the cellular system, length 260 feet and water capacity in tons 530  
Fore peak tank, water capacity in tons After peak tank, water capacity in tons 46  
Midship deep tank, length and water capacity in tons Other tanks, if fitted, length and water capacity in tons  
The above have now been tested as required by the Rules.  
(If necessary, furnish further information by sketch.)  
How are the surfaces preserved from oxidation? Inside Enamel Cement in 2 H Portland Cement Outside Paint

FREEBOARD assigned by the Committee, as per Secretary's Letter, dated  
State if marked on Vessel's sides in accordance with Notice No. 572  
The amount of Entry Fee £5 : 0 : 0 is received by me, 20 May 1892  
Special £91 : 16 : 6  
Certificate £ : :  
Tracolling Expenses, if any £ : :  
I am of opinion this Vessel should be Classed 100 A 1 STEEL SPAR DECK A.S.C.P.  
George Harrison  
Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute  
Character assigned 100A1 Steel Spar dk  
a o c  
+ Lmc 5,92  
15k (Steel) + Spar dk. (Iron)  
+ Web frames

This Vessel appears to have been built in accordance with the Rules and the approved plans, and it is submitted that she is eligible to be classed 100 A 1 (Steel) "Spar Deck" as recommended.