

3 Decks.

IRON OR STEEL STEAMER.

(Received at London Office)

TUES 11 NOV 1890

State if Report is also sent on the Machinery of the Vessel
Date of completion of report *Nov 10th* Port of *Belfast*
No. *3806* Survey held at *Belfast* Date, First Survey *Feb 5th 1890* Last Survey *Nov 5th 1890*
On the *Screw Steamer "Cobraon"* Rig *Schooner*
TONNAGE under Tonnage Deck *2959.03* THREE DECKED VESSEL.
Do. between Tonnage Dk. and 3rd and 4th Dk. *19.32* CLASS *100 A 1*
Total under Upper Pl. *3185.04*
Do. of Poop *19.32*
Do. of Bridge House *82.40*
Do. of Houses on Dk. *14.28*
Do. of excess of Hatchways *44.89*
Do. of Forecastle *64.25*
Do. above Crown of Engine Room *151.54*
Gross Tonnage *3033.53*
Do. Crew Space *1019.22*
Do. above Crown of Engine Room *1129.82*
Tonnage for Fees *2055.25*
Net Tonnage *2055.25*
Cut on Beam *2055.25*
Master *Ninian Barnatane*
Year of appointment *1890*
Built at *Belfast*
When built *1890* Launched *Sept 17th*
By whom built *Harland & Wolff Ltd*
Owners *African Steam Ship Co.*
Managers *W. G. F. Helms*
Residence *London*
Port belonging to *London*
Destined Voyage *Calcutta via London*

Length *245.6* breadth *40.95* depth *26.7* Moulded depth, ft. *29* ins. *6* To Upper Dk. Round up of Beam, Upper Dk. *92* ins.
GTH on Deck *343.16* BREADTH—Feet. *40.75* DEPTH top of Floor to Upper Deck Beams *26.75* Power of Horse *300* No. of Decks with flat laid *Two*
per Rule *343.16* Moulded *40.75* Do. do. Main Deck Beams *18.76* Engines *300* No. of Tiers of Beams *Two*

FORGINGS or CASTINGS.

CEL, Bar or Side Plates, depth and thickness

STEM, moulding and thickness

STERN-POST for Rudder do. do.

" for Propeller

N-PIECE of Rudder, diameter at head

" do. at heel

RUDDER, how constructed

Can the Rudder be unshipped afloat?

FRAMING.

ME, Angles, *7* Bar for $\frac{1}{2}$ length amidships" for $\frac{1}{2}$ at each end

" in way of Double Bottoms

" of Frames from moulding edge to

" moulding edge, all fore and aft

INVERSED FRAME Angles

DOORS, depth and thickness of Floor Plate

" at mid-line for $\frac{1}{2}$ length amidships

" in way of Engines and Boilers

" thickness at the ends of vessel

" depth at $\frac{1}{2}$ the half breadth, as per Rule

" height extended at the Bilges

DOORS & BRACKETS in Cell Dble Bottoms

" Distance apart

CENTRE GIRDER, in Dbl Btm, depth & thcknss

" Angles, Top

" E GIRDERS, number and thickness

" Angles

" FLAT PLATE, dpth (excl. of flange) & thcknss

" Angles

" BOTTOM PLATING, breadth and

" thickness of Middle Line Strake

" " in Engine and Boiler space

" " Remainder in Holds

" AMS, Upper Deck, Single Angle, Bulb

" Angle, Plate or Tee Bulb

" Angles on upper edge

" Average space

" AMS, Middle Deck, Single Angle, Bulb

" Angle, Plate or Tee Bulb

" Angles on upper edge

" Average space

" AMS, Lower Deck, Single Angle, Bulb

" Angle, Plate or Tee Bulb

" Angles on upper edge

" Average space

" AMS, Hold, or Orlop, Plate or Tee Bulb

" Angles on upper edge

" Average space

" AMS, Poop and Bridge Deck, Angle, Bulb

" Angle, Plate or Tee Bulb

" Angles on upper edge

" Average space

" AMS, Forecastle Deck, Angle, Bulb

" Angle, Plate or Tee Bulb

" Angles on upper edge

" Average space

" B-FRAMES, In Fore Body, No. and spacing

" " Brdth. & Thicknss

" " No. of Side Stringers

" " " Brdth. & Thicknss

" " " No. of Side Stringers

" " " Size of Angles or Tee Bars to Web Frames

" RACKET PLATES to Stringers between

" Web Frames, Depth and Thickness

KEELSONS & 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 lng.

" Attached to outside Plating with Angle

Upper Deck Stringer Plate, on ends of Beams,

" breadth and thickness

" Angle on ditto

" Tie Plates fore and aft, outside Hatchways

" Flat of Dk. * Iron or Steel, for entire lng.

" " Wood Material & thickness

" How fastened to Beams

Middle Deck Stringer Plate, br'dth & thickness

" Angles on ditto, No. 2

" Tie Plates outside Hatchways

" Diagonal Tie Plates on Bms., No. of prs.

" Flat of Dk. * Iron or Steel, for entire lng.

" " Wood Material & thickness

" How fastened to Beams

Lower Deck Stringer Plate, br'dth & thickness

" Angles on ditto, No. 4

" Tie Plates, outside Hatchways

" Flat of Deck. * Material and thickness

" How fastened to Beams

Hold or Orlop Stringer Plate, br'dth & thcknss

Is the Stringer Plate attached to the outside Plating?

" Angles on ditto, No.

" Tie Plates outside Hatchways

" Flat of Deck. * Material and thickness

" How fastened to Beams

Poop Deck Stringer Plate, breadth & thickness

" Angle on ditto

" Tie Plates

" Flat of Deck, Material and thickness

Bridge Deck Stringer Plate, breadth & thcknss

" Angle on ditto

" Tie Plates

" Flat of Deck, Material and thickness

Forecastle Deck Stringer Plate, br'dth & thcknss

" Angle on ditto

" Tie Plates

" Flat of Deck, Material and thickness

PLATING.

FLAT PLATE KEEL, breadth and thickness

" D'blng or inc. thickness & len. appl'd.

PLATES in Garboard Strakes, br'dth & thickness

" from Garboard to lower part of Bilges

" State Thickness of Plating in way of Double Bottom

" Bilges, number of Strakes and thickness

" Of doubling at Bilge, or increased thickness

" and length applied

" from up. prt. of Bilge to lr. edge of Sh'rstrake

Sheerstrake, breadth and thickness

" Of d'blng at Sh'rstk. & length appl.

Poop Sides

Bridge do.

Forecastle do.

Lengths of Plating

BULKHEADS. No. in Vessel Six No. Regd. by Rule Six

Ceiling betwixt Decks, thickness and material 6 x 2 1/2 Spruce in hold do. do. 2 1/2 W. T. BULKHEADS { Thickness 7/20 Angles. Vrtcl. 5 1/2 x 3 1/2 x 1/8 30 Hrztntl. 5 1/2 x 3 1/2 x 1/8 48

Number of Breasthooks Four PARTITION - Vrtcl. - Hrztntl. -

Crutches Four, and deep floors LONGITUDINAL - Vrtcl. -

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

The FRAMES extend in one length from Flange plate to Gunwale Riveted through plates with 7/8 in. Rivets, about 6" apart.

The REVERSED ANGLE on floors and frames from Flange plate to Main and to upper decks alternately; all to upper deck in Engine & Boiler space, and alternate rev. bars to forecabin deck.

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 4 3/4 ins. from centre to centre.

Edges of Garboards, and to upper part of Bilge, worked clencher, double riveted; with rivets 7/8 in. diameter, averaging 3 3/4 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, treble or double riveted; treble for entire length; with rivets 7/8 in. dia., averaging 3 ins. from cr. to cr.

overlapped for entire length, treble riveted for entire length; with rivets 7/8 in. dia., averaging 3 ins. from cr. to cr.

Butts of all Strakes at Bilge for entire length, treble riveted with Butt Straps thicker than the plates they connect. Outside straps fitted in way of flange plate and double straps fitted to strake above main plate.

Edges from Bilge to Sheerstrake, worked clencher, double riveted; with rivets 7/8 in. diameter, averaging 3 3/4 ins. from centre to centre.

Butts from Bilge to Sheerstrake, worked carvel, treble or double riveted; treble for entire length; with rivets 7/8 in. dia., averaging 3 ins. from cr. to cr.

overlapped for entire length, treble riveted for entire length; with rivets 7/8 in. dia., averaging 3 ins. from cr. to cr.

Edges of Sheerstrake, double riveted. Butts of Sheerstrake, treble riveted for entire length amidships.

Butts of Middle Deck Stringer Plate, treble riveted for half length amidships. Butts of Upper Deck Stringer Plate, treble riveted for entire length.

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

Butts of Inner Bottom Plating double riveted for entire length. Butts of Centre Girder Treble riveted.

Breadth of edge laps of Shell Plating in double riveting 5 1/4 & 6" Breadth of edge laps of Shell Plating in single riveting 10 1/2" and 12 in.

Butt Straps of Shell Plating, breadth and thickness 2 1/4 to 1 1/4 x 1 1/2 to 1 3/4 Butts if Lapped, breadth of laps 10 1/2" and 12 in.

Butt Straps of Keelsons, Stringer and Tie Plates, treble or double riveted? Treble and quadruple

Manufacturer's name or trade mark of the Steel (state process of manufacture of Steel) used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? James & Rev. Bars, Bradmore & Co.; & Coote & Co.; & Co.; Beams, Barrow & Dorman Long; Bullock & Floss, Consett, & Stockton; & plates Clydebridge, & W. Cumt.; Keelsons Steel Co. of Scot.; Outside plating, Barrow Summerlee, Mossend, & Consett, Co.; - all Renown Martin Steel

Workmanship. Are the butts of plating planed or otherwise fitted? planed where fitted, but mostly lapped.

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 the plating? Yes.

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	ANGLES.		RIVETING.	
			At Partners.	Heel.	Hounds.	Head.		Number.	Size.	Seams.	Butts.
Fore	Steel	111.6	24 x 10 3/32	19 1/4 x 3/32	19 x 3/32	3	3	3 x 3 1/8	Single	Quadruple	
Main	"	104.8	22 x 10 3/32	19 1/4 x 3/32	18 x 3/32	3	3	3 x 3 1/8	"	Treble and double.	
Mizzen	none	-	-	-	-	-	-	-	-	-	

Bowsprit none

Topmasts, Yards and Remainder of Spars Pitch pine

Rigging, Material and Size, Shrouds Galv. Iron wire (Bullion) 1/4 and 3/4 Stays 1/4 double to T.M., & 1/4 single to M.

Sails. One complete Suit of good Sails, and the following spare sails none.

EQUIPMENT No. 35146 LETTER (V) ANCHORS.

Number of Certificate.	WRIGHT, EX. STOCK.	WEIGHT OF STOCK.	TEST, PER CERTIFICATE.				WEIGHT REQ. PER RULE.	Description of Anchor.	Makers.	Where and when tested, and Superintendent.					
			Tons.	Cwts.	qrs.	lbs.									
28423	1st Bower	38 0 20	9	3	6	34	13	0	14	30	Testman's S.S.	Hingley & Son	Netherton	3 Sep. 90	
28419	2nd "	38 2 13	16	0	14	34	17	3	7	30	Ordinary S.S.	"	"	2 " 90	
28418	3rd "	32 1 0	8	1	26	30	6	1	0	32	Testman's S.S.	"	"	2 " 90	
	4th "	-	-	-	-	-	-	-	-	-	"	"	"	"	
	Collective weight	109 0 5	-	-	-	-	-	-	-	100	-	-	-	D.G. Lewis	Sup.
28449	Stream	11 2 19	3	0	14	13	12	2	0	11 1/2	Ordinary S.S.	Hingley & Son	Netherton	10 Sep. 90	
28440	Kedge	5 2 25	1	2	23	9	0	2	14	5 1/2	"	"	"	"	10 " 90
28447	2nd Kedge	2 3 18	3	15	5	10	0	0	0	2 1/2	"	"	"	"	13 " 90

CHAIN CABLES.

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.
21042	149 1/2	2	100	16.2	296.3	300 x 2	Find link Hingley & Son	Netherton 3 Sep. 90	Towline*	90	10	90 x 10
			72	0	0	"	"	"	Hawser	90	8 1/2	90 x 8 1/2
21047	150.4	2	"	302.1	9	"	"	"	"	2 x 90	6	"
			90	4 1/2	39	90 x 1 1/2 in. 1/8 W.	Bullivant & Co. London	30 Oct. 90	"	2 x 90	5	"
	120	4	33	-	-	120 x 4	"	"	"	"	"	"

Boats 2 x 60 3 1/2 - Two life boats, and four other boats

Pumps, Number Six - exclusive of In. suction Diameter of Barrel and Tail Pipe Barrels 5 in., & Tail pipes 2 1/2 in.

The Windlass is Harfield's Patent Steam, and good Capstan good.

Engine Room Skylights. - How constructed? of plates and angles on Coamings 36 in. above Bridge deck.

What arrangements for deadlights in bad weather? Solid top with bulls' eyes.

Coal Bunker Openings. - How constructed? plates & angles How are lids secured? with hatch bars Height above deck? 3.8 above B.D.

Number of Scuppers, and number and dimensions of Freeing Ports, &c. 2 Scuppers, 5 Freeing ports 36 x 12, and 2 Spring pipes forward; and 4 Scuppers, 4 Freeing ports, and 2 Spring pipes aft each side.

Cargo Hatchways. - How formed? of plates and angles. Hatches, If strong and efficient? Yes, 3 solid.

State size No. 1 Hatch (Forward) 19.6 x 11.0 No. 2 Hatch 26.6 x 12.0 No. 3 Hatch 19.6 x 11.0 No. 4 Hatch 15.6 x 10.0

Number of Web Plates, Shifting Beams, and Fore and Afters to each Hatch Two deep web plates in No. 2, one deep web plate in each of Nos 1 & 3, one shifting beam in No. 4; and one fore & after in all.

Bulwarks, height above deck and description 4 feet 3 in., of 5/16 steel. Main Rail, material and size steel angle bulb 5 x 3 x 2

The above is a correct description.

Builder's Signature (here only) *Richard Woolf*

Surveyor's Signature, *James Turpin*

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

Order for Special Survey No. 270
Date Dec 10 89
Order for Ordinary Survey No. -
Date -
No. 232 in builder's yard
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
Feb. 5, 13, 20, 28; Mar 7, 14, 19, 24; April 3, 14, 23, 28; May 7, 15, 22; June 3, 6, 9, 12, 23; July 2, 24; Aug 4, 9, 12, 14, 28; Sep. 8, 9, 16, 17, 26; Oct. 8, 10, 15, 22, 25; 30; Nov 3 & 5, 1890
Total No. of Visits 40

State dates and initials of letters respecting this case. October 12th 1889. M.
General Remarks (State quality of workmanship, &c.) This vessel has been built in accordance with the copy of tracing of approved midship section, herewith enclosed, and otherwise in accordance with the plans approved for the S. S. "British Empire", of which vessel she is a duplicate. Belfast Report No. 3553, in compliance with the Secretary's letter dated as above, web frames have been fitted in the Engine and Boiler space, and the Rules in other respects, including the Committee's circulars on steel, have been adhered to. She is stronger than required by the Rules at the gunwale, and several parts of the bottom. The materials used in her construction, and the workmanship are very good.

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop 32 ft., R.Q.D. or Break - ft., Bridge Dk. 80 ft., F'castle 44 ft. (in feet and tenths) where 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) 2 Dks (1 Iron & 1 Stl) 3 Dk Rule.
Official No. 98180; 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 engine only, or boilers only, state which -
Double bottom, constructed on the cellular system, length 264 feet and water capacity in tons 545
Fore peak tank, water capacity in tons - After peak tank, water capacity in tons 40
Midship deep tank, length - and water capacity in tons - Other tanks, if fitted, length - and water capacity in tons -
The above have all been tested as required by the Rules.
(If necessary, furnish further information by sketch.)
How are the surfaces preserved from oxidation? Inside Portland Cement & paint Outside Paint.

FREEBOARD assigned by the Committee, as per Secretary's Letter dated 29th October
In Summer 6 ft. 2 1/2 ins.
In Winter 6 ft. 7 1/2 ins.
For Winter in North Atlantic 7 ft. 0 1/2 ins.
Fresh Water above the centre of disc 10 ins.
To top of Wood, Iron or Steel Upper Deck. See Verification form attached.

The amount of Entry Fee £ 5 : : : is received by me, J. G. P.
Special £ 100 : 14 : 11/11 1890
Certificate * £ 0 : 0 : 0
Travelling Expenses, if any £ -
I am of opinion this Vessel should be Classed + 100 A 1 Steel
2 Dks (1 Iron 1 Stl) 3 Dk Rule.

Committee's Minute FRI 14 NOV 1889
Character assigned 100 A 1 Steel
+ 2 Dks 11/90 2 Dks 1 Stl + 1 Iron + Deep Framing 3 Dk Rule
2y Hs THW
This is submitted that this vessel appears eligible to be classed 100 A 1 (Steel) as recommended.
2 Dks. (1 Stl. & 1 Iron.) and Deep Framing.
3 Dk Rule.
Cell. D.B. & A.P.T. (particulars as registered)
Lloyd's Register Foundation