

3 Decks.

## IRON OR STEEL STEAMER.

(Received at London Office)

4157

State of Report is also sent on the Machinery of the Vessel

Date of completion of report 19 Sep 1892

Port of

Belfast

No. 4157 Survey held at

Belfast

Date, First Survey 9<sup>th</sup> Dec 1891

Last Survey 16 Sep

1892

On the Steel Screw Steamer "Southern Cross"

Rig Brigantine

TONNAGE under

THREE DECKED VESSEL.

Master A Child

Tonnage Deck...

CLASS \* 100 A1

Year of appointment (1) As Master in service of owner of present vessel - 1892 (2) As Master of this vessel - 1892

Do. between Tonnage Dk. and 3rd and 4th Dk.

Built at Belfast

Total under Upper 2 Dk.

When built 1892 Launched 9<sup>th</sup> Aug 1892

Do. of Poop

By whom built Workman Clark &amp; Co Ltd

Do. of Bridge House

Owners Southern Cross Steam Ship Co Ltd

Do. of Houses on Dk.

Managers Wincott Cooper &amp; Co London

Do. of excess of Hatchways

(Where necessary to be entered in Reg. Book.)

Do. of Forecastle

Residence London

Do. above Crown of Engine Room

Port belonging to London

Gross Tonnage 5049.65

Less Crew Space 100.50

Less above Crown of Engine Room 110.03

TONNAGE FOR FEES 4839.15

Less Engine Room 1615.90

Less Navigation Spaces 22.05

Register Tonnage as cut on Beam 3311.23

Destined Voyage Australia via Cap Horn. If Surveyed while Building, Afloat, or in Dry Dock Building

LENGTH on Deck as per Rule	Feet.	Inches.	BREADTH Moulded	Feet.	Inches.	DEPTH top of Floors to Upper Deck Beams	Feet.	Inches.	Power of Engines	Horse	No. of Decks with flat laid	No. of Tiers of Beams
398	12		47	9 3/4		29	8 3/4		500	600	Two	Three

Dimensions of Ship per Register, Length 400.4 breadth 48.10 depth 29.6 Moulded depth, ft. 32 ins. 7 To Upper Dk. Beam, Upper Dk. 11 3/4 ins. Round up of 11 3/4 ins.

## FORGINGS or 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 Steel frame &amp; side plates with joint in steel

Can the Rudder be unshipped afloat? Yes

## FRAMING.

FRAME, Angles, 2 Bars for 1/2 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

EVERSED FRAME Angles

LOORS, 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 breadth, as per Rule

" height extended at the Bilges

FLOORS &amp; BRACKETS in Cell Dble Bottoms

" Distance apart

CENTRE GIRDER, in Dbl Btm, depth &amp; thickness

" Angles, Top 4 x 4 x 9 Bottom 6 x 6 x 10

SIDE GIRDERS, number and thickness

" Angles

MARGIN PLATE, dpth (excl. of flange) &amp; thickness

" Angles

INNER BOTTOM PLATING, breadth and thickness of Middle Line Strake

" " in Engine and Boiler space

" " Remainder in Holds

BEAMS, Upper Deck, Single Angle, Bulb

" Angle, Plate or Tee Bulb

" Angles on upper edge

" Average space

BEAMS, Middle 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 and 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

" Brdth. &amp; Thickness

" No. of Side Stringers

WEB FRAMES, In After Body, No. and spacing

" Brdth. &amp; 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 &amp; 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

" Attached to outside Plating with Angle

SIDE STRINGER Angles

" Bulb or Intercoastal Plate for length

" 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 whole length

" " Wood Material &amp; thickness

" How fastened to Beams

Middle Deck Stringer Plate, br'dth &amp; 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 whole length

" " Wood Material &amp; thickness

" How fastened to Beams

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

" Angles on ditto, No. 2

" Tie Plates, outside Hatchways

" Flat of Deck \* Material and thickness

" How fastened to Beams

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

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 &amp; thickness

" Angle on ditto

" Tie Plates

" Flat of Deck, Material and thickness

Bridge Deck Stringer Plate, breadth &amp; thickness

" Angle on ditto

" Tie Plates

" Flat of Deck, Material and thickness

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

" Angle on ditto

" Tie Plates

" Flat of Deck, Material and thickness

## PLATING.

FLAT PLATE KEEL, breadth and thickness

" D'blng or inc. thickness &amp; len. appl'd. 1/2 2

PLATES in Garboard Strakes, br'dth &amp; 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 l.r. edge of Sh'rstrake

" Sheerstrake, breadth and thickness

" Of d'blng at Sh'rstrake, &amp; length appl'd.

" Poop Sides

" Bridge do.

" Forecastle do.

Lengths of Plating 11 frames



BULKHEADS. No. in Vessel 7 6 ft. round No. Reqd. by Rule 6
Ceiling betwixt Decks, thickness and material W.P. 2"
in hold do. do. R.P. 2 1/2
W. T. BULKHEADS { 8-7 Vrtcl. 6x3 1/2 x 10 30"
20 Hzntrl. 9x3 1/2 x 12 48"
PARTITION 2 Vrtcl.
Hzntrl.
LONGITUDINAL 1A Vrtcl.

Are the outside Plates doubled two spaces of Frames in length? Yes
The FRAMES extend in one length from keel to margin & margin to Gunwale Riveted through plates with 7/8 in. Rivets, about 6 1/2" apart.
The REVERSED ANGLE on floors and frames from Centre to margin & margin to Gunwale & in D. 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" in diameter, averaging 4 1/8 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 9/16 ins. from centre to centre.
Butts from Keel to turn of Bilge, worked carvel, treble or double riveted; treble for length; with rivets in dia., averaging ins. from cr. to cr.
overlapped for whole length, treble riveted for whole length; with rivets 7/8 in dia., averaging 3 1/8 ins. from cr. to cr.
Butts of Strakes at Bilge for length, treble riveted with Butt Straps thicker than the plates they connect.
Edges from Bilge to Sheerstrake, worked clencher, double riveted; with rivets 7/8 in. diameter, averaging 3 9/16 ins. from centre to centre.
Butts from Bilge to Sheerstrake, worked carvel, treble or double riveted; treble for length; with rivets in dia., averaging ins. from cr. to cr.
overlapped for whole length, treble riveted for whole length; with rivets 7/8 in dia., averaging 3 1/8 ins. from cr. to cr.
Edges of Sheerstrake, double riveted, all fore and aft Butts of Sheerstrake, treble riveted for whole length amidships.
Butts of Middle Deck Stringer Plate, treble riveted for whole length amidships. Butts of Upper Deck Stringer Plate, treble riveted for whole length.
Single or Double Straps for lgth. amidships. Single or Double Straps for lgth.
Butts of Inner Bottom Plating double riveted for whole length. Butts of Centre Girder treble riveted.
Breadth of edge laps of Shell Plating in double riveting 5 1/4 Breadth of edge laps of Shell Plating in single riveting
Butt Straps of Shell Plating, breadth and thickness Butts if Lapped, breadth of laps 10 1/2
Butt Straps of Keelsons, Stringer and Tie Plates, treble or double riveted?

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.? James R. de Lankshire Steel Co & Beardmore. Beams Colville & Co. Decks & stringer plates Consett. Side stringers & Angles Stockton Malleable & Mossend. Floor steel & of best. Shell & Workmanship. Are the butts of plating planed or otherwise fitted? yes Inner bottom Stockton malleable. Masts Consett.
Is the riveted work properly closed? yes 10 H. Clyde Steel Co. (Simons Martin process)
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? No
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 54-6 24 1/2 x 7 23 x 7 20 x 6 2 1 Single treble
Main ..... 56-8 22 x 7 21 x 7 18 1/2 x 6 2 1 " "
Mizen .....
Bowsprit
Topmasts, Yards and Remainder of Spars 2 topmast of steel as per approved plan also fore yard of steel Remainder wood
Rigging, Material and Size, Shrouds 7mm at 4" Stays 5 1/4
Sails. Canvas Sails, and the following spare sails

EQUIPMENT No. 47360 LETTER Y ANCHORS.
Table with columns: Number of Certificate, Weight, Ex. Stock, Weight of Stock, Test per Certificate, Weight Req. per Rule, Description of Anchor, Makers, Where and when tested, and Superintendent.
Rows include 1st Bower, 2nd, 3rd, 4th, Stream, Kedge, 2nd Kedge.

CHAIN CABLES.
Table with columns: Number of Certificate, Fathoms, Size, Test per Certificate, Weight of Chain Cable, Fathoms & size, Description, Makers of Cables, Where and when tested, and Superintendent, Material, Fathoms, Size, Fathoms & size, Per Rule.
Rows include 5625, 5619, Iron stream chain, Towline.

HAWSERS AND WARPS.
Boats 7mm in number
Pumps, Number 9 10 and Pump Diameter of Barrel and Tail Pipe 5" & 2 1/2"
The Windlass is by Emerson Walker Steam on Test Capstan in Test geared to windlass
Engine Room Skylights.—How constructed? 7mm shutters
What arrangements for deadlights in bad weather? 7mm shutters
Coal Bunker Openings.—How constructed? in bridge How are lids secured? 10 latches Height above deck? 3 feet in bridge
Number of Scuppers, and number and dimensions of Freeing Ports, &c. 7 Scuppers each side 7 freeing ports each side 3 ft x 1 ft
Cargo Hatchways.—How formed? Deep craming plates Hatches, If strong and efficient? Yes
State size No. 1 Hatch (Forward) 20'-9" x 15'-0" No. 2 Hatch 29'-0" x 15'-0" No. 3 Hatch 20'-9" x 15'-0" No. 4 Hatch 20'-9" x 15'-0" No. 5 Hatch 20'-9" x 15'-0"
Number of Web Plates, Shifting Beams, and Fore and Afters to each Hatch No. 6 one beam & 3 fore & afters No. 6 one beam & 3 fore & afters
Bulwarks, height above deck and description 4 feet 7mm plate 5 1/2" Main Rail, material and size 5 1/2" Angle bulwark & cope

The above is a correct description. WORKMAN, CLARK & CO. LIMITED.
Builder's Signature (here only) J. Campbell & Co. Surveyor's Signature, J. Campbell & Co.
Surveyor to Lloyd's Register of British and Foreign Shipping.



Order for Special Survey No. 329 Date Aug 26. 1891  
Order for Ordinary Survey No. Date  
No. 91 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  
Dec 9. 23 Jan 12. 21. 26 Feb 3. 8. 12. 17.  
Feb 19. 24 Mar 1. 8. 12. 16. 23. 28. 31 Apr 12  
Apr 13. 21. 24. 28. May 3. 11. 14. 18. 23. 30  
Jun 1. 5. 14. 18. 25. Jul 2. 8. 13. 20. Aug 3  
Aug 10. 16. 19. 23. 24. 31 Sep 2. 6. 10  
Total No. of Visits 51  
State dates and initials of letters respecting this case 17 Aug 91, 5. 9. 22. Sept 11. 1917 March 92, 13 Apr 13 916 May 2/6. 17. 28 June 2. 11 992

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

This vessel has been built in accordance with the approved plan of midship section forwarded on 16<sup>th</sup> inst. & other enclosed herewith. And in compliance with the Secretaries letters of above dates. The Societies rules in other respects have been adhered to. The materials used in the construction of this vessel & the workmanship are good throughout.

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop 49 ft., R.Q D. or Break ft., Bridge Dk. 109 ft., F'castle 88 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 steel 3 tr B  
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 engine only, or boilers only, state which  
Double bottom, constructed on the cellular system, length 319'-0" and water capacity in tons 904  
Fore peak tank, water capacity in tons 58 After peak tank, water capacity in tons 116  
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 Paint & Portland Outside Paint

FREEBOARD assigned by the Committee, as per Secretary's

Letter dated 9<sup>th</sup> Sep 1892

State if marked on Vessel's sides in accordance with Notice No. 572 Yes

In Summer 7 ft. 3 ins.  
In Winter 7 ft. 9 ins.  
For Winter in North Atlantic 8 ft. 3 ins.  
Fresh Water above the centre of disc 6 ins.

To top of Wood, Iron or Steel Upper Deck. Statutory Deck Line

The amount of Entry Fee £ 5 : 0 : 0 is received by me,

Special £ 145 : 19 : 6 21.4.1892

Certificate £

Travelling Expenses, if any £ 1 : 1 : 0

I am of opinion this Vessel should be Classed

100 A1

Alampbell Holmes  
Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

Character assigned

FPI 23 SEP 1892

100A1 Steel

2 Dks (Stl) 3 tr B

Lamp  
+ Lmc 9. 92

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 A1 ("Steel") as recommended.

100 A1 ("Steel")

2 Dks (Stl) 3 tr B

N.B. = Cell DB &c (particulars above)

F.K.

BL61-0051(212)

Lloyd's Register  
Foundation