

1 or 2 Decks.

IRON OR STEEL STEAMER.

Received at London Office,

17100
MAR 27 1893

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

Date of completion of Report 23rd Mar. 1893 Port of Glasgow

No. 12100 Survey held at Glasgow Date, First Survey 7th Nov. 1892 Last Survey 23rd Mar. 1893

On the Twin Screw Steamer "Vulcan"

Rig One pole mast

TONNAGE under Tonnage Deck... 238.59

ONE OR TWO DECKED VESSEL.

Master

CLASS 100 A

FEET.

Year of appointment

(1) As master in service of owner of present vessel:—18
(2) As master of this vessel:—18

Do. of Poop

Do. of Raised Or

Do. of Break

Do. of Bridge House

Do. of Houses on Deck

Do. of Houses of Hatchways

Do. of Forecastle

Do. above Crown of

Engine Room

Gross Tonnage 288.41

Less Crew Space 16.55

Less above Crown of

Engine Room

TONNAGE FOR FEES.. 230.29

Less Engine Room 263.39

Less Navigation Spaces 3.56

Register Tonnage

as cut on Beam .. 4.91

Half Breadth (moulded) 12.50

Depth from upper part of Keel to top of Main Deck Bms. 12.46

Girth of Half Midship Frame (as per Rule) 22.25

1st Number 47.71

Length 118.92

2nd Number 5673

Proportions—Breadths to Length 4.75

Depths to Length—Main Deck to top of Keel 9.17

Destined Voyage Southampton

Built at Glasgow

When built 1893 Launched 4th March

By whom built Barclay, Curle & Co. (Lim.)

Owners Southampton, Selig Wight & South of

Managers England Royal Mail Steam Packet

(Where necessary to be entered in Reg. Book)

Residence Southampton

Port belonging to Southampton

Surveyed while Building, Afloat, or in Dry Dock

LENGTH on Deck Feet. Inches. BREADTH—Feet. Inches. DEPTH—Feet. Inches. Power of Horse. No. of Decks with Flat laid One
as per Rule 118 11 Moulded 25 - Top of Floors to Main Deck 11 10 Engines 155 No. of Tiers of Beams One

Dimensions of Ship per Register, Length, 120.0 breadth, 25.1 depth, 11.8.

Moulded Depth, ft. 12 ins. 5 1/2

Round of Beam 6 inches.

FORGINGS AND CASTINGS.

KEEL, Bar or Side Plates depth and thickness

STEM, moulding and thickness

STERN-POST for Rudder do. do.

MAIN PIECE of Rudder, diameter at head

RUDDER, how constructed

Can the Rudder be unshipped afloat?

FRAMING.

FRAME, Angles, Bars, for 1/2 length amidships

Do. for 1/2 at each end

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 breadth, as per Rule

height extended at the Bilges

FLOORS & BRACKETS, in Cell Dble Bottoms

CENTRE GIRDER, in Double Bottom, depth

and thickness

Angles, Top

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 Hold

BEAMS, Main and Raised Quarter 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, 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 between Decks, Size and Spacing

Hold

WEB FRAMES, in Fore Body, No. and Spacing

Brdth & Thickness

No. of Side Stringers

WEB FRAMES, in After Body, No. and Spacing

Brdth & 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

floor, Through Plate, Intercoastal Plate

Bulb Plate

Bulb Plate to Intercoastal Keelson

Horizontal Plates on Floors

Angles

SIDE KEELSON, Angles

Bulb or Plate above floor for

Intercoastal Plate for

Attached to outside plating with Angle

BILGE KEELSON, Angles

Bulb or Plate above floor for

Intercoastal Plate for

Attached to outside plating with Angle

BILGE STRINGER Angles

Bulb Plate for

Intercoastal Plate for

Attached to outside plating with Angle

SIDE STRINGER Angles

Bulb or Intercoastal Plate for

Main and Raised Quarter Deck Stringer

Plate, on ends of Beams, breadth & thknss

Angle on ditto

Tie Plates fore & aft, outside Hatchways

Diagonal Tie Plates on Bms, No. of Pairs

Flat of Dk* Iron or Steel for half lng.

Wood Material & thickness

How fastened to Beams

Lower Deck Stringer Plate, on ends of

Beams, breadth & thickness

Angles on ditto, No.

Tie Plates, outside Hatchways

Flat of Deck, Material and thickness

How fastened to Beams

Hold Stringer Plate, on ends of Beams

Angles on ditto, No.

Peep Deck Stringer Plate, breadth & thickness

Angle on ditto

Tie Plates

Flat of Deck, Material and thickness

Bridge Deck Stringer Plate, breadth & thickness

Angle on ditto

Tie Plates

Flat of Deck, Material and thickness

Forecastle Deck Stringer Plate, breadth & thickness

Angle on ditto

Tie Plates

Flat of Deck, Material and thickness

PLATING.

FLAT PLATE KEEL, breadth and thickness

Widening inward thickness & length appl.

PLATES in Garboard Strakes, brd'th & thickness

From Garboard to lower part of Bilges

Bilges, number of Strakes and thickness

Of doubling at Bilge, or increased thickness

and length applied

from up. part of Bilge to lr. edge of Sh'rstrake

Sheerstrake, breadth and thickness

Of d'bling at Sh'rstrake & lng. appl.

Peep Sides

Raised Quarter Deck Sides

Bridge Sides

Forecastle Sides

Lengths of Plating

Inches in Ship. Inches in Ship. 20ths in Ship. Inches per Rule Or as Appro. 20ths per Rule ved.

16 1/2 5 16 1/2 5

6 8 6 8

3 3 6 3 3 6

3 3 6 3 3 6

5 4 8 5 4 8

2 1/2 2 1/2 5 2 1/2 2 1/2 5

5 4 8 5 4 8

26 6 26 6

3 x 3 6 3 x 3 6

7 7 6

3 6 3 6

3 P. Pine 3

By bolts

26 6 26 6

3 x 3 6 3 x 3 6

7 7 6

3 6 3 6

3 P. Pine 3

By bolts

26 6 26 6

3 x 3 6 3 x 3 6

7 7 6

3 6 3 6

3 P. Pine 3

By bolts

26 6 26 6

3 x 3 6 3 x 3 6

7 7 6

3 6 3 6

3 P. Pine 3

By bolts

26 6 26 6

3 x 3 6 3 x 3 6

7 7 6

3 6 3 6

3 P. Pine 3

By bolts

26 6 26 6

3 x 3 6 3 x 3 6

7 7 6

3 6 3 6

3 P. Pine 3

By bolts

26 6 26 6

3 x 3 6 3 x 3 6

7 7 6

3 6 3 6

3 P. Pine 3

By bolts

26 6 26 6

3 x 3 6 3 x 3 6

7 7 6

3 6 3 6

3 P. Pine 3

By bolts

26 6 26 6

3 x 3 6 3 x 3 6

7 7 6

3 6 3 6

3 P. Pine 3

By bolts

26 6 26 6

3 x 3 6 3 x 3 6

7 7 6

3 6 3 6

3 P. Pine 3

By bolts

* If Iron or Steel Deck, state if whole or part, and if wood deck is laid thereon.

* State clearly where plating is of alternate thicknesses—as distinguished from diminished thickness at end of vessel.

12100 gls

BULKHEADS. No. in Vessel 4 No. Reqd. by Rule 4

Thickness.	Angles.	Spacing.	Height up.	Sngl. or Dbl. Frames.
<u>5/20</u>	Vrtcl. <u>3x3x20</u> Hrztcl. <u>3x3x20</u>	<u>30</u> <u>48</u>	<u>Main Deck.</u>	<u>Double</u>

W. T. BULKHEADS

Number of Breasthooks Three PARTITION ✓

Crutches Two LONGITUDINAL ✓

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

The **FRAMES** extend in one length from keel to main deck Riveted through Plates with 3/4 in. Rivets, about 5 1/2 apart

The **REVERSED ANGLE** on floors and frames extend from middle line to side stringer and deck alternately

Double from bilge to bilge in 8 ft 13 space.

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 5 ins. from centre to centre.

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

Butts from Keel to turn of Bilge, worked carvel, treble or double riveted; treble for length; with rivets 3/4 in. dia., averaging 2 1/2 ins. from cr. to cr.

" " " overlapped for length; treble riveted for length; with rivets 3/4 in. dia., averaging 2 1/2 ins. from cr. to cr.

Butts of one Strakes at Bilge for half length, double riveted with Butt Straps 20 thicker than the plates they connect.

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

Butts from Bilge to Sheerstrake, worked carvel, treble or double riveted; treble for length; with rivets 3/4 in. dia., averaging 2 1/2 ins. from cr. to cr.

" " " overlapped for length; treble riveted for length; with rivets 3/4 in. dia., averaging 2 1/2 ins. from cr. to cr.

Edges of Sheerstrake, double single riveted.

Butts of Main Stringer Plate, double riveted for whole length amidships Single or Double Butt Straps of Stringer Plate for whole length.

Butts of Inner Bottom Plating double riveted for whole length amidships Butts of Centre Girder riveted

Breadth of edge laps of Shell Plating in double riveting 4 1/2

Butt Straps of Shell Plating breadth and thickness 9 3/4 8 20 20

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.? Lanarkshire; Consett; Clydebridge; Halliwell; and Dorman, Long & Co.

Siemens Process

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 the plating? A few in the butts.

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.
LOWER MASTS....	Fore	<u>Pine pole mast</u>									
	Main	<u>✓</u>									
	Mizen	<u>✓</u>									

Bowsprit ✓

Topmasts, Yards and Remainder of Spars ✓

Rigging, Material and Size, Shrouds Steel wire 1 3/4

Sails. One Suit of Sails, and the following spare sails

Stays Steel wire 2

EQUIPMENT No. 5457 LETTER d **ANCHORS.**

Number of Certificate.	WEIGHT, EX. STOCK	WEIGHT OF STOCK	TEST, PER CERTIFICATE.				WEIGHT REQ. BY RULE			Description of Anchor.	Makers.	Where and when tested and Superintendent.
			Cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.			
2931	1st Bower ..	5 3 7 1	1 21 8	0 2 14	5 3 -	<u>Common</u>	<u>Barclay & Curle</u>	<u>Glasgow</u>				
2932	2nd " ..	5 3 3 1	1 25 8	0 2 14	5 3 -	"	<u>Robert Oak</u>	<u>3rd Mar. 1893</u>				
	3rd " ..						<u>Iron & Steel</u>	<u>Works (him)</u>				
	Collective weight	11 2 10						<u>G. Ludhouse.</u>				
2933	Stream	1 2 16 0	1 20 4	1 2 7	1 2 -	"						
	Kedge	3 24	<u>Including stock</u>			3 -						
	2nd Kedge ..											

CHAIN CABLES.

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.
1701	74 1/2	7	20 1/2	13 3/4	32.0-26	16.5-4 1/2	<u>Stud Rink</u>	<u>Barclay & Curle</u>	<u>Glasgow</u>	<u>Towline</u>	<u>✓</u>	
1702	91	"	"	37-2-2	60-1-11	"	"	<u>3rd Mar. 1893</u>	<u>G. Ludhouse.</u>	<u>Hawser</u>	<u>Hemp</u>	<u>90-4</u>
				67-3-0	60-1-11							
	45-2 1/2	9 1/2		45-2 1/2								
	75-2 1/2	9 1/2		75-2 1/2								

Boats Two life boats

Pumps, Number 2 hand in hold, 1 in engine space 1 in pump Diameter of Barrel and Tail Pipe In hold 1/2 in pump 3/4 in

The Windlass is Capstan

Engine Room Skylights.—How constructed? Leak on iron coverings

What arrangements for deadlights in bad weather? Glass panels in tank shutters

Coal Bunker Openings.—How constructed? Cast iron scuttles How are lids secured? Self locking Height above deck? 4 ft

Number of Scuppers, and number and dimensions of Freeing Ports, &c. On each side 3 scuppers, and 3 ports 33x15

Hatches, if strong and efficient? ✓

Cargo Hatchways.—How formed? ✓

State size No. 1 Hatch (Forward) ✓ No. 2 Hatch ✓ No. 3 Hatch ✓ No. 4 Hatch ✓

Number of Web Plates, Shifting Beams, and Fore and Afters to each Hatch ✓

Bulwarks, height above deck and description 2-11 3/4 plating Main Rail, material and size blm 7x3

The above is a correct description.

Builder's Signature, (here only.) And Maclean & Co. Surveyor's Signature, J. Thomson

Manager of Ship Building Department. Surveyor to Lloyd's Register of British and Foreign Shipping.

Reference should be made to any correspondence connected with the case.

Order for Special Survey No. 2632
Date 2nd Novem^r 1892
Order for Ordinary Survey No. ✓
Date ✓
No. 383 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 } 1892: - Nov 7, 11, 15, 17, 22, 24, 30. Dec. 5, 8, 13,
2nd. On the plating during the process of riveting } 15, 19, 27, 30. 1893: - Jan. 10, 13, 18, 20, 26. Feb. 1,
3rd. When the beams were in and fastened, and before the decks were laid } 6, 8, 13, 17, 21, 24, 27, 28. Mar. 3, 14, 18, 20, 23.
4th. When the ship was complete, and before the plating was finally coated or cemented ... }
5th. After the ship was launched and equipped

Total No. of Visits 33

State dates and initials of letters respecting this case 21st Oct. 1892. M. 13th Dec. 1892. E.

General Remarks (State quality of workmanship, &c.) The workmanship throughout is good.
This vessel is built of steel in accordance with approved tracing forwarded to London on the 21st March 1893, the accompanying tracing of pumping arrangements, the Secretary's letters referred to above, and in general conformity with the Rules for the Class contemplated.

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop ✓ ft., R.Q.D. or Break ✓ ft., Bridge Dk. ✓ ft., F'castle ✓ 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) One deck (part steel w.s.), one tier of Beams.
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 ✓ and water capacity in tons ✓.
Fore peak tank, water capacity in tons ✓. After peak tank, water capacity in tons ✓.
Midship deep tank, length ✓ and water capacity in tons ✓. Other tanks, if fitted, length ✓ and water capacity in tons ✓.
The above have ✓ been tested as required by the Rules.
(If necessary, furnish further information by sketch.)
How are the surfaces preserved from oxidation? Inside By cement and paint. Outside By paint.

FREEBOARD assigned by the Committee, as per Secretary's Letter, dated 22nd March 1893
State if marked on Vessel's sides in accordance with Notice No. 579
In Summer 1 ft. 5 ins.
In Winter 1 ft. 6 ins.
For Winter in North Atlantic ft. ✓ ins.
Fresh Water above the centre of disc 2 1/2 ins.
To top of Wood, Iron or Steel Upper Deck. Statutory deck line.

The amount of Entry Fee..... £ 2 : " : " is received by me, [Signature]
Special .. £ 11 : 19 : " 24/3/1893
Certificate* £ " : " : "
Travelling Expenses, if any £ " : " : "
I am of opinion this Vessel should be Classed ✠ 100 A 1
*Certificate to be sent to Glasgow
J. Thomson
Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute TUES. 28 MAR 1893
Character assigned 100 A 1 Steel
Lanc
+ Linc 3.93
15k
on fine
[Signature]
Certificate GLS167A-0128 (212)
The Surveyor should be requested to state the length of the Part Aft Deck for record in the Register Book.