1 ~~or 2~~ Decks. ~~IRON OR~~ STEEL STEAMER.

3071

Received at London Office, THURS. 7 MAY 1891

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

Date of completion of Report *april 29th /91* Port of *Southampton.*

No. *3071* Survey held at *Southampton* Date, First Survey *Sept. 16th/90* Last Survey *27th april* 1891

On the *Steel S. S. "Cassel"* Rig *Fore & aft Schooner.*

TONNAGE under Tonnage Deck	316·19
Do. of Poop	
Do. of Raised Qr. Dk. or Break	74·20
Do. of Bridge House	21·10
Do. of Houses on Deck (~~forecastle & wings~~)	13·38
Do. of excess of Hatchways	13·46 (~~13·28~~)
Do. of Forecastle	
Do. above Crown of Engine Room	8·39
Gross Tonnage	447·95
Less Crew Space	22·78
Less above Crown of Engine Room	8·39
Tonnage for Fees (for vessel)	413·00
Less Engine Room	161·86
Less Navigation Spaces under act of 1889	5·91
Register Tonnage / Cut on Beam	257·40

(85)

ONE OR TWO DECKED VESSEL.

CLASS *100 A 1.*

	FEET.
Half Breadth (moulded)	11·94
Depth from upper part of Keel to top of Main Deck Bms.	12·29
Girth of Half Midship Frame (as per Rule)	22·60
1st Number	46·83
Length	158·9
2nd Number	7441
Proportions—Breadths to Length	6·65
Depths to Length—Main Deck to top of Keel	12·93

Destined Voyage *not fixed.*

Master *R. J. Reynolds.*

Year of appointment (1) As master in service of owner of present vessel:—18*88* (2) As master of this vessel 18*91*

Built at *Woolston, Southampton.*

When built *1890-91* Launched *22nd apl/91*

By whom built *Southampton Naval Works*

Owners *Weatherly, Mead & Hussey.*

Managers *Do. Do. Do.*

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

Residence *London.*

Port belonging to *London.*

If Surveyed while Building, Afloat, or in Dry Dock *while Building and afloat.*

LENGTH on Deck as per Rule	Feet. 158	Inches. 9	BREADTH—Moulded	Feet. 23	Inches. 10½	DEPTH—Top of Floors to Main Deck Beams	Feet. 11	Inches. 2½	Power of Engines	Horse. 95	No. of Decks with Flat laid	one.
											No. of Tiers of Beams	one.

Dimensions of Ship per Register, Length, *160* breadth, *24* depth, *11*. Moulded Depth, ft. *11* ins. *9*. Round of Beam *6* inches.

FORGINGS AND CASTINGS.

	Inches in Ship.	Inches per Rule. Or as Approved.
KEEL, Bar ~~or Side Plates~~ depth and thickness	7 x 1 5/8	7 x 1 5/8
STEM, moulding and thickness	6¼ x 1 7/8	6¼ x 1 7/8
STERN-POST for Rudder do. do.	6½ x 3¼	6½ x 3¼
,, for Propeller	6½ x 3¼	6½ x 3¼
MAIN PIECE of Rudder, diameter at head	4¼	4¼
do. at heel	2½	2½

RUDDER, how constructed *Ordinary way, forging – plated over*

Can the Rudder be unshipped afloat? *Yes*

FRAMING.

	Inches in Ship.	Inches in Ship.	20ths in Ship.	Inches per Rule Or as	Inches per Rule Approved.	20ths per Rule
FRAME, Angles, ~~and~~ Bars, for ⅗ length amidships	3	3	6	3	3	6
Do. for ⅕ at each end	3	3	5	3	3	5
Do. in way of Double Bottoms	3	3	6	3	3	6
Distance of Frames from moulding edge to moulding edge, all fore and aft	21 inches			21 inches		
REVERSED FRAME, Angles	2½	2½	5	2½	2½	5
FLOORS, depth and thickness of Floor Plate at mid-line for ⅗ length amidships	13	x	6	13	x	6
,, in way of Engines and Boilers	13 x	7 x	8	13 x	7 x	8
,, thickness at the ends of vessel	–	–	5			5
,, depth at ¾ the half breadth, as per Rule	10	–	–	10		
,, height extended at the Bilges	26	–	–	26		
FLOORS & BRACKETS, in Cell Dble Bottoms	–	–	5/16			5/16
,, ,, Distance apart	21	–	–	21		
CENTRE GIRDER, in Double Bottom, depth and thickness	36	x	8	36	x	8
,, Angles, Top *3½. 3½. 7/20* Bottom	–	–	–			
SIDE GIRDERS, number and thickness	One each side.		5/16	1 each side		5/16
,, Angles	3	2½	5/16	3	2½	5/16
MARGIN PLATE, depth (exclusive of flange) and thickness	33	x	6	33	x	6
,, Angles	3	3	6/16	3	3	6/16
INNER BOTTOM PLATING, breadth and thickness of Middle Line Strake	54	x	6/16	54	x	6/16
,, ,, thickness in Engine and Boiler space	–	–	–			
,, ,, ,, Remainder in Holds	–	–	5/16			5/16
BEAMS, Main and Raised Quarter Deck, Angle, ~~Bulb Angle, Plate or Tee Bulb~~	4	2½	6	4	2½	6
,, Angles on Upper Edge	–	–	–			
Average space	21 inches			21 inches		
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, 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~~	4½	3	6	4½	3	6
,, Angles on Upper Edge	–	–	–			
,, Average Space	42 inches			42 inches		
,, Forecastle Deck, Angle, ~~Bulb Angle, Plate or Tee Bulb~~	5	3	7	5	3	7
,, Angles on Upper Edge	–	–	–			
,, Average space	42 inches			42 inches		
PILLARS, In 'tween Decks, Size and Spacing						
,, Hold ,, ,,	2½ and 2 7/8 Spaced 42 inches					
WEB FRAMES, In Fore Body, No. and Spacing	3 Spaced	8 to 11	fr. Spaces			
,, ,, Brdth. & Thickness	15	x	6	15	x	6
,, No. of Side Stringers *double angles*	2	–	–	2		
WEB FRAMES, In After Body, No. and Spacing	5 Spaced	5 to 7	fr. Spaces			
,, ,, Brdth. & Thickness	15	x	6	15	x	6
,, No. of Side Stringers *1 plate, 1 double L*	2	–	–	2		
,, Size of Angles or Tee Bars to Web Frames	2½	2½	5	2½	2½	5
BRACKET PLATES to Stringers between Web Frames, Depth and Thickness	–	–	–			

KEELSONS AND STRINGERS.

	Inches in Ship.	Inches in Ship.	20ths in Ship.	Inches per Rule Or as	Inches per Rule Approved.	20ths per Rule
CENTRE LINE KEELSON, Vertical Plate above floors, ~~Through Plate, or Intercostal Plate~~	11	x	9	11	x	9
,, Rider Plate	4½	x	9	4½	x	9
,, Bulb Plate to Intercostal Keelson	–	–	–			
,, Horizontal Plates on Floors	–	–	–			
,, Angles	3½	3	6	3½	3	6
SIDE KEELSON, Angles	2½	2½	4/16	2½	2½	4/16
,, Bulb or Plate above floors for – lng	–	–	–			
,, Intercostal Web Plate for ½ length	–	–	4/16			4/16
,, Attached to outside plating with Angle	–	–	–			
BILGE KEELSON, Angles	3½	3	6	3½	3	6
,, Bulb ~~or Plate~~ above floors for ⅗ len.	5½	x	5	5½	x	5
,, Intercostal Plate for – length	–	–	–			
,, Attached to outside plating with Angle	–	–	–			
BILGE STRINGER Angles	3½	3	6	3½	3	6
,, Bulb Plate for – length	–	–	–			
,, Intercostal Plate for – length	–	–	–			
,, Attached to outside plating with Angle	–	–	–			
SIDE STRINGER Angles	3½	3	6	3½	3	6
,, Bulb or Intercostal Plate for – lng.	–	–	–			
Main and Raised Quarter Deck Stringer Plate, on ends of Beams, breadth & thknss	23	x	8	23	x	8
,, Angle on ditto	3 x 3	x	7	3 x 3	x	7
,, Tie Plates fore & aft, outside Hatchways	Iron dk			Iron dk		
,, Diagonal Tie Plates on Bms., No. of Pairs	~~no wood~~		~~5/16~~			
,, Flat of Dk* Iron ~~or Steel~~ for *whole* lng.	no wood deck laid thereon		5/16			5/16
,, ,, Wood – Material & thickness						
,, How fastened to Beams	Riveted					
Lower Deck Stringer Plate, on ends of Beams, breadth and 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.	–	–	–			
Poop Deck Stringer Plate, breadth & thickness	–	–	–			
,, Angle on ditto	–	–	–			
,, Tie Plates	–	–	–			
,, Flat of Deck, Material and thickness	–	–	–			
Bridge Deck Stringer Plate, brdth & thickness	18	x	6	18	x	6
,, Angle on ditto	2½	2½	5	2½	2½	5
,, Tie Plates	6	x	5	6	x	5
,, Flat of Deck, Material and thickness	3	Pine	–	3		
Forecastle Deck Stringer Plate, brdth & thcknss	14	x 5	–	14	x	5
,, Angle on ditto	2½	2½	5	2½	2½	5
,, Tie Plates	6	x	6	6	x	6
,, Flat of Deck, Material and thickness	3	Pine		3		

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

PLATING.

	Inches in Ship.	20ths in Ship.	Inches per Rule Or as	20ths per Rule. Approved.
FLAT PLATE KEEL, breadth and thickness	–	–		
,, d'bling or incr'sd thcknss, & lngth appl.	–	–		
PLATES in Garboard Strakes, brd'th & thickness	31	9	31	9
,, From Garboard to lower part of Bilges (State Thickness of Plating in way of Double Bottom.)	–	7		7
,, Bilges, number of Strakes and thickness	One / One	total 8 / 8	One / One	total 8 / 8
above ,, ~~Of doubling at Bilge, or~~ increased thickness, and length applied *for ½ L.*	2 Strakes		2 Strakes	
,, from up. part of Bilge to lr. edge of Sh'rstrake	One strake 8/20 as stated above. rest.	7		7
,, Sheerstrake, breadth and thickness	32	11	32	11
,, Of d'blng at Sh'stk. & lng. applied	in way of break as in Longl. Elevatn.			
,, Poop Sides	–	–		
,, Raised Quarter Deck Sides	–	6		6
,, Bridge Sides	–	5		5
,, Forecastle Sides	–	5		5
Lengths of Plating	14 feet			

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

SOU898-0351 ½

Robert Edmund Taylor & Son, Printers, 19, Old Street, Goswell Road London.

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Spar Ceiling betwixt Decks, thickness and material 2" White Pine
" in hold do. 2½" do. White Pine

Number of Breasthooks 2
" Crutches 2

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

	Thickness.	Angles.		Spacing.	Height up.	Sngl. or Dbl. Plates.
W. T. Bulkheads	4/16	Vrtcl.	3 × 3 × 6/16	30	to main and R.Q. Dks as required —	double
		Hrzntl.	3 × 3 × 6/16	48	-	-
Partition....	-	Vrtcl.	-	-	-	-
		Hrzntl.	-	-	-	
Longitudinal	-	Vrtcl.	-	-	-	-

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

The **FRAMES** extend in one length from Keel to Main & Quarter Decks Riveted through Plates with 3/4 in. Rivets, about 5¼ apart
The **REVERSED ANGLE** on floors and frames extend from Keel to main deck and upper turn of bilge alternately, and in way of R.Q.Dk to R.Q.Dk and to side stringer next below it.

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 - lgth.; with rivets - in. dia., averaging - ins. from cr. to cr.
" " " " overlapped for whole length, treble riveted for whole length; with rivets 3/4 in. dia., averaging 2⅝ ins. from cr. to cr.
Butts of all Strakes **at Bilge** for whole length, treble riveted laps ~~with Butt Straps~~ — ~~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 - lgth.; with rivets - in. dia, averaging - ins. from cr. to cr.
" " " overlapped for whole length, treble riveted for whole length; with rivets 3/4 in. dia., averaging 2⅝ ins. from cr. to cr.
Edges of Sheerstrake, lower edge double ~~or single~~ riveted. **Butts of Sheerstrake,** double ~~treble~~ riveted for whole length amidships. excepting at break
Butts of Main Stringer Plate, overlapped & double ~~treble~~ riveted for whole length ~~amidships~~. **Single or Double Butt Straps to Stringer Plate** for - length.
Butts of Inner Bottom Plating Single riveted for whole length. **Butts of Centre Girder** treble riveted, laps
Breadth of edge laps of Shell Plating in double riveting 4½. **Breadth of edge laps of Shell Plating** in single riveting 2½
Butt ~~Straps~~ of sheerstrake Shell Plating breadth and thickness 9½ × 13/20 **Butts, if Lapped, breadth of laps** 4½
Butt ~~Straps~~ laps of Keelsons, Stringer and Tie Plates, ~~treble or~~ double riveted? double

State whether Rivets are of Iron or Steel. Iron

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.? Mossend Iron & Steel Works; Coats iron & steel works; Hallside Steel Works; Parkhead Mills & Steel Works; Stockton Iron Co; Castletown Steel Works; (Siemens Martins)
Workmanship. Are the butts of plating planed or otherwise fitted? planed where possible
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? in a few cases at butts only
Are the butts of Plating, Stringers, &c., properly shifted and strapped? Yes.

MASTS, SPARS, &c.

Lower Masts	Material.	Total Length	At Partners.	Heel.	Hounds.	Head.	No. of Plates in round.	Angles Number.	Angles Size.	Riveting Seams.	Riveting Butts.
Fore	pine	49-10	16"	12"	12"	Pole head	-	-	-	-	-
Main	-	44-9	-	13½	-	-	-	-	-	-	-
Mizen	-										

Bowsprit -
Topmasts, Yards and Remainder of **Spars** pine.
Rigging, Material and Size, **Shrouds** Steel wire 2¾". **Stays** Steel wire 3/4.
Sails. One full Suit of Canvas Sails, and the following spare sails -

EQUIPMENT No. 8085 **LETTER** 9. **ANCHORS.** 5 No. 2 Stockless.

Number of Certificate.		Weight, Ex. Stock Cwts.	qrs.	lbs.	Weight of Stock Cwts.	qrs.	lbs	Test, per Certificate Tons.	cwts.	qrs.	lbs.	Weight Req. by Rule Cwts.	qrs.	lbs.	Description of Anchor.	Makers.	Where and when tested and Superintendent.
29421	1st Bower	10	2	4	-	-	-	12	10	3	21	10	1	-	Hingley's Stockless	Hingley & Sons	Netherton 28.2.91. Lewis
29420	2nd "	10	1	4	-	-	-	12	6	2	7	10	1	-	" "	" "	" " "
29425	3rd "	7	0	22	1	2	12	9	9	1	14	7	-	-	ordinary	" "	" " "
	Collective w'ght	20 / 7	3 / 0	8 / 22	stockless / stocked							20 / 7	2 / -	0 / -	stockless / stocked		
29424	~~Stream~~	2	2	12	-	3	4	5	2	2	0	2	2	-	Ordinary	" "	" " " "
	Kedge	1	1	0	•	1	10	-	-	-	-	1	1	-		" "	
	2nd Kedge	-	-	-	-	-	-	-	-	-	-	-	-	-			

If Patent state Name of Patentee.

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.
19577	90-1¼	1 1/16	30-8-0-0.	57-3-0	165-1 1/16	Stud Link	Hingley & Sons	Netherton, 28-2-91. Lewis
19578	75-1¼ / 165-1¼	"	" " "	42-2-18		"	"	" " "
Iron Stream Chain or Steel Wire	60-	3	18 tons	-	60-2¾	-	R. Hood, Haggie & Sons, Newcastle, 20-2-91	
Towline if steel wire	75-	3	"	-	75 "	-	- -	- - -

By present Rules.

HAWSERS AND WARPS.

Material.	Fathoms	Size.	Fathoms & Size. Per Rule.
Towline*	-	-	-
Hawser	90	5½	90-5½ and smaller.
	-	-	-

Boats 1 - 20 ft life Boat, and 1 - 18 ft. Cutter as lifeboats.
Pumps, Number Two hand, efficient Diameter of Barrel and Tail Pipe 5" barrel and 2½ tail pipe.
The Windlass is Clark Chapmans steam efficient. Capstan 2 steam winches, 2 steam cranes, efficient.
Engine Room Skylights.—How constructed? of Teak on deep iron comings on bridge deck.
What arrangements for deadlights in bad weather? Bulls eye lights in strong Teak deadlights
Coal Bunker Openings.—How constructed? C.I. Glands cast iron How are lids secured? by chocks Height above deck? about 1"
Number of 2 pairs ford & 2 pairs aft ~~Scuppers~~, and number and dimensions of **Freeing Ports, &c.** 3 pairs ford 2'·8 × 2' also 3 pairs aft 2'·5 × 1'·3"

Cargo Hatchways.—How formed?— Iron Comings on strong beams & carlings **Hatches,** if strong and efficient? Yes
State size **No. 1 Hatch** (Forward) 29'·9" × 12'·0" **No. 2 Hatch** 22'·9" × 12'·0" **No. 3 Hatch** ✓ **No. 4 Hatch** ✓
Number of **Web Plates, Shifting Beams,** and **Fore** and **Afters** to each Hatch 2 web plates and one strong fore and after in each hatchway.
Bulwarks, height above deck and description of iron, usual way. 5 ft ford; 2'·9" aft. Main Rail, material and size Bulb angle iron 6" × 3"

The above is a correct description.
Builder's Signature, (here only.) THE SOUTHAMPTON NAVAL WORKS, LIMITED.
W. Biles .... GENERAL MANAGER.

Surveyor's Signature, J. L. Dinnette
Surveyor to Lloyd's Register of British and Foreign Shipping.

Form No. 1 A.

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

Order for Special Survey No. 9/90
Date 1st Aug - /90
Order for Ordinary Survey No. -
Date -
No. 260. 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 — Built under Special Survey and
2nd. On the plating during the process of riveting — Examined from 16th Sept. 1890
3rd. When the beams were in and fastened, and before the decks were laid ...... — to 27th April 1891.
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 25.

State dates and initials of letters respecting this case M. from Secty 19th and 31st July - /90, also 30th Augt - /90.
General Remarks (State quality of workmanship, &c.) Workmanship and Materials good.
This small Steel Screw Steamer has been built in accordance with the Rules and the Scantlings and arrangements shown on the tracings 3 No. sent with Report on "Rosendael".
The Steel used in her construction has been tested as required by the Rules.
She is a sister vessel to the Steel S. S. "Rosendael". Southampton Report No. 3059.

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop - ft., R.Q.D. or Break 74·5 ft., Bridge Dk. 14 ft., F'castle 19 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 the R.Q.Dk is joined to Bridge Dk.
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 Dk (Iron) & Well fore. 1 tr. B.
Official No. - ; Signal Letters - .

PARTICULARS OF WATER BALLAST.—
Double bottom, aft, length 22·75 ft and water capacity in tons 21·5. 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 aft end only 22·75 ft and water capacity in tons 21·5 *.
Fore peak tank, water capacity in tons 74. After peak tank, water capacity in tons 11·5.
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 in water ballast spaces with Portland Cement Outside Water ballast spaces with Light asphaltic Cement as specified by Owners.

FREEBOARD assigned by the Committee, as per Secretary's Letter, dated 24th April 1891.

In Summer	ft.	9	ins.
In Winter	ft.	10½	ins.
For Winter in North Atlantic	ft.	-	ins.
Fresh Water above the centre of disc		2½	ins.

To top of ~~Wood~~ Iron ~~or Steel~~ Upper Deck.

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

The amount of Entry Fee......... £ 2 : - : - is received by me, J.L.D.
Special ... £ 20 : 13 : - 6/5/1891
Certificate* £ - : - : -
Travelling Expenses, if any £ - : - : -
I am of opinion this Vessel should be Classed ✠ 100 A.1. "Steel"

Certificate to be sent to Southampton.

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

The Surveyors are requested not to write on or below the space for Committee's Minute.

Committee's Minute FRI. 8 MAY 1891
Character assigned

+ Lt. Mch 4/91 — 100 A 1 Steel
1 Dk (Iron)
Well Dk
L.A. & C.P.
[illegible]

It is submitted that this vessel appears eligible to be Classed 100 A.1. (steel) as recommended.
1 Dk (Iron)
Cell. D.B. (particulars above)
Well Dk.
[illegible] 7/5/91.

50V898-0351½

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