

# IRON SHIP.

Rec 5/6/73

No. 3661 Survey held at Glasgow Date, First Survey 31<sup>st</sup> Oct 1871 Last Survey 4<sup>th</sup> June 1873

On the S.S. "Virginia" Yard Number 167 Master Sadler

TONNAGE under  
Tonnage Deck 1717.03  
Ditto of Third, Spar,  
or Aft Deck 734.30  
Ditto of Poop, or  
Raised Qr. Dk. - -  
Ditto of Houses  
on Deck 22.01  
Ditto of Forecastle - -  
Gross Tonnage 2473.34  
Less Crew Space 88.15  
For Fuel 2451.33  
Less Engine Room 791.47  
Register Tonnage  
as out on Beam 1593.72

ONE, OR TWO DECKED, THREE DECKED VESSEL.  
SPAR, OR AWNING-DECKED VESSEL.  
HALF BREADTH (moulded) 18.0  
DEPTH from upper part of Keel to top of Upper Deck Beams 23.1  
GIRTH of Half Midship Frame (as per Rule) 35.2  
1st NUMBER 76.3  
1st NUMBER, if a THREE-DECKED VESSEL  
deduct 7 feet - -  
LENGTH 328.5  
2nd NUMBER 25.064  
PROPORTIONS—Breadths to Length Over Nine  
Depths to Length—Upper Deck to Keel Under Eleven  
Main Deck ditto Over Fourteen

Built at Glasgow  
When built 1871-73 Launched 29<sup>th</sup> March 1873  
By whom built London Glasgow & S.S.B. Coy  
Owners State Line Steam Ship Coy  
Port belonging to Glasgow  
Destined Voyage Glasgow to New York  
and  
Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 328 5/10 BREADTH Moulded 36 DEPTH top of Floors to Upper Deck Beams 23 1/2 Do. do. Main Deck Beams 21 1/2 Power of Engines 400 Horse. N<sup>o</sup>. of Decks with flat laid Three N<sup>o</sup>. of Tiers of Beams Three

Dimensions of Ship per Register, length, 331.2 breadth, 36.4 depth, 23.15			Inches in Ship.			Inches per Rule.			Flat Keel Plates, breadth and thickness			Inches. 16ths. Inches. 16ths.		
KEEL, depth and thickness	10	x	2 3/4	10	x	2 3/4	10	x	2 3/4	PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges	37 1/2	12	36	12
STEM, moulding and thickness	10	x	2 3/4	10	x	2 3/4	10	x	2 3/4	ness from Garboard to upper part of Bilges	11	11	11	11
STERN-POST for Rudder do. do.	10	x	5 1/2	10	x	5 1/2	10	x	5 1/2	of doubling at Bilge, or increased thickness, and length applied	Intercoastal for 1/5 length	Intercoastal for 1/5 length	Intercoastal for 1/5 length	Intercoastal for 1/5 length
for Propeller	10	x	5 1/2	10	x	5 1/2	10	x	5 1/2	fm up. part of Bilge to l. edge of Sh'rstrake	10	10	10	10
Distance of Frames from moulding edge to moulding edge, all fore and aft	24			24			24			Main Sheerstrake, breadth and thickness	36 1/2	15	36	15
FRAMES, Angle Iron, for 1/2 length amidships	4 1/2	x	3	4 1/2	x	3	4 1/2	x	3	of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake.	9	9	8	8
Do. for 1/4 at each end	4 1/2	x	3	4 1/2	x	3	4 1/2	x	3	Up. or Spar Dk Sh'rstrake, brdth & thickness	39 1/2	13	36	11
REVERSED FRAMES, Angle Iron	3	x	3	3	x	3	3	x	3	Butt Straps to outside plating, breadth & thickness	10 1/2	10 1/2	9 3/4	10 1/2
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	22	x	9	22	x	9	22	x	9	Lengths of Plating	10 1/2	10 1/2	10 1/2	10 1/2
thickness at the ends of vessel	-	-	-	-	-	-	-	-	-	Shifts of Plating, and Stringers	2 spaces	2 spaces	2 spaces	2 spaces
depth at 1/2 the half-bdth. as per Rule	-	-	-	-	-	-	-	-	-	Gunwale Plate or ends of Aming Spar, or Upper Deck Beams, breadth and thickness	4 7/10	4 7/10	4 7/10	4 7/10
height extended at the Bilges	twice	-	twice	twice	-	twice	twice	-	twice	Angle Iron on ditto	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9
BEAMS, Upper Spar, or Aft Deck	6	x	6	6	x	6	6	x	6	Tie Plates fore and aft, outside Hatchways	15 1/2	8	15 1/2	8
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	2 1/2	x	2 1/2	2 1/2	x	2 1/2	2 1/2	x	2 1/2	Diagonal Tie Plates on Beams No. of Pairs	3	3	3	3
Single or double Angle Iron on Upper edge	2 1/2	x	2 1/2	2 1/2	x	2 1/2	2 1/2	x	2 1/2	Planksheer material and scantling	4 1/2 x 12	-	-	-
Average space	48		48	48		48	48		48	Waterways do. do.	3	3	3	3
BEAMS, Main or Middle Deck	8 1/2	x	8	8 1/2	x	8	8 1/2	x	8	Flat of Upper Deck do. do.	3	3	3	3
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3	x	3	3	x	3	3	x	3	How fastened to Beams	Nuts & screws	Nuts & screws	Nuts & screws	Nuts & screws
Single or double Angle Iron, on Upper Edge	3	x	3	3	x	3	3	x	3	Stringer Plate on ends of Main or Middle Deck	65 1/2 x 10	65 1/2 x 10	65 1/2 x 10	65 1/2 x 10
Average space	48		48	48		48	48		48	Beams, breadth and thickness	65 1/2 x 10	65 1/2 x 10	65 1/2 x 10	65 1/2 x 10
BEAMS, Lower Deck, Hold or Orlop	9	x	9	9	x	9	9	x	9	Is the Stringer Plate attached to the outside plating?	Yes	Yes	Yes	Yes
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3 1/2	x	3 1/2	3 1/2	x	3 1/2	3 1/2	x	3 1/2	Angle Irons on ditto, No. 2	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9
Single or double Angle Iron on Upper Edge	3 1/2	x	3 1/2	3 1/2	x	3 1/2	3 1/2	x	3 1/2	Tie Plates, outside Hatchways	15 1/2	10	15 1/2	10
Average space	48		48	48		48	48		48	Diagonal Tie Plates on Beams, No. of pairs	4	4	4	4
KEELSONS Centre line, single or double plate, box, or Intercoastal Plates	19	x	9	19	x	9	19	x	9	Waterways materials and scantlings	Gutter	Gutter	Gutter	Gutter
" Rider Plate 8" foundation	20	x	10	20	x	10	20	x	10	Flat of Middle Deck do. do.	3 1/2	3 1/2	3 1/2	3 1/2
" Bulb Plate to Intercoastal Keelson	20	x	10	20	x	10	20	x	10	Beams, plates between stringers, 1/2 in. for 100 ft amidships with 1/2 in. rivets	Nuts & screws	Nuts & screws	Nuts & screws	Nuts & screws
" Angle Irons	4	x	4	4	x	4	4	x	4	How fastened to Beams	Nuts & screws	Nuts & screws	Nuts & screws	Nuts & screws
" Double Angle Iron Side Keelson	6	x	4	6	x	4	6	x	4	Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	39 1/2 x 9	39 1/2 x 9	39 1/2 x 9	39 1/2 x 9
" Side Intercoastal Plate	-	-	-	-	-	-	-	-	-	Is the Stringer Plate attached to the outside plating?	Yes	Yes	Yes	Yes
" do. Angle Irons	6	x	4	6	x	4	6	x	4	Angle Irons on ditto, No. 2	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9
" Attached to outside plating with angle iron	3 1/2	x	3 1/2	3 1/2	x	3 1/2	3 1/2	x	3 1/2	Stringer or Tie Plates, outside Hatchways	15 1/2	9	15 1/2	9
BILGE Angle Irons	6	x	4	6	x	4	6	x	4	Flat of Lower Deck	Yellow Pine	Yellow Pine	Yellow Pine	Yellow Pine
" do. Bulb Iron	9	x	9	9	x	9	9	x	9	Ceiling betwixt Decks, thickness and material	3	3	3	3
" do. Intercoastal plates riveted to plating for 1/2 length	-	-	-	-	-	-	-	-	-	in hold do. Rock Elm do.	2 1/2 and sparring	2 1/2 and sparring	2 1/2 and sparring	2 1/2 and sparring
BILGE STRINGER Angle Irons	6	x	4	6	x	4	6	x	4	Main piece of Rudder, diameter at head	7 1/4	7 1/4	7 1/4	7 1/4
Intercoastal plates riveted to plating for 3/5 length	-	-	-	-	-	-	-	-	-	do. at heel	3 3/4	3 3/4	3 3/4	3 3/4
SIDE STRINGER Angle Irons	-	-	-	-	-	-	-	-	-	Can the Rudder be unshipped afloat?	Yes	Yes	Yes	Yes
Transoms, material. Knight-heads. Hawse Timbers.	Iron		Iron	Iron		Iron	Iron		Iron	Bulkheads No. 6 Thickness of 6 1/2	6 1/2	6 1/2	6 1/2	6 1/2
Windlass. Napier's patent Pall Bitt	-		-	-		-	-		-	Height up to Deck, forward one to Spar Deck	30	30	30	30
The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 3/4 in. Rivets, about 6 apart.	Keel		Keel	Keel		Keel	Keel		Keel	How secured to sides of ship	Double frames	Double frames	Double frames	Double frames
The REVERSED ANGLE IRONS on floors and frames extend from middle line to Lower Deck from thence to Spar Deck alternately	from		from	from		from	from		from	Size of Vertical Angle Irons	3 x 3 x 1/16	3 x 3 x 1/16	3 x 3 x 1/16	3 x 3 x 1/16
KEELSONS. Are the various lengths of Plates and Angle Irons properly connected?	Yes		Yes	Yes		Yes	Yes		Yes	Are the outside Plates doubled two spaces of Frames in length?	Yes	Yes	Yes	Yes

PLATING. Garboard, double riveted to Keel, with rivets 1/8 in. diameter, averaging 5 1/2 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, double riveted; with rivets 7/8 in. diameter averaging 3 3/4 ins. from centre to centre.  
Butts of three Strakes at Bilge for half length, treble riveted with Butt Straps 1/16 thicker than the plates they connect.  
Edges from bilge to Main Sheerstrake, worked clencher, double single riveted; with rivets 7/8 in. diameter, averaging 3 3/4 ins. from cr. to cr.  
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 3/4 ins. from cr. to cr.  
Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted.  
Butts of Main Sheerstrake, double riveted for 1/2 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted 1/2 length amidships.  
Butts of Main Stringer Plate, double riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for 1/2 length.  
Breadth of laps of plating in double riveting 6 times Breadth of laps of plating in single riveting 3 1/2 times  
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted?  
Waterway, how secured to Beams Nuts & Screws (Explain by Sketch, if necessary.)  
Beams of the various Decks, how secured to the sides? By knees turned down No. of Breasthooks, 4 Crutches, 4  
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? B. Boiler  
Manufacturer's name or trade mark, Glasgow Iron Co. and Blochairn Co.  
The above is a correct description.  
Builder's Signature, London Glasgow Engg & Iron Shipbuilding Co. Ltd. Surveyor's Signature, Saml. Lapthorn  
1/7/72 IRON 454-0180



Workmanship. Are the butts of plating planed or otherwise fitted? Planed  
Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? Yes  
Are the fillings between the ribs 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 11441 Ln

Masts, ~~Bowsprit~~, Yards, &c., are all in good condition, and sufficient in size and length. If of Iron or Steel give Scantlings of Plating, Angle Irons, &c., and further explain by a Sketch showing how the lower Masts and Bowsprit are constructed, showing the number of Plates and Angle Irons, mode of riveting, quality of Materials, and if stamped with Maker's name.

State also Length and Diameter of Lower Masts ~~and Bowsprit~~ Rigged as a three masted Schooner. Fore and main  
Masts of iron, Mizzen mast of Vancouver Pine

Tested at Low Walker by Robt Burrell 22<sup>nd</sup> and 23<sup>rd</sup> April 1872 Tested at Low Walker by Robt Burrell 15<sup>th</sup> and 16<sup>th</sup> August 1872

NUMBER for EQUIPMENT 30057		Fathoms.	Inches.	Test per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	W't req'd per Rule.	Test req'd per Rule.
N <sup>o</sup> .	SAILS.	CABLES, &c.										
		Chain ...	300	1 7/8	63 7/20	1 7/8	Bowers ...	1	35.1.16	32.14.0.7	34	31 7/20
One	Fore Sails,	(Machine where Tested, date, and name of Superintendent.)					(Machine where Tested, date, and name of Superintendent.)	1	34.0.16	31.15.1.7	34	31 7/20
New	Fore Top Sails,	Chain Stream	90	1 1/8		1 1/8	Stream ...	1	28.2.0	27.10.2.0	28.3.17	27 1/20
sail	Fore Topmast Stay Sails	Cable	90	1 1/2		1 1/2						
	Main Sails,	Hawser ...	90	9/2		9/2						
	Main Top Sails,	Towlines ...	90	7/6		7/6						
and		Warp ...	90	5		5	Kedges ...	1	6.2.3	4.9.2.21	6 3/4	
		quality <u>good</u>	90	4		4		1	3.2.23	5.12.0.21	3 1/4	

Standing and Running Rigging Wire & Hemp sufficient in size and good in quality. She has Eight Long Boats and 4 filled with Buryaney

The Windlass is Napier's Patent Capstan - and Rudder Good Pumps one in each compartment connected with engine and six in each for hand

Engine Room Skylights.—How constructed? Plate & angle iron & Teak How secured in ordinary weather? 13 brass quadrants

What arrangements for deadlights in bad weather? Thick glass, brass bars, and Paulines

Coal Bunker Openings.—How constructed? Iron castings How are lids secured? Slot & Screw Height above deck? Sluagh and 6' above

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? Flush Deck

Cargo Hatchways.—How formed? Plate and angle iron

State size Main Hatch 20 x 10 Forehatch 8 x 8 Quarterhatch 12 x 10

If of extraordinary size, state how framed and secured? Two portable beams at main Hatch

What arrangement for shifting beams? Yes

Hatches, If strong and efficient? Yes

Order for Special Survey No. 815 1st. On the several parts of the frame, when in place, and before the plating was wrought Under Special Survey

Date 20<sup>th</sup> October 1871 2nd. On the plating during the process of riveting from 31<sup>st</sup> Oct 1871 to 4<sup>th</sup> June 1873

Order for Ordinary Survey No. - 3rd. When the beams were in and fastened, and before the decks were laid

Date - 4th. When the ship was complete, and before the plating was finally coated or cemented

No. 167 in builder's yard. 5th. After the ship was launched and equipped

General Remarks, Has been built in general conformity with the Rules for 1871-72 and sketch of midship section forwarded with Glasgow Report No 3638 on the S.S. Pennsylvania with which this is a sister ship with a view to Class 100 A 1 "Spar Decked"

It will be observed the Reverse Frames instead of stopping ultimately at main deck as per Rule are extended up to Spar Deck for about 3/4 length amidships, also, that the Spar Deck Shestrake is increased in thickness 2/16 and the Topside Plating for 1/16, and, that the Spar and Main Decks are plated amidships for 100 feet with 7/16 iron

State if one, two or three decked vessel, or if spar or awning decked, and lengths of poop, forecastle or raised quarter deck, or of double or part double bottom.

How are the surfaces preserved from oxidation? Inside Cement and Paint Outside Paint

I am of opinion this Vessel should be Classed 100A 1 Spar decked

The amount of the Entry Fee ... £ 5 : 0 : 0 is received by me, Saml. Lanthorn

Special ... £ 86 : 5 : 6

Certificate ... gratis

(Travelling Expenses)

(if any) £ -

Committee's Minute 6<sup>th</sup> June 1873

Character assigned 100A 1, Spar Decked

ACE M.C.

100A 1

100A 1

100A 1

100A 1

100A 1