

# STEEL IRON SHIP.

(Received at Lloyd's Register Office on 25th March 1889)

No. 9048 Survey held at Glasgow  
On the S.S. Strathclyde

Date, First Survey 30th July 1888 Last Survey 22nd March 1889

TONNAGE under 2941.05  
Tonnage Deck 52.28  
Ditto of Third, Spar, or Awning Deck 155.90  
Ditto of Poop, or Raised Or. Dk. 33.84  
Ditto of Houses on Deck 52.04  
Ditto of Forecastle 28.88  
Gross Tonnage 3264.89  
Less Crew Space 69.1  
3195.79  
Less Engine Room 1040.76  
Registered Tonnage as cut on Beam 2150.99

ONE, OR TWO DECKED, THREE DECKED VESSEL,  
SPAR, OR AWNING DECKED VESSEL.  
Half Breadth (moulded) 22.62  
Depth from upper part of Keel to top of Upper Deck Beams 27.66  
Girth of Half Midship Frame (as per Rule) 45.58  
1st Number 95.86  
1st Number, if a 3-Decked Vessel deduct 7 feet 7.00  
88.86  
Length 338.3  
2nd Number 300.61  
Proportions— Breadths to Length 7.47  
Depths to Length— Upper Deck to Keel 12.23  
Main Deck ditto 17.89

Master S. White 1880—1889.  
Built at Glasgow  
When built 1889 Launched 14th March  
By whom built A. Stephen & Sons  
Owners Burrell & Sons  
Residence 54, George Sq. Glasgow  
Port belonging to Glasgow  
Destined Voyage Cardiff  
If Surveyed while Building, Afloat, or in Dry Dock.  
Built under Special Survey

LENGTH on deck as per Rule 338 1/4 BREADTH— Moulded 45 3 DEPTH top of Floors to Upper Deck Beams 24 1/4 Do. do. Main Deck Beams 15 1/4 Power of Engines 360 Horse. N° of Decks with flat laid 2 N° of Tiers of Beams 2

Dimensions of Ship per Register, length, 340.0 breadth, 45.45 depth, 23.9

KEEL, depth and thickness 2. Side keel 11 x 1 1/2  
STEM, moulding and thickness 11 x 2 3/4  
STERN-POST for Rudder do. 11 x 6 1/2  
" for Propeller 11 x 6 1/2  
Distance of Frames from moulding edge to moulding edge, all fore and aft 24  
Frames in double bottom, at bulkheads and along after bulkhead 5 1/2 x 3 1/2  
FRAMES, Angle Iron, for 1/2 length amidships 7 3/2 8  
Do. for 1/2 at each end 7 3/2 7  
REVERSED FRAMES, Angle Iron 4 3/2 8  
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships 13 brackets as per section  
" thickness at the ends of vessel In 8. 4 B. Spar 76 Iron  
" depth at 1/2 the half-bdth. as per Rule In hold steel 7  
height extended at the Bilges

BEAMS, Upper, Spar, or Awning Deck 9 1/2 10 9 1/2 10  
Single or double Angle Iron, Plate or Tee Bulb Iron 3 1/2 3 1/2 7 3 1/2 3 1/2 7  
Average space 48  
BEAMS, Main, or Middle Deck 10 10 10 10  
Single or double Angle Iron, Plate or Tee Bulb Iron 3 1/2 3 1/2 8 3 1/2 3 1/2 8  
Single, or double Angle Iron, on Upper Edge 3 1/2 3 1/2 8 3 1/2 3 1/2 8  
Average space 48  
BEAMS, Lower Deck 10 10 10 10  
Single or double Angle Iron, Plate or Tee Bulb Iron 3 1/2 3 1/2 8 3 1/2 3 1/2 8  
Single or double Angle Iron on Upper Edge 3 1/2 3 1/2 8 3 1/2 3 1/2 8  
Average space 48  
BEAMS, Hold, or Orlop 10 10 10 10  
Single or double Angle Iron, Plate or Tee Bulb Iron 3 1/2 3 1/2 8 3 1/2 3 1/2 8  
Single or double Angle Iron on Upper Edge 3 1/2 3 1/2 8 3 1/2 3 1/2 8  
Average space 48

KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates  
" Rider Plate  
" Bulb Plate to Intercoastal Keelson  
" Angle Irons  
" Double Angle Iron Side Keelson  
" Side Intercoastal Plate  
" do. Angle Irons  
" Attached to outside plating with angle iron  
BILGE Angle Irons  
" do. Bulb Iron  
" do. Intercoastal plates riveted to plating for length  
BILGE STRINGER Angle Irons  
Intercoastal plates riveted to plating for whole length  
SIDE STRINGER Angle Irons  
Intercoastal plates riveted to plating for whole length

The FRAMES extend in one length from bilge to bilge  
The REVERSED ANGLE IRONS on floors and frames extend from middle line to main deck and to upper deck alternately  
KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? Yes And butts properly shifted? Yes  
PLATING. Garboard, double riveted to Keel, with rivets 1 1/2 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 1/2 ins. from centre to centre.  
" Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 1/2 ins. from centre to centre.  
" Butts of all Strakes at Bilge for whole length, treble riveted with Butt Straps 4/20 thicker than the plates they connect. By section for bilges  
" Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from cr. to cr.  
" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from cr. to cr.  
" Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted.  
" Butts of Main Sheerstrake, treble riveted for whole length amidships. Butts of Upper or Spar Sheerstrake, treble riveted for whole length amidships.  
" Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for whole length amidships.  
" Breadth of laps of plating in double riveting 6 1/2 5 1/2 Breadth of laps of plating in single riveting 6 1/2 5 1/2

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble & double No. of Breasthooks, Eight Crutches, Four  
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Siemens Steel  
Manufacturer's name or trade mark, Dalzell, Mossend, Hallside, and Clydebridge.  
The above is a correct description.  
Builder's Signature, Alex. Stephen & Sons Surveyor's Signature, J. Thomson  
Surveyor to Lloyd's Register of British and Foreign Shipping.

Ceiling betwixt Decks, thickness and material 6 x 2 Sparring  
" in hold do. do. 2 1/2 Riv. Plating 2 1/2  
Main piece of Rudder, diameter at head 8 1/2 at heel 4 1/2  
Can the Rudder be unshipped afloat? Yes  
Bulkheads No. 6 No. per Rule 6  
" Thickness of plates 5/16 to 3/8  
" Height up Upper Deck  
" How secured to sides of ship By double frames  
" Size of Vertical Angle Irons 5 1/2 x 3 1/2 and distance apart 30 ins.  
" Are the outside Plates doubled two spaces of Frames in length? Yes  
Riveted through plates with 7/8 in. Rivets, about 7 apart.  
And butts properly shifted? Yes

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

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



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**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 in the butts.*

Masts, Bowsprit, Yards, &c., are *steel & pine* 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 *As per approved tracing.*

*Plates stamped Dalzell Steel -*  
*Two masts - Schooner rig.*

NUMBER for EQUIPMENT 34456(4)						Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.	N <sup>o</sup> .	Weight.	Test per Certificate.	W <sup>ght</sup> req'd per Rule.	Machine where Tested & Suprntd.			
SAILS.		CABLES, &c.																	
N <sup>o</sup> .		Chain .....	300	2	100.8 tons	300 fms 2 in	Glasgow	1859	38.0.24	34.13.0.14	38 cwt	Bower Anchors (State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	1859	38.0.24	34.13.0.14	38 cwt	Glasgow, 2. Dec 1888		
Fore Sails,		(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)			72 "		E. Seddhouse		7.1.15										
Fore Top Sails,		Iron Stream Chain	90	1 1/8	38 tons	90 fms 1 1/2 in	Glasgow	1860	38.0.10	34.11.2.7	38 cwt			1860	38.0.10	34.11.2.7		38 cwt	
Fore Topmast Stay Sails,		or Steel Wire ..			25 tons 7 c. 2 p		E. Seddhouse		7.1.12					1861	32.2.5	30.10.0.0		32 1/4 cwt	
		or Hempen Strm Cable .....							6.0.18										
		Towline, Hemp.	20	12		120 fms 12"			108.3.11		108 1/4 cwt								
Main Sails,		or Steel Wire ..	100	4	33 tons								1862	11.2.15	13.10.0.0	11 1/2 cwt			
Main Top Sails,		Hawser .....	90	3 1/2	22 "	90 fms 10"		Stream Anchor	1862	11.2.15	13.10.0.0	11 1/2 cwt							
		Warp .....	90	2 3/4	15 1/2 "	90 fms 8 1/2"		Kedge	1863	6.0.13	8.7.2.0	5 3/4 cwt							
		quality	180	8 1/2				2nd Kedge	1864	2.3.12	5.7.2.0	2 1/4 cwt							

Standing and Running Rigging wire and hemp sufficient in size and good in quality. She has *two* Life Boats and *two* others.

The Windlass is *Wapier Bros* Capstan *wood* and Rudder *Good* Pumps *Good*

Engine Room Skylights. How constructed? *Teak on trunk bulkheads* How secured in ordinary weather? *Bolted*

What arrangements for deadlights in bad weather? *Solid teak shutters fitted with hulk-eyes.*

Coal Bunker Openings. How constructed? *Cast Iron Moulded* How are lids secured? *Bayonet fastening & latch* Height above deck? *19' 4" flush.*

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? *On each side 4 scuppers, 6 freeing ports, and 4 mooring pipes.*

Cargo Hatchways. How formed? *Of plates and angles fitted in the usual manner.*

State size Main Hatches *28-0 x 16-0 & 20-0 x 15-0* Fore hatch *16-0 x 14-0* Quarter hatch *20-0 x 14-0* On poop *12-0 x 6-0*

If of extraordinary size, state how framed and secured? *In 28 ft. hatch 2 deep web plates and 3 fore & afters; in each of the*

What arrangement for shifting beams? *Others (except poop) 1 deep web plate and 3 fore & afters.*

Hatches, If strong and efficient? *Solid 3-pine.*

Order for Special Survey No. *2190*  
Date *6 July 1888*  
Order for Ordinary Survey No. *2190*  
Date *27 July 1888*  
No. *315* in builder's yard.  
DAYS 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 } *1888: - July 30. Aug 2, 6, 10, 16, 20, 24. Sept 6, 10, 18, 26.*  
2nd. On the plating during the process of riveting } *28. Oct 1, 3, 5, 9, 12, 16, 19, 23, 26, 30. Nov 2, 7, 10, 13, 20, 23.*  
3rd. When the beams were in and fastened, and before the decks were laid... } *27, 30. Dec 4, 6, 11, 13, 21, 26. 1889: - Jan 11, 15, 16, 18, 22.*  
4th. When the ship was complete, and before the plating was finally coated or cemented... } *28, 31. Feb 4, 7, 11, 13, 15, 19, 22, 26. March 2, 5, 7, 11.*  
5th. After the ship was launched and equipped } *14, 19, 22.*

State dates of letters respecting this case *Secretary's 23<sup>rd</sup>, 28<sup>th</sup>, & 29<sup>th</sup> Jun; 20<sup>th</sup> Aug; 5<sup>th</sup> & 10<sup>th</sup> Sept; and 1<sup>st</sup> Oct 1888, 18<sup>th</sup> Jan. 1889*

General Remarks (State quality of workmanship, &c.) *The workmanship throughout is good.*

*This vessel is built of steel in accordance with midship section forwarded to London on the 20<sup>th</sup> March 1889, the accompanying tracings (4 in 1/2"), the Secretary's letters referred to above, and in general conformity with the Rules for the Class contemplated. The Memorandum, which was forwarded with the Secretary's letter dated 28<sup>th</sup> Jun 1888, is herewith returned, and all the amendments contained therein have been carried out.*

*Length of Poop: - 58 feet; Bridge 76 feet with 3' 6" overhang at fore-end and Forecastle 36 feet with 2 feet overhang.*

State if one, two, or three decked vessel, or if spar, or awning decked; and the lengths of poop, bridge, fore-castle, or raised quarter deck. (If double bottom, state particulars on separate form.)

How are the surfaces preserved from oxidation? Inside *By cement & paint* Outside *By paint*

I am of opinion this Vessel should be Classed *100 A.1 Steel*

The amount of the Entry Fee .....£ *5* : - : - is received by me, *(Signature)*

less 33% overcharge *Cable 1889* £ *103* : *5* : - *21/3* 1889

(to be sent as per margin). Certificate ...

(Travelling Expenses, if any, £ ...).

Committee's Minute *TUES 26 MARCH 1889*

Character assigned *100 A.1 Steel*

*La rcp*  
*+ Lmb 3/89*  
*2 sks 1888 1/2 sks*  
*30th Rule*

HULL CERTIFICATE

*Jo. Thomson A.M. Dove*  
Surveyor to Lloyd's Register of British and Foreign Shipping.

*It is submitted that this vessel appears eligible to be classed*

*100. A.1. (Steel) as recommended*

*2 sks (1 Steel & 1 pl. Steel)*

*(30th Rule)*

*DB. Particulars appended: 25/3/89*