

Steel Ship.
IRON SHIP.

Survey held at *Glydebank* Date, First Survey *3 Sep 1880* Last Survey *24 Feb 1881*

5637

18

TONNAGE under
Tonnage Deck } *2841.61*
Ditto of Third, Spar,
or Lower Deck } *1859.59*
Ditto of Poop, or
Raised Qr. Dk. } *3901.20*
Ditto of Houses
on Deck } *199.69*
Ditto of Forecastle
Gross Tonnage } *4100.89*
Less Crew Space } *198.80*
Less Engine Room } *3910.29*
Less Engine Room } *1778.88*
Register Tonnage
as out on Beam } *2131.41*

ONE, OR TWO DECKED, THREE DECKED VESSEL.
SPAR, OR RUNNING DECKED VESSEL.
Half Breadth (moulded) *21.00*
Depth from upper part of Keel to top of Upper Deck Beams *26.95*
Girth of Half-ship Frame (as per Rule) *43.3*
1st Number *91.25*
1st Number, if a 3-Decked Vessel .. deduct 7 feet
Length *398.4*
2nd Number *35441*
Proportions— Breadths to Length *9.24*
Depths to Length—Upper Deck to Keel
Main Deck ditto *14.42*

Master *W. D. Anderson*
Built at *Glydebank*
When built *1880/82* Launched *26 Sep 81*
By whom built *J. & G. Thomson*
Owners *P. & O. Steam Nav. Co*
Residence *London*
Port belonging to *Glasgow*
Destined Voyage *London*
If Surveyed while Building, Afloat, or in Dry Dock,
While Building & afloat

LENGTH on deck as per Rule ... *388 5* BREADTH—Moulded ... *42 0* DEPTH top of Floors to Upper Deck Beams ... *24 10* Do. do. Main Deck Beams ... *32 8* Power of Engines ... *800* N°. of Decks with flat laid *3* N°. of Tiers of Beams *3*

Dimensions of Ship per Register, length, *390* breadth, *42.2* depth, *24.65*
KEEL, depth and thickness *Iron* ... *11 x 3 1/2* ... *11 x 3 1/2*
STEM, moulding and thickness ... *11 x 3 1/2* ... *11 x 3 1/2*
SERN-POST for Rudder do. do. ... *12 1/2 x 6 3/4* ... *11 x 6 1/2*
" " for Propeller ... *11 1/2 x 7* ... *11 x 6 1/2*
Distance of Frames from moulding edge to moulding edge, all fore and aft ... *24 ins* ... *24 ins*

FRAMES, Angle Iron, for 1/2 length amidships ... *5 1/2* *3 1/2* *13* ... *5 1/2* *3 1/2* *13*
Do. for 1/4 at each end ... *3 1/2* *3 1/2* *13* ... *3 1/2* *3 1/2* *13*
REVERSED FRAMES, Angle Iron ... *3 1/2* *3 1/2* *13* ... *3 1/2* *3 1/2* *13*
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships ... *26* *16* *26* ... *26* *16* *26*
" thickness at the ends of vessel ... *13* *13* *13* ... *13* *13* *13*
" depth at 1/2 the half-bdth. as per Rule ... *13* *13* *13* ... *13* *13* *13*
" height extended at the Bilges ... *52* *52* *52* ... *52* *52* *52*

BEAMS, Upper, Spar, or Lower Deck
Single or double Angle Iron, Plate or Tee Bulb Iron ... *8* *13* *8* ... *8* *13* *8*
Single or double Angle Iron on Upper edge ... *48 ins* ... *48 ins*
Average space ... *48 ins* ... *48 ins*
BEAMS, Main, or Middle Deck
Single or double Angle Iron, Plate or Tee Bulb Iron ... *10* *16* *10* ... *10* *16* *10*
Single or double Angle Iron on Upper edge ... *48 ins* ... *48 ins*
Average space ... *48 ins* ... *48 ins*

BEAMS, Lower Deck
Single or double Angle Iron, Plate or Tee Bulb Iron ... *10* *16* *10* ... *10* *16* *10*
Single or double Angle Iron on Upper edge ... *48 ins* ... *48 ins*
Average space ... *48 ins* ... *48 ins*
BEAMS, Hold, or Orlop
Single or double Angle Iron, Plate or Tee Bulb Iron ... *6* *3* *16* ... *6* *3* *16*
Single or double Angle Iron on Upper edge ... *48 ins* ... *48 ins*
Average space ... *48 ins* ... *48 ins*

KEELSONS Centre line, single or double plate, ... *26 1/2* *28* *26 1/2* ... *26 1/2* *28* *26 1/2*
" Rider Plate ... *14 1/2* *22* *14* ... *14 1/2* *22* *14*
" Bulb Plate to Intercoastal Keelson ... *18* *16* *18* ... *18* *16* *18*
" Angle Irons ... *6 1/2* *4 1/2* *16* ... *6 1/2* *4 1/2* *16*
" 4 Double Angle Iron Side Keelson ... *6 1/2* *4 1/2* *16* ... *6 1/2* *4 1/2* *16*
" Side Intercoastal Plate ... *19* *23* *19* ... *19* *23* *19*
" Attached to outside plating with angle iron ... *3 1/2* *3 1/2* *13* ... *3 1/2* *3 1/2* *13*

BILGE Angle Irons ... *6 1/2* *4 1/2* *16* ... *6 1/2* *4 1/2* *16*
" do. Bulb Iron ... *13* *11* *13* ... *13* *11* *13*
" do. Intercoastal plates riveted to plating for 1/3 length ... *3 1/2* *3 1/2* *13* ... *3 1/2* *3 1/2* *13*
BILGE STRINGER Angle Irons ... *6 1/2* *4 1/2* *16* ... *6 1/2* *4 1/2* *16*
Intercoastal plates riveted to plating for 1/3 length ... *3 1/2* *3 1/2* *13* ... *3 1/2* *3 1/2* *13*
SIDE STRINGER Angle Irons ... *6 1/2* *4 1/2* *16* ... *6 1/2* *4 1/2* *16*

The FRAMES extend in one length from *middle line* to *upper deck*
The REVERSED ANGLE IRONS on floors and frames extend from *middle line* to *main deck* and to *spar 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 3/16* in. diameter, averaging *5 1/4* 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 1/4* ins. from centre to centre.
" Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets *7/8* in. diameter averaging *3 1/2* ins. from centre to centre.
" Butts of all Strakes at Bilge for *3/4* length, treble riveted with Butt Straps *5/8* thicker than the plates they connect.
" 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.
" Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted.
" Main Sheerstrake, treble riveted for *3/4* length amidships. Butts of Upper or Spar Sheerstrake, treble riveted *3/4* length amidships.
" Butts of Main Stringer Plate, treble 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 *5 1/2* + *6* Breadth of laps of plating in single riveting *4* with deck frames *19*

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? *Treble & double* No. of Breasthooks, Crutches, *3*
What description of *steel* is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *"Hallside"*
Manufacturer's name or trade mark, *Steel Company of Scotland*
The above is a correct description.
Builder's Signature, *Mrs. James & Geo. Thomson* Surveyor's Signature, *J. Grant*
Surveyor to Lloyd's Register of British and Foreign Shipping.
ROBT. EDMD. TAYLOR, Printers and General Steam Printers, 19, Old Street, Goswell Road, E.C., London.

Workmanship.

Are the butts of plating planed or otherwise fitted?

Planed

5637 lbs

Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies?

Are the fillings between the ribs and plates solid single pieces?

Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other?

Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces?

Do any rivets break into or through the seams or butts of the plating?

A very few.

Masts, Bowsprit, Yards, &c., are 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. The masts and yards are built in accordance with the approved tracing herewith, see Secretary's letter of the 31st Dec 1880. The iron used in their construction was tested as required by the Rules and found to be satisfactory.

NUMBER for EQUIPMENT 45866		Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Suprntd.
SAILS.							Bower Anchors					
Chain		150 1/2	2 3/16	86.125	300		1 43.3.02 38.8.3.0					
Fore Sails,		150 1/2		20.5	2 3/16		1 43.1.24 38.5.0.0					
Fore Top Sails,		22 1/2 30 Dec		28.125	90-1 1/4		1 40.2.13 36.4.1.14					
Fore Topmast Stay Sails,		150	1 1/4	42.125	90-1 1/4		1 40.0.26 35.10.3.0					
Main Sails,		31 Dec 81		120	6" steel	120-14	1 16.0.8 17.9.2.21					
Main Top Sails,		120	4 1/2	90-12			1 16.2.3 12.8.3.0					
and spare		240	3 1/2	90-10			1 7.1.3 9.13.3.0					
Standing and Running Rigging		120	8"				1 7.1.3 9.13.3.0					
The Windlass is		120	7"				1 7.1.3 9.13.3.0					
Engine Room Skylights.		120	6"				1 7.1.3 9.13.3.0					
Coal Bunker Openings.		120	6"				1 7.1.3 9.13.3.0					
Scuppers, &c.		120	6"				1 7.1.3 9.13.3.0					
Cargo Hatchways.		120	6"				1 7.1.3 9.13.3.0					
State size Main Hatch		120	6"				1 7.1.3 9.13.3.0					
Fore hatch		120	6"				1 7.1.3 9.13.3.0					
Quarter hatch		120	6"				1 7.1.3 9.13.3.0					
If of extraordinary size, state how framed and secured?		120	6"				1 7.1.3 9.13.3.0					
What arrangement for shifting beams?		120	6"				1 7.1.3 9.13.3.0					
Hatches, If strong and efficient?		120	6"				1 7.1.3 9.13.3.0					

Capstan good and Rudder good Pumps good

How constructed? Teak on Iron Coaming How secured in ordinary weather? Bolted

What arrangements for deadlights in bad weather? Platings over glass with Tarpanlin

How constructed? Coal through side How are lids secured? Height above deck? Open Bulwarks

What arrangements for clearing upper deck of water, in case of shipping a sea? Open Bulwarks

How formed? as usual

State size Main Hatch 15 1/2 x 11' 7' 9 x 11' Fore hatch 8 ft. x 8 ft. Quarter hatch 10 ft. x 7 ft.

If of extraordinary size, state how framed and secured? not of extraordinary size

What arrangement for shifting beams? none

Hatches, If strong and efficient? Yes

Order for Special Survey No. 51

Date 26 Oct 1880

Order for Ordinary Survey No. 1

Date

No. 183 in builder's yard

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

Aug 5, 9, 12, 17, 24, 25, 31; Sep 10, 14, 16, 22, 30; Oct 11, 15, 22, 26, 29; Nov 8, 11, 16, 18, 23, 30; Dec 6, 13, 19, 29; 1882: Jan 10, 24, 26, 29; Feb 7, 15, 21 & 24.

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

Specially Surveyed: - 1880: - Sep 3, 9, 14, 21, 24, 28; Oct 1, 5, 7, 15, 20, 26, 29; Nov 2, 5, 9, 15, 23, 26, 30; Dec 3, 7, 10, 14, 17, 21, 29, 31; 1881: - Jan 11, 14, 18, 21, 25; Feb 1, 4, 11, 15, 18, 22; Mar 1, 4, 8, 15, 18, 25, 29; April 5, 12, 19, 26, 29; May 5, 10, 18, 24, 27, 31; June 3, 7, 10, 15, 17, 21, 24, 28; July 1, 6, 11, 27; Aug 5, 9, 12, 17, 24, 25, 31; Sep 10, 14, 16, 22, 30; Oct 11, 15, 22, 26, 29; Nov 8, 11, 16, 18, 23, 30; Dec 6, 13, 19, 29; 1882: - Jan 10, 24, 26, 29; Feb 7, 15, 21 & 24.

The workmanship in this vessel is good, and she has been built of steel, except the Bulkheads which are of iron, and in accordance with the approved tracings, & in number, attached herewith, and with the instructions contained in the Secretary's letters of the 19th Aug, 30th Oct, 12th Nov, 31st Dec 1880 and 20th June/81. The steel of which this vessel was built, was tested at the Manufacturer's Works in accordance with the Committee's Circular No 436.

open Bridge house 136 ft long with side houses and casing round engine and boiler openings under. House aft 48 ft x 18 ft.

Side houses abreast foremast 30 ft x 9 ft

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

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

I am of opinion this Vessel should be Classed *100 A.1. "Spar Decked" "Steel" "2 steel Decks" "BK Iron"

The amount of the Entry Fee ... £ 5: 0: 0 is received by me, Mr. J. Dodd

Special ... £ 122: 15: 0 23 Feb 1882

Certificate ... 0: 0: 0

(Travelling Expenses, if any, £)

Committee's Minute

Character assigned 100 A.1. 1 Deck, 2 Decks, 2 Steel Decks, 2 Decks and Spar Deck, 2 Steel Decks.

Friday, March, 10th. 1882

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

It is submitted that this vessel appears eligible to be classed as recommended viz: "Spar Decked" "Steel"

100 A.1.

2 Decks and Spar Deck

2 Steel Decks

100 A.1.

2 Decks and Spar Deck

2 Steel Decks

100 A.1.

2 Decks and Spar Deck

2 Steel Decks

100 A.1.