

Steel IRON SHIP.

No. 4883 Survey held at Port Glasgow. Date, First Survey
On the Steel S.S. "Deak"Last Survey 18th Oct 1880
Master Whyte

TONNAGE under 956.54
Ditto of Hatchway 7.38
Ditto of Third, Spar, or Awning Deck.
Ditto of Deck, or Raised Or. Deck 94.84
Ditto of Upper Space 129.38
Ditto of Upper Deck 5.90
Ditto of Forecastle 34.21
Gross Tonnage 1231.28
Less Crew Space 58.91
1142.37
Less Engine Room 394.01
Register Tonnage 448.36
as cut on Beam

ONE OR TWO DECKED, THREE DECKED VESSEL.
SPAR OR AWNING DECKED VESSEL.
Feet.
HALF BREADTH (moulded)... 16.12
DEPTH from upper part of Keel to top of Upper Deck Beams 18.58
GIRTH of Half Midship Frame (as per Rule) 31.10
1st NUMBER 65.8
1st NUMBER, if a 3-DECKED VESSEL, deduct 7 feet ✓
LENGTH 240.5
2nd NUMBER 15824.9
PROPORTIONS—Breadths to Length 7.45
Depths to Length—Upper Deck to Keel 12.94
Main Deck ditto ✓

Built at Port Glasgow
When built 1880 Launched 4th Sept 1880
By whom built Blackwood & Gordon
Owners Messrs Burrell & Son
Port belonging to Glasgow
Destined Voyage Venice
If Surveyed while Building, Afloat, or in Dry Dock.
While Building and afloat

LENGTH on deck as 240 6
per Rule ...
BREADTH—Moulded... 32 3
Dimensions of Ship per Register, length, 243.45 breadth, 32.5 depth, 15.4
KEEL, depth and thickness 2. Steel side bars 8x26
STEM, moulding and thickness... Iron 8x2 1/2
STERN-POST for Rudder do. do. Iron 10x4
" " for Propeller Iron 10x4
Distance of Frames from moulding edge to moulding edge, all fore and aft 23

FRAMES, Angle Iron, for 1/2 length amidships... 4 3 11 4 3 11
Do. for 1/4 at each end... 4 3 10 4 3 10
REVERSED FRAMES, Angle Iron... 3 3 10 3 3 10
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships... 36 x 11 36 x 11
" thickness at the ends of vessel... as shown on mid section
" depth at 3/4 the half-bdth. as per Rule... 5 1/2 3 11 5 1/2 3 11
" height extended at the Bilges...
BEAMS, Upper, Spar, or Awning Deck Single or double Angle Iron, Plate or Tee Bulb Iron... 5 1/2 3 11 5 1/2 3 11
Single or double Angle Iron on Upper edge... 23 — — 23 — —
Average space...
BEAMS, Main, or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron...
Single or double Angle Iron on Upper Edge...
Average space...
BEAMS, Lower Deck, Hold, or Orlop Single or double Angle Iron, Plate or Tee Bulb Iron...
Single or double Angle Iron on Upper Edge...
Average space...
KEELSONS Centre line, single or double plate, box, or intercostal, Plates... 14 1/2 x 15
" Rider Plate Centre line...
" Bulb Plate to intercostal Keelson... 4 4 13 4 4 13
" Angles Irons Top edge...
" Double Angle Iron Side Keelson...
" Side intercostal Plates Continuous... 3 3 10 3 3 10
" do. Angles Irons Vertical... 3 3 10 3 3 10
Attached to outside plating with angles...
BILGE Angle Irons Cell. Bm wing plate... 3 1/2 3 1/2 10 3 1/2 3 1/2 10
" do. Bulb Iron...
" do. Intercostal plates riveted to plating for length...
BILGE STRINGER Angle Irons... 5 3 1/2 15 5 3 1/2 15
SIDE STRINGER Angle Irons... 5 3 1/2 15 5 3 1/2 15

Feet. Inches. 15 4
Power of Engines ... 120
Horse. N° of Decks with flat laid 1
N° of Tiers of Beams 2
Flat Keel Plates, breadth and thickness... 34 18 34 18
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges...
" of doubling at Bilge, or increased thickness, and length applied...
" fm up. part of Bilge to l. edge of Sh'rstrake... 15.16 15.16
" Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake... 36 23 36 23
" Up. or Spar Dk Sh'rstrake, breadth & thickness... 24 ft at break of R. Q. Dk.
Butt Straps to outside plating, breadth & thickness... 16 3/4 x 25/32 as stated
Lengths of Plating... 11 ft 6 in. at least
Shifts of Plating, and Stringers...
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness... 34 1/2 16 34 1/2 16
Angle Iron on ditto... one
Tie Plates fore and aft, outside Hatchways... Steel
Diagonal Tie Plates on Beams No. of Pairs... deck
Planksheer material and scantling... 10 3/2 thick before the R. Q. Dk.
Waterways do. do.
Flat of Upper Deck do. do.
How fastened to Beams...
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness...
Is the Stringer Plate attached to the outside plating?
Angle Irons on ditto, No.
Tie Plates, outside Hatchways...
Diagonal Tie Plates on Beams, No. of pairs...
Waterways materials and scantlings...
Flat of Middle Deck do. do.
How fastened to Beams...
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams... 30 13 30 13
Is the Stringer Plate attached to the outside plating?
Angle Irons on ditto, No. on outside... 4 1/2 x 13/32 4 1/2 13/32
Stringer or Tie Plates, outside Hatchways...
Flat of Lower Deck...
Ceiling betwixt Decks, thickness and material... 2 1/2 pine Sparrow 2 1/2 pine
" in hold do. do. 5 3/4 5 3/4
Main piece of Rudder, diameter at head do. at heel... 3 3
Can the Rudder be unshipped afloat? yes.
Bulkheads No. 5 Thickness of 10 10
" Height up as per profile drawing.
" How secured to sides of ship between double frames.
" Size of Vertical Angle Irons 3 x 3 x 10/32 and distance apart 30 ins.
" Are the outside Plates doubled two spaces of Frames in length? yes.

Transoms, material. Knight-heads. Hawse Timbers. Plates and angles.
Windlass Iron Pall Bitt ✓

The FRAMES extend in one length from Tank to fore-castle, upper & R. Q. Dk. Stringers Riveted through plates with 3/4 in. Rivets, about 6 apart.
The REVERSED ANGLES on floors and frames extend from middle line to Cabane hold Stringer and to gunwale 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 1/8 in. diameter, averaging 5 3/8 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 1/4 ins. from centre to centre.

" Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 1/4 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 or single riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.

" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 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 half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted ✓ length amidships.

" Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for ✓ length.

" Breadth of laps of plating in double riveting 5 1/4 in. Breadth of laps of plating in single riveting 2 3/8

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted?

Waterway, how secured to Beams Steel Deck (Explain by Sketch, if necessary.)

Beams of the various Decks, how secured to the sides? By Solid welded knees No. of Breasthooks, 3 Crutches, 2

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? See S.

Manufacturer's name or trade mark, Frames, Keelsons, Longitudinal frames, floors, Stringers, bulbs, Outside plating

The above is a correct description. Builder's Signature, P. Blackwood & Son, Surveyor's Signature, J. B. Dunlop

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

3000 (17/78).

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? *In a few cases at the butts only.*

State also Length and Diameter of Lower Masts and Donspit
Fore mast length extreme 75 ft, 3 plates in the round; at partners $22\frac{1}{2} \times \frac{11}{32}$; at heel $16\frac{1}{4} \times \frac{10}{32}$; at head $15 \times \frac{8}{32}$
Main --- " --- " 69 ft, --- " --- " --- " --- " --- " --- " --- "
all edges double riveted and butts treble riveted with straps increased $\frac{1}{16}$ "

Standing and Running Rigging rose Hempen sufficient in size and good in quality. She has 4 ~~Long~~ Boats and ✓
The Windlass is efficient Capstan ✓ and Rudder efficient Pumps efficient 6 H₂O

Engine Room Skylights.—How constructed? *wood framing on steel.* How secured in ordinary weather? *by iron bars & bolts.*
What arrangements for deadlights in bad weather? *Coming's on bridge deck's*
Solid top of dead fitted with bulls eyes—

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *3 pairs of freeing ports and 2 pairs of scuppers before bridge deck; in way of bridge and quarter deck none required.*

Cargo Hatchways.—How formed? *Steel plates and angles connected to beams and carlings.*
 State size **Main Hatch** *18" 8" x 9" 8"* **Forehatch** *11" 0" x 8" 0"* **Quarterhatch** *18" 9" x 10" 0" after Hatch 13" 0" x 8" 0"*

If of extraordinary size, state how framed and secured? *Main hatch Comings riveted to steel deck and quarter hatch coming & to double width tie plates.*

What arrangement for shifting beams? *Fore Hatch fitted with strong fore & after.
Main " " " " " " " " " " " "
Quarter " " " " " " " " " " " "*

Hatches, If strong and efficient? *yes and Solid after - " " " " " " " " " " a shifting beam.*

Order for Special Survey No. <u>958</u>	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	<i>Special Surveyed 1880.</i> <i>March 3, 26, 29.</i> <i>April 5, 8, 10, 13, 30, May 3, 8, 10, 13, 14, 21, 24, June 2, 7, 10, 11, 15, 23,</i> <i>July 12, 15, 23, 28, 29, August 2, 11, 12, 14, 19, 24, 30, Sept^r. 1, 6, 16,</i> <i>20, 29, October 7, 18,</i>
Date <u>19th January 1880</u>		2nd. On the plating during the process of riveting	
Order for Ordinary Survey No. <u>157</u>		3rd. When the beams were in and fastened, and before the decks were laid...	
Date <u>✓</u>		4th. When the ship was complete, and before the plating was finally coated or cemented..	
No. <u>157</u> in builder's yard.		5th. After the ship was launched and equipped	

General Remarks (State quality of workmanship, &c.) *Workmanship and Materials good.*

This Steel Screw Steamer has been constructed in accordance with the accompanying tracings 2nd C. submitted and approved please see Secty's Letter 29th Jan^y 1880.

The Committee's requirements regarding annealing and testing
have been carried out together with the whole of the requirements
contained in the letter above referred to.


In way of breast of Ke. Q² Decit^o sheerstrake has been doubled for 24ft and Stringers Ke. Shifted in accordance with the Rules.

Cellular bottom all fore & aft as shown on tracing and tested by a head of water to the height of load line and found tight.

Vessel constructed of Steel excepting the Stem, stern posts, pillars & rudder frame which are of iron.

One and K. A. D. H. Two tiers of beams 31 1/2 ft to post 86 ft. 197 ft.
 State if one, two, or three decked vessel, or if ~~open~~, or ~~rising~~ decked; and the lengths of ~~prop~~, forecastle, or raised quarter deck, and the length of double, or ~~post~~ ~~double~~ bottom.

How are the surfaces preserved from oxidation? Inside Cemented to top of helix and Outside Three coats of paint.

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

The amount of the Entry Fee£ 5: 0: 0 is received by me, *[Signature]*

Special ... £54: 6: 0 19th Oct 1880
Certificate ... 0: 0: 0

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

(Travelling Expenses, if any, £ 10/6). £ 59:6:0

Committee's Minute Friday, October 22nd 1880

1845

Character assigned 100 E.S. 1

Dryden III 6 10.55 150 Dryden Steel