

IRON SHIPS.

4782

Dec 25/66

18

No. 249 Survey held at Glasgow
on the Screw S. "Edw. W. W."

Date June 22nd

Master Muldrum

Tonnage under tonnage deck 447.58 Built at Glasgow

When built 1866

Launched 12th May/66

Ditto of poop or spar deck

Ditto of engine room

PLANS CASE

By whom built

Thos Wigham & Co Owners Ltdon John Col & Coal Co

Total Register tonnage 304.35

Port belonging to London

Destined Voyage Coasting

Surveyed while Building, Afloat, or in Dry Dock whilst building and afloat

Length aloft	Feet.	Inches.	Extreme Breadth	Feet.	Inches.	Depth from top of Upper Deck Beam to top of Floor	Feet.	Inches.	Power of Engines	Horse.	Nº. of Decks	
109.8			20.05			14			40		One	
(Dimensions of Ship per Register, length 109.8 breadth 20.05 depth 14)												
Keel, if bar iron, depth and thickness	Inches in Ship.		Inches required per Rule.		Plates in Garboard Strakes, breadth and thickness		Inches in Ship.		16ths. in Ship.		Inches required per Rule.	
Keel, if plate iron, breadth and thickness	24 x 10		24 x 10		Ditto from Garboard to upper part of Bilges		8		8		8	
Stem, if bar iron, moulding and thickness	7 x 2 1/2		7 x 2 1/2		,, from upper part of Bilge to a perpendicular height from upper side of Keel of 3/4ths the entire depth of Hold		7		7		7	
Stem, if plate iron, breadth and thickness	7 x 4 1/2		7 x 4 1/2		,, from 3/4ths depth of Hold to lower edge of Sheerstrake		9		9		9	
Stern-post, if bar iron, moulding and thickness	7 x 4 1/2		7 x 4 1/2		,, Sheerstrake, breadth and thickness		33		33		33	
Distance of Frames from moulding edge to moulding edge, all fore and aft	31		31		Butt Straps to outside plating, breadth and thickness		8 1/2		8 1/2		8 1/2	
Frames, Size of Angle Iron, single or double	3 1/2		3 1/2		Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness		2 1/2		2 1/2		2 1/2	
Reversed Iron to every frame or every other frame	to side		to side		Angle Iron on ditto		4 x 3		4 x 3		4 x 3	
Floors, depth and thickness of Floor Plate at mid line	3 1/2		3 1/2		Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways		9		9		9	
Ditto ditto at Bilge Keelson	3 1/2		3 1/2		Diagonal Tie Plates on ditto		12		12		12	
Size of Reversed Angle Iron, and No. at top of Floor Plate	2 1/2		2 1/2		Planksheer, materials and scantlings		1/2 in. Bulw.		1/2 in. Bulw.		1/2 in. Bulw.	
Beams, Deck (Nº.) double Angle Iron, Plate, Tee, or Bulb Iron	8		8		Waterway ditto ditto		Gutter		Gutter		Gutter	
double or single Angle Iron, on edge	3		3		Flat of Upper Deck, thickness and material		3/4 in. Pl.		3/4 in. Pl.		3/4 in. Pl.	
average space between	3 feet		3 feet		,, how fastened to Beams		nuts & screws		nuts & screws		nuts & screws	
Hold, or Lower Deck (Nº.) double Angle, Tee, Plate, or Bulb Iron	3		3		Ceiling betwixt Decks and in Hold, thickness and material		3/4 in. Pl.		3/4 in. Pl.		3/4 in. Pl.	
double or single Angle Iron, on edge	3		3		Clamps or Spirketting ditto		"		"		"	
average space between	3 feet		3 feet		Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness		"		"		"	
Paddle, sided and moulded, thickness of Plate size of Angle Iron	"		"		Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams		"		"		"	
Engine	"		"		Stringers in Hold		As per sketch		As per sketch		As per sketch	
Keelson, single or double plate, box, or intercostal	Inter costal		Inter costal		Flat of Lower Deck, thickness and material		"		"		"	
Size of Plates	3 1/2		3 1/2		Main piece of Rudder, diameter at head		4 1/2		4 1/2		4 1/2	
Size of Angle Irons	4		4		,, at heel		3 1/2		3 1/2		3 1/2	
Side, single or double plate, box, or intercostal	30		30		(Can the Rudder be unshipped afloat)		Yes		Yes		Yes	
Bilge (No.) at each Bilge, single, or double, plate, or box	"		"		Bulkheads, Nº. Thickness of		50		50		50	
Transoms, material	See Plan		See Plan		,, Height up upper deck		"		"		"	
Knight-heads, and Hawse Timbers	See Plan		See Plan		,, how secured to the sides of the ship		rivetted between two frames		rivetted between two frames		rivetted between two frames	
The Frames extend in one length from	Middle line		Middle line		,, size of vertical angle irons		1 1/2 in.		1 1/2 in.		1 1/2 in.	
The reverse angle irons on the floors extend in one length across the middle line from	side stringer		side stringer									
Keelson, how are the various lengths of plates or angle irons connected?	by lining pieces		by lining pieces									
Plates, Garboard, double or single rivetted to keel, double or single at upper edge, with rivets (3/4 in.) diameter, averaging (3 in.) apart.												
Edges from Garboards to upper part of bilge, worked clench, double or single rivetted; with rivets (3/4 in.) diameter, averaging (2 1/2 in.) apart.												
Butts from Keel to turn of bilge, worked carvel with butt straps (7/16 x 9/16) thick, double or single rivetted; with rivets (3/4 in.) diameter, averaging (3 1/2 in.) apart.												
Do the butt straps lap over and rivet through the lands of the strake below?												
Edges from bilge to sheerstrake, worked carvel with a lining piece () thick, or clench, double or single rivetted; with rivets (3/4 in.) diameter, averaging (2 1/2 in.) apart.												
Do the butt straps lap over and rivet through the lands of the strake below?												
Edges of Sheerstrake, double or single rivetted? At upper edge Single At lower edge Double												
Butts from bilge to planksheers, worked carvel with butt straps (7/16 x 9/16) thick, double or single rivetted; with rivets (3/4 in.) diameter, averaging (2 1/2 in.) apart. Breadth of laps in double rivetting (3/4 in.) Breadth of laps in single rivetting (3/4 in.)												
Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted?												
Planksheer, how secured to the plating of the sides												
Waterway, planksheer and to the Beams												
Deck Beams, how secured to the side?												
Hold or Lower Deck ditto												
Paddle												
No. of breasthooks												
What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.?												
Manufacturer's name or trade mark												

We certify that the above is a correct description of the several particulars therein given.

Builder's Signature

Thomas Wigham & Co

Surveyor's Signature

A. Darling

IRON 439-0405

Workmanship. Are the lands or laps of the clenchwork in all cases in breadth at least five and a half times the diameter of the rivets in double rivetted edges and butts, and at least three and a quarter times the diameter of the rivets where single rivetting is admitted? *Yes*
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*
Do the fillings between the ribs and plates fill in solid with single pieces? *or are they in short lengths of various thicknesses?* *Yes*
Do the holes for rivetting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *Yes* and are the rivet holes well and sufficiently countersunk in the outer plate? *Yes*
Are there any rivets which either break into or have been put through the seams or butts of the plating? *No. Buts and lands being chain rivetted*

Her Masts, Bowsprit, Yards, &c., are in *Good* condition, and sufficient in size and length. (If they are of Iron or Steel give the Scanlings 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 rivetting, quality of Materials, and if stamped with Maker's name.

The Bower Anchors are slightly under the prescribed weight as per Table 22, and would be to leave the assigning of the figures for the favorable consideration of the Committee.

SAILS		CABLES, &c.			ANCHORS and their weights		
No.		Tested by this m. Gladstone	Fathoms.	Inches.	Tested to Tons	No.	Weight.
1	Fore Sails,	Chain <i>20th Apr 1866</i>	210	1 1/2	3 1/2	1	11.15.0
2	Fore Top Sails,	Hempen Stream Cable	90	1		2	11.11.0
3	Fore Topmast Stay Sails,	Hawser <i>Chain</i>	90	1 1/2	1	3	10.2.0
4	Main Sails,	Towlines	90	5		4	8.0.0
5	Main Top Sails,	Warp				5	4.4.0
6	and	All of <i>Good</i> quality.				6	3.7.0

Her Standing and Running Rigging *Gale? Star? Main? Mast? Keel? Rudder? Pump?* sufficient in size and *Good* in quality.
She has *one* Long Boat and *one* Life Boat
The present state of the Windlass is *new* Capstan *new* and Rudder *new* Pumps *new and efficient*

Order for Special Survey DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought
No. *4344* Surveys held 2nd. On the plating during the progress of rivetting *Built under special survey*
Date *May 1866* while building 3rd. When the beams were in and fastened, and before the decks were laid *from the 20th Jan to the 22nd June 1866*
Order for Ordinary Survey as per 4th. When the ship was complete, and before the plating was finally coated
No. *1* Section 18. 5th. After the ship was launched
Date *1866*
State if she has a Spar Deck *No* Poop *No* or Forecastle *No*

General Remarks,
Fitted with a side stringer in line of Hold Beams. frame with a foundation plate riveted to double reverse bars 12x70, Bulk Bar 8x90 and two Angle Bars 4x3x90 extending fore and aft. The Floors are 34 lbs deep and are iron flat laid on top 90 thick thus making a double bottom, with two inch American Elm Ceiling laid on top, the plating secured to the sides by double Angle Bars, the inner riveting to the side plating the other to Reverse Bars
As compensation for excess of length the Sheerstrake is increased to 33 lbs in breadth and 90 in thickness, and extended 15 lbs above the Gunwale plate, eight pairs of Diagonal Tie plates fitted on Beams 12x70, and between all Hatches the Beams are plated with 70 plates extending flush with gunwales. The extra side intercostal plating recommended has been fitted

In what manner are the surfaces preserved from oxidation? Inside *with Asphalt. remainder with Red*
Ditto ditto Outside *Lead and Oil paints*

I am of opinion this Vessel should be Classed *A*
The amount of the Fee *£ 5 : - : -* is received by me,
June 1866 Special *£ 22 : 8 : -*
Certificate (if required) *£ 10 : - : -*
Committee's Minute *26th June 1866*

Character assigned *B*
To have for 1 m. 19/5/66
See to Mr. ...
5/7/11

D. D. Darling
This Vessel appears eligible for the B. Class but the weight of two bower anchors are under the weight required by Table 22