

IRON SHIPS.

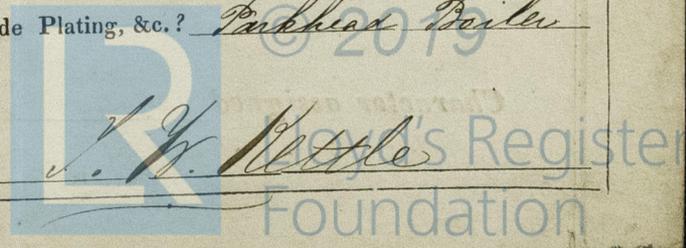
Recd 9/1/66
1863

No. 2422 Survey held at Glasgow Date 19th December
 on the Screw Steamer Leeds Master E. J. Hough
 Tonnage under tonnage deck 324.74 Built at Glasgow When built 1863 Launched 23rd Nov 1863
 Ditto of poop 49.44 or spar deck By whom built W. & J. Inglis Owners Messrs. Messers. Sheffield & Smartons
 Ditto of engine room 101.66 Port belonging to Glasgow Destined Voyage London
 Total Register tonnage 243.74 Surveyed while Building, Afloat, or in Dry Dock Whilst building and Afloat
 Gross tonnage 345.40

Length aloft	Fect. Inches.	Extreme Breadth	Fect. Inches.	Depth from top of Upper Deck Beam to top of Floor	Fect. Inches.	Power of Engines	Horse.	N ^o . of Decks
<u>143.0</u>		<u>24.3</u>		<u>12.2 1/2</u>		<u>100</u>		<u>1</u>
<i>(Dimensions of Ship per Register, length <u>146.2</u> breadth <u>24.3</u> depth <u>12.0</u>)</i>								
Keel, if bar iron, depth and thickness	Inches in Ship.		Inches required per Rule.		Plates in Garboard Strakes, breadth and thickness			
„ if plate iron, breadth and thickness	<u>6 1/2 x 2 1/4</u>		<u>6 1/2. 2 1/4</u>		<u>31 2/10 24 2/10</u>			
Stem, if bar iron, moulding and thickness	<u>6 1/2 x 2 1/4</u>		<u>6 1/2. 2 1/4</u>		Ditto from Garboard to upper part of Bilges..			
„ if plate iron, breadth and thickness	<u>6 1/2 x 4 1/2</u>		<u>6 1/2 4 1/2</u>		<u>2/10 2/10</u>			
Stern-post, if bar iron, moulding and thickness	<u>21</u>		<u>21</u>		„ from upper part of Bilge to a perpendicular height from upper side of Keel of 2/3ths the entire depth of Hold			
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>21</u>		<u>21</u>		„ from 2/3ths depth of Hold to lower edge of Sheerstrake			
Frames, Size of Angle Iron, single or double	Inches. Inches. 16ths. In Ship. In Ship. In Ship.		Inches. Inches. 16ths. required required for 3400 tons Scale. per Rule. per Rule.		„ Sheerstrake, breadth and thickness			
„ „ Reversed Iron, 1/2 to every frame and or every other frame	<u>2 1/2 2 1/2 5/10</u>		<u>2 1/2 2 1/2 5/10</u>		<u>39 1/2 24 2/10</u>			
Floors, depth and thickness of Floor Plate at mid line	<u>15 1/2 1/2</u>		<u>15 3/10</u>		Butt Straps to outside plating, breadth and thickness			
„ Ditto ditto at Bilge Keelson	<u>4 3/4</u>		<u>4 3/4</u>		<u>10 1/2 10 1/2 1/10</u>			
„ Size of Reversed Angle Iron, and No. at top of Floor Plate	<u>2 1/2 2 1/2 5/10</u>		<u>2 1/2 2 1/2 5/10</u>		Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness			
Beams, Deck (N ^o .) double Angle Iron, Plate, Tee, or Bulb Iron	<u>6 3/8</u>		<u>6 3/8</u>		<u>34 1/2 25 3/10</u>			
„ „ double or single Angle Iron, on Upper edge	<u>2 1/2 2 1/2 5/10</u>		<u>2 1/2 2 1/2 5/10</u>		Angle Iron on ditto			
„ „ average space between	<u>3.6</u>		<u>3.6</u>		<u>4 1/2 5 1/2 3/10</u>			
„ Hold, or Lower Deck (N ^o .) double Angle, Tee, Plate, or Bulb Iron	<u>6 3/8</u>		<u>6 3/8</u>		Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways			
„ „ double or single Angle Iron on Upper edge	<u>2 1/2 2 1/2 5/10</u>		<u>2 1/2 2 1/2 5/10</u>		<u>9 3/10 9 3/10</u>			
„ „ average space between	<u>Every 6th frame</u>		<u>Every 6th frame</u>		Diagonal Tie Plates on ditto			
„ Paddle, sided and moulded, thickness of Plate size of Angle Iron	<u>4 3/8</u>		<u>4 3/8</u>		<u>9 3/10 9 3/10</u>			
„ Engine	<u>4 3/8</u>		<u>4 3/8</u>		Planksheer, materials and scantlings			
Keelson, single or double plate, box, or intercostal	<u>10 1/2 3/10</u>		<u>10 1/2 3/10</u>		Waterway ditto ditto			
„ Size of Plates	<u>4 3 1/2</u>		<u>3 3 1/2 5/10</u>		<u>5 1/2 3 3/10 5 1/2 3 3/10</u>			
„ Size of Angle Irons	<u>4 3 1/2</u>		<u>3 3 1/2 5/10</u>		Flat of Upper Deck, thickness and material			
„ Side, single or double, plate, box, or intercostal	<u>4 3 1/2</u>		<u>3 3 1/2 5/10</u>		<u>5 1/2 Pine 3</u>			
„ Bilge (No.) at each Bilge, single, or double, plate, or box	<u>4 3 1/2</u>		<u>3 3 1/2 5/10</u>		„ „ how fastened to Beams			
Transoms, material	<u>Iron Plate</u>		<u>Iron Plate</u>		Ceiling betwixt Decks and in Hold, thickness and material			
Knight-heads, and Hawse Timbers	<u>Iron Plate and frames</u>		<u>Iron Plate and frames</u>		<u>2 1/2 5 Red Pine Battened</u>			
The Frames extend in one length from	<u>Middle line to Gunwale</u>		<u>Middle line to Gunwale</u>		Clamps or Spirketting ditto			
The reverse angle irons on the floors extend in one length across the middle line from	<u>Upper part of Bilge to Ditto</u>		<u>Upper part of Bilge to Ditto</u>		Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness			
„ „ „ on the frames „ „ „ from	<u>Middle line to Gunwale</u>		<u>Middle line to Gunwale</u>		<u>9 5/8 18 3/4 3 3 1/2 3/10</u>			
Keelson, how are the various lengths of plates or angle irons connected?	<u>By Long Pieces</u>		<u>By Long Pieces</u>		Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams			
Plates, Garboard, double rivetted to keel, double	<u>at upper edge, with rivets (1 1/2 ins.) diameter, averaging (2 1/2 in.) apart.</u>		<u>at upper edge, with rivets (1 1/2 ins.) diameter, averaging (2 1/2 in.) apart.</u>		Stringers in Hold			
„ Edges from Garboards to upper part of bilge, worked clencher, double or single rivetted; with rivets (3/4 in.) diameter, averaging (2 1/2 ins.) apart.	<u>Do the butt straps lap over and rivet through the lands of the strake below? No</u>		<u>Do the butt straps lap over and rivet through the lands of the strake below? No</u>		Flat of Lower Deck, thickness and material			
„ Butts from Keel to turn of bilge, worked carvel with butt straps (1/8) thick, double or single rivetted; with rivets (3/4 in.) diameter, averaging (2 1/2 ins.) apart.	<u>At upper edge Single At lower edge Double</u>		<u>At upper edge Single At lower edge Double</u>		Main piece of Rudder, diameter at head			
„ Edges from bilge to sheerstrake, worked carvel with a lining piece () thick, or clencher, double or single rivetted; with rivets (1/2 in.) diameter, averaging (2 1/4 in.) apart.	<u>5 1/2 3 3/10 5 1/2 3 3/10</u>		<u>5 1/2 3 3/10 5 1/2 3 3/10</u>		„ „ „ at heel			
„ Edges of Sheerstrake, double or single rivetted? At upper edge	<u>Single</u>		<u>Single</u>		(Can the Rudder be unshipped afloat Yes)			
„ Butts from bilge to planksheers, worked carvel with butt straps (1/8 & 1/10) thick, double or single rivetted; with rivets (5/8 in.) diameter, averaging (2 1/2 ins.) apart. Breadth of laps in double rivetting (5 1/2 ft. of Rivets) Breadth of laps in single rivetting (5 1/2 ft. of Rivets)	<u>Double</u>		<u>Double</u>		Bulkheads, N ^o . <u>4</u> Thickness of <u>1/2</u>			
Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted?	<u>Double</u>		<u>Double</u>		„ Height up <u>Upper Deck</u>			
Planksheer, how secured to the plating of the sides	<u>Iron Bulwarks</u>		<u>Iron Bulwarks</u>		„ how secured to the sides of the ship <u>Butt straps between two frames</u>			
Waterway	<u>Welded</u>		<u>Welded</u>		„ size of vertical angle irons <u>3.2 1/2</u> and their distance apart <u>2.8</u>			
Deck Beams, how secured to the side?	<u>Welded</u>		<u>Welded</u>		rivetted through plates with (3/4 in.) rivets, about (5) apart.			
Hold or Lower Deck ditto	<u>Ditto</u>		<u>Ditto</u>		The reverse angle irons on the floors extend in one length across the middle line from <u>Upper part of Bilge to Ditto</u>			
Paddle	<u>4</u>		<u>4</u>		„ „ „ on the frames „ „ „ from <u>Middle line to Gunwale</u>			
What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.?	<u>Parkhead Boiler</u>		<u>Parkhead Boiler</u>		Keelson, how are the various lengths of plates or angle irons connected? <u>By Long Pieces</u>			
Manufacturer's name or trade mark	<u></u>		<u></u>		Plates, Garboard, double rivetted to keel, double <u>at upper edge, with rivets (1 1/2 ins.) diameter, averaging (2 1/2 in.) apart.</u>			

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

Builder's Signature _____ Surveyor's Signature _____



IRON 439-0095

Workmanship. Are the lands or laps of the cleancwork in all cases in breadth at least two 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? Yes are they in short lengths of various thicknesses?

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? A few in Curves of Butts

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

*Tested by Mr. K. Reed
2nd of 18th November 1855*

She has SAILS.		CABLES, &c.			ANCHORS, and their weights.				
No.		Tested by Mr. K. Reed Nov 18 th 1855	Fathoms.	Inches.	Tested to Tons.	No.	Weight Ex. Stock	Tested to Tons.	
✓	Fore Sails,	Chain	210	1 1/2	22 1/2	Bowers, ... 3	3	10.16 2.28 2.25	12.5.0 11.10.0
✓	Fore Top Sails,	Hempen Stream Cable	90	4		Stream,	1	2.1.20 2.2.30	11.1.0
✓	Fore Topmast Stay Sails,	Hawser	90	5		Kedges,	2	2.1.11 1.0.5	4.10.0 2.15.0
✓	Main Sails,	Forlines <u>Stream Chain</u>	90	4 1/2					
✓	Main Top Sails,	Warp							
and	<u>Other requisite sails</u>	All of <u>Good</u> quality.							

Her Standing and Running Rigging Galvanized Iron sufficient in size and Good in quality.

She has 1st 20.0 Long Boat and 2nd 22.0 Life Boat 1st 20.0 Gyg.

The present state of the Windlass is new of Iron Capstan new of Iron and Rudder New Pumps New and efficient

Order for Special Survey No. 408 Date 8 Sept 1855 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 Built under

2nd. On the plating during the progress of rivetting Special Survey from 2nd till 19 Dec 1855

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

5th. After the ship was launched

State if she has a Spar Deck No Poop Yes or Forecastle Yes

General Remarks, *This vessel is double rivetted throughout. The butts of sheerstrake and gunwale plate are treble rivetted. The sheerstrake is doubled its whole length with plates 5/8 thick for three fourths the length of the vessel. Has two additional stringers in Hold one intercostal fitted with a Bulb Bar 9 x 7/8 with double angle Irons 4 x 3 x 5/8. Has double lug pieces fitted to the tween deck stringer, and is in all other respects as per approved midship section. (Plan with sister ship Bradford, Iron 4526)*

In what manner are the surfaces preserved from oxidation? Inside Plat of Bottom with Portland Cement Outside Red Lead and Oil Paint

I am of opinion this Vessel should be Classed B

The amount of the Fee £4 * * * is received by me, Special £15 15/- Certificate (if required) Gratis

Committee's Minute 9th January 18 56

Character assigned B

J. W. Kettle

I am of opinion this Ship is a Steamer and should be classified as recommended above.

Lloyd's Register Foundation