

IRON SHIPS.

No. 3473 Survey held at Kull Date 14th June 1864
on the Ship Bertram Rigby Master Withycombe
Tonnage under tonnage deck 1206.30
Ditto of quarter deck
Ditto of ~~poop~~, fore-castle, or
other erections on upper deck } 84.51
Ditto of spar deck
Ditto of engine room
Gross tonnage, less } 1293.81
crew space
Total Register tonnage, } 1293.81
as cut on beam
Built at Kull When built 1864 Launched 7th April
By whom built Chas & W. Earle Owners Ed Bates
Port belonging to Liverpool Destined Voyage
If Surveyed while Building, Afloat, or in Dry Dock Special Survey during building

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.	N ^o . of Decks	
209		-		34		2		23		9					
(Dimensions of Ship per Register, length breadth depth)															
		Inches in Ship.		Inches required per Rule.				Inches in Ship.		Inches required per Rule.					
		Inches.	Inches.	16ths.	Inches.	Inches.	16ths.	Inches.	Inches.	16ths.	Inches.	Inches.	16ths.	Inches.	16ths.
		In Ship.	In Ship.	In Ship.	per Rule.	per Rule.	per Rule.	In Ship.	In Ship.	per Rule.	In Ship.	In Ship.	per Rule.	In Ship.	per Rule.
Keel, if bar iron, depth and thickness.....		8 1/2	x	3	8 1/2	x	3							13 1/6	13 1/6
,, if plate iron, breadth and thickness		8 1/2	x	3	8 1/2	x	3							12 1/6	12 1/6
Stem, if bar iron, moulding and thickness		8 1/2	x	3	8 1/2	x	3							11 1/6	11 1/6
,, if plate iron, breadth and thickness		8 1/2	x	3	8 1/2	x	3							10 1/6	10 1/6
Stern-post, if bar iron, moulding and thickness		8 1/2	x	3	8 1/2	x	3							9 1/6	9 1/6
,, ,, if plate iron, breadth and thickness		8 1/2	x	3	8 1/2	x	3							8 1/6	8 1/6
Distance of Frames from moulding edge to moulding edge, all fore and aft		21			21									7 1/6	7 1/6
Frames, Size of Angle Iron, single or double..		5	3	9 1/6	5	3	9 1/6							6 1/6	6 1/6
,, ,, Reversed Iron, if to every frame)		3 1/2	3	8 1/6	3 1/2	3	8 1/6							5 1/6	5 1/6
Hoc B String of every alternate frame & 4 feet		3 1/2	3	8 1/6	3 1/2	3	8 1/6							4 1/6	4 1/6
Floors, depth and thickness of Floor Plate at mid line		24	x	10 1/6	24	x	10 1/6							3 1/6	3 1/6
,, Ditto ditto at Bilge Keelson		5	x	10 1/6	5	x	10 1/6							2 1/6	2 1/6
,, Size of Reversed Angle Iron, and No. one at top of Floor Plate)		3 1/2	3	8 1/6	3 1/2	3	8 1/6							1 1/6	1 1/6
Beams, Deck (N ^o . 58) double Angle Iron, Plate, Tee, or Bulb Iron		8 1/2	x	9 1/6	8 1/4	x	8 1/6							1/6	1/6
,, ,, double or single Angle Iron, on top edge....		3	3	6 1/6	3 1/4	3	6 1/6							1/6	1/6
,, ,, average space between		42	ins		42									1/6	1/6
,, Hold, or Lower Deck (N ^o . 56) double Angle Tee, Plate, or Bulb Iron		8 1/2	x	9 1/6	8 1/4	x	8 1/6							1/6	1/6
,, ,, double or single Angle Iron on top edge....		3	3	6 1/6	3 1/4	3	6 1/6							1/6	1/6
,, ,, average space between		42	ins		42									1/6	1/6
,, Paddle, sided and moulded, thick-ness of Plate size of Angle Iron)														1/6	1/6
,, Engine ,, ,, with plate on top		10	x	5 1/8	10	x	5 1/8							1/6	1/6
Keelson, single or double plate, box, or intercostal		17	x	9 1/6	16	x	13 1/6							1/6	1/6
,, Size of Plates														1/6	1/6
,, Size of Angle Irons		5	4 1/2	9 1/6	5	4 1/2	9 1/6							1/6	1/6
,, Side, single or double, plate, box, or intercostal		24	x	10 1/6		x	10 1/6							1/6	1/6
,, Bilge (No. one) at each Bilge, single, or double, plate, or box														1/6	1/6
Plates in Garboard Strakes, breadth and thickness														13 1/6	13 1/6
Ditto from Garboard to upper part of Bilges..														12 1/6	12 1/6
,, from upper part of Bilge to a perpen-dicular height from upper side of Keel of 3/4ths the entire depth of Hold														11 1/6	11 1/6
,, from 3/4ths depth of Hold to lower edge of Sheerstrake														10 1/6	10 1/6
,, Sheerstrake, breadth and thickness		34			34									9 1/6	9 1/6
Butt Straps to outside plating, breadth and thickness		11 x 10			11 x 10									8 1/6	8 1/6
Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness)		30			30									7 1/6	7 1/6
Angle Iron on ditto		4 3/4 x 4 3/4			4 3/4 x 4 3/4									6 1/6	6 1/6
Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways ..		13			13									5 1/6	5 1/6
Diagonal Tie Plates on ditto		13 x 9 1/6			13 x 9 1/6									4 1/6	4 1/6
Planksheer, materials and scantlings														3 1/6	3 1/6
Waterway ditto ditto														2 1/6	2 1/6
Flat of Upper Deck, thickness and material..		4 1/2			4 1/2									1 1/6	1 1/6
,, ,, how fastened to Beams..		1/6			1/6									1/6	1/6
Ceiling betwixt Decks and in Hold, thickness and material.....		3			3									1/6	1/6
Clamps or Spirketting ditto.....														1/6	1/6
Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness)		30			30									1/6	1/6
Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams		13			13									1/6	1/6
Stringers in Hold		8 1/2			8 1/2									1/6	1/6
Flat of Lower Deck, thickness and material..		3 1/2			3 1/2									1/6	1/6
Main piece of Rudder, diameter at head														1/6	1/6
,, ,, ,, at heel														1/6	1/6
(Can the Rudder be unshipped afloat														1/6	1/6
Bulkheads, N ^o . two Thickness of														1/6	1/6
,, Height up														1/6	1/6

Transoms, material _____ or, if none, in what manner compensated for By frames how secured to the sides of the ship double frames & liners
Knight-heads, and Hawse Timbers Iron size of vertical angle irons 3 1/2 x 3 1/8 and their distance apart 30 ins
The Frames extend in one length from Keel to Gunnwale rivetted through plates with (7/8 in.) rivets, about (4 ins) apart.
The reverse angle irons on the floors extend in one length across the middle line from bilge to bilge
" " " on the frames " " " from bilge to upper Edg of Hold Beam Stringer Angle Keel alternately
Keelson, how are the various lengths of plates or angle irons connected? Plates shifted, Strapped & rivetted
Plates, Garboard, double ~~or~~ rivetted to keel, double ~~or~~ at upper edge, with rivets (1 1/4 ins.) diameter, averaging (5 ins) apart.
" Edges from Garboards to upper part of bilge, worked clencher, double ~~or~~ single rivetted; with rivets (7/8 in.) diameter, averaging (3 ins) apart.
" Butts from Keel to turn of bilge, worked carvel with butt straps (13/16) thick, double ~~or~~ single rivetted; with rivets (7/8 in.) diameter, averaging (3 1/2 ins.) apart. Do the butt straps lap over and rivet through the lands of the strake below? not in outer strake
" Edges from bilge to sheerstrake, worked ~~carvel with a lining piece~~ thick, or clencher, double ~~or~~ single rivetted; with rivets (7/8 in.) diameter, averaging (3 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 Butts of Sheerstrake for about 150 ft keels rivetted. Butts laps extending 9 ins At lower edge each side of panel & rivetted
" Butts from bilge to planksheers, worked carvel with butt straps (7/16 & 10/16) thick, double ~~or~~ single rivetted; with rivets (7/8 in.) diameter, averaging (3 1/2 ins.) apart. Breadth of laps in double rivetting (4 3/4) Breadth of laps in single rivetting ()
Butt Straps of Keelsons, Stringer and Tie Plates, double ~~or~~ single rivetted? Gunnwale stringer plate amidships keels rivetted
Planksheer, how secured to the plating of the sides { Explain by sketch } Gutter waterway
Waterway " " planksheer and to the Beams { if necessary. }
Deck Beams, how secured to the side? with welded knees riveted to frames
Hold or Lower Deck ditto Do Do
Paddle " " No. of breasthooks Live crutches
What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.? Consolid
Manufacturer's name or trade mark _____

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

Builder's Signature Signed Chas W^m Earle Surveyor's Signature

IRON 437A-0073

3044 Iron

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? Yes several in the 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.

N ^o .	She has SAILS.	CABLES, &c.	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c	N ^o .	Weight.	Test as per Certificate.	Wt req'd per Rule.	Test req'd per Rule.
	Fore Sails,	Chain <u>tested to 59% tons</u>	<u>300</u>	<u>1 13/16</u>				Bowers <u>Liptons</u>	<u>3</u>	<u>35.1.24</u>	<u>- 33 tons</u>		
	Fore Top Sails,									<u>34. 2. 7</u>	<u>do.</u>		
	Fore Topmast Stay Sails	<u>Hamper</u> Stream Cable	<u>90</u>	<u>1</u>						<u>34. 1. 11</u>	<u>do.</u>		
	Main Sails,	Hawser <u>2 Hemp</u>	<u>90</u>	<u>10</u>				Stream <u>Do</u>	<u>1</u>	<u>10. 2. 10</u>	<u>- 13 1/4 tons</u>		
	Main Top Sails,	Towlines	<u>90</u>	<u>8</u>									
	and others as required	Warp <u>Marilla</u>	<u>120</u>	<u>13</u>				Kedges <u>Rodgers</u>	<u>2</u>	<u>6. 3. 9</u>	<u>- 8 tons</u>		
		All of <u>good</u> quality.	<u>90</u>	<u>6 1/2</u>						<u>3. 1. 9</u>			
	Her Standing and Running Rigging <u>is wire & hemp</u> sufficient in size and <u>good</u> in quality.												
	She has <u>one</u> Long Boat and <u>three others</u>												
	The present state of the Windlass is <u>good</u> Capstan <u>good</u> and Rudder <u>good</u> Pumps <u>Iron</u>												

Order for Special Survey DATES of
 No. _____ Surveys held
 Date _____ while building
 Order for Ordinary Survey as per
 No. _____ Section 18.
 Date _____
 1st. On the several parts of the frame, when in place, and before the plating was wrought
 2nd. On the plating during the progress of rivetting
 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 _____ Poop _____ or Forecastle _____
Special Survey No. 65
First Survey 5th Nov
Last Survey 17th June 1864

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

Masts of Iron 4 1/2" plates in middle, 4 1/8" at ends, of two plates single riveted at Edges & double riveted at Butts, four angle irons in the fore & main mast. Three angle irons in the stizen mast, Lower and Lower topsail yards of Steel, upper topsail yards (fore & main) of Iron.
 Lower yards 5 1/2" 4 1/2" 3 1/2" - Topsail yards 4 1/2" & 3 1/2" Steel; upper topsail yards 5 1/2" & 4 1/2" Iron, with three angle irons in each of the lower and lower topsail yards, and two angle irons in the upper topsail yards, constructed with two plates single riveted at Seams & double riveted at Butts.

In what manner are the surfaces preserved from oxidation? Inside The flat of bottom inside with Portland Cement
 Ditto ditto Outside the remainder of the plating with paint

I am of opinion this Vessel should be favorably Classed considered for A1

The amount of the Fee£ 5 : - : - is received by me,

Special£ 64 : 13 : -

Certificate (if required)£ - : - : -

Committee's Minute _____ 18 _____

(signed) W. Davidson

Character assigned _____



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