

IRON SHIPS.

No. 2477 Survey held at Liverpool Date 24 March to 21 August 1869
on the SHIP "HAYWARDEN CASTLE" Master John Jones
Tonnage under tonnage deck 1031.50 Built at Liverpool When built 1869 Launched 10 July - 69
Ditto of poop & ^{FORECASTLE} spar deck 88.09
Ditto of ^{HOUSE} engine room 12.36
Ditto of ^{CREW SPACE} 1132.34 By whom built R. & J. Evans & Coy Owners Richards Mills & Co
Total Register tonnage 1132.34 Gross Tonnage 1132.34 Port belonging to Liverpool Destined Voyage Melbourne
If Surveyed while Building, Afloat, or in Dry Dock While Building and in Harb. Dock

Feet. Inches. Feet. Inches. Feet. Inches. Feet. Inches. Horse. No. of Decks

Length aloft 211 6 Extreme Breadth 35 - Depth from top of Upper Deck Beam to top of Floor 21 2 1/2 Power of Engines -

(Dimensions of Ship per Register, length 215 breadth 35.1 depth 21.)

	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness.....	8 1/2 x 3	8 1/2 x 3				
" if plate iron, breadth and thickness	8 1/2 x 3	8 1/2 x 3				
Stem, if bar iron, moulding and thickness	8 1/2 x 3	8 1/2 x 3				
" if plate iron, breadth and thickness	8 1/2 x 3	8 1/2 x 3				
Stern-post, if bar iron, moulding and thickness	8 1/2 x 3	8 1/2 x 3				
" " if plate iron, breadth and thickness	8 1/2 x 3	8 1/2 x 3				
Distance of Frames from moulding edge to moulding edge, all fore and aft	24 in.	24 in.				
Frames, Size of Angle Iron, single or double.	5 x 3 x 9/16	5 x 3 x 9/16				
" Reversed Iron, to every frame	3 1/2 x 3 x 8/16	3 1/2 x 3 x 8/16				
Floors, depth and thickness of Floor Plate at mid line	24 1/2 x 8/16	23 x 8/16				
" Ditto ditto at Bilge Keelson	11 1/2 x 10/16	11 1/2 x 10/16				
" Size of Reversed Angle Iron, and No. ONE - at top of Floor Plate	3 1/2 x 3 x 8/16	3 1/2 x 3 x 8/16				
Beams, Deck (N°.) double Angle Iron,	8 1/2 x 9/16	8 3/4 x 8/16				
" double or single Angle Iron, on UPPER edge....	4 x 3 x 7/16	3 1/2 x 3 x 8/16				
" average space between	48 in.	48 in.				
" Hold, or Lower Deck (N°.) double Angle, Tee, Plate, or Bulb Iron	8 1/2 x 9/16	8 3/4 x 8/16				
" double or single Angle Iron on UPPER edge....	4 x 3 x 7/16	3 1/2 x 3 x 8/16				
" average space between	48 in.	48 in.				
" Paddle, sided and moulded, thickness of Plate size of Angle Iron						
Engine " " " " " "						
Keelson, single or double plate, bon or intercostal	10 x 8/16	none				
" Size of Plates	15 1/2 x 13/16	15 x 13/16				
" Size of Angle Irons	5 x 4 1/2 x 9/16	5 x 4 1/2 x 9/16				
" Side, single or double, plate, bon or intercostal	5 x 4 1/2 x 9/16	5 x 4 1/2 x 9/16				
" Bilge (No. ONE) at each Bilge, single, or double, plate, or box	5 x 4 1/2 x 9/16	5 x 4 1/2 x 9/16				
Transoms, material Iron or, if none, in what manner compensated for.						
Knight-heads, and Hawse Timbers Iron Plates and angles						
The Frames extend in one length from Keel to Gunwale						
The reverse angle irons on the floors extend in one length across the middle line from side to side						
" " " on the frames " " " from side to side						
Keelson, how are the various lengths of plates or angle irons connected? By Butt straps and angle irons shifted.						
Plates, Garboard, double or rivetted to keel, double or at upper edge, with rivets (1/8 in.) diameter, averaging (3/4 in.) apart.						
" Edges from Garboards to upper part of bilge, worked clench, double or single rivetted; with rivets (7/8 in.) diameter, averaging (3/4 in.) apart.						
" Butts from Keel to turn of bilge, worked carvel with butt straps (1/4 in.) thick, double or single rivetted; with rivets (7/8 in.) diameter, averaging (3/4 in.) apart.						
" Edges from bilge to sheerstrake, worked carvel with a lining piece () thick, or clench, double or single rivetted; with rivets (7/8 in.) diameter, averaging (3/4 in.) apart.						
" Edges of Sheerstrake, double or single rivetted? At upper edge Single to Bulmark Plates At lower edge Double						
" Butts from bilge to planksheers, worked carvel with butt straps (1/4 in.) thick, double or single rivetted; with rivets (7/8 in.) diameter, averaging (3/4 in.) apart.						
Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted? Double and Keelson Plates Straps						
Planksheer, how secured to the plating of the sides Explain by sketch Iron Bulmark Plates and Rutter Waterway						
Waterway " " planksheer and to the Beams if necessary. with Iron Strake Iron to Rutter Waterway						
Deck Beams, how secured to the side? Beam Keels welded to Bul Iron Beams and Rivetted to Frames.						
Hold or Lower Deck ditto " " " " " "						
Paddle " " " " " "						
No. of breasthooks 5 crutches 4						
What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.? James & Sons, mottled						
Manufacturer's name or trade mark Hopkins Middlebrook - Plates. Kinner & Co. Clough Hall Best						
We certify that the above is a correct description of the several particulars therein given.						
Builder's Signature R. J. Brown & Co. Surveyor's Signature James Purdie						

RON444-0356

4308 *Lipton Ironing House. 1 July 1869. Rebuilt Ironing House. 7 July 1869.*
James Curdrie

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? Solid
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? As far as Butts only

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.

Fore - Main - Mizzen and Bowsprit - Two plates in the round 4/16 and mast head plate 5/16. Single Rivetted at edges and denke. Riddle at Butts - 3 angles this mast. 4 x 3 x 7/16. Lower yards and Lower Lobsail yards. 5 steel. Two plates in the round 4/16 at stump. tapering to 3/16 and 2/16 - 3 angles/steel 2 1/2 x 2 1/2 x 1/4 - Single Rivetted edges. Butts -

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. Ex. Stock.	Test as per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
	Fore Sails,	Chain <i>Leitch 4744</i>	150	1 3/4	55 2/30	1 3/4	55 1/10	Bowers <i>Leitch 4744</i>	3	30 0 2	28 12/30	30	28 6/10
	Fore Top Sails,	- <i>4745</i>	150	1 3/4	55 2/30	1 3/4	55 1/10	<i>4057</i>	X	27 3 16	28 10/30	30	28 6/10
	Fore Topmast Stay Sails	Hampson Stream Cable	90	1"			15 1/16	<i>4047</i>		25 2 7	25 5/30	25 2 0	25 4/30
	Main Sails,	Hawser	90	1 1/2			9 1/2	Stream <i>5.7.1</i>	1	12 2 30		12 0 0	
	Main Top Sails,	Towlines	90	9"			5 1/2	"	2	6 0 0		6 0 0	
	and	Warp	90	7 1/2				Kedges	2	3 0 0		3 0 0	
		All of <u>good</u> quality.	60	1 1/2									

Her Standing and Running Rigging Morse and Kemp sufficient in size and good in quality.

She has one Long Boat and three others.

The present state of the Windlass is undamaged Capstan two of them and Rudder good. Pumps a pair of them in Main Hold. and others in Fore Hold.

Order for Special Survey	DATES of	1st.	On the several parts of the frame, when in place, and before the plating was wrought	<u>under special</u>
No. <u>511</u>	Surveys held	2nd.	On the plating during the progress of rivetting	<u>survey the whole</u>
Date <u>12/2/69</u>	while building	3rd.	When the beams were in and fastened, and before the decks were laid	<u>time</u>
Order for Ordinary Survey	as per	4th.	When the ship was complete, and before the plating was finally coated	<u>Building</u>
No. _____	Section 18.	5th.	After the ship was launched	
Date _____				

State if she has a Spar Deck _____ Poop Yes or Forecastle Yes

General Remarks, *The whole of the Butts of Plating Flawed - This vessel is well built - and in my opinion. Eligible for the class. A.S. as recommended below -*

In what manner are the surfaces preserved from oxidation? Inside By Portland Cement in Bottom and paint above. Ditto ditto Outside By Paint

I am of opinion this Vessel should be Classed A.S.

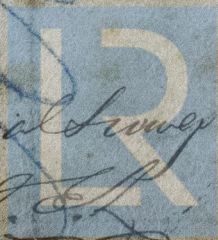
The amount of the Fee£ 5 : 0 : 0 is received by me,

Amf. M.C. Special£ 50 : 1 : 0 *26/6/69*
Certificate (if required)£ : : : *James Curdrie*

Committee's Minute Liverpool, 27th August, 1869

Character assigned A 1 *Millers Special Power (A.S.C.P.)* *Com-64 G.L.*

Millers Special Power



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