

3308 IRON SHIPS.

Recy 1/3/64 & 21/3/64

No. 2146 Survey held at Glasgow Date March 8th 1864
 on the S.S. Helford Master David Hardy
 Tonnage Gross 1998.94 Engine Room 450.44 Register 1548.50 Built at Glasgow
 When Built 1864 Launched 23rd Feb^r By whom built Smith & Rogers
 Owners W. J. Quinn Port belonging to Liverpool Destined Voyage Mediterranean
 If Surveyed Afloat or in Dry Dock Whilst 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.
.....	<u>318</u>	<u>36.3</u>	<u>35.9</u>	<u>250</u>
Distance of Frames or Ribs from moulding edge to moulding edge, all fore and aft	Inches in Ships. <u>21</u>	Inches required per Rule. <u>18</u>					
Floors, Size of Angle Iron, and No. at bottom of Floor Plate	Inches in Ship. <u>5 1/2</u>	Inches in Ship. <u>3 1/2</u>	16ths required per Rule. <u>10</u>	Inches required per Rule. <u>5 1/2</u>	Inches required per Rule. <u>3 1/2</u>		
depth and thickness of Floor Plate at mid line	<u>29</u>	<u>4 1/2</u>	<u>26</u>	<u>4</u>	<u>4</u>		
depth and thickness of Floor Plate at Bilge Keelson	<u>10</u>	<u>4 1/2</u>	<u>5 1/2</u>	<u>4</u>	<u>4</u>		
Size of Reversed Angle Iron, and No. at top of Floor Plate	<u>4</u>	<u>3 1/2</u>	<u>7 1/2</u>	<u>4</u>	<u>3 1/2</u>	<u>9</u>	<u>9</u>
Frame Iron, single or double	<u>5 1/2</u>	<u>3 1/2</u>	<u>10</u>	<u>5 1/2</u>	<u>3 1/2</u>	<u>10</u>	<u>10</u>
Iron, if to every frame	<u>10 the height of the</u>						
Lower Deck (No. 46) double Angle Iron, Plate, & Bulb Iron	<u>9</u>	<u>10</u>	<u>9</u>	<u>10</u>	<u>9</u>	<u>10</u>	<u>10</u>
double or single Angle Iron on upper edge	<u>3 1/2</u>	<u>3 1/2</u>	<u>7 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>	<u>7 1/2</u>	<u>7 1/2</u>
average space between	<u>3 feet 6"</u>						
if wood (No. 62) sided & moulded	<u>3 feet</u>						
Hold, or Lower Deck (No. 62) double Angle Iron, Plate, & Bulb Iron	<u>9</u>	<u>10</u>	<u>9</u>	<u>10</u>	<u>9</u>	<u>10</u>	<u>10</u>
double or single Angle Iron on upper edge	<u>3 1/2</u>	<u>3 1/2</u>	<u>7 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>	<u>7 1/2</u>	<u>7 1/2</u>
average space between	<u>3 feet 6"</u>						
if wood (No. 23) sided & moulded	<u>3 feet</u>						
Paddle, wood, sided and moulded, or if Iron, size of Plate	<u>3 1/2</u>	<u>3 1/2</u>	<u>7 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>	<u>7 1/2</u>	<u>7 1/2</u>
Engine	<u>As per accompanying</u>						
Keelson, single plate, box, or intercostal	<u>Midship section</u>						
Size of Plates	<u>double d. s. 6</u>						
Size of Angle Irons	<u>5</u>	<u>9</u>	<u>6</u>	<u>5</u>	<u>9</u>	<u>6</u>	<u>5</u>
Ditto Bilge (No. 3)	<u>9</u>	<u>10</u>	<u>9</u>	<u>10</u>	<u>9</u>	<u>10</u>	<u>10</u>

Transoms, material Iron plates, if none, in what manner compensated for.

Knight-heads, and Hawse Timbers Iron frames

The Frames or Ribs extend in one length from Mid. line to Gunwale rivetted through plates with (1/2 in.) rivets, about (6") apart.

The reverse angle irons on the floors extend in one length across the middle line from Mid. line to Beams to Mid. line to Beams

" " " on the frames " " " from Middle line to Gunwale in alternate frames.

Keelson, how are the various lengths of plates or angle irons connected? By Butt Covers

Plates, Garboard, double or single rivetted to keel & at upper edge, with rivets (1 1/4 in.) diameter averaging (5 1/4 in.) from centre to centre of rivet.

Edges from Garboards to upper part of bilge, worked carvel with a lining piece (1/2 in.) thick, or clencher, double or single rivetted; rivets (1 in.) diameter, averaging (4 ins.) from centre to centre of rivets.

Butts from Keel to turn of bilge, worked carvel with a lining piece (1/2) thick, double or single rivetted; rivets (1 in.) diameter, averaging (4 ins.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? Yes

Edges from bilge to sheerstrake, worked carvel with a lining piece (1/2) thick, or clencher, double or single rivetted; rivets (1 1/4 in.) diameter, averaging (2 1/2 in.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? Yes

Edge of Sheerstrake, double or single rivetted? Double

Butts from bilge to planksheers, worked carvel with a lining piece (1/2) thick, double or single rivetted; rivets (1 1/4 in.) diameter averaging (3 1/2 ins.) from centre to centre of rivets. Breadth of laps in double rivetting (5 1/2 diameters) Breadth of laps in single rivetting (3 diameters)

Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted? Double

Planksheer, how secured to the plating of the sides { Explain by sketch } As per section

Waterway " " planksheer and to the Beams { if necessary. }

Deck Beams, how secured to the side? Welded pieces rivetted to frames

Hold or Lower Deck " " do

Paddle " " do

No. of breasthooks Five crutches Five how are pointers compensated? All stringers run through

What description of iron is used for the angle iron and plate iron in the vessel? Consolidated Builder's Signature Smith & Rogers

3508 *Iron*

Workmanship. Are the lands or laps of the clenchwork in all cases in breadth at least five times the diameter of the rivets in double rivetted edges and butts, and at least three 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, lining pieces, 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 corners of butts

Her Masts, Yards, &c., are in good condition, and sufficient in size and length.

She has SAILS.		CABLES, &c.		ANCHORS, and their weights.		
N ^o .		Fathoms.	Inches.		N ^o .	Weight.
<i>one complete sheet</i>	Fore Sails,	Chain <u>300</u>	<u>1 1/2</u>	Bower, <u>Tested 29 1/2 tons</u>	3	37.0.20
	Fore Top Sails,	Hempen Stream Cable <u>90</u>	<u>11</u>	<u>29 1/2 tons</u>		37.0.0
	Fore Topmast Stay Sails,	Hawser <u>60</u>	<u>1 1/2</u>	<u>28 1/2 tons</u>		36.1.20
	Main Sails,	Towlines <u>90</u>	<u>10</u>	Stream, <u>135</u>	1	13.3.12
	Main Top Sails,	Warp <u>90</u>	<u>6</u>	Kedge, <u>135</u>	2	4.0.6
and	All of <u>good</u> quality.	<u>90</u>	<u>4 1/2</u>			3.1.10
		<u>90</u>	<u>3 1/2</u>			

Her Standing and Running Rigging Gal. rise sufficient in size and good in quality.

She has 2 Long Boat and 2 Life Boats 2 Cutters

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

General Remarks, Statement and Date of Repairs, extent of corrosion (if any) both internally and externally, and condition of rivets.

DATES of Surveys held while building, as per Section 17.	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
	<u>Built under ordinary</u>	<u>Survey 11th June 1864</u>	<u>16th Feb 1864</u>		

The frames are 21^{ins} apart, except in the engine room for a space of 48 feet where they are 18 ins. An intercostal keelson is fitted between middle line and bilge keelsons extending from 65 feet before boiler room bulkhead to 49 feet abaft engine room bulkhead and stands 13^{ins} above the floors with four angle irons 6x4x 1/4 except in the engine & boiler space where the intercostal keelson is the depth of the floor plate and flat plates one on each side and one in the centre are rivetted to the double reverse bars of the floors; the floors in this space are 3^{ins} deeper than in the other part of the vessel and the double reverse bars are extended to the upper part of bilges. The bilge keelsons are formed with two angle irons 6x4x 1/4 with a bulk plate 9^{ins} x 1/4 for half the length amidships. Orlop Beams 23 in number are fitted 7ft & 14ft apart alternately. The stringer on upper deck beams is 6 feet 9 in. wide and connected to the shestrake with angle irons 5x5x 1/4 there is also a stringer angle iron running fore & aft within the frames 6x4x 1/4 forming a gutter waterway. 10 Pairs of diagonal tie plates are fitted on upper deck beams and 8 Pairs on lower deck beams. The shestrake is doubled for three fourths the length of the ship and the lining pieces to bulkheads extend over three frames. Iron bulwarks are fitted of 1/4 plating, 4ft. 2^{ins} above the beam and supported by alternate frames and every frame in the wake of the chain plate.

In what manner are the surfaces preserved from oxidation? Red lead & McQuinness patent paint.

I am of opinion this Vessel should be classed A. 1 for 12 years.

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

Special£ 18 : 18 : 0

Certificate (if required)£ : 5 : 0

Committee's Minute 22nd March 1864

Character assigned A 1 for 12 years

W. Pearce

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