

IRON SHIPS.

Rec 16/9/64

No. 3179 Survey held at Dundee Date 14th September 1864
 on the Screw Steam Ship Starke Master not appointed
 Tonnage Gross 781.42 Engine Room 220.34 Register 561.08 Built at Dundee
 under deck 685.3
 When Built 1864 By whom built Goulay Brothers & Co Owners General St. Nav Co
 Launch 20/7/64
 Port belonging to London Destined Voyage _____
 If Surveyed Afloat or in Dry Dock Building & afloat

Length aloft 29.8 Extreme Breadth 29 Depth from top of Upper Deck } Feet. Inches. } 16 7 1/2
 Beam to top of Floor..... } 16 7 1/2 Power of Engines.... 200

Description	Inches in Ship.		Inches required per Rule.		Description of Iron.	Inches. In Ship.	16ths. In Ship.	Inches. required per Rule.	16ths. required per Rule.
	In Ship.	In Ship.	Inches.	16ths.					
Distance of Frames or Ribs from moulding edge to moulding edge, all fore and aft	<u>21</u>	<u>21</u>	<u>21</u>	<u>21</u>	Stem, if bar iron, moulding and thickness	<u>8</u>	<u>3 1/2</u>	<u>7</u>	<u>2 3/4</u>
Floors, Size of Angle Iron, and No. <u>one</u> at bottom of Floor Plate	<u>4</u>	<u>3</u>	<u>7/16</u>	<u>4</u>	Stern-post, if bar iron, moulding and thickness	<u>8</u>	<u>5</u>	<u>7</u>	<u>5 1/2</u>
depth and thickness of Floor Plate at <u>carried up on frame to twice depth mid line</u>	<u>19</u>	<u>19</u>	<u>7/16</u>	<u>19</u>	Keel, if bar iron, depth and thickness	<u>8</u>	<u>2 1/2</u>	<u>7</u>	<u>2 3/4</u>
depth and thickness of Floor Plate at Bilge Keelson	<u>9</u>	<u>9</u>	<u>1/2</u>	<u>12</u>	Garboard Plates, thickness..	<u>1/16</u>	<u>1/16</u>	<u>1/16</u>	<u>1/16</u>
Size of Reversed Angle Iron, and No. <u>one</u> at top of Floor Plate	<u>3</u>	<u>3</u>	<u>3/8</u>	<u>3</u>	From Garboard to upper part of Bilge	<u>5/8</u>	<u>5/8</u>	<u>5/8</u>	<u>5/8</u>
Frames, Size of Angle Iron, single or double	<u>4</u>	<u>3</u>	<u>7/16</u>	<u>4</u>	From upper part of Bilge to Sheerstrakes	<u>1/16</u>	<u>1/16</u>	<u>1/16</u>	<u>1/16</u>
Reversed Iron, if to every frame or every frame	<u>3</u>	<u>3</u>	<u>3/8</u>	<u>3</u>	Sheerstrakes	<u>1/12</u>	<u>1/12</u>	<u>1/12</u>	<u>1/12</u>
Beams, Deck (No. <u>48</u>) double Angle Iron	<u>3</u>	<u>3</u>	<u>3/8</u>	<u>2 3/4</u>	Breadth & thickness of Butt Straps to outside plating	<u>9</u>	<u>17</u>	<u>17</u>	<u>17</u>
Bulb Iron with double Angle Iron on top	<u>3</u>	<u>3</u>	<u>3/8</u>	<u>2 3/4</u>	Planksheers				
depth & thickness of plate amidships	<u>7 1/2</u>	<u>7 1/2</u>	<u>7/4</u>	<u>7/16</u>	Gunwale Plate or Stringer on ends of Up. Dk Beams	<u>3 3/4</u>	<u>5/8</u>	<u>33</u>	<u>1/2</u>
double or single Angle Iron on lower edge	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>	Angle Iron on ditto	<u>4 1/2</u>	<u>3 1/2</u>	<u>4 1/2</u>	<u>3 1/2</u>
average space between	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>	Waterway	<u>3 1/4</u>	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>
if wood (No.) sided & moulded					Deck	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>
Hold, or Lower Deck (No. <u>23</u>) double Angle Iron or Bulb Iron with double Angle Iron on top	<u>3</u>	<u>3</u>	<u>3/8</u>	<u>2 3/4</u>	Ceiling in Hold	<u>2 1/4</u>	<u>2 1/4</u>	<u>2 1/4</u>	<u>2 1/4</u>
depth & thickness of plate amidships	<u>7 1/2</u>	<u>7 1/2</u>	<u>7/4</u>	<u>7/16</u>	Ceiling betwixt Decks	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>
double or single Angle Iron on lower edge	<u>7 1/2</u>	<u>7 1/2</u>	<u>7/4</u>	<u>7/16</u>	Beam Clamps				
average space between	<u>7 1/2</u>	<u>7 1/2</u>	<u>7 1/2</u>	<u>7 1/2</u>	Shelf				
if wood (No.) sided & moulded					Stringer Plates on ends of Hold or Lower Dk Beams	<u>2 1/2</u>	<u>2 1/2</u>	<u>2 1/2</u>	<u>2 1/2</u>
Paddle, wood, sided & moulded or if Iron, size of Plate					Ceiling between Decks	<u>4 1/2</u>	<u>3 1/2</u>	<u>4 1/2</u>	<u>3 1/2</u>
Engine					Stringer or Tie Plates on side Hatchways	<u>13</u>	<u>12</u>	<u>11</u>	<u>12</u>
Keelson, wood, sided & moulded iron, size of plate, how secured to the sides	<u>23</u>	<u>23</u>	<u>1/2</u>	<u>23 1/2</u>	Deck Beam Clamps				
Side or Bilge Keelson, back to back with Bulb Iron	<u>4 1/2</u>	<u>3 1/2</u>	<u>7/16</u>	<u>2 1/2</u>	Shelf				
Number of each	<u>7 1/2</u>	<u>7 1/2</u>	<u>7 1/2</u>	<u>7 1/2</u>	Stringers in Hold	<u>4 1/2</u>	<u>3 1/2</u>	<u>4 1/2</u>	<u>3 1/2</u>

Transoms, material _____ or, if none, in what manner compensated for.

Knight-heads _____ Bulkheads, No. 4 Material tights Thickness of 3/8 inch fitted with valves.
 Hawse Timbers _____ are they free from defects? Yes how secured to the sides of the ship with double AT frames

The Frames or Ribs extend in one length from Keel to gun wall rivetted through plates with (13/16) in. rivets, about (6) apart.
 The reverse angle irons on the floors extend in one length across the middle line from Center line to above upper part Bilge Stringers & are

Carried up on the frames on engine & from boiler spaces to deck Shell or Beams before & abaft engine & Keelson, how are the various lengths of plates or angle irons connected? rivetted at each end to double angle iron fastened to floor plates

Plates, Garboard, double or single rivetted to keel & at upper edge, with rivets (1 1/2) in. diameter averaging (6) in. from centre to centre of rivet. Horizontal
 Edges from Carboards to upper part of bilge, worked carvel with a lining piece (1/2) in. thick, or clencher, double or single rivetted; rivets (13/16) in. diameter, averaging (4 1/2) in. from centre to centre of rivets.

Butts from Keel to turn of bilge, worked carvel with a lining piece (equal plates) thick, double or single rivetted; rivets (13/16) in. diameter, averaging (4 1/2) in. from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? on alternate streaks

Edges from bilge to planksheer, worked carvel with a lining piece (3) in. thick, double or single rivetted; rivets (13/16) in. diameter, averaging (3) in. from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? Sheer Strake worked clencher double rivetted on both edges

Butts from bilge to planksheers, worked carvel with a lining piece (equal plates) thick, or clencher, double or single rivetted; rivets (13/16) in. diameter averaging (4 1/2) in. from centre to centre of rivets. Breadth of laps in double rivetting (4 3/8) Breadth of laps in single rivetting (3)

Planksheer, how secured to the plating of the sides { Explain by sketch, }
 Waterway " " planksheer and to the Beams { if necessary, }
 Side trussing _____ breadth and thickness of plates _____ how secured? Waterways fast with screw pointed bolts & nuts to beams plates & also outside plating with iron bolts clenched in case on face of Waterways

Deck trussing way of foremast 9 x 9/16 " " " rivetted to Beams & Stringers
 Deck Beams, how secured to the side? bracket ends on beams 21 inches long with 5 rivets & also by stringer plates

Hold or Lower Deck _____
 Paddle _____

No. of breasthooks _____ crutches _____ how are pointers compensated? by the various stringers united together at ends also frames & c
 What description of iron is used for the angle iron and plate iron in the vessel? Blackston Brit. Iron Builder's Signature Goulay Brothers & Co

Munsey & Dean - Bedlington

3782 Iron

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? They are
Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? lay close
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? Conform well and are the rivet holes well and sufficiently countersunk in the outer plate? sufficiently Countersunk
Are there any rivets which either break into or have been put through the seams or butts of the plating? none

Her Masts, Yards, &c., are in Good condition, and sufficient in size and length.
x Fore & Main Iron She has SAILS.

N ^o .		CABLES, &c.	FATHOMS.		INCHES.		N ^o .	WEIGHT.
/	Fore Sails,	Chain <u>tested to 27 1/2 tons</u>	270	17 1/2	Bower, <u>that many patent</u>	3	20.2.7	
/	Fore Top Sails,	<u>Sum</u> <u>in certificate</u> Lantern Stream Cable	60	7 1/2	<u>tested to 2 1/2 tons</u>		19.3.7	
/	Fore Topmast Stay Sails,	Hawser	90	10	<u>2 1/2 tons</u> <u>in certificate</u>			
/	Main Sails,	Towlines	90	8 1/2	Stream, <u>tested to 8 3/4 tons</u>	1	7.3.18	
/	Main <u>Top</u> Sails,	Warp	95	5		2	4.1.0	
	and <u>others to form a full set</u>	All of <u>Good</u> quality.	100	4	Kedge,		2.0.14	

Her Standing and Running Rigging Wool & Hemp sufficient in size and _____ in quality.

She has Four Long Boats and various lengths &c

The present state of the Windlass is Good 2 Capstans Good and Rudder Good Pumps 4 deck
filled with purchase 2 Steam Cranes 7 double block

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 23rd Feb^r to 16th March
 - 2nd. On the plating during the progress of rivetting 22nd March to 31st May
 - 3rd. When the beams were in and fastened, and before the decks were laid Beams put^t with frames
 - 4th. When the ship was complete, and before the plating was finally coated 3rd June to 19th July
 - 5th. After the ship was launched 1 10 22 23 17 12 13 14
8m 9m

This vessel is built with round stem & full poop about 38 1/2 m length from front to after part stern Post - also anchor deck forward fitted with Capstern on top - poop plated outside with 5/16 inch Iron & from poop forward Bulwarks of Iron formed of 1/4" plate

This vessel is about 7.9 Breadths & 13.8 depths in length the Compensators in Sheerstrake & Stringer plates vide Mess^r Gourlay's proposals of 11/64 with tracing - as approved & sanctioned order letter addressed to me 22/1/64 have been carried out

Under misapprehension of the rule section 9. as then extant (Mess^r G single rivetted several of the landings in upper Courses of outside plating) as referred to in their letter of 17/5/64 - the Committee under due Consideration of the Circumstances passed the same vide letter to me of 26/3/64

specially surveyed while building under order N^o 129.

In what manner are the surfaces preserved from oxidation? 2 Coats Red Lead & oxide of Iron & 1 Black or other Color from L^o W^o Line upwards outside & 2 Coats Red Lead & oxide of Iron under that keel to L^o W^o L^o
3 Coats Red Lead & oxide of Iron inside & Portland Cement in bottom out to Belt

I am of opinion this Vessel should be classed A1

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

WMA Special£ 39 : 1 : -

Certificate (if required)£ 44. 1. 0

Committee's Minute 10th September 1864
23rd do

Character assigned A1

Thomas Alexander
There is no mention of diagonal struts on the deck beams - and she is over 13 depths for length - In other respects she appears eligible for the class recommended under the circumstances named by Mr Alexander
Sep 16th 1864 - 2019

WMA

Deposited with Lloyd's Register Foundation