

# IRON SHIPS.

No. 3179 Survey held at Dundee Date 14<sup>th</sup> September 1864  
 on the Screw Steam Ship Stork Master not appointed  
 Tonnage Gross 781.42 Engine Room 220.34 Register £61.08 Built at Dundee  
under deck 685.3  
 When Built 1864 By whom built Gourlay Brothers & Co Owners General St. Nav Co  
Launched 20/7/64  
 Port belonging to London Destined Voyage \_\_\_\_\_  
 If Surveyed Afloat or in Dry Dock Building & afloat

Length aloft	Feet. 29	Inches. 8	Extreme Breadth	Feet. 29	Inches.	Depth from top of Upper Deck } Feet. 16	Inches. 7½	Beam to top of Floor..... }	Power of Engines....	Horse No. 200
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Distance of Frames or Ribs from moulding edge to moulding edge, all fore and aft }	Inches in Ship.		Inches required per Rule.		16ths required per Rule.	Inches. In Ship.	16ths. In Ship.	Inches. required per Rule.	16ths. required per Rule.
	21.	✓	21.	✓					
Floors, Size of Angle Iron, and No. <i>one</i> at bottom of Floor Plate.....	4	3	7/16	4	3	7/16			
depth and thickness of Floor Plate at <i>carried up on frame to twice depth</i> mid line .....	19		7/16	19		7/16			
depth and thickness of Floor Plate at Bilge Keelson .....	9		1/2			1/2			
Size of Reversed Angle Iron, and No. <i>one</i> at top of Floor Plate..	3	3	3/8	3	2 3/4	3/8			
Frames, Size of Angle Iron, single or double..	4	3	7/16	4	3	7/16			
Reversed Iron, if to every frame or every frame.....	3	3	3/8	3	2 3/4	3/8			
Beams, Deck (N <sup>o</sup> . <i>48</i> ) <del>double Angle Iron</del> or Bulb Iron with double Angle Iron on top .....	3	3	3/8	2 3/4	2 3/4	5/16			
depth & thickness of plate amidships	7/2		7/16	7/4		7/16			
<del>double or single Angle Iron</del> on lower edge .....	3 1/6		3 1/2						
average space between .....									
if wood (N <sup>o</sup> . ) sided & moulded									
Hold, or Lower Deck (N <sup>o</sup> . <i>23</i> ) <del>double Angle Iron or Bulb Iron</del> with double Angle Iron on top	3	3	3/8	2 3/4	2 3/4	9/16			
depth & thickness of plate amidships	7/2		7/16	7/4		7/16			
<del>double or single Angle Iron</del> on lower edge .....									
average space between <i>7.4. 3 1/2 ft. alternately</i>				7.0	3 1/2 ft.				
if wood (N <sup>o</sup> . ) sided & moulded									
Paddle, wood, sided and moulded or if Iron, size of Plate .....									
Engine " " " " .....									
Keelson, wood, sided & moulded iron, size of plate, <i>4 1/2 x 3 1/2</i> , gave exact dimensions	2 3/4	3 1/2	1/2	2 3/4	4 1/2	3 1/2	7/16		
<i>Side or Bilge Insulation back to back</i>	4 1/2	3 1/2	7/16	4 1/2	3 1/2	7/16			
Number. <i>one</i> . back. <i>one</i> . each end	7 1/2		1/2						
Stem, if bar iron, moulding and thickness ....	8	3 1/2	✓	2 3/4					
if plate iron, breadth and thickness ....									
Stern-post, if bar iron, moulding and thickness	8	5	7	5 1/2					
if plate iron, breadth and thickness									
Keel, if bar iron, depth and thickness .....	8	2 1/2	7	2 3/4					
if plate iron, breadth and thickness ....									
Garboard Plates, thickness..			1/16	✓	4/16				
From Garboard to upper part of Bilge .....			3/8	✓	5/8				
From upper part of Bilge to 1/3 D of Hold			1/16	✓	9/16				
Sheerstrakes .....			1/2						
Breadth & thickness of Butt Strap to outside plating			3/4						
Plank sheers .....									
Gunwale Plate or Stringer on ends of Up. Dk Beams			3 9/16	5/8	33	1/2			
Angle iron on ditto .....			4 1/2 x 3 1/2	7/16	4 1/2	3 1/2	7/16		
Waterway .....			3 3/4	3 1/2					
Deck .....				3 1/2	✓	3 1/2			
Ceiling in Hold to Bilge & Lower Dk Beams				2 1/4					
Ceiling between Decks & Bilge				2					
Beam Clamps .....									
Shelf .....									
Stringer Plates on ends of Hold or Lower Dk Beams				2 1/2	1/2	2 1/2	1/2		
Ceiling between Decks ....				4 1/2 x 3 1/2	7/16	4 1/2	3 1/2	7/16	
Stringer or Tie Plates outside Hatchways ....				2					
Deck Beam Clamps .....				13	1/2	11	1/2		
Shelf .....									
Stringers in Hold <i>A.T. back to back</i>				4 1/2 x 3 1/2	7/16	4 1/2	3 1/2	7/16	

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

Knight-heads     "     \_\_\_\_\_ Bulkheads, No 4 Water tight Thickness of 3/8 inch fitted with valves.

Hawse Timbers     "     Mun frames } are they free from defects? (also 2 Coal Bunkers - 7/16") " how secured to the sides of the ship with double A I frames.

& plating

The Frames or Ribs extend in one length from Keel to Stem wall rivetted through plates with (13 in.) rivets, about (1/4) apart at P

The reverse angle irons on the floors extend in one length across the middle line from Center line to above upper part of Bilge Stanchion & on

Keelson, how are the various lengths of plates <sup>from boiler space</sup> carried up: "on the frames in engine & boiler space - they are carried up" to deck shelf or beams before a shaft engine &

Plates, Garboard, double or single riveted to keel & at upper edge with rivets  $4\frac{1}{2} \times 3\frac{1}{2} \times 11/16$  back to back run along on each side top part rivetted all together on reverse sheet.

Edges from ~~Carboards~~ <sup>Keel</sup> to upper part of bilge, worked ~~over~~ <sup>with a lining piece</sup> with a lining piece (in) thick or clench double or triple <sup>4 in diagonally</sup> from centre to centre of rivet. <sup>Horizontal</sup>

diameter, averaging  $\left( \frac{4 - 4\frac{1}{2}}{2\frac{1}{2}} \right)$  ins. from centre to centre of rivets.

Butts from Keel to turn of bilge, worked carvel with a lining piece <sup>(equal</sup> ~~thick~~ <sup>to</sup> ~~double~~ <sup>plate</sup> ~~or single~~ rivetted; rivets ( $\frac{13}{16}$  in.) diameter.

averaging (4 <sup>ins.</sup> ~~ins.~~) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? on alternate strakes

Edges from bilge to plank sheer; worked ~~sawed~~ with a lining piece ( ) thick, double or single rivetted; rivets ( $\frac{13}{16}$  in.) diameter, averaging ( .3 in.) from centre to centre of rivets. Do the lining pieces lay across and parallel to the bulkhead stiffeners.

Butts from bilge to planksheers, worked carvel with a lining piece <sup>equal</sup> thick as cleacher, double angled, rivetted *double rivetted on both edges*

averaging (4 1/2 ins.) from centre to centre of rivets. Breadth of laps in double rivetting (4 3/4) Breadth of laps in single rivetting (3 1/2)

Planksheer, how secured to the plating of the sides { Explain by sketch, } Waterways fast with screw hountee bolts & nuts to thickness.

Waterway " " planksheer and to the Beams } if necessary. } plates & the outside plating with Iron bolts clinched in case  
side trussing } in face of Waterways

Deck trussing	width of breast	2 1/2	1	1	1	1
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Deck Beams, how secured to the side? *bracket ends on beams 2 1/2" x 4" with 2" x 2" x 1/2" plates*

Hold or Lower Deck „ Do Do Do Do Do Do & Do Do Do

addie

of breasthooks \_\_\_\_\_ crutches \_\_\_\_\_ how are pointers compensated? *by the various struts united together at ends also*

What description of iron is used for the angle iron and plate iron in the vessel? Black iron hot rolled Builder's Signature James O. O.

Yours Mothers Love

IRON 437A-0210

Foundation



3782 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? 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.

She has SAILS.		CABLES, &c.		ANCHORS, and their weights.			
N <sup>o</sup> .			Fathoms.	Inches.	N <sup>o</sup> .	Weight.	
/	Fore Sails,	Chain <i>Tested to 27 1/2 tons</i>	270	17 1/16	Bower, <i>that many, tested to 21 1/2 tons</i>	3	20.2.7
/	Fore Top Sails,	<i>in certificate</i> <del>Hamper</del> Stream Cable	60	7 1/8	<i>21 3/8 (see certificate)</i>		19.3.7
/	Fore Topmast Stay Sails,	Hawser	90	10	Stream, <i>Tested to 8 3/4 tons</i>	1	7.3.18
/	Main Sails,	Towlines	90	8 1/2			
/	<i>Self</i> Main Top Sails,	Warp	95	5	Kedge,	2	4.1.0
and	<i>others to form a full set</i>	All of <i>Good</i> quality.	95	5			2.0.14
			100	4			

Her Standing and Running Rigging Wool & Hemp sufficient in size and Good 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 brinch

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 23 Feb to 16 March
- 2nd. On the plating during the progress of rivetting 22 March to 31 May
- 3rd. When the beams were in and fastened, and before the decks were laid Beams put with frames
- 4th. When the ship was complete, and before the plating was finally coated 3 June to 19 July
- 5th. After the ship was launched 11 22 23 17 12 13 14  
8m 9m

This vessel is built with round stem & full poop about 38 ft in 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" plates

This vessel is about 7.9 Breadths & 13.8 depths in length the Compensators in Sheerstrake & Stringer plates vide Messrs 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 (Messrs 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 129.

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

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

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

WMA Special .....£ 39 : 1 : -

Certificate (if required) .....£ 44. 1. 0

Committee's Minute 16<sup>th</sup> September 1864  
23<sup>rd</sup> do

Character assigned A 1

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 16<sup>th</sup> 1864 - B. 13