

# IRON SHIP.

No. 948.42 Survey held at LONDON Date, First Survey 22 January Last Survey 26 January 1875

the Iron Schooner "Sandringham" Yard Number 1 Master W. J. ...

Tonnage under Deck } 948.42  
 Ditto of Third, Spar, or Awning Deck }  
 Ditto of Poop, or Raised Qr. Dk. } 149.07  
 Ditto of Houses on Deck } 33.13  
 Ditto of Forecastle } 28.85  
 Gross Tonnage } 1159.49  
 Less Crew Space } 50.69  
 Less Engine Room } 371.03  
 Register Tonnage as cut on Beam } 737.75

ONE, OR TWO DECKED, THREE DECKED VESSEL.  
 SPAR, OR AWNING-DECKED VESSEL.  
 HALF BREADTH (moulded) ... .. 15.1 Feet.  
 DEPTH from upper part of Keel to top of Upper Deck Beams 21.0  
 GIRTH of Half Midship Frame (as per Rule) ... .. 22.4  
 1st NUMBER ... .. 68.5  
 1st NUMBER, if a THREE-DECKED VESSEL deduct 7 feet ... ..  
 LENGTH ... .. 220  
 2nd NUMBER ... .. 15686.5  
 PROPORTIONS—Breadths to Length ... .. 8  
 Depths to Length—Upper Deck to Keel ... .. 11  
 Main Deck ditto ... ..

Built at \_\_\_\_\_  
 When built 1872 Launched \_\_\_\_\_  
 By whom built \_\_\_\_\_  
 Owners J. W. ... & Co  
 Port belonging to Glasgow  
 Destined Voyage \_\_\_\_\_  
 Is Surveyed while Building, Afloat, or in Dry Dock.

Official Number

LENGTH on deck as per Rule ... 220 Feet. Inches. BREADTH Moulded ... 30.2 Feet. Inches. DEPTH top of Floors to Upper Deck Beams ... 19.6 Feet. Inches. Do. do. Main Deck Beams ...  
 Power of Engines ... .. Horse. No. of Decks with flat laid one No. of Tiers of Beams two

Dimensions of Ship per Register, length, 220 breadth, 30.3 depth,

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness ... ..	<u>8 x 2 1/2</u>	<u>8 1/2 x 2 1/2</u>
STEM, moulding and thickness ... ..	<u>8 x 2 1/2</u>	<u>8 x 2 1/2</u>
STERN-POST for Rudder do. do. ... ..	<u>10 x 4</u>	<u>10 x 4</u>
Distance of Frames from moulding edge to moulding edge, all fore and aft ... ..	<u>23</u>	<u>23</u>
FRAMES, Angle Iron, for 1/2 length amidships ... ..	<u>3 1/2</u>	<u>3 1/2</u>
Do. for 1/2 at each end ... ..	<u>3</u>	<u>3</u>
REVERSED FRAMES, Angle Iron ... ..	<u>3</u>	<u>3</u>
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships ... ..	<u>18</u>	<u>18</u>
thickness at the ends of vessel ... ..	<u>7</u>	<u>7</u>
depth at 3/4 the half-bdth. as per Rule ... ..	<u>10</u>	<u>10</u>
height extended at the Bilges ... ..	<u>2 1/8</u>	<u>2 1/8</u>
BEAMS, Upper, Spar, or Awning Deck Single or double Angle Iron, Plate or Tee Bulb Iron ... ..	<u>2 1/2</u>	<u>2 1/2</u>
Average space ... ..	<u>5</u>	<u>5</u>
BEAMS, Main or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron ... ..	<u>3</u>	<u>3</u>
Average space ... ..	<u>5</u>	<u>5</u>
BEAMS, Lower Deck, Hold or Outop Single or double Angle Iron, Plate or Tee Bulb Iron ... ..	<u>7</u>	<u>7</u>
Average space ... ..	<u>3</u>	<u>3</u>
KEELSONS Centre line, single or double plate, box, or Intercostal, Plates ... ..	<u>26</u>	<u>26</u>
" Rider Plate ... ..	<u>12</u>	<u>12</u>
" Bulb Plate to Intercostal Keelson ... ..	<u>5</u>	<u>5</u>
" Angle Irons ... ..	<u>4</u>	<u>4</u>
" Double Angle Iron Side Keelson ... ..	<u>4</u>	<u>4</u>
" Side Intercostal Plate ... ..	<u>4</u>	<u>4</u>
" do. Angle Irons ... ..	<u>4</u>	<u>4</u>
" Attached to outside plating with angle iron ... ..	<u>4</u>	<u>4</u>
BILGE Angle Irons ... ..	<u>4</u>	<u>4</u>
" do. Bulb Iron ... ..	<u>4</u>	<u>4</u>
" do. Intercostal plates riveted to plating for length ... ..	<u>4</u>	<u>4</u>
BILGE STRINGER Angle Irons ... ..	<u>4</u>	<u>4</u>
Intercostal plates riveted to plating for length ... ..	<u>4</u>	<u>4</u>
SIDE STRINGER Angle Irons ... ..	<u>4</u>	<u>4</u>
Transoms, material. Knight-heads. Hawse Timbers. ... ..	<u>Iron</u>	<u>Iron</u>
Windlass <u>Iron Patent</u> Pall Bitt ... ..	<u>Iron</u>	<u>Iron</u>

	Inches in Ship.	16ths in Ship.	Inches required	16ths required
Flat Keel Plates, breadth and thickness ... ..	<u>42</u>	<u>9</u>	<u>34</u>	<u>10</u>
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied ... ..	<u>788</u>	<u>9</u>	<u>829</u>	<u>829</u>
fm up. part of Bilge to lr. edge of Sh'rstrake Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake. Up. or Spar Dk Sh'rstrake, brdth & thickns	<u>8</u>	<u>9</u>	<u>849</u>	<u>849</u>
Butt Straps to outside plating, breadth & thickness	<u>40</u>	<u>10</u>	<u>36</u>	<u>12</u>
Lengths of Plating ... ..	<u>40</u>	<u>10</u>	<u>36</u>	<u>12</u>
Shifts of Plating, and Stringers ... ..	<u>4</u>	<u>8</u>	<u>50</u>	<u>9</u>
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness ...	<u>4 1/2</u>	<u>3 1/2</u>	<u>5</u>	<u>3 1/2</u>
Angle Iron on ditto ... ..	<u>4 1/2</u>	<u>3 1/2</u>	<u>5</u>	<u>3 1/2</u>
Tie Plates fore and aft, outside Hatchways	<u>10</u>	<u>7</u>	<u>10</u>	<u>7</u>
Diagonal Tie Plates on Beams No. of Pairs, Planksheer material and scantling ... ..	<u>Iron</u>	<u>Iron</u>	<u>Iron</u>	<u>Iron</u>
Waterways do. do. ... ..	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>
Flat of Upper Deck do. do. ... ..	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>
How fastened to Beams ... ..	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness ... ..	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>
Is the Stringer Plate attached to the outside plating?	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>
Angle Irons on ditto, No. ... ..	<u>4 1/2</u>	<u>3 1/2</u>	<u>5</u>	<u>3 1/2</u>
Tie Plates, outside Hatchways ... ..	<u>4 1/2</u>	<u>3 1/2</u>	<u>5</u>	<u>3 1/2</u>
Diagonal Tie Plates on Beams, No. of pairs	<u>4 1/2</u>	<u>3 1/2</u>	<u>5</u>	<u>3 1/2</u>
Flat of Middle Deck do. do. ... ..	<u>4 1/2</u>	<u>3 1/2</u>	<u>5</u>	<u>3 1/2</u>
How fastened to Beams ... ..	<u>4 1/2</u>	<u>3 1/2</u>	<u>5</u>	<u>3 1/2</u>
Stringer Plates on ends of Lower Deck, Hold or Outop Beams ... ..	<u>4 1/2</u>	<u>3 1/2</u>	<u>5</u>	<u>3 1/2</u>
Is the Stringer Plate attached to the outside plating?	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>
Angle Irons on ditto, No. ... ..	<u>4 1/2</u>	<u>3 1/2</u>	<u>5</u>	<u>3 1/2</u>
Stringer or Tie Plates, outside Hatchways	<u>4 1/2</u>	<u>3 1/2</u>	<u>5</u>	<u>3 1/2</u>
Flat of Lower Deck ... ..	<u>4 1/2</u>	<u>3 1/2</u>	<u>5</u>	<u>3 1/2</u>
Ceiling betwixt Decks, thickness and material in hold do. do. ... ..	<u>4 1/2</u>	<u>3 1/2</u>	<u>5</u>	<u>3 1/2</u>
Main piece of Rudder, diameter at head ... ..	<u>7</u>	<u>7</u>	<u>7</u>	<u>7</u>
do. at heel ... ..	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>
Can the Rudder be unshipped afloat? <u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>
Bulkheads No. <u>4</u> Thickness of <u>3/8</u> <u>3/8</u>	<u>3/8</u>	<u>3/8</u>	<u>3/8</u>	<u>3/8</u>
Height up <u>2 1/2</u> Pop Deck & <u>2 1/2</u> Hold Beams	<u>2 1/2</u>	<u>2 1/2</u>	<u>2 1/2</u>	<u>2 1/2</u>
How secured to sides of ship <u>double frames</u>	<u>double frames</u>	<u>double frames</u>	<u>double frames</u>	<u>double frames</u>
Size of Vertical Angle Irons <u>3 1/2</u> <u>3 1/2</u> <u>7/8</u> and distance apart <u>2 1/2</u> ins.	<u>3 1/2</u>	<u>3 1/2</u>	<u>7/8</u>	<u>2 1/2</u>
Are the outside Plates doubled two spaces of Frames in length?	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>

The FRAMES extend in one length from Keel to mainmast Riveted through plates with 3/4 in. Rivets, about 2 apart.  
 The REVERSED ANGLE IRONS on floors and frames extend from middle line to lower deck stringer and to top of stringer alternately  
 KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? Yes And butts properly shifted? Yes  
 PLATING. Garboard, double riveted to Keel, with rivets 1 in. diameter, averaging 4 1/2 ins. from centre to centre.  
 Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 3/4 in. diameter, averaging 2 ins. from centre to centre.  
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 2 ins. from centre to centre.  
 Butts of 2 Strakes at Bilge for 120 length, treble riveted with Butt Straps 1/2 thicker than the plates they connect.  
 Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 3/4 in. diameter, averaging 2 ins. from cr. to cr.  
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 2 ins. from cr. to cr.  
 Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted.  
 Butts of Main Sheerstrake, treble riveted for 1 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted 1 length amidships.  
 Butts of Main Stringer Plate, treble riveted for 1 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for 120 length.  
 Breadth of laps of plating in double riveting 4 1/2 Breadth of laps of plating in single riveting 1  
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? double & treble  
 Waterway, how secured to Beams Iron (Explain by Sketch, if necessary.) Butter Waterway  
 Beams of the various Decks, how secured to the sides? Rivets turned down 15 in. 5 studs No. of Breasthooks, 3 Crutches, 2  
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Iron  
 Manufacturer's name or trade mark, Iron  
 The above is a correct description.

Builder's Signature, \_\_\_\_\_ Surveyor's Signature, J. W. ...  
 Iron 460-0040

Rec 27 17

**Workmanship.** Are the butts of plating planed or otherwise fitted? *appear well fitted*  
 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 where ever*  
 Are the fillings between the ribs and plates solid single pieces? *solid*  
 Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *yes where seen*  
 Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *they appear to be so.*  
 Do any rivets break into or through the seams or butts of the plating? *not any seen*

Masts, Bowsprit, Yards, &c., are \_\_\_\_\_ in \_\_\_\_\_ condition, and sufficient in size and length. If of Iron or Steel give 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 riveting, quality of Materials, and if stamped with Maker's name.

State also Length and Diameter of Lower Masts and Bowsprit \_\_\_\_\_

13811 Iron.

NUMBER for EQUIPMENT			Fathoms.	Inches.	Test per Certificate.	Eng. & Size req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
N <sup>o</sup> .	SAILS.	CABLES, &c.						Bowers ...					
	Fore Sails,	Chain ...						(State Machine where Tested, Date, and name of Superintendent.)					
	Fore Top Sails,	(State Machine where Tested, Date, & name of Superintendent.)											
	Fore Topmast Stay Sails	Hmpn Strm Cbl											
	Main Sails,	Hawser ...						Stream ...					
	Main Top Sails,	Towlines ...											
	and	Warp ...						Kedges ...					
		quality _____											

Standing and Running Rigging \_\_\_\_\_ sufficient in size and \_\_\_\_\_ in quality. She has \_\_\_\_\_ Long Boat and \_\_\_\_\_

The Windlass is \_\_\_\_\_ Capstan \_\_\_\_\_ and Rudder \_\_\_\_\_ Pumps \_\_\_\_\_

Engine Room Skylights.—How constructed? *Leak framing* How secured in ordinary weather? \_\_\_\_\_

What arrangements for deadlights in bad weather? \_\_\_\_\_

Coal Bunker Openings.—How constructed? *Cast Pipes with lids* How are lids secured? *Iron Bars* Height above deck? *about 6'*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Pots and open Bulwarks*

Cargo Hatchways.—How formed? \_\_\_\_\_

State size Main Hatch \_\_\_\_\_ Forehatch \_\_\_\_\_ Quarterhatch \_\_\_\_\_

If of extraordinary size, state how framed and secured? \_\_\_\_\_

What arrangement for shifting beams? \_\_\_\_\_

Hatches, If strong and efficient? \_\_\_\_\_

Order for Special Survey No. _____	DATES of SURVEYS held while building as per Section 18.	1st. On the several parts of the frame, when in place, and before the plating was wrought
Date _____		2nd. On the plating during the process of riveting
Order for Ordinary Survey No. _____		3rd. When the beams were in and fastened, and before the decks were laid....
Date _____		4th. When the ship was complete, and before the plating was finally coated or cemented..
No. _____ in builder's yard.		5th. After the ship was launched and equipped

**General Remarks,** (State quality of workmanship &c.) *This vessel has been surveyed in accordance with a request made by the Owner, with the view to obtaining the 90 A class. The present Report has been completed only so far as to enable the Committee to judge of her claims (if any) to classification. She has a Poop which is continuous from Stern forward to the fore Bulkhead of Engine Room, being a length of 132 feet from Stern Post. The Beams of double angle iron 6 x 3 x 7/16 & 3 x 3 x 7/16. Stringer 18 1/2 x 7. Side plating 5/16. An Iron deck is fitted on the D<sup>e</sup> Beams, commencing inside fore Bulkhead of Engine Room where it is partial, and extending to Forecastle. Two tracks of plating at Ridges are treble rivetted for 120 feet. The frames, reversed frames, Stringers, plating, floors, & keelsons are much lighter than the Rules permit for the 90 or 80 A grade. 33 floors have now been partly renewed owing to damage, and where butted, the double straps are double rivetted. There is a Ballast Tank from Engine Room Bulkhead aft 50 feet.*

*It is not the intention of the Owners to add any additional strengthening to the Vessel. I beg therefore to leave the case for the Committee's consideration and decision, and to state, from the deficiencies of scantlings and strength throughout the Ship, she does not appear to be entitled to any character in the Register Book.*

State if one, two or three decked vessel, or if spar or awning decked, and lengths of poop, forecastle or raised quarter deck, or of double or part double bottom.

How are the surfaces preserved from oxidation? Inside \_\_\_\_\_ Outside \_\_\_\_\_

I am of opinion this Vessel should be Classed \_\_\_\_\_

The amount of the Entry Fee ... £ \_\_\_\_\_ is received by me,  
 Special ... £ 4: 4: 0/2 1875  
 Certificate ...

*Wm Congdon*  
*J. Shilston*

(Travelling Expenses) (if any) £ \_\_\_\_\_

Committee's Minute *29<sup>th</sup> January 1875*

Character assigned *Deferred*  
*Case submitted to the General Com. 4/12/75*

