

IRON 456-0411

# IRON SHIP.

Rec 25/3/74

No. 2243 Survey held at Belfast and London Date, First Survey 7th Feb 1874. Last Survey 17th March 1874.

On the Iron Ship "Star of Bengal" Yard Number 86 Master Smyleth

TONNAGE under 1684.24 ONE, OR TWO DECKED, THREE DECKED VESSEL. Built at Belfast

Tonnage Deck 193.19 SPAR, OR AWNING DECKED VESSEL. When built 1874 Launched 3rd January

Ditto of Third, Spar, or Awning Deck. 193.19 HALF BREADTH (moulded)... 19.9 By whom built Harland and Wolff

Ditto of Poop, Raised Quarter, &c. 193.19 DEPTH from upper part of Keel to top of Upper Deck Beams 28.0 Owners James P. Jones & Co

Ditto of Houses on Deck... 193.19 GIRTH of Half Midship Frame (as per Rule) 38.10 Port belonging to Belfast

Ditto of Forecastle 193.19 1st NUMBER 84.7 Destined Voyage Mebourne

Gross Tonnage 1877.53 1st NUMBER, if a THREE DECKED VESSEL 84.7 & Surveyed while Building, Afloat, or in Dry Dock

Less Crew Space 86.88 LENGTH 262

Less Engine Room 1796.65 2nd NUMBER 22.165

Register Tonnage as cut on Beam 1796.65 PROPORTIONS—Breadths to Length 6.5

Depths to Length—Upper Deck to Keel over 10 and under 11

Main Deck ditto —

LENGTH on deck as per Rule 262 BREADTH—Moulded... 39.9 DEPTH top of Floors to Upper Deck Beams 28.0 Power of Engines —

Dimensions of Ship per Register, length 262.8 breadth 40.2 depth 23.5

KEEL, depth and thickness 9x3 Inches in Ship. 10x2 3/4 Inches per Rule.

STEM, moulding and thickness 9x3 Inches in Ship. 10x2 3/4 Inches per Rule.

STERN-POST for Rudder do. do. 8 1/2 x 3 1/4 Inches in Ship. 10x2 3/4 Inches per Rule.

Distance of Frames from moulding edge to moulding edge, all fore and aft 24 (Class 100 A)

FRAMES, Angle Iron, for 1/2 length amidships 5 3/4 x 3/8 Inches in Ship. 5 3/4 x 3/8 Inches per Rule.

Do. for 1/2 at each end 5 3/4 x 3/8 Inches in Ship. 5 3/4 x 3/8 Inches per Rule.

REVERSED FRAMES, Angle Iron 3 1/2 x 3/8 Inches in Ship. 3 1/2 x 3/8 Inches per Rule.

FLOORS, depth and thickness of Floor Plate at mid line for half length amidships 28 1/2 x 1/8 Inches in Ship. 25 1/8 x 1/8 Inches per Rule.

thickness at the ends of vessel 13 1/2 x 1/8 Inches in Ship. 10 1/2 x 1/8 Inches per Rule.

depth at 1/2 the half-bdth. as per Rule 53 height extended at the Bilges 50

BEAMS, Upper, Spar, or Awning Deck 9 1/8 x 1/8 Inches in Ship. 9 1/8 x 1/8 Inches per Rule.

Single or d'ble Ang. Iron, Plate or Tee Bulb Iron 48 Average space 48

BEAMS, Main or Middle Deck 10 1/8 x 1/8 Inches in Ship. 10 1/8 x 1/8 Inches per Rule.

Single or d'ble Ang. Iron, Plate or Tee Bulb Iron 48 Average space 48

BEAMS, Lower Deck, Hold or Orlop 10 1/8 x 1/8 Inches in Ship. 10 1/8 x 1/8 Inches per Rule.

Single or d'ble Ang. Iron, Plate or Tee Bulb Iron 48 Average space 48

KEELSONS Centre line, single or double plate, 22 13/16 x 1/8 Inches in Ship. 19 13/16 x 1/8 Inches per Rule.

Box, or Intercoastal, Plates 13 10/16 x 1/8 Inches in Ship. 13 10/16 x 1/8 Inches per Rule.

Rider Plate 6 4 x 9/16 Inches in Ship. 6 4 x 9/16 Inches per Rule.

Bulb Plate to Intercoastal Keelson 6 4 x 9/16 Inches in Ship. 6 4 x 9/16 Inches per Rule.

Angle Irons 6 4 x 9/16 Inches in Ship. 6 4 x 9/16 Inches per Rule.

Double Angle Iron Side Keelson 6 4 x 9/16 Inches in Ship. 6 4 x 9/16 Inches per Rule.

Side Intercoastal Plates 6 4 x 9/16 Inches in Ship. 6 4 x 9/16 Inches per Rule.

do. Angle Irons 6 4 x 9/16 Inches in Ship. 6 4 x 9/16 Inches per Rule.

Attached to outside plating with angle iron 6 4 x 9/16 Inches in Ship. 6 4 x 9/16 Inches per Rule.

BILGE Angle Irons 6 4 x 9/16 Inches in Ship. 6 4 x 9/16 Inches per Rule.

do. Bulb Iron 6 4 x 9/16 Inches in Ship. 6 4 x 9/16 Inches per Rule.

do. Intercoastal plates riveted to plating for 1/4 length 6 4 x 9/16 Inches in Ship. 6 4 x 9/16 Inches per Rule.

BILGE STRINGER Angle Irons 6 4 x 9/16 Inches in Ship. 6 4 x 9/16 Inches per Rule.

Intercoastal plates riveted to plating for length 6 4 x 9/16 Inches in Ship. 6 4 x 9/16 Inches per Rule.

SIDE STRINGER Angle Irons 6 4 x 9/16 Inches in Ship. 6 4 x 9/16 Inches per Rule.

Transoms, material. Knight-heads. Hawse Timbers. Iron

Windlass Greenhead having a Pall Bitt through Iron Spindle.

The FRAMES extend in one length from middle line to upper deck stringer and lower deck stringer.

The REVERSED ANGLE IRONS on floors and frames extend from new middle line to upper deck stringer and to lower deck 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 1/8 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 7/8 in. diameter, averaging 3 3/4 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 3/4 ins. from centre to centre.

Butts of three Strakes at Bilge for half length, treble riveted with Butt Straps 1/16 thicker than the plates they connect.

Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7/8 in. diameter, averaging 3 3/4 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 3/4 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 half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.

Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for length.

Breadth of laps of plating in double riveting 5 1/2 Breadth of laps of plating in single riveting 3 1/2

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? treble and double.

Waterway, how secured to Beams as shown by sketch and necessary.

Beams of the various Decks, how secured to the sides? as shown by sketch and necessary. No. of Breasthooks, Five Crutches, Four.

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? angles, blocks, iron, &c.

Manufacturer's name or trade mark, W. C. Jones & Co. Ltd. W. C. Jones & Co. Ltd.

The above is a correct description.

Builder's Signature, William & Mary Surveyor's Signature, J. D. Williams

Lloyd's Register Foundation



Workmanship. Are the butts of plating planed or otherwise fitted? Hammered  
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.  
Are the fillings between the ribs and plates solid single pieces? Yes.  
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes.  
Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? Yes.  
Do any rivets break into or through the seams or butts of the plating? No rivets through butts as they are chain-

Masts, Bowsprit, Yards, &c., are all in good condition, and sufficient in size and length. They are 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 Fore and Main Lower and Topmasts are one: 25' at heel 32 1/2'  
Backstays; 15' top of Topmast. Plating 7/16 tapered to 3/8 at heel 5/16 at head. Angles 4x3x5/16 tapering  
63 1/2 x 3x7/16 and stop 3 ft from top. Main Mast and Topmast are one: 21' at heel 28' backstays 12'  
15' of Topmast. Plating 7/16 tapered to 3/8 at heel and 5/16 at head. Angles 3x3x7/16 tapering 3x3x3/8 and stop  
3 ft from top. Fore and Main Yards 9 1/2 ft x 12' plating 3/8 to 5/16 angles 3x2 1/2 x 5/16 about 25' length. Fore and Main Lower  
Cross-jacks 7 1/4 x 18' plating 1/4 to 3/8 angles 3x2 1/2 x 5/16 about 25' length. Fore and Main Lower  
Topstays 8 1/2 ft x 19 1/2' plating 5/16 to 3/4 angles 3x2 1/2 x 5/16 about 25' length. See sketch herewith.

NUMBER for EQUIPMENT <u>24-381</u>		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	No.	Weight. Ex. Stock.	Test per Certificate.	Weight req'd per Rule.	Test req'd per Rule.
No.	SAILS.	CABLES, &c.										
Two	Fore Sails, ..	Chain ... ..	270	2	7 1/2	73	Bowers ...	168	37.0.0	35 1/2 tons	38.0.0	34 1/2 tons
	Fore Top Sails, ..	(State Machine where Tested, Date, & name of Superintendent.)	18 and 23	2	18 1/2 and 23 1/2	73		169	38.0.0	34 1/2 tons	38.0.0	34 1/2 tons
Complete	Fore Topmast Stay Sails	Hmpn Strm Cbl	90	14	90	11	(State Machine where Tested, Date, and name of Superintendent.)					
	Main Sails, ..	Hawser ... ..	90	11	90	11	Chester Machine. Certificate dated 27th Feb 1873 and signed Andrew Jackson.					
Sub	Main Top Sails, ..	Towlines ... ..	100	8	90	11	Stream anchor	14.3.3	14 1/2 tons	14.2.0		
and	Good	Warp ... ..	100	6	90	7	Kedges	26 1/2	7.2.4	8 1/2 tons	7.1.0	
		quality <u>good</u>										

Standing and Running Rigging Used and shaper sufficient in size and good in quality. She has one Long Boat and three others.

The Windlass is Greenleaf and Good Capstan Good and Rudder Efficient Pumps Efficient.

Engine Room Skylights. How constructed? How secured in ordinary weather?

What arrangements for deadlights in bad weather?

Coal Bunker Openings. How constructed? How are lids secured? Height above deck?

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? She is fitted with six large ports and five scuppers on each side.

Cargo Hatchways. How formed? Iron plates and angle iron.

State size Main Hatch 19' 9" x 10' 6" Fore hatch 7' 2" long by 7' 2" wide Quarter hatch 8' 2" long by 7' 2" wide

If of extraordinary size, state how framed and secured? The main hatch is reduced by 8' at the fore end.

What arrangement for shifting beams? One portable iron beam in main hatch - 8' 2" long is secured over.

Hatches, If strong and efficient? Yes.

Order for Special Survey No. 44 Date 1st May 1873

Order for Ordinary Survey No. 86 Date 11-13-14-16-17-20-22-24-27-28-31

General Remarks, (State quality of workmanship &c.) This two decked ship has been built under special

Survey in accordance with the Scantlings and arrangements shown on the accom-

panying approved Midship Section, and in other respects with the rules for the 100 A. Class,

excepting the fitting a double angle iron stringer on the reverse frames between the upper

and lower deck stringer plates; an intermediate section which should be attached

transverse side plating; the upper deck stringer plate 48 inches wide in lieu of 52

and the doubling pieces of frames omitted, which departures from the rules have

received the Committee's sanction. See Surveyor's Letters 11th and 28th February

1873, and Secretary's Letters dated 21st and 26th February and 3rd March 1873. In

consideration of said departures from the rules, the following additions have

been efficiently carried out:-

all the inside stakes of plating increased 1/16 and the sheerstrakes 1/16

in thickness, the side keelsons framed of double angle iron 6x4x1/16 with deep

flanges in and out and 2x4x1/16 plates inserted between them 7/16 thick, the

side keelson of angles 6x4x1/16 and two side stringers of angles 6x4x1/16 with

deep flanges of the whole fitted in and out. The butt straps of floor plates

extend to the whole depth of floors and are triple riveted, and the upper deck

stringer plates are 1/16 in thick of good quality. The floors are three inches

deep, thus required by rules. She is also fitted with a pair of second diagonal

stake plates abreast of each mast on both the upper and lower deck beams

and 8x1/16 butt iron has been fitted and riveted to the side stringer angle

iron, in the fore hold for a length of 32 feet - in lieu of Ranting Keelson.

Looking at the form of the bow, and the fact of her being from side stringer

on each side, equally spaced between the keelson and hold beams. Large

portion of the additional work may be deemed sufficient. The

Materials and Workmanship of this vessel are of a very superior description.