

IRON SHIP.

No. 2972 Survey held at

Belfast

Date, First Survey

April 28th 1882

Last Survey

1883

On the 4 masted sailing ship "W. J. Pirrie"

Master

J. A. Duckworth

TONNAGE under Tonnage Deck 2403.50

Ditto of Third, Spar, or Awning Deck.

Ditto of Poop, or Raised Quarter Deck.

Ditto of Houses on Deck.

Ditto of Forecastle.

Gross Tonnage 2546.73

Less Crew Space 59.63

Less Engine Room.

Register Tonnage as cut on Beam 2516.10

ONE, OR TWO DECKED, THREE DECKED VESSEL. SPAR, OR AWNING-DECKED VESSEL.

HALF BREADTH (moulded) 21.25

DEPTH from upper part of Keel to top of Upper Deck Beams 27.34

GIRTH of Half Midship Frame (as per Rule) 43.25

1st NUMBER 91.84

1st NUMBER, if a 3-DECKED VESSEL, deduct 7 feet.

LENGTH 298.16

2nd NUMBER 27391

PROPORTIONS—Breadths to Length 7

Depths to Length—Upper Deck to Keel 10.89

Main Deck ditto.

Built at Belfast

When built 1882-83 Launched May 26 83

By whom built Harland & Wolff

Owners Samuel Lawther & Co.

Port belonging to Belfast

Destined Voyage San Francisco via Cape

If Surveyed while Building, Afloat, or in Dry Dock.

Specially surveyed while Building

LENGTH on deck as per Rule 298.16 BREADTH—Moulded 42.5 DEPTH top of Floors to Upper Deck Beams 25.208 Power of Engines — N° of Decks with flat laid — N° of Tiers of Beams —

Dimensions of Ship per Register, length, 308.2 breadth, 42.85 depth, 25.

KEEL, depth and thickness 9 x 3 3/8
STEM, moulding and thickness 9 x 3 3/8
STERN-POST for Rudder do. do. 9 x 3 3/8
for Propeller
Distance of Frames from moulding edge to moulding edge, all fore and aft 24

FRAMES, Angle Iron, for 1/2 length amidships 5 3/2 8
Do. for 1/4 at each end 5 3/2 4
REVERSED FRAMES, Angle Iron 4 3/2 8
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships 26 10 26 10
thickness at the ends of vessel 8
depth at 3/4 the half-bdth. as per Rule 13
height extended at the Bilges 52

BEAMS, Upper, Spar, or Awning Deck Single or double Angle Iron, Plate or Tee Bulb Iron 10 10 10 J. bulb
Single or double Angle Iron on Upper edge 40
Average space 40
BEAMS, Main, or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron 10 10 10 J. bulb
Single or double Angle Iron on Upper Edge 40
Average space 40

BEAMS, Lower Deck, Hold or Orlop Single or double Angle Iron, Plate or Tee Bulb Iron 10 10 10 J. bulb
Single or double Angle Iron on Upper Edge 40
Average space 40

KEELSONS Centre line, single or double plate, 23 14 21 14
Rider Plate 14 14 14 14
Bulb Plate to Intercoastal Keelson 6 1/2 4 11 6 1/2 4 9
Angle Irons 6 1/2 4 9
Double Angle Iron Side Keelson 6 1/2 4 9
Side Intercoastal Plate 6 1/2 4 9
do. Angle Irons 6 1/2 4 9
Attached to outside plating with angle iron 3 1/2 3 1/2 8 3 1/2 3 1/2 8

BILGE Angle Irons 6 1/2 4 9 6 1/2 4 9
do. Bulb Iron 6 1/2 4 9
do. Intercoastal plates riveted to plating for length 6 1/2 4 11 6 1/2 4 11

BILGE STRINGER Angle Irons 6 1/2 4 11 6 1/2 4 11
Intercoastal plates riveted to plating for length 12 13 12 13

SIDE STRINGER Angle Irons 6 1/2 4 11 6 1/2 4 11
plates 12 13 12 13

Transoms, material. Knight-heads. Hawse Timbers. Iron
Windlass Patent Pall Bitt

The FRAMES extend in one length from Keel to Gunwale
The REVERSED ANGLE IRONS on floors and frames extend from middle line to Gunwale and to throughout 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 1/2 in. diameter, averaging 5 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clench, double riveted; with rivets 1 in. diameter, averaging 3 3/4 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 1 in. diameter averaging 3 3/4 ins. from centre to centre.

Butts of four Strakes at Bilge for 3/8 length, treble riveted with Butt Straps 1/8 thicker than the plates they connect for 3 length and 1/8 thicker from 3 to 3 length

Edges from bilge to Main Sheerstrake, worked clench, double or single riveted; with rivets 1 in. diameter, averaging 3 3/4 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 1 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 3/8 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted — length amidships.

Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for — length.

Breadth of laps of plating in double riveting 6 1/4 Breadth of laps of plating in single riveting

Flat Keel Plates, breadth and thickness 36 12 36 12
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges 11 1/2 12 alt 11 1/2 12
of doubling at Bilge, or increased thickness, and length applied half 36 1/2 7 36 1/2 7
fm up. part of Bilge to l. edge of Sh'rstrake. 11 1/2 12 alt 11 1/2 12
Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied 40 1/2 13 40 13
Up. or Spar Dk Sh'rstrake, brdth & thickness

Butt Straps to outside plating, breadth & thickness 19 1/4 13 1/2 15 1/2 19 1/4 13 1/2
Lengths of Plating 4 spaces 5 spaces
Shifts of Plating, and Stringers 2 2
Gunwale Plate on ends of Awning Spar, or Upper Deck Beams, breadth and thickness 42 1/2 10 42 1/2 10

Angle Iron on ditto 6 1/2 4 9 6 1/2 4 9
Tie Plates fore and aft, outside Hatchways
Diagonal Tie Plates on Beams No. of Pairs
Planksheer material and scantling
Waterways do. do.

Flat of Upper Deck do. do. 6 1/2 4 9 6 1/2 4 9
How fastened to Beams 2 2
Stringer Plate on ends of Main or Middle Deck 42 1/2 9 42 9
Beams, breadth and thickness

Is the Stringer Plate attached to the outside plating?
Angle Irons on ditto, No. 2
Tie Plates, outside Hatchways
Diagonal Tie Plates on Beams, No. of pairs

Waterways materials and scantlings
Flat of Middle Deck do. do.
How fastened to Beams
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams 42 1/2 9 42 9

Is the Stringer Plate attached to the outside plating?
Angle Irons on ditto, No. 2
Stringer or Tie Plates, outside Hatchways 4 1/2 4 9 4 1/2 4 9

Flat of Lower Deck 4 1/2 3
Ceiling betwixt Decks, thickness and material 6 1/2 2 battens R.P.
in hold do. do. 2 1/2 R.P. 2 1/2

Main piece of Rudder, diameter at head 7 1/2
do. at heel 13 3/4
Can the Rudder be unshipped afloat? yes

Bulkheads No. 1 Thickness of 7 1/2
Height up Main deck 7
How secured to sides of ship between double frames

Size of Vertical Angle Irons 3 1/2 x 3 1/2 x 7/8 and distance apart 30 ins.
Are the outside Plates doubled two spaces of Frames in length? yes

Riveted through plates with 1 in. Rivets, about 7 apart.

And to throughout alternately

yes And butts properly shifted? yes

1 1/2 in. diameter, averaging 5 ins. from centre to centre.

1 in. diameter, averaging 3 3/4 ins. from centre to centre.

1 in. diameter, averaging 3 3/4 ins. from cr. to cr.

1 in. diameter, averaging 3 3/4 ins. from cr. to cr.

1 in. diameter, averaging 3 3/4 ins. from cr. to cr.

1 in. diameter, averaging 3 3/4 ins. from cr. to cr.

1 in. diameter, averaging 3 3/4 ins. from cr. to cr.

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

Waterway, how secured to Beams (Explain by Sketch, if necessary.)
Beams of the various Decks, how secured to the sides? Welded knees No. of Breasthooks, 4 Crutches, 4 & deep floors

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Best
Manufacturer's name or trade mark, James & Rev. bars Mossend; Beams Butterley; Keelsons & Stringers Stockton; Shell, deck & floors Consett; Mast Steel C. of Scotland; Yards Consett.

The above is a correct description.

Builder's Signature, Harland & Wolff Surveyor's Signature, James Currier

Surveyor to Lloyd's Register of British and Foreign Shipping.

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? *very few*

Masts, Bowsprit, Yards, &c., are *of Steel* in *good* condition, and sufficient in size and length. If of Iron or Steel give Scanlings 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

Bowsprit and Jibboom in one 53-6 x 24 plates 1/2 to 3/2
Main Mast & Topmast in one 125-6 x 32 plates 1/2 to 3/2
Mizen Mast in one 128-6 x 32 plates 1/2 to 3/2
Jigger Mast in one 129-9 x 32 plates 1/2 to 3/2
all built with 3 plates in the round
3 Angles in Fore, Main & Mizzen 4 x 3 x 7/8
3 Angles in Jigger Mast & Bowsprit 3 1/2 x 3 x 7/8

No.	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Suprntd.
	Fore Sails,	Chain	135-5	2 1/2	107-2-0	240 x 2 1/2	Mar 9-83	Bower Anchors	1	40-1-5	36-0-2-14	40	Mar 12-83
	Fore Top Sails,	Iron Str'm Chain	134-1 1/2	2 1/2	"-"	"-"	"-16-	(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	1	38-0-0	34-10-0-0	38	" 19-
	Fore Topmast Stay Sails,	Ditto do.	90	1 1/2	34-2-2	100 x 1 1/2	"-15-		1	36-1-2	33-7-0-21	36	" 17-
	Main Sails,	Hmpn Strm Cbl	90	2	"-"	"-"	"-"	Stream	1	11-2-24	13-12-2-0	12	" 20-
	Main Top Sails,	Hawser	90	11	"-"	90 x 11	"-"	Kedge	1	6-0-19	8-10-0-0	6	" 19-
	and	Towlines	90	7	"-"	90 x 7	"-"	Ditto	1	3-0-2	5-14-1-14	3	" 20
		quality	90	6	"-"	"-"	"-"			1-0-10	"-"	"-"	"-"

Standing and Running Rigging *Wire & hemp* sufficient in size and *good* in quality. She has *Two* Long Boats and *two others*

The Windlass is *Patent & good* Capstan *good* and Rudder *good* Pumps *good*

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? *4 scuppers, 8 ports and 3 spring pipes each side*

Cargo Hatchways. How formed? *Plates and angles, comings 30" above deck*

State size Main Hatch *19-6 x 10-0* Fore hatch *7-6 x 6-0* Quarter hatch *7-6 x 4-0*

If of extraordinary size, state how framed and secured? *Deep web plate in main hatch*

What arrangement for shifting beams? *Shifting beams in all hatches*

Hatches, If strong and efficient? *yes, solid*

Order for Special Survey No. *120*

Date *April 29-83*

Order for Ordinary Survey No. *-*

Date *-*

No. *155* in builder's yard.

1st. On the several parts of the frame, when in place, and before the plating was wrought *April 28, May 9, 29, June 5, 8, 12, 15, 19, 22, 28.*
2nd. On the plating during the process of riveting *July 6, 10, 18, 22, 26; Aug. 2, 7, 11, 15, 18, 25; Sep. 4, 7, 12, 28.*
3rd. When the beams were in and fastened, and before the decks were laid... *Oct. 3, 10, 13, 20, 24, 26; Nov. 1, 7, 13, 28; Dec. 2, 6, 11, 14, 20.*
4th. When the ship was complete, and before the plating was finally coated or cemented... *30, Jan 4, 9, 14, 23, 29; Feb. 5, 9, 16, 21, 28; Mar 5, 10, 16, 29.*
5th. After the ship was launched and equipped *April 4, 11, 17, 24, 30; May 8, 16, 24; June 6, 12, 18, 27; July 3, 16, 27.*

General Remarks (State quality of workmanship, &c.) *This four masted sailing ship has been built in accordance*

with the accompanying approved tracings of midship section and section of frame and reverse frame, and in compliance with the Secretary's letters dated April 6th, May 13th, and July 11th & 28th, 82, and the Rules in all other respects have been complied with.

She is a two decked vessel having a shelter fore-castle 34 ft long, Poop 58 ft, and an Iron Deck house 46-6 x 14-6.

A double row of stanchions have been fitted in the lower hold on alternate beams for half length amidships, in addition to the stanchions on every beam in centre of vessel. Bulwark stanchions have been fitted between fore-castle and poop every 8 feet - excepting in way of rigging; in addition to the alternate frames extending to rail, and two large web plates riveted to frames each side in way of poop from main to poop at stringer.

The yards are of iron.
Lower Yards 84 x 19 1/2, 3 plates in the round 1/2 to 3/4, and 3 angles in each 3 x 2 1/2 x 1/2.
Lower Top Yards 78 x 16 3/4, 3 plates " 1/2 to 3/4, " " 2 1/2 x 2 1/2 x 1/2.
Upper " " 66 x 16 " " 1/2 to 3/4, " " 2 1/2 x 2 x 1/2.

The materials used in her construction, and the workmanship are very good.

State if *one*, *two*, or *three* decked vessel, *or if open, or running decked*, and the lengths of poop, fore-castle, *or raised quarter deck*, and the length of double, or part double bottom

How are the surfaces preserved from oxidation? Inside *Cement and Paint* Outside *Paint*

I am of opinion this Vessel should be Classed *+ 100 A 1*

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

Special ... £ *89* : *27. 7. 1883*

Certificate ... *Gratis*

(Travelling Expenses, if any, £ *-*).

Committee's Minute *Tuesday, 26 JULY, 1883.*

Character assigned *100 A 1*

James Curpin
Surveyor to Lloyd's Register of British and Foreign Shipping.

Lloyd's Register
Foundation
LKF/PUN/B/L52/90R