

Steel & IRON SHIP.

RECEIVED 2835

No. 2835 Survey held at Belfast

Date, First Survey 20th May 1881 Last Survey Feb^{ry} 16th 1882

On the "Garfield"

Master J. P. Thompson

TONNAGE under 2164.21

Ditto of Third, Spar, or Awning Deck.

Ditto of Poop, or Raised Or. Dk. 136.02

Ditto of Houses on Deck 33.58

Ditto of Forecastle Wings 13.61

Gross Tonnage 2344.42

Less Crew Space 57.47

Less Engine Room

Register Tonnage as out on Beam 2289.95

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

HALF BREADTH (moulded) 20.5

DEPTH from upper part of Keel to top of Upper Deck Beams 27.12

GIRTH of Half Midship Frame (as per Rule) 42.5

1st NUMBER 90.12

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

LENGTH 290.33

2nd NUMBER 26.64

PROPORTIONS—Breadths to Length 7

Depths to Length—Upper Deck to Keel 10.7

Main Deck ditto

Built at Belfast

When built 1881 Launched 7th January 1882

By whom built Harland & Wolff

Owners J. May, J. M. & Co.

Port belonging to Liverpool

Destined Voyage Melbourne

Surveyed while Building, Afloat, or in Dry Dock.

Built under Special Survey

LENGTH	Feet.	Inches.	BREADTH	Feet.	Inches.	DEPTH	Feet.	Inches.	Power of	Horse.	Nº. of Decks with flat laid	Nº. of Tiers of Beams
on deck as per Rule	290	4	Moulded	41	-	top of Floors to Upper Deck Beams	24	4	Engines	-	Two	Two
						Do. do. Main Deck Beams						

Dimensions of Ship per Register, length, 290.8 breadth, 41.25 depth, 24.8

KEEL, depth and thickness 9 x 3

STEM, moulding and thickness 9 x 3

STERN-POST for Rudder do. do. 9 x 3

" " 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 1/2 x 3 1/2

Do. for 1/4 at each end 5 1/2 x 3 1/2

REVERSED FRAMES, Angle Iron 3 1/2 x 3 1/2

FLOORS, depth and thickness of Floor Plate at mid line for half length amidships 26

" thickness at the ends of vessel 8

" depth at 1/4 the half-bdth. as per Rule 13

" height extended at the Bilges 52

BEAMS, Upper, Spar, or Awning Deck 10 Tee bulb

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

Single or double Angle Iron on Upper edge

Average space 10 Tee bulb

BEAMS, Main, or Middle Deck 10 Tee bulb

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

Single, or double Angle Iron, on Upper Edge

Average space 10 Tee bulb

BEAMS, Lower Deck, Hold, or Orlop

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

Single or double Angle Iron on Upper Edge

Average space 10 Tee bulb

KEELSONS Centre line, single or double plate, 19 x 21

" " Intercoastal, Plates 13 x 21

" " Rider Plate 6 x 4

" " Bulk Plate to Intercoastal Keelson 6 x 4

" " Angle Irons 6 x 4

" " Double Angle Iron Side Keelson 6 x 4

" " Side Intercoastal Plate 9

" " Angle Irons 8 1/2 x 3 1/2

" " Attached to outside plating with angle iron 8 1/2 x 3 1/2

BILGE Angle Irons 6 x 4

" do. Bulb Iron 6 x 4

" do. Intercoastal plates riveted to plating for length 6 x 4

BILGE STRINGER Angle Irons 6 x 4

Intercoastal plates riveted to plating for length 10 x 16

SIDE STRINGER Angle Irons 6 x 4

all fore & aft 10 x 16

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

Windlass Iron Patent Pall Bitt

The FRAMES extend in one length from Keel to Gunwale

The REVERSED ANGLE IRONS on floors and frames extend across middle line to upper deck 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 1/8 in. diameter, averaging 5 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 ins. from centre to centre.

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

Butts of all Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 1/8 thicker than the plates they connect. Straps 1/8 thicker than plates.

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

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 ins. from cr. to cr.

Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted. [Straps 1/8 thicker for half 1/16 for over 3/4]

Butts of Main Sheerstrake, treble riveted for length amidships. Butts of Upper or Spar Sheerstrake, treble riveted 3/5 length amidships.

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

Breadth of laps of plating in double riveting 5 1/4 Breadth of laps of plating in single riveting 5 1/4 Straps 1/16 thicker

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

Waterway, how secured to Beams Gutter (Explain by Sketch, if necessary.)

Beams of the various Decks, how secured to the sides? Turned knees welded No. of Breasthooks, 4 Crutches, 4

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

Manufacturer's name or trade mark, Frames, Beams, Keelsons & Shell plating. J. & C. of Scotland & Parkhead. Floors, Bulkhead, Raughan & Co.; Beams, Batten & Co.

The above is a correct description.

Builder's Signature, Harland & Wolff Surveyor's Signature, J. W. Seaward

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? *No*

Masts, Bowsprit, Yards, &c., are *Iron* in *Good* 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 *Iron masts built in accordance with the accompanying sketch which was submitted and appd 3/8/91. The iron of which they & the yards are built was tested and found satisfactory.*

NUMBER FOR EQUIPMENT	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Supntd.	ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Supntd.
	Fore Sails,	Chain	135	2 1/2	107 1/2	7 1/2	Chester	Bower Anchors	1	40.0.0	25.16.3.0	40	Chester
	Fore Top Sails,	Iron Str'm Chain	100	1 1/2	34 3/4	100 x 1 1/2	18 Nov 81		1	38.3.14	34.8.0.14	38	Do
	Fore Topmast Stay Sails,	Ditto do.					25 Nov 81		1	36.1.10	33.7.0.0	36	Do
	Main Sails,	Hmpn Strm Cbl					Andrew S. Jack	Stream	...	12.1.43	14.3.0.0	12	Do
	Main Top Sails,	Hawser ...	90	12		90 x 12		Kedge	...	6.0.12	8.4.2.0	6	Do
		Towlines ...	90	11		90 x 11		Ditto	...	3.0.23	5.14.1.0	3	Do
		Warp ...	90	4		90 x 4							

Standing and Running Rigging *wire & hemp* sufficient in size and *good* in quality. She has *one* Long Boat and *three others*
The Windlass is *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? *How are lids secured?* *Height above deck?*

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? *7 freeing ports and 4 scuppers on each side.*

Cargo Hatchways. How formed? *Plates and angles*

State size Main Hatch *15.6 x 10 ft; 7.6 x 6 ft* Fore hatch *7.6 x 6.0* & *7.6 x 6.0* Quarter hatch

If of extraordinary size, state how framed and secured? *Wood shipling beams and wood fore & afters*

What arrangement for shifting beams? *yes, solid.*

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

Order for Special Survey No. *105* Date *April 1881*
Order for Ordinary Survey No. *146* Date *1881*
No. *146* in builder's yard.

General Remarks (State quality of workmanship, &c.) *This vessel has been built in accordance with the accompanying tracings, viz. - Midship section and upper deck plan, and with the Secretary's letters of the 31st March, and 19th May 1881.*

The steel used in her construction has been tested at the Manufacturing works by the Society's Surveyors: the rules in other respects have been complied with.

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

She is a two decked vessel with a shelter fore-castle 33.6 long (not enclosed). Poop 42.0 and deck house of iron 47.6 x 17.6

Fore & Main lower yards 48.0 x 22 two plates in round 7/8 to 1/4 three angle 3 x 2 1/2 x 3/8

Fore & Main lower topsail 85.0 x 19 1/2 " " " 9/8 to 1/4 " " 2 1/2 x 2 1/2 x 5/8

Fore & Main upper " 47.0 x 17 1/2 " " " 5/8 to 3/8 " " 2 1/2 x 2 x 5/8

Fore & Main lower topsail 68.0 x 16 " " " 5/8 to 3/8 " " 2 1/2 x 2 x 5/8

Seams single riveted, butts lapped, and treble, double and quadruple riveted - plates doubled at 4 ft

Note. Please return tracings for guidance in the survey of sister vessel now building.

State if *one, two, or three* decked vessel, or *if spar, or running decked*, and the lengths of poop, *42.0* fore-castle, *33.6* on raised quarter deck, and the length of double, or part double bottom

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

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

The amount of the Entry Fee ... *£ 5 : 0 : 0* is received by me, *J. O.*

Special ... *£ 83 : 18 : 8* 21.2.1882

Certificate ... *James*

(Travelling Expenses, if any, £ ...)

Committee's Minute

Character assigned

Friday, February 24th 1882

100 A 1

Steel

FRM

It is submitted that this vessel appears eligible to be classed as a 100 A 1.