

IRON SHIP.

25086

Page 17/11/79

No. 2654 Survey held at

Belfast

Date, First Survey 10 April 1879

Last Survey 11 Nov 1879

1879

On the

Iron ship "Lord Dufferin"

Master

J. Dunn

TONNAGE under

1590.08

ONE, OR TWO DECKED, THREE DECKED VESSEL.

SPAR, OR AWNING DECKED VESSEL.

HALF BREADTH (moulded) 19.00

DEPTH from upper part of Keel to top of Upper Deck Beams 25.50

GIRTH of Half Midship Frame (as per Rule) 39.16

1st NUMBER 83.66

1st NUMBER, if a THREE DECKED VESSEL

[deduct 7 feet]

LENGTH 254.50

2nd NUMBER 21.276

PROPORTIONS—Breadths to Length 6.68

Depths to Length—Upper Deck to Keel 9.98

Main Deck ditto

Built at

Belfast

When built

1879

Launched

By whom built

Harland & Wolff

Owners

J. Dunn & Sons

Port belonging to

Belfast

Destined Voyage

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

LENGTH on deck as per Rule ... 254 6 BREADTH—Moulded ... 38 0 DEPTH top of Floors to Upper Deck Beams ... 23 5 1/2 Power of Engines ... 1 Horse. No. of Decks with flat laid ... 1 No. of Tiers of Beams ... 100

Dimensions of Ship per Register, length, 262.9 breadth, 38.3 depth, 25.3

KEEL, depth and thickness ... 9 x 2 3/4 Inches in Ship. Inches per Rule. 9 x 2 5/8
STEM, moulding and thickness ... 9 x 2 1/2 9 x 2 1/2
STERN-POST for Rudder do. do. 9 x 2 1/2 9 x 2 1/2
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 3/2 8 5 3/2 8
Do. for 1/4 at each end ... 5 3/2 7 5 3/2 7
REVERSED FRAMES, Angle Iron ... 3 1/2 3 1/2 5 3 1/2 3 1/2 5

FLOORS, depth and thickness of Floor Plate at mid line for half length amidships ... 24 1/2 x 10 24 1/2 x 10
thickness at the ends of vessel ... 8 8
depth at 1/4 the half-bdth. as per Rule ... 12 1/4 12 1/4
height extended at the Bilges ... 49 49

BEAMS, Upper, Spar, or Awning Deck Single or double Angle Iron, Plate or Tee Bulb Iron ... 9 x 10 9 x 9
Single or double Angle Iron on Upper edge ... Butterley Butterley
Average space ... 48 48

BEAMS, Main, or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron ... 9 x 10 9 x 9
Single or double Angle Iron, on Upper Edge ... Butterley Butterley
Average space ... 48 48

BEAMS, Lower Deck, Hold, or Orlop Single or double Angle Iron, Plate or Tee Bulb Iron ... 9 x 10 9 x 9
Single or double Angle Iron on Upper Edge ... Butterley Butterley
Average space ... 48 48

KEELSONS Centre line, single or double plate, box, or intercostal, Plates ... 19 x 13 18 x 13
Rider Plate ... 12 x 13 12 x 13
Bulb Plate to Intercostal Keelson ... 5 1/2 4 9 5 1/2 4 9
Angle Irons ... 5 1/2 4 9 5 1/2 4 9
Double Angle Iron Side Keelson ... 8 8
Side Intercostal Plate ... 5 1/2 4 9 5 1/2 4 9
do. Angle Irons ... 3 1/2 3 1/2 8 3 1/2 3 1/2 8
Attached to outside plating with angle iron ... 5 1/2 4 9 5 1/2 4 9

BILGE Angle Irons ... 5 1/2 4 9 5 1/2 4 9
do. Bulb Iron ... 5 1/2 4 9 5 1/2 4 9
do. Intercostal plates riveted to plating for length ... 5 1/2 4 9 5 1/2 4 9

BILGE STRINGER Angle Irons ... 5 1/2 4 9 5 1/2 4 9
Intercostal plates riveted to plating for length ... 5 1/2 4 9 5 1/2 4 9

SIDE STRINGER Angle Irons ... 5 1/2 4 9 5 1/2 4 9

Transoms, material. Knight-heads. Hawse Timbers. Iron
Windlass Greenheart Pall Bitt Iron (box)

The FRAMES extend in one length from Keel to upper deck & gunwale

The REVERSED ANGLE IRONS on floors and frames extend across middle line to lower and to upper decks 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 4 7/8 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clench, double riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 1/2 ins. from centre to centre.

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

Edges from bilge to Main Sheerstrake, worked clench, double or single riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from cr. to cr.

Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted. at lower edge. 1/16 to the 1/2 length.

Butts of Main Sheerstrake, treble riveted for length amidships. Butts of Upper or Spar Sheerstrake, treble riveted 3/8 length amidships.

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

Flat Keel Plates, breadth and thickness ... 37 12 36 12
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied ... 10 1/2 10 1/2
fin up. part of Bilge to lr. edge of Sh'rstrake

Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from M. to Upr. on Spar Dk. Sh'rstrake.

Up. & Spar Dk Sh'rstrake, brdth & thickness 41 13 40 13

Butt Straps to outside plating, breadth & thickness 19 1/2 12 11 1/2 10 11 1/2 10 11 1/2

Lengths of Plating ... 12 0 10 1/2
Shifts of Plating, and Stringers ... 4 0 4 8

Gunwale Plate on ends of ... 47 10 45 10
Upper Deck Beams, breadth and thickness...

Angle Iron on ditto ... 5 1/2 x 4 x 9 5 1/2 x 4 x 9
Tie Plates fore and aft, outside Hatchways ... 14 10 14 10

Diagonal Tie Plates on Beams No. of Pairs, (6) 14 10 14 10
Planksheer material and scantling ... 4 4

Waterways do. do. ... 4 4
Flat of Upper Deck do. do. ... 4 4

How fastened to Beams ... 4 4
Stringer Plate on ends of Main or Middle Deck

Beams, breadth and thickness ... 4 4
Is the Stringer Plate attached to the outside plating?

Angle Irons on ditto, No. ... 4 x 4 x 9 4 x 4 x 9
Tie Plates, outside Hatchways ... 14 9 14 9

Diagonal Tie Plates on Beams, No. of pairs ... 3 3
Waterways materials and scantlings ... 2 1/2 2 1/2

Flat of Middle Deck do. do. ... 2 1/2 2 1/2
How fastened to Beams ... 6 3/8 6 3/8

Stringer Plates on ends of Lower Deck, Hold or Orlop Beams ... 37 9 37 9
Is the Stringer Plate attached to the outside plating? yes

Angle Irons on ditto, No. 2 ... 4 x 4 x 9 4 x 4 x 9
Stringer or Tie Plates, outside Hatchways ... 14 9 14 9

Flat of Lower Deck ... 3 3
Ceiling betwixt Decks, thickness and material ... 2 1/2 2 1/2

in hold do. Pine do. ... 2 1/2 2 1/2
Main piece of Rudder, diameter at head ... 6 3/8 6 3/8

do. at heel ... 3 1/4 3 1/4
Can the Rudder be unshipped afloat? yes

Bulkheads No. one Thickness of ... 7 1/2 7 1/2
Height up upper deck

How secured to sides of ship between double frame angles
Size of Vertical Angle Irons 2 1/2 x 3 1/2 x 8 and distance apart 30 ins.

Are the outside Plates doubled two spaces of Frames in length? yes

alternately

The FRAMES extend in one length from Keel to upper deck & gunwale, Riveted through plates with 7/8 in. Rivets, about 6" apart.

The above is a correct description.
Builder's Signature, Harland & Wolff Surveyor's Signature, J. W. Bullard
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*

25006 *Jan*

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 *Masts and bowsprit precisely the same as those built for previous ship see Belfast report No 2561.*

NUMBER for EQUIPMENT 22694		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate	W'ght req'd per Rule.	Test req'd per Rule.
N ^o .	SAILS.	CABLES, &c.					Bowers	3	36-3-20	33,14.1-0	36 1/2 Cwt	33 2/20
	Fore Sails,	Chain	135 2/3	1 15/16	67 10/20	270-1 15/16			36-3-16	33,13.3.0	36 1/2 --	33 9/20
	Fore Top Sails,		135 2/3	1 15/16	67 10/20				31-3-6	29,19.3.0	31 --	29.55
	Fore Topmast Stay Sails											
	Main Sails,											
	Main Top Sails,											
	and											

Standing and Running Rigging *wire & hemp* sufficient in size and *good* in quality. She has *two* Long Boat and *two* 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? *✓*

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? *5 freeing ports on each side*

Cargo Hatchways.—How formed? *Plates and angles*
State size Main Hatch *15' 6" x 10' 0"* Forehatch *7' 6" x 8' 0"* Quarterhatch *7' 6" x 7' 0"*

If of extraordinary size, state how framed and secured? *✓*
What arrangement for shifting beams? *Oak fore & afters*

Hatches, If strong and efficient? *yes*

Order for Special Survey No. <i>86</i>	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	<i>April 10, 16, 24 May 9, 14, 28, June 3-11-16</i>
Date <i>8th March 79</i>		2nd. On the plating during the process of riveting	<i>24, 27, July 8, 11, 17, 30. Aug-1, 15, 20, 26.</i>
Order for Ordinary Survey No. <i>---</i>		3rd. When the beams were in and fastened, and before the decks were laid....	<i>Sept 9, 12, 19, 25, 29. Oct 1, 8.</i>
Date <i>---</i>		4th. When the ship was complete, and before the plating was finally coated or cemented..	<i>14, 16, 21, 23, 27. Nov-3, 5, 11-1879.</i>
No. <i>129</i> in builder's yard.		5th. After the ship was launched and equipped.	

General Remarks (State quality of workmanship, &c.) *This two decked ship with poop 60 feet long and forecabin 40 feet and deck house 32 feet long, has been built in accordance with the sketch of midship section submitted and approved, see secretary's letter of the 22nd February 1879, and in other respects to the Rules for the 100 A grade.*

She is a sister ship to the "C. H. Wolff" and her class, excepting that she is 6 feet longer.

Materials good, workmanship superior.

The app'd midship section is forwarded herewith.

State if one, two, or three, decked vessel, or if spar, or awning decked; and the lengths of poop, forecabin, or 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. W. Bullard*
Special ... £ 69 : 9 : 0 *14/11 1879*
Certificate ... *gratio*
(Travelling Expenses, if any, £ none).

Committee's Minute *18th November, 1879.*

Character assigned *100 A.1.*
over TBW
25th