

IRON OR STEEL SHIP.

(Received at London Office, 22 APRIL 1890)

Date of writing Report April 12th 1890 Port of Belfast

Time 22 APRIL 1890

Survey held at Belfast Date, First Survey March 15th 1890 Last Survey April 19th 1890

the Screw Steamer "Alexander Elder" Rig Schooner

Tonnage under 3917.03
Tonnage Deck
 between Tonnage Dk. and 3rd, 4th, Spar or Awning Dk.
Total under Upper Dk.
 Do. of Poop 28.24
 Do. of Raised Qr. Dk. or Break 1
 Do. of Bridge House 70.95
 Do. of Hold on Deck 25.50
 Do. of excess of Hatchways 7.63
 Do. of Forecastle 63.96
Gross Tonnage 4173.31
 Less Crew Space (13.51) 117.18
 Less Engine Room 1335.46
Register Tonnage 2720.67
 as cut on Beam

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

Half Breadth (moulded) 22.5
Depth from upper part of Keel to top of Upper Deck Beams 32.
Girth of Half Midship Frame (as per Rule) 50.
1st Number 104.5
1st Number, if a 3-Decked Vessel deduct 7 feet 97.5
Length 398.16
2nd Number 388.20
Proportions Breadths to Length 2.0
 Depths to Length—Upper Deck to Keel 12.4
 Main Deck ditto 16.5

Master J. Evans
Year of appointment 1880
Built at Belfast
When built 1880-90 **Launched** Jan 23rd 1890
By whom built Harland & Wolff Ltd.
Owners Alfred Lewis Jones
Managers (If desired to be entered in Reg. Book)
Residence 14 Castle Street
Port belonging to Liverpool
Destined Voyage Baltimore via Liverpool
If Surveyed while Building, Afloat, or in Dry Dock.
 Specially Surveyed while Building

LENGTH on deck as per Rule 398.16
BREADTH Moulded 45.2
DEPTH top of Floors to Upper Deck Beams 32.0
 Do. do. Main Deck Beams 20.37
Power of Engines 375
Nº. of Decks with flat laid 4
Nº. of Tiers of Beams 3
 Dimensions of Ship per Register, length 398.16 breadth 45.2 depth 28.25

KEEL, depth and thickness	9 1/2 x 1 1/2	9 x 1 1/2	9 x 1 1/2
STEM, moulding and thickness	9 1/2 x 3 3/4	14 x 3 3/4	14 x 3 3/4
STERN-POST for Rudder do. do.	11 1/2 x 4 1/2	11 x 4 1/2	11 x 4 1/2
" " for Propeller	11 x 4 1/2	11 x 4 1/2	11 x 4 1/2
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24	24
FRAMES, Angle Iron, for 1/2 length amidships	5 1/2 x 3 1/2	5 1/2 x 3 1/2	5 1/2 x 3 1/2
Do. for 1/2 at each end	5 1/2 x 3 1/2	5 1/2 x 3 1/2	5 1/2 x 3 1/2
REVERSED FRAMES, Angle Iron	4 x 3 1/2	4 x 3 1/2	4 x 3 1/2
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	4 1/2 x 10	4 1/2 x 10	4 1/2 x 10
thickness at the ends of vessel	4 1/2 x 10	4 1/2 x 10	4 1/2 x 10
depth at 1/2 the half-bdth. as per Rule	4 1/2	4 1/2	4 1/2
height extended at the Bilges	4 1/2	4 1/2	4 1/2
BEAMS, Upper, Spar, or Awning Deck	10 x 10	9 1/2 x 10	9 1/2 x 10
Single or double Angle Iron, Plate or Tee Bulb Iron	10 x 10	9 1/2 x 10	9 1/2 x 10
Single or double Angle Iron on Upper edge	4 1/2 x 10	4 1/2 x 10	4 1/2 x 10
Average space	4 1/2	4 1/2	4 1/2
BEAMS, Main, or Middle Deck	11 x 11	11 x 11	11 x 11
Single or double Angle Iron, Plate or Tee Bulb Iron	11 x 11	11 x 11	11 x 11
Single or double Angle Iron on Upper Edge	4 1/2 x 11	4 1/2 x 11	4 1/2 x 11
Average space	4 1/2	4 1/2	4 1/2
BEAMS, Lower Deck	13 x 13	13 x 13	13 x 13
Single or double Angle Iron, Plate or Tee Bulb Iron	13 x 13	13 x 13	13 x 13
Single or double Angle Iron on Upper Edge	4 1/2 x 13	4 1/2 x 13	4 1/2 x 13
Average space	4 1/2	4 1/2	4 1/2
BEAMS, Hold, or Orlop	11 x 11	11 x 11	11 x 11
Single or double Angle Iron, Plate or Tee Bulb Iron	11 x 11	11 x 11	11 x 11
Single or double Angle Iron on Upper Edge	4 1/2 x 11	4 1/2 x 11	4 1/2 x 11
Average space	4 1/2	4 1/2	4 1/2
KEELSONS Centre line, single or double plate	5 1/2 x 11	5 1/2 x 11	5 1/2 x 11
" Rider Plate	10	10	10
" Bulb Plate to Intercoastal Keelson	4 x 4	4 x 4	4 x 4
" Angle Iron	4 x 4	4 x 4	4 x 4
" Double Angle Iron Side Keelson	4 x 4	4 x 4	4 x 4
" Side Intercoastal Plate	4 x 4	4 x 4	4 x 4
" do. Angle Iron	4 x 4	4 x 4	4 x 4
" Attached to outside plating with angle iron	4 x 4	4 x 4	4 x 4
BILGE Angle Iron	4 x 4	4 x 4	4 x 4
do. Bulb Iron	4 x 4	4 x 4	4 x 4
Margin Intercoastal plates riveted to plating for entire length	10	10	10
BILGE STRINGER Angle Iron	6 1/2 x 10	6 1/2 x 10	6 1/2 x 10
Intercoastal plates riveted to plating for 1/2 length	9	9	9
SIDE STRINGER Angle Iron	6 1/2 x 10	6 1/2 x 10	6 1/2 x 10

The FRAMES extend in one length from Margin plate to Margin plate Riveted through plates with 1 in. Rivets, about 6 apart.
 The REVERSED ANGLE IRONS on floors and frames extend from middle line to Margin plate, then and to gunwale on alternate sides.
 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 1/4 in. diameter, averaging 4 1/4 ins. from centre to centre.
 Edges of Garboards and to upper part of Bilge, worked clench, double riveted; with rivets 1 in. diameter, averaging 4 ins. from centre to centre.
 Butts from keel to turn of Bilge, worked clench, double riveted; with rivets 1 in. diameter averaging 3 1/2 ins. from centre to centre.
 Butts of all Strakes at Bilge for lapped and treble riveted; with rivets 1 in. diameter averaging 4 ins. from centre to centre.
 Edges from Bilge to Main Sheerstrake, worked clench, double riveted; with rivets 1 in. diameter, averaging 4 ins. from centre to centre.
 Butts from Bilge to Main Sheerstrake, worked clench, double riveted; with rivets 1 in. diameter, averaging 4 ins. from centre to centre.
 Edges of Main Sheerstrake, double or single riveted.
 Butts of Main Sheerstrake, treble riveted for entire length amidships.
 Butts of Main Stringer Plate, treble riveted for 1/2 length amidships.
 Breadth of laps of plating in double riveting 6 1/4 Breadth of laps of plating in single riveting 6 1/4
 Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.?
 Manufacturer's name or trade mark, &c.?
 The above is a correct description.
 Elder's Signature *Harland & Wolff Ltd.* Surveyor's Signature *James Purvis*
 Surveyor to Lloyd's Register of British and Foreign Shipping.

State clearly where plating is of alternate thicknesses—as distinguished from distinguished thickness at ends of vessel.

* If Iron Deck, state if whole or part, and if wood deck is laid thereon.

Workmanship. Are the butts of plating planed or otherwise fitted? *Mostly lapped, planed where butted.*
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 *all* 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. *Rigged with two pole masts as Auxiliary to steam power. The Mast extreme 120 x 20; 3 plates in the round 13 to 32 and 3 angles 4 x 3 7/16. Main " " 118 1/2 x 26 3 " " " 12 to 32 and 3 " 4 x 3 7/16. The Yard 16 1/4; 2 plates in the round 10 to 32 and 2 angles 3 x 2 1/2 x 5/8. As per plans previously approved. Masts doubled at heels and partners. Yard at ships, and all plates tested at the steel works.*

Number for Equipment	Letter for do.	CABLES, &c.				Machine where Tested and Superintendent, also Name of Chain Maker.	ANCHORS.				Machine where Tested and Superintendent, also Name of Anchor Maker.
		Number of Certificate	Fathoms	Inches	Test per Certificate Tons		Number of Certificate	Weight Ex. Stock	Test per Certificate	Weight req'd per Rule	
N ^o .	SAILS.										
	Fore Sails,										
	Fore Top Sails,										
	Fore Topmast Stay Sails,										
	Main Sails,										
	Main Top Sails, and quality										
	<i>Good</i>										
	Iron Stream Chain or Steel Wire ..	90	4 3/4	4 1/2	47	40 x 1 1/2	26932	43.0.4.37.19.1.14	43	4 Jan	90
	Hempen Str'm Cable	120	4 3/4	4 1/2	120 x 1 1/4	40 x 1 1/2	26933	43.0.4.37.19.1.14	43	4 Jan	90
	TOWLINE—Hemp or Steel Wire	120	4 3/4	4 1/2	40 x 1 1/2	40 x 1 1/2	26934	43.0.4.37.19.1.14	43	4 Jan	90
	Hawser	120	4 3/4	4 1/2	40 x 1 1/2	40 x 1 1/2	26935	43.0.4.37.19.1.14	43	4 Jan	90
	Warp	120	4 3/4	4 1/2	40 x 1 1/2	40 x 1 1/2	26936	43.0.4.37.19.1.14	43	4 Jan	90

Standing and Running Rigging *Wire & hemp* sufficient in size and *good* in quality. She has *two* Life Boats and *two* other boats.

The Windlass is *Patent steam & hand* Capstan *good* and Rudder *good* Pumps *good*.

Engine Room Skylights.—How constructed? *of plates and angles* How secured in ordinary weather? *with screw bolts and nuts.*

What arrangements for deadlights in bad weather? *Solid top with bull's eyes.*

Coal Bunker Openings.—How constructed? *of plates & angles* How are lids secured? *with hatch bars* Height above deck? *9 ins.*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *3 Scuppers and 6 freeing ports before the Bridge, and 4 Scuppers and 4 freeing ports abaft the Bridge each side.*

Cargo Hatchways.—How formed? *of plates and angles* Hatches, If strong and efficient? *yes 3. Solid*

State size Main Hatch *19.6 x 14.0* Forehatch *15.6 x 11.5* Quarterhatch *3.9 x 14; 15.6 x 10; 15.6 x 10.*

If of extraordinary size, state how framed and secured.... *one deck with plate and 3 free & after in main hatchway. one shifting beam in each of the other large hatchways. What arrangement for shifting beams? *per rule.**

Order for Special Survey No. *24* Date *Mar 14th 1889*

Order for Ordinary Survey No. Date

No. *223* in builder's yard. DATES of Surveys held while building as per Section 18.

State dates of letters respecting this case *January 10th and Dec 6th 1889.*

General Remarks (State quality of workmanship, &c.) *This vessel has been built in accordance with the accompanying approved tracings of midship section, sectional elevation, and pumping plan; in compliance with the Secretary's letters dated as above, and the Rules in other respects, including the Committee's Circulars on steel, have been adhered to; she is built to the 3rd R Rule, having a keelson 46 feet, Bridge 20 feet, and a poop 40 feet long; a double bottom constructed on the cellular system 316 feet long, with water capacity for 243 tons, and an after peak tank holding 20 tons, all tested as required by the Rules; she is a great deal stronger than required by the Rules in many parts.*

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

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

Particulars for Record in R.B.—Length of Poop *40* ft., R.Q.D. — ft., Bridge Dk., *20* ft., F'castle *46* ft.; No. of Dks. (excluding spar, awn., &c.) *two*

Material of dks. *one steel* If spar, awn. dk., &c. *3rd R* Material of spar, awn. dk., &c.; No. of tiers of beams (with and without dks. laid) *three*

Official No. *97770*; Signal Letters

I am of opinion this Vessel should be Classed *+ 100 A 1 Steel 2nd R 1st Iron, 1 Steel, 3rd R Rule*

The amount of the Entry Fee£ *5* is received by me, *E. H.*

Special£ *126* : *15* : *24* . *11* 18 *90* *25* . *4* *50* *James Curpin*

(to be sent as per margin). Certificate *Gratis* :

(Travelling Expenses, if any, £

Committee's Minute *FRIDAY 25 APRIL 1890*

Character assigned *100 A 1 Steel*

+ 2nd R 4/90 *2 dks 1 Iron + 1 Steel*

L A R C P *THUR*

Call L.R. Particulars appended

It is submitted that this vessel appears eligible to be classed 100 A 1 (Steel), as recommended

2 dks (1 Iron + 1 Steel) 3rd R Rule

Call L.R. Particulars appended

James Curpin

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

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