

1 or 2 Dks., R.Q.Dk.,
and Pt. Awng. Dk.

IRON OR STEEL STEAMER.

Received at London Office.

State if Report is also sent on the Machinery of the Vessel *Yes*

Date of completion of Report *30th April 1894*

Port of *Belfast*

No. *4374* Survey held at
On the *Steel Screw Steamer "Theory"*

Date, First Survey *20th Sept. 1893*

Last Survey *28th April 1894*

Rig *Fore & aft*

Master *Samuel Bell*

TONNAGE under
Tonnage Deck... *413.5*
Do. of Poop...
Do. of Raised (or)
Dk. or Break... *53.11*
Do. of Bridge House...
Do. of Forecastle... *2.82*
Do. of Houses on Deck... *9.84*
Do. of excess of Hatchways... *24.43*
Do. above Crown of
Engine Room... *37.15*
Gross Tonnage... *540.92*
Less Crew Space... *39.20*
Less above Crown of
Engine Room... *37.15*
TONNAGE FOR FEES... *464.57*
Less Engine Room... *297.47*
Less Navigation Spaces... *166.9*
Register Tonnage
as cut on Beam... *191.56*

ONE OR TWO DECKED VESSEL.

CLASS + 100 A1.

Half Breadth (moulded) *13.75*
Depth from upper part of Keel to top of Main Deck Bms. *14.50*
Girth of Main Midship Frame (as per Rule) *25.45*
1st Number *53.70*
Length *178.85*
2nd Number *9604.2*
Proportions—Breadths to Length *6.5*
Depths to Length—Main Deck to top of Keel *12.3*

Year of appointment (1) As master in service of
owner of present vessel—18
(2) As master of this
vessel—18

Built at *Belfast*
When built *1894* Launched *2nd April*
By whom built *Mac Shuman & Mac Cole (Linn.)*
Owners *W. A. Grainger*
Managers
(Where necessary to be entered in Reg. Book.)
Residence *Belfast*
Port belonging to *Belfast*

Destined Voyage *Round & coasting* If Surveyed while Building, Afloat, or in Dry Dock *Building*

LENGTH on Deck Feet. Inches. BREADTH—Feet. Inches. DEPTH—Feet. Inches. Power of Engines Horse. No. of Decks with Flat laid one
as per Rule *178 10 1/4* Moulded *27 6* Top of Floors to Main Deck *12 11* Beams. *88* No. of Tiers of Beams *Done*
Dimensions of Ship per Register, Length, *180.6* breadth, *27.6* depth, *12.7* Moulded Depth, ft. *13* ins. *11* Round of Beam *7* inches.

FRAMING.				FORGINGS AND CASTINGS.			
	Inches in Ship.	Inches in Ship.	16ths or 20ths in Ship.		Inches in Ship.	Inches per Rule.	Inches per Rule.
FRAME, Angles, <i>E</i> or <i>L</i> Bars, for $\frac{1}{2}$ length amidships	<i>3 1/2</i>	<i>3</i>	<i>7</i>	KEEL, Bar or Side Plates depth and thickness	<i>7 1/2 x 1 1/2</i>	<i>7 1/2 x 1 1/2</i>	<i>7 1/2 x 1 1/2</i>
Do. for $\frac{1}{2}$ at each end			<i>6</i>	STEM, moulding and thickness	<i>6 3/4 x 1 1/2</i>	<i>6 3/4 x 1 1/2</i>	<i>6 3/4 x 1 1/2</i>
Do. in way of Double Bottoms at Solid Floors	<i>3</i>	<i>3</i>	<i>7 1/2</i>	STERN-POST for Rudder do. do.	<i>6 3/4 x 4</i>	<i>6 3/4 x 4</i>	<i>6 3/4 x 4</i>
Distance of Frames from moulding edge to moulding edge, all fore and aft	<i>22</i>		<i>22</i>	for Propeller	<i>6 3/4 x 4</i>	<i>6 3/4 x 4</i>	<i>6 3/4 x 4</i>
REVERSED FRAME, Angles	<i>3</i>	<i>2 1/2</i>	<i>6</i>	MAIN PIECE of Rudder, diameter at head	<i>4 1/2</i>	<i>4 1/2</i>	<i>4 1/2</i>
DEEP FRAMING, depth of girder	<i>19</i>		<i>19</i>	do. at heel	<i>2 3/4</i>	<i>2 3/4</i>	<i>2 3/4</i>
FLOORS, depth and thickness of Floor Plate at mid-line for $\frac{1}{2}$ length amidships			<i>8 1/16</i>	RUDDER, how constructed <i>Centre plate 10/16 Forged iron frame</i>			
in way of Engines and Boilers			<i>8 1/16</i>	Can the Rudder be unshipped afloat? <i>Yes</i>			
thickness at the ends of vessel	<i>9 1/2</i>		<i>9 1/2</i>	KEELSONS AND STRINGERS.			
height extended at the Bilges	<i>38</i>		<i>38</i>	CENTRE LINE KEELSON, Vertical Plate above floors, Through Plate, or Intercoastal Plate	<i>12</i>	<i>9 1/2</i>	<i>9 1/2</i>
FLOORS & BRACKETS, in Cell Dble Bottoms			<i>6 1/16</i>	Rider Plate	<i>8 1/2</i>	<i>9 1/2</i>	<i>9 1/2</i>
Distance apart	<i>22</i>		<i>22</i>	Bulb Plate to Intercoastal Keelson			
CENTRE GIRDER, in Double Bottom, depth and thickness	<i>39</i>	<i>8</i>	<i>39</i>	Horizontal Plates on Floors			
Angles, Top	<i>3 1/2</i>	<i>3 1/2</i>	<i>7</i>	Angles	<i>4</i>	<i>3</i>	<i>6</i>
Bottom				SIDE KEELSON, Angles	<i>4</i>	<i>3</i>	<i>6</i>
SIDE GIRDERS, number and thickness <i>one each side</i>	<i>3</i>	<i>2 1/2</i>	<i>6</i>	Bulb or Plate above floors for lng.			
Angles	<i>3</i>	<i>2 1/2</i>	<i>6</i>	Intercoastal Plate for <i>half</i> length	<i>3</i>	<i>3</i>	<i>7</i>
MARGIN PLATE, depth (exclusive of flange) and thickness	<i>24</i>	<i>6</i>	<i>18</i>	Attached to outside plating with Angle	<i>4</i>	<i>3</i>	<i>7</i>
Angles	<i>3</i>	<i>3</i>	<i>7</i>	BILGE KEELSON, Angles	<i>4</i>	<i>3</i>	<i>6</i>
INNER BOTTOM PLATING, breadth and thickness of Middle Line Strake	<i>41</i>	<i>7 1/2</i>	<i>41</i>	Bulb or Plate above floors for $\frac{3}{4}$ full length	<i>6 1/2</i>	<i>6</i>	<i>6</i>
thickness in Engine and Boiler space			<i>7</i>	Intercoastal Plate for length			
Remainder in Holds			<i>6</i>	Attached to outside plating with Angle			
BEAMS, Main and Raised Quarter Deck, Single Angle, Bulb Angle, Plate or Tee Bulb	<i>5</i>	<i>3</i>	<i>7</i>	BILGE STRINGER Angles	<i>4</i>	<i>3</i>	<i>6</i>
Angles on Upper Edge				Bulb Plate for length			
Average space	<i>22</i>		<i>22</i>	Intercoastal Plate for length			
BEAMS, Lower Deck, Single Angle, Bulb Angle, Plate or Tee Bulb				Attached to outside plating with Angle			
Angles on Upper Edge				SIDE STRINGER Angles	<i>4</i>	<i>3</i>	<i>6</i>
Average space				Bulb or Intercoastal Plate for $\frac{3}{4}$ lng.	<i>12</i>	<i>7</i>	<i>12</i>
BEAMS, Hold, Plate or Tee Bulb				Attached to outside plating with Angle	<i>3</i>	<i>3</i>	<i>6</i>
Angles on Upper Edge				Main and Raised Quarter Deck Stringer Plate, breadth and thickness	<i>6 6</i>	<i>9 1/2</i>	<i>6 6</i>
Average space				Angle on ditto	<i>3 1/2 x 3 1/2</i>	<i>7</i>	<i>3 1/2 x 3 1/2</i>
BEAMS, Poop Deck, Angle, Bulb Angle, Plate or Tee Bulb				Tie Plates fore & aft, outside Hatchways			
Angles on Upper Edge				Diagonal Tie Plates on Bms., No. of Pairs			
Average space				Main Dk* Iron or Steel for <i>whole</i> lng.		<i>6 1/16</i>	<i>6 1/16</i>
BEAMS, Bridge Deck, Angle, Bulb Angle, Plate or Tee Bulb	<i>3 1/2</i>	<i>2 1/2</i>	<i>6</i>	R. Q. Dk* Iron or Steel for <i>whole</i> lng.		<i>6 1/16</i>	<i>6 1/16</i>
Angles on Upper Edge				Wood Deck, Material & thickness <i>none</i>			
Average Space	<i>22</i>		<i>22</i>	Lower Deck Stringer Plate, breadth and thickness			
BEAMS, Forecastle Deck, Angle, Bulb Angle, Plate or Tee Bulb	<i>5 1/2</i>	<i>3</i>	<i>7</i>	Angles on ditto, No.			
Angles on Upper Edge				Tie Plates, outside Hatchways			
Average space	<i>44</i>		<i>44</i>	Deck* Material and thickness			
PILLARS, In 'tween Decks, Size and Spacing				Hold Stringer Plate <i>1.8" in aft hold 6.15 in S.F.B.</i>	<i>6</i>	<i>18 1/16</i>	<i>6</i>
Hold	<i>2 5/8</i>	<i>44" ap.</i>	<i>2 5/8</i>	Angles on ditto, No. <i>four</i>	<i>4 x 3</i>	<i>6</i>	<i>12 for square above</i>
Quarter, 'tween Dks.,				Poop Deck Stringer Plate, breadth & thickness	<i>3 x 3</i>	<i>6</i>	<i>3</i>
in Hold				Angle on ditto			
FRAMES, In Fore Body, No. and Spacing	<i>four 7/2 webs in way of hatchways as appx.</i>			Tie Plates			
No. of Side Stringers	<i>two 11 feet two 11 feet</i>			Deck, Material and thickness			
WEB FRAMES, In E. & B. Space, No. & Spacing	<i>15 x 6</i>	<i>15</i>	<i>6</i>	Bridge Deck Stringer Plate, brdth & thickness	<i>51</i>	<i>6</i>	<i>51</i>
Brdth. & Thickness				Angle on ditto	<i>2 1/2 x 2 1/2</i>	<i>6</i>	<i>2 1/2 x 2 1/2</i>
WEB FRAMES, In After Body, No. and Spacing	<i>two 7 feet two 7 feet</i>			Tie Plates			
Brdth. & Thickness	<i>18 x 6</i>	<i>18</i>	<i>6</i>	Deck, Material and thickness <i>iron</i>		<i>1/4</i>	<i>4 1/16</i>
No. of Side Stringers	<i>one 7 feet one 7 feet</i>			Forecastle Deck Stringer Plate, brdth & thickness	<i>24 1/2</i>	<i>6</i>	<i>24 1/2</i>
Size of Angles or Tee Bars to Web Frames	<i>3 2 1/2 6</i>	<i>3</i>	<i>2 1/2 6</i>	Angle on ditto	<i>2 1/2 x 2 1/2</i>	<i>6</i>	<i>2 1/2 x 2 1/2</i>
BRACKET PLATES to Stringers between Web Frames, Depth and Thickness	<i>7</i>		<i>7</i>	Tie Plates	<i>6</i>	<i>7 1/16</i>	<i>6</i>
				Deck, Material and thickness	<i>wood</i>	<i>2 7/8</i>	<i>2 7/8 wood</i>

BULKHEADS.				STIFFENERS.			
In Vessel.	Per Rule.	Thickness.		Horizontal.	Vertical.	Spacing.	Single or Double Frames.
W.T. BULKHEADS	<i>4</i>	<i>4</i>	<i>5</i>	<i>3 1/2 x 3 1/2</i>	<i>3 1/2 x 3 1/2</i>	<i>30</i>	<i>double deck</i>
PARTITION							
LONGITUDINAL							

PLATING.										RIVETING.									
AS IN SHIP.				PER RULE OR AS APPROVED.		EDGES.				BUTTS.									
STRAKES.	AMIDSHIP.			AFT.	AMIDSHIP.	Single or Double.	Breadth of Lap.	Rivets.	Double or Treble and for what Length.	Rivets.	STRAPS.		IF LAPPED.						
	Breadth.	Thickness.	Thickness.								Breadth.	Thickness.	Breadth.	Thickness.					
FLAT PLATE KEEL	33	10	9	9	33	9.68	Double	4 1/2	3/4	3 3/8	Double	1 1/2	3/8	9 whole					
GARBOARD OF A Strake	33	9	8	8	33	8.67	"	4 1/2	3/4	3 3/8	"	1 1/2	3/8	9 whole					
State actual thickness in way of Double Bottom.		8	7	7		7.66	"	4 1/2	3/4	3 3/8	"	1 1/2	3/8	9 whole					
No reduction in way of B.S.		10	8	8		10.68	"	4 1/2	3/4	3 3/8	"	1 1/2	3/8	9 whole					
Sheer - H	42	12	8	8	42	12.68	"	4 1/2	3/4	3 3/8	"	1 1/2	3/8	9 whole					
J							"	4 1/2	3/4	3 3/8	"	1 1/2	3/8	9 whole					
K							"	4 1/2	3/4	3 3/8	"	1 1/2	3/8	9 whole					
L							"	4 1/2	3/4	3 3/8	"	1 1/2	3/8	9 whole					
M							"	4 1/2	3/4	3 3/8	"	1 1/2	3/8	9 whole					
N							"	4 1/2	3/4	3 3/8	"	1 1/2	3/8	9 whole					
O							"	4 1/2	3/4	3 3/8	"	1 1/2	3/8	9 whole					
P							"	4 1/2	3/4	3 3/8	"	1 1/2	3/8	9 whole					
DOUBLING of Flat Plate Keel																			
Length and thickness of Bilges																			
Length and thickness of Sheerstrakes																			
Length and thickness of Strake below																			
POOP SIDES																			
RAISED QUARTER DECK SIDES																			
BRIDGE SIDES																			
FORECASTLE SIDES																			
LENGTHS OF PLATING	eight frame spaces				six spaces														

Manufacturer's name or trade mark of the Iron or Steel (state process of manufacture of Steel) used for Frames, Floors, Beams, Keelsons, Tie and Stringer Plates, outside Plating, &c.: *Frames, Rev. frames, Beams, Masts, Stringers, Keelsons & Sheer: - Connell Iron Co. Ltd.*

Butt heads: *Connell Iron Co. & D. Colville Sons.*

Part of Keelsons: *- Mossend.*

FRAMES extend in one length from centre line to margin of uppermost deck.

REVERSED FRAMES on floors and frames extend from middle line to bilge stringer & deck alternately forward, and to the side stringer & deck alternately in way of the double bottom aft.

MASTS, SPARS, &c.

LOWER MASTS	Material.	Total length.	DIAMETER AND THICKNESS.				No. of Plates in round.	Angles.	Riveting.
			At Partners.	Heel.	Hounds.	Head.			
Fore	Steel	80" 2"	17 1/2 x 3/2	13 1/2 x 3/2	14 1/2 x 3/2	6 x 3/4	two		single riv. double & double
Main	"	76" 3"	17 1/2 x 3/2	13 1/2 x 3/2	14 1/2 x 3/2	6 x 3/4	"		"
Mizen	"	"	"	"	"	"	"		"

Bowsprit

Topmast, Yards and Remainder of Spars: *P. Pine*

Rigging, Material and Size, Shrouds: *Galvanized steel wire 3"*

Sails: *One* Suit of best canvass

Sails and the following spare sails:

EQUIPMENT No. 10471 LETTER *i* TONNAGE for TRAWLERS U.D.K. ANCHORS.

Number of Certificate.	Anchors.	WEIGHT, EX STOCK.		TEST, PER CERTIFICATE.		WEIGHT REQ. BY RULE.		Description of Anchor.	Makers.	Where and when tested and Superintendent.
		Cwts.	lbs.	Cwts.	lbs.	Cwts.	lbs.			
16159	1st Bower	12	0 5	2	3 2	13	19 2	12	0 0	Ordinary Iron Hook
16160	2nd "	11	3 22	2	3 22	13	14 2	0	11 3	2.0
16158	3rd "	10	1 1	2	1 26	12	6 2	7	10 1	2.0
	Collective weight	34	1 0			34	1 0			
16157	Stream	4	0 6	1	0 2	6	10 0	0	4 0	0
16156	Kedge	2	0 3	2	3 4	12	2 0	0	2 0	0
	2nd Kedge	1	1 3							

CHAIN CABLES.

Number of Certificate.	Fathoms.	Size.	WEIGHT OF CHAIN CABLE.		Fathoms and Size Per Rule.	Description.	Makers of Cables.	When and where tested, and Superintendent.
			Test per Certificate.	Supplied.				
5915	90	1 1/4	25 1/8	66-0-18	147-0-16	195 lbs. steel link	Henry Wood & Co. Ltd.	
3913	105	1 1/4	"	75-3-1	176 lbs. "	"	"	
	60	3"	18		66 lbs. 3"	Govan Rope Works Co. Ltd.		

HAWSERS AND WARPS.

Number of Certificate.	Fathoms.	Size.	Test per Certificate.	Fathoms and Size Per Rule.	Description.	Makers of Cables.	When and where tested, and Superintendent.

Boats: *Lifboat 19' 6" x 6' 0" x 2' 4 1/2"* Lifboat 15' 0" x 5' 4 1/2" x 2' 2"

Pumps, Number: *Three manual pumps* Diameter of Barrel and Tail Pipe: *Two 4" barrels 2" tail pipes to hold*

Windlass is: *Clarke Chapman & Co. patent steam windlass* Capstan: *One 3" barrel 1 1/2" tail pipe to head*

Engine Room Skylights: *How constructed? Plates & angles above bridge deck.*

What arrangements for deadlights in bad weather? *Bull's eyes in iron covers.*

Coal Bunker Openings: *How constructed? No 3 hatchway & 3 lids on R.A.D.*

Number of Scuppers, and number and dimensions of Freeing Ports, &c.: *Two scuppers in way of R.A.D. (each side), freeing ports in well three 2' 6" x 1' 6" on R.A.D. two 2' 6" x 1' 6" & one 1' 4" x 1' 8" (each side)*

Ceiling in Holds, thickness and material: *2 1/2" Y.C.* Ceiling (twelve decks), thickness and material: *4 ft x 3 ft Coaming Hatches.*

Cargo Hatchways: *How formed? 7/16" x 3/4" plates & angles.*

State size No. 1 Hatch (Forward): *7' 3" x 9' 0"* No. 2 Hatch: *25' 0" x 16' 0"* No. 3 Hatch: *3' 7" x 16' 0"* No. 4 Hatch: *25' 5" x 16' 0"*

Number of Web Plates, Shifting Beams, and Fore and Afters to each Hatch: *No. 1. One fore & after. No. 2. Three fore & after & two web plates.*

No. 3 short 3" hatches. No. 4 three fore & after & two web plates. No. of Breasthooks: *Two* No. of Crutches: *Deep floors*

Bulwarks, height above deck and description: *4' 11" 1/2" steel plates* Main Rail, material and size: *6 x 3 1/2" bulk angle*

The above is a correct description.

Builder's Signature (here only): *W. L. Jones* Surveyor's Signature: *A. L. Jones*

Builder's Name: *W. L. Jones & Co., Limited* Surveyor's Name: *A. L. Jones*

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

Correspondence.—State dates and initials of letters respecting this case (Reference should be made to any correspondence connected with the case)

M. 19/7/93. 7/9/93. 7/11/93. 8/11/93. 12/11/93. 14/12/93. 20/12/93. 18/1/94

Workmanship. Are the butts of plating planed or otherwise fitted? *Planed*

Is the riveted work properly closed? *Yes*

Are the liners between the frames 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 facing surfaces? *Yes*

Do any rivets break into or through the seams or butts of the plating? *No*

Are the butts of Plating, Stringers, &c., properly shifted and strapped? *Yes*

General Remarks (State quality of workmanship, &c.) *The vessel has been built in accordance with*

the approved plans & the workmanship is throughout good.

The watertight door to the tunnel, the sluice valves, & all the pumps have been examined & found in good working order.

The approved tracing of the machinery section was forwarded on the 24th inst.

The approved tracings of the profile & mast & the forging certificate for the stem frame & stem accompany this report.

All steel plates have been tested as required & the Rules complied with in all respects.

This is practically a sister vessel to the S.S. "Pioneer" Belfast Report No 4000

The Surveyor should state the Number of Report and Name of any Sister Vessel.

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop *ft., R.Q.D. or Break 98.8 ft.* Bridge Dk. *40.3 ft.* F'castle *29.7 ft.*

(in feet and tenths) where the Poop is on top of the R.Q.D., or when the Poop or R.Q.D. is joined to the B.D., this should be distinctly stated

The Bridge is on top of the R.Q.D. & the length given for R.Q.D. includes the bridge.

No. and Material of Decks (if Iron or Steel) and whether wholly or partially covered with wood, and No. of tiers of Beams (this information is to be given as it should appear in the Register Book) *One deck, iron. One tier of beams.*

Official No. *;* Signal Letters *;*

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

PARTICULARS OF WATER BALLAST.—State whether the Double bottom is constructed on the cellular system *Yes*

Where fitted.	Length.	Water Capacity.	Where fitted.	Length.	Water Capacity.
Double bottom, aft, <i>Aft hold & under Eng.</i>	<i>45.8</i>	<i>63</i>	Fore peak tank,	<i>27.5</i>	<i>38</i>
Double bottom, forward,			After peak tank,	<i>18.3</i>	<i>36</i>
Double bottom, under Engines and Boilers,			Midship deep tank,		
Double bottom, if under Engines only,			Other tanks, if fitted,		
Double bottom, if under Boilers only,			(If necessary, furnish further information by sketch.)		

State whether the above have been tested as required by the Rules *Yes*

Order for Special Survey No. <i>372</i>	1st. On the several parts of the frame, when in place, and before the plating was wrought	<i>September 20, 22, 23, 29. October 4, 10.</i>
Date <i>19th Sept 1893</i>	2nd. On the plating during the process of riveting	<i>12, 16, 25. November 2, 6, 7, 9, 14, 20, 27</i>
Order for Ordinary Survey No. <i>59</i>	3rd. When the beams were in and fastened and before the decks were laid	<i>Dec. 11, 12, 13, 2. January 26, 28, 31.</i>
Date <i>20/3/94</i>	4th. When the ship was complete, and before the plating was finally coated or cemented	<i>Feb 6, 9, 12, 23 Mar 8, 29. April 6, 11, 13</i>
No. <i>59</i> in builder's yard	5th. After the ship was launched and equipped	<i>18, 23, 24, 25, 26, 27, 28. (1894) Total No. of Visits 39</i>

The amount of Entry Fee *£ 2 0 0*

Special *£ 23 5 0*

Certificate *£ :*

Travelling Expenses, if any *£ 9 0*

I am of opinion this Vessel should be Classed *+ 100 A1 4. 94*

With, or without Freeboard, as condition of Class *Without*

Committee's Minute

Character assigned

100 A1 Steel

2nd class

Well ab.

This vessel appears to have been built in accordance with the Rules and the approved plans, and it is submitted she is eligible to be classed 100 A1 (Steel) as recommended.

100 A1 (Steel)

100 A1 (Steel)

100 A1 (Steel)

100 A1 (Steel)

100 A1 (Steel)