

Spar, or Awning Dk. IRON OR STEEL STEAMER.

No. 4936

Port of *Belfast* Date of completion of Report *Dec 21st 1898* Received at London Office *TUES. 27 DEC 1898*
Survey held at *Belfast* Date, First Survey *August 24th 1897* Last Survey *October 19th 1898*
On the *Steel Twin Screw Steamer "Manhattan"* Rig *Schr 4 masts*

TONNAGE under
Tonnage Deck... *5735.61*
between Tonnage Dk.
3rd, 4th, Spar or
awning Dk. *1039.26*
al under Upper Dk. *7574.87*
of Poop *69.31*
of Bridge House
of Forecasts
of Houses on Deck *92.21*
of excess of Hatchways *146.64*
above Crown of
Engine Room... *120.30*
Gross Tonnage *8008.93*
Crew Space *225.39*
above Crown of
Engine Room... *120.30*
NAGE FOR FEES... *7658.24*
Engine Room *1611.14*
Navigation Spaces *43.16*

SPAR, AWNING OR PART AWNING-DECKED VESSEL,
or a Vessel having a continuous Shade Deck.

CLASS *100 A*

Half Breadth (moulded) *28*
Depth from upper part of keel to top of Main Deck Beams *29.29*
Girth of Half Midship Frame (as per Rule) *52.25*
1st Number *109.54*
Length *400*
2nd Number *5345.5*
Proportions—Breadths to Length *2.4*
Depths to Length—Main Deck to top of Keel *16.6*

Master

Year of Appointment

Built at *Belfast*When built *1898* Launched *Sept 13th*By whom built *Harland & Wolff Ltd.*Owners *National Steamship Co. Ltd.*

Managers

Residence *100 Finchchurch St.*Port belonging to *London*

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

LENGTH on Deck Feet. Inches. *400* BREADTH Moulded Feet. Inches. *56* DEPTH, top of Floors to Spar or Awning Dk. Beams Feet. Inches. *33* 0
as per Rule. *25* 02 Main Deck Beams *25* 02
Dimensions of Ship per Register, Length *490.5* breadth *56.3* depth *32.95* Spar or Awning Dk. Moulded depth, ft. *28* ins. *6* To Main Dk. Round up of *92* ins.
25.65 Main Deck. " " " *36* *3 1/2* Spar Dk.

FRAMING.

FRAME, Angles, or Bars, for $\frac{1}{2}$ length amidships *7 x 3 1/2 x 3 1/2 x 11*
Do. for $\frac{1}{2}$ at each end *7 x 3 1/2 x 11*
Do. in way of Double Bottoms at Solid Floors *3 1/2 x 3 1/2 x 10*
at intermdt. Bkts. *30*
Distance of Frames from moulding edge to moulding edge, all fore and aft *30*
EVERSED FRAME, Angles *4 x 4 x 10*
DEEP FRAMING, depth of girder *1*
LOORS, depth and thickness of Floor Plate at mid-line for $\frac{1}{2}$ length amidships *1*
in way of Engines and Boilers *1*
thickness at the ends of vessel *1*
depth at $\frac{1}{2}$ the half-bdth. as per Rule *1*
height extended at the Bilges *1*
LOORS & BRACKETS, in Cell Dble Bottoms Distance apart *30*
CENTRE GIRDER, in Double bottom, depth and thickness *51*
Angles, Top *4 x 4 x 10*
Bottom *4 1/2 x 4 1/2 x 14*
SIDE GIRDERS, number and thickness *two 3 1/2 x 10*
Angles *1*
MARGIN PLATE, depth (exclusive of flange) and thickness *34*
Angles *4 x 4 x 10*
INNER BOTTOM PLATING, breadth and thickness of Middle Line Strake *52*
thickness in Engine and Boiler space *11*
Remainder in Holds *10*
BEAMS, Spar or Awning Deck, Single Angle, Bulb Angle, Plate or Tee Bulb *8 x 3 1/2 x 3 1/2 x 12*
Angles on upper edge *Channel*
Average space *30*
BEAMS, Main Deck, Single Angle, Bulb Angle, Plate or Tee Bulb *8 x 3 1/2 x 3 1/2 x 12*
Angles on upper edge *Channel*
Average space *30*
BEAMS, Lower Deck, Single Angle, Bulb Angle, Plate or Tee Bulb *8 x 3 1/2 x 3 1/2 x 12*
Angles on upper edge *Channel*
Average space *30*
BEAMS, Hold, or Orlop, Plate or Tee Bulb *1*
Angles on upper edge *1*
Average space *1*
BEAMS, Poop Deck, Angle, Bulb Angle, Plate or Tee Bulb *7 1/2 x 3 x 10*
Angles on upper edge *Bulb angle*
Average space *30*
BEAMS, Bridge Deck, Angle, Bulb Angle, Plate or Tee Bulb *8 x 3 1/2 x 10*
Angles on upper edge *Bulb angle*
Average space *30*
BEAMS, Forecastle Deck, Angle, Bulb Angle, Plate or Tee Bulb *7 1/2 x 3 x 10*
Angles on upper edge *Bulb angle*
Average space *11 1/2*
PILARS, In 'tween Deck, size and spacing *3 1/2 x 3*
Hold *4 1/2*
Quarter, 'tween Dks., " " *3 1/2 x 3*
in Hold *4 1/2*
WEB FRAMES, In Fore Body, No. and spacing brdth. & thickness *1*
No. of Side Stringers *1*
WEB FRAMES, In E. & B. Space, No. and spacing brdth. & thickness *1*
WEB FRAMES, In After Body, No. and spacing brdth. & thickness *1*
No. of Side Stringers *1*
Size of Angles or Tee Bars to Web Frames
RACKET PLATES to Stringers between Web Frames, depth and thickness *4 1/2 x 4 x 10*
30 x 24 x 10

FORGINGS AND CASTINGS.

KEEL, Bar or Side Plates, depth and thickness *10 x 3*
STEM, moulding and thickness *12 x 3 1/2*
STERN-POST for Rudder do. do. *13 x 8*
for Propeller *13 x 8*
MAIN PIECE of Rudder, diameter at head do. at heel *11 1/2*
RUDDER, how constructed *Cast steel frame single plate 1 1/4*
Can the Rudder be unshipped afloat? *Yes*
KEELSONS AND STRINGERS. Inches in Ship. Inches in Ship. Inches in Ship. Inches per Rule. Inches per Rule. 20ths per Rule. 20ths per Rule.
CENTRE LINE KEELSON, Vertical Plate above floors, Through Plate, or Intercoastal Plate
Rider Plate
Bulb Plate to Intercoastal Keelson
Horizontal Plates on Floors
Angles
SIDE KEELSON, Angles
Bulb or Plate above floors, for lng.
Intercoastal Plate, for length
Attached to outside plating with Angle
BILGE KEELSON, Angles
Bulb or Plate above floors, for lng.
Intercoastal Plate, for length
Attached to outside plating with Angle
BILGE STRINGER Angles
Bulb Plate, for lng.
Intercoastal Plate, for length
Attached to outside plating with Angle
SIDE STRINGER Angles
Bulb or Intercoastal Plate, for lng.
Attached to outside plating with Angle

Spar, or Awning Deck Stringer Plates, breadth and thickness *36*
Angle on ditto *42*
Tie Plates, fore and aft, outside Hatchways *5 x 5 x 10*
Diagonal Tie Plates, No. of prs. *Double*
Deck, * Iron or Steel, for entire lng. *10*
Wood Deck, Material & thickness *10*
Main Deck Stringer Plate, breadth & thickness *36*
Angles on ditto, No. *4 x 4 x 10*
Tie Plates, outside Hatchways *4 x 4 x 10*
Diagonal Tie Plates, No. of prs. *1*
Deck, * Iron or Steel, for entire lng. *9*
Wood Deck, Material & thickness *9*
Lower Deck Stringer Plates, br'dth & thckn's *54*
Angles on ditto, No. *4 x 4 x 9*
Tie Plates, outside Hatchways *4 x 4 x 9*
Deck, * Material and thickness *Steel*
Hold, or Orlop Stringer Plate, br'dth & thckn's *1*
Angles on ditto, No. *1*
Tie Plates, outside Hatchways *1*
Deck, * Material and thickness *1*
Poop Deck Stringer Plate, breadth & thickness *44*
Angles on ditto *3 1/2 x 3 1/2 x 9*
Tie Plates *Steel*
Deck, Material and thickness *Steel*
Bridge Deck Stringer Plate, br'dth & thickness *44*
Angle on ditto *3 1/2 x 3 1/2 x 10*
Tie Plates *Steel*
Deck, Material and thickness *Steel*
Forecastle Deck Stringer Plate, br'dth & th'kns *44*
Angle on ditto *3 1/2 x 3 1/2 x 9*
Tie Plates *Steel*
Deck, Material and thickness *Steel*

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

BULKHEADS.

Number. Thickness. STIFFENERS. Single or Double Frames. Height up.
In Vessel. Per Rule. Horizontal. Vertical. Spacing. Height up.
W. T. BULKHEADS *7* *6* *2* *7* *9 1/2 x 3 x 20* *6 1/2 x 3 1/2 x 10* *48* *Double* *6 to 15 ft*
PARTITION " *1* *1* *1* *1* *1* *1* *1* *1* *1*
LONGITUDINAL " *1* *1* *1* *1* *1* *1* *1* *1* *1*

Are the outside Plates doubled two spaces of Frames in length? *No, diamond shape*

PLATING.

RIVETING.

[illegible]

Manufacturer's name or trade mark of the ~~Iron~~ Steel (state process of manufacture of Steel) used for Frames, Floors, Beams, Keelsons, Tie and Stringer Plates, Plating, &c. *Siemens Martin - James & Co. Colville & Sons. Rev. bars & Keelson angles. Lanarkshire Steel Co. Floors & Outside plating. Rockton M. & Co. & Dowlais I. Co. Keelson plates, Stringers, Inner Bottoms & deck plating, Consett, Dowlais & Bannockburn.*

Spar, *quadruple* Butts, *double* riveted for *half* length amidship.
Stringer Plate { Straps, *single*, double or overlapped for *Entire* length *amidship*.
Main Stringer { Butts, treble riveted for *Entire* length *amidship*.
Plate { Straps, *single*, double or overlapped for *Entire* length *amidship*.
Butts of Bilge & Side Stringers and Tie Plates, treble or double riveted? *Treble*
Inner Bottom Plating, riveting of Edges *Double* Butts *Double*.
Centre Girder Butts, *Treble* riveted **Keelson Butts**, *Treble* riveted.
Frames, riveted through Plates with *1* in. Rivets, about *5 1/2* apart.
Rivets, state whether Iron or Steel *iron and steel*.

FRAMES extend in one length from *Margin plate* to *gunwale*.
 REVERSED FRAMES on ~~floor and~~ *alternate chariot* frames extend from *Margin plate* to *2 $\frac{1}{2}$ beam knees*, all to upper deck abaft after peak bulkhead, and alternate reverse bars to *Forecastle deck*.

MASTS, SPARS, &c.

No Square sails		Material.	Total Length	DIAMETER AND THICKNESS.				No. of Plates in round.	ANGLES.		RIVETING.		
				At Partners.	Heel.	Hounds.	Head.		Number.	Size.	Seams.	Butts.	
LOWER MASTS.... and Topmasts in one Downspit Rigger	Fore	Steel	108.6	28 × $\frac{10}{20}$	26 × $\frac{9}{20}$	18½ × $\frac{8}{20}$	8 × $\frac{5}{20}$	3	3	4 × 3 × $\frac{9}{16}$	Single	Quadruple	
	Main	—	111.6	28 × $\frac{9}{20}$	26 × $\frac{8}{20}$	18½ × $\frac{7}{20}$	8 × $\frac{5}{20}$	3	3	3½ × 3 × $\frac{7}{16}$	—	Double and	
	Mizen	—	105.0	24 × $\frac{9}{20}$	20 × $\frac{8}{20}$	15 × $\frac{9}{20}$	6½ × $\frac{3}{20}$	3	3	3½ × 3 × $\frac{9}{16}$	—	Double laps	
		—	94.0	22 × $\frac{7}{20}$	19 × $\frac{6}{20}$	13 × $\frac{6}{20}$	6 × $\frac{4}{20}$	3	3	3½ × 3 × $\frac{7}{16}$	—	—	
Topmasts, Yards and Remainder of Spars		of 6" pine.											
Rigging, Material and Size, Shronds		D. Calv. 1 wire 4½, 4¼, 4 and 3½ resp & Stays 4½, 4¼, 4 and 3½ respectively.											
Sails. One complete		Suit of Jib headed Sails, and the following spare sails Two trysails.											

EQUIPMENT No. *60872* LETTER *d +* ANCHORS

Number of Certificate.	Anchors.	WEIGHT, EX. STOCK			WEIGHT OF STOCK.			TEST, PER CERTIFICATE.				WEIGHT REQ. BY RULE.			Description of Anchor.	Makers.	Where and when tested and Superintendent.
		Cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.			
40973	1st Bower	69	2	14	Stockless	53	12	2	.	68	3	.	Hall's Stockless	Hingley & Co.	Retheerton	22 Aug '98	
40981	2nd "	64	3	11	"	52	12	2	.	68	3	.	East Steel Head	"	"	20 - - -	
40989	3rd "	66	1	14	"	51	16	1	.	66	2	.	"	"	"	9 - - -	
40990	Collective weight	58	3	14	"	47	15	.	.	58	2	.	"	"	"	22 - - -	
41027	Stream	262	3	.						262	2	.	(Heads tested by Surveyors)	H. Green	Sup.		
41031	Kedge	25	1	6	6	1	6	25	1	2	7	25	.	Crotman's	"	"	19 Aug '98
	2nd Kedge	12	0	13	2	3	24	13	19	2	21	12	.	Iron Stock	"	"	20 - - -

CHAIN CABLES.

HAWSERS AND WARPS

Number of Certificate.	Fathoms.	Size.	Test per Certificate. Tons.	WEIGHT OF CHAIN CABLE.		Fathoms and Size Per Rule.	Description.	Makers of Cables.	When and where tested, and Superintendent.	Material.	Fathoms.	Size.	Breaking Test of Steel Wire Towline.	Fathoms and Size Per Rule.
				Supplied.	Per Rule.									
25402	150-5	2 1/2	114.10	467.1	936.0	300 x 2 1/16	Stud	Pingley Bros	Rebert 3 Aug. 90	TOWLINE	130	6	25	130 x 6
25403	150-5	"	112.10	469.1	936.2	300 x 2 1/16	Sink	" "	" "	HAWSER	90	4 1/2	39	90 x 13
				469.1	936.2	300 x 2 1/16				WARP	90	3 1/2	26	90 x 11
Iron Steam Chain on Steel Wire ...	120	5 1/4	65			120 x 5 1/4	Steel W.	Warrington Wire Rope Wks Ltd						

Boats *4 Life boats, 2 Cutters, and 2 Pigs.*
Pumps, Number *nine* Diameter of Barrel and Tail Pipe *5 ins. and 2½ respectively*
Windlass is *J. H. Wilson & Co's Steam* Capstan *—*
Engine Room Skylights.—How constructed? *of plates and angles.*
What arrangements for deadlights in bad weather? *Solid top with bells' eyes.*
Coal Bunker Openings.—How constructed? *Side ports* How are lids secured? *Bolts & nuts* Height above deck? *—*
Number of Scuppers, and number and dimensions of Freeing Ports, &c. *13 Scuppers each side, no freeing ports.*
Ceiling in Holds, thickness and material *2½" Pine outside margin ceiling* 'tween Decks, thickness and material *6" x 2 Spruce*
Cargo Hatchways.—How formed? *of plates and angles.* Hatches, If strong and efficient? *Yes, 3 Solid.*
State size No. 1 Hatch (Forward) *19.6 x 14.0* No. 2 Hatch *17.6 x 14.0* No. 3 Hatch *22.2 x 14.0* No. 4 Hatch *11.0 x 14.0*
Number of Web Plates, Shifting Beams and Fore and Afters to each Hatch *2 deep beams in No. 1, 2, and 4, and one in No. 3, and one in No. 4, 5 and 6; and 3 fore & afters in all.* No. of Breasthooks *0* No. of Crutches *4 and deep.*
Bulwarks, height above deck and description *Hand railing on shade deck* Main Rail material and size *—* *Planks*
The above is a correct description.
Builder's Signature (here only) *Harland & Wolff & Co.* Surveyor's Signature *James Furber*
Surveyor to Lloyd's Register of British & Foreign Shipping.

Correspondence. State dates and initials of letters respecting this case (Reference should be made to any correspondence connected with this case) *M*
Jan. 20th March 10th and June 24th 94, E. June 5th 94, M Aug⁵ 13th and 28th 1894.

Workmanship. Are the butts of plating planed or otherwise fitted? *planed where butted but mostly overlapped.*

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 faying surfaces? *yes.*

Do any rivets break into or through the seams or butts of plating? *very few.*

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

General Remarks (State quality of workmanship, &c.) *This vessel has been built in accordance with the approved tracings of Midship and Longitudinal Sections forwarded with the First Entry Report No 4047 on the S.S. Monmouth, a Sister vessel, excepting that an additional deep tank has been fitted in No 3 hold; a duplicate tracing of Midship section was forwarded on the 20th instant. The Secretary's letters dated as above have been complied with, so far as they apply, and the Rules in all other respects have been adhered to. The materials and workmanship are very good. The rivets are spaced closer than required by the Rules in most parts of the vessel. The Machinery for this vessel has been made and fitted in Liverpool, to which port she was towed in October last, and where the Survey on the Hull had to be completed.*

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 — ft., Bridge Dk. — ft., F'castle — ft.

(in feet and tenths). When the Poop is joined to the B.D., this should be distinctly stated. —

A complete shade deck has been fitted

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) *2 Sts (Stl) Spar dk (Stl) with shade deck (steel)*

Official No. — ; Signal Letters —

How are the surfaces preserved from oxidation? Inside *Asphalte and 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.
	Feet.	Tons.		Feet.	Tons.
Double bottom, aft,	145	505	Fore peak tank,		24
Double bottom, forward,	180	654	After peak tank,		28
Double bottom, under Engines and Boilers,	62.5	252	Midship deep tank, <i>in No 3 hold (700)</i>	35.5	980
Double bottom, if under Engines only,			Other tanks, if fitted, <i>- 20.5 - (445)</i>	42.5	900
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.*

For Special Survey No. <i>419</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>Aug 27, Sep 2, 14, 21, 30, Oct 6, 11, 14, 15, 20, 26, Nov 3, 10.</i>
Date <i>15th Mar. 94</i>		2nd. On the plating during the process of riveting	<i>18, 26, Dec 3, 8, 17, 23, 31, 94, Jan 7, 11, 13, 21, Feb 4, 8, 18,</i>
For Ordinary Survey No. —		3rd. When the beams were in and fastened, and before the decks were laid	<i>22, 25, May 3, 8, 16, 22, Apr 4, 7, 18, 21, 28, May 4, 12, 17, 23, 27,</i>
Date —		4th. When the ship was complete, and before the plating was finally coated or cemented	<i>31, June 3, 10, 23, 24, 30, July 8, 10, 22, 25, 29, Aug 6, 9, 15, 20, 24, 25,</i>
" <i>C</i> " in builder's yard.		5th. After the ship was launched and equipped	<i>26, Sep 6, 8, 9, 10, 27, 30, Oct 4, 8, 10, 11, 13, 14, 16, Total No. of Visits 75.</i>

Amount of Entry Fee £ *5* : : : Fees applied for, *20.12.1890*
Special Survey Fee £ *216* : *9* : : Received by me, *23.12.1890*
Travelling Expenses, if any £ : : : *18.*

Certificate to be sent to *this office*

Opinion of this Vessel should be Classed *+ 100 ft 1 Steel Spar Deck*
with or without Freeboard, as condition of Class *with*

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

Committee's Minute *TUES, 10 JAN 1899*

Character assigned *100 ft 1 Steel Spar Deck*
Latex
+ Line 12, 98
w. fbd. 25.8.10
L.N.



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