

# STEEL IRON SHIP.

(Received at London Office)

8462  
10 APR 88

No. 8462 Survey held at Glasgow Date, First Survey 10<sup>th</sup> November 1887 Last Survey 10<sup>th</sup> April 1888

On the Spar decked Steel Screw Steamer "Algonquin" Master J. S. Moore 1888-1888

Tonnage under Deck } 1732.16  
 Tonnage of Third, Spar, or Awning Deck }  
 Tonnage of Poop, or raised Or. Dk. }  
 Tonnage of Houses on Deck } 43.45  
 Tonnage of Forecastle }  
 Gross Tonnage 1805.61  
 Net Tonnage 55.49  
 Tonnage of Engine Room 1749.82  
 Register Tonnage as out on Beam 1172.85

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

Half Breadth (moulded) 20.04  
 Depth from upper part of Keel to top of Upper Deck Beams 16.83  
 Girth of Half Midship Frame (as per Rule) 33.40  
 1st Number 40.57  
 1st Number, if a 3-Decked Vessel do not deduct 7 feet  
 Length 243.58  
 2nd Number 17189.44  
 Proportions Breadths to Length 6.07  
 Depth to Length—Upper Deck to Keel 12.21  
 Main Deck ditto 14.47

Built at Yokohama  
 When built 1887-8 Launched 14 Mar '88  
 By whom built Rapier Shanks & Bell  
 Owners Thomas Hawks & Co  
 Residence Port Arthur  
 Port belonging to Glasgow  
 Destined Voyage Montreal  
 If Surveyed while Building, Afloat, or in Dry Dock. Specially surveyed while building

PLANS CASE

LENGTH on deck as per Rule 243 Feet. 7 Inches. BREADTH Moulded 40 Feet. 1 Inches. DEPTH top of Floors to Deck Beams 20 Feet. 11 Inches. Do. do. Main Deck Beams 13 Feet. 11 Inches. Power of Engines 150 Horse. N° of Decks with flat laid Two N° of Tiers of Beams Two

Dimensions of Ship per Register, length, 245.0 breadth, 40.1 depth, 20.65  
 Flat Keel Plates, breadth and thickness 36 inches in ship, 15 inches per Rule  
 PLATES in Garboard Strakes, br'dth & thickness 36 inches in ship, 11 inches per Rule  
 " From Garboard to upper part of Bilges 10x11  
 " Of d'bling at Bilge, or increased thickness, and length applied 3 Strakes 1/2 length  
 " From up. prt of Bilge to lr. edge of Sh'rstrake 10  
 " Main Sheerstrake, breadth and thickness 40 inches in ship, 12 inches per Rule  
 " Of d'bling at Sh'stk. & lng. applied 3 length  
 " From M'n. to Up. or Spar Dk. Sh'rstrake 20 inches in ship, 10 inches per Rule  
 " Up. or Spar Dk Sh'rstrake, br'dth & thick'ns 40 inches in ship, 10 inches per Rule  
 Butt Straps to outside plating, breadth & thickness 2 1/2 x 1 1/2 inches in ship, 1 1/2 x 7/8 inches per Rule  
 Lengths of Plating 192 inches  
 Shifts of Plating, and Stringers 48 inches  
 Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness 44 inches in ship, 8 inches per Rule  
 Angle Iron on ditto 4x11 inches in ship, 9 inches per Rule  
 Tie Plates fore and aft, outside Hatchways 18x30 inches in ship, 8 inches per Rule  
 Diagonal Tie Plates on Beams No. of Pairs 7 1/2 inches in ship, 3 1/2 inches per Rule  
 Flat of Up., Spar, or Awning Dk. 5 3/8 inches in ship, 3 1/2 inches per Rule  
 How fastened to Beams Lap & Bolt & Nut  
 Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness 35 inches in ship, 10 inches per Rule  
 Is the Stringer Plate attached to the outside plating? Yes  
 Angle Irons on ditto, No. Two 4x11 inches in ship, 9 inches per Rule  
 Tie Plates, outside Hatchways 18x30 inches in ship, 8 inches per Rule  
 Diagonal Tie Plates on Beams, No. of pairs 7 1/2 inches in ship, 3 1/2 inches per Rule  
 Flat of Middle Deck\* do. do. Steel 5/16 inches in ship, 5/16 inches per Rule  
 How fastened to Beams Riveted  
 Stringer Plates on ends of Lower Deck, Hold or Orlop Beams See "SIDE STRINGER"  
 Is the Stringer Plate attached to the outside plating? Yes  
 Angle Irons on ditto, No. Two 4x11 inches in ship, 9 inches per Rule  
 Stringer or Tie Plates, outside Hatchways 18x30 inches in ship, 8 inches per Rule  
 Flat of Lower Deck\* Steel 5/16 inches in ship, 5/16 inches per Rule

KEEL, depth and thickness 8 1/2 x 2 1/2 inches in ship, 8 1/2 x 2 1/2 inches per Rule  
 TEM, moulding and thickness 8 1/2 x 5 inches in ship, 8 1/2 x 5 inches per Rule  
 STERN-POST for Rudder do. do. 8 1/2 x 5 inches in ship, 8 1/2 x 5 inches per Rule  
 " for Propeller 8 1/2 x 5 inches in ship, 8 1/2 x 5 inches per Rule  
 Distance of Frames from moulding edge to moulding edge, all fore and aft 24 inches in ship, 24 inches per Rule

FRAMES, Angle Iron, for 1/2 length amidships 4 1/2 inches in ship, 3 inches per Rule  
 Do. for 1/4 at each end 4 1/2 inches in ship, 3 inches per Rule  
 REVERSED FRAMES, Angle Iron 3 inches in ship, 3 inches per Rule  
 FLOORS, depth and thickness of Floor Plate at mid line for half length amidships 35 inches in ship, 6 inches per Rule  
 thickness at the ends of vessel 6 inches in ship, 6 inches per Rule  
 depth at 1/2 the half bath, as per Rule 6 inches in ship, 6 inches per Rule  
 height extended at the Bilges (Brackets) 54 inches in ship, 54 inches per Rule

DECKS, Upper, Spar, or Awning Deck 8 inches in ship, 5 7/16 inches per Rule  
 do. or d'ble Ang. Iron, Plate or Tee Bulb Iron 8 inches in ship, 5 7/16 inches per Rule  
 do. or double Angle Iron on Upper edge 48 inches in ship, 48 inches per Rule  
 average space 4 inches in ship, 3 inches per Rule  
 DECKS, Main, or Middle Deck 4 inches in ship, 3 inches per Rule  
 do. or d'ble Ang. Iron, Plate or Tee Bulb Iron 4 inches in ship, 3 inches per Rule  
 do. or double Angle Iron on Upper Edge 48 inches in ship, 48 inches per Rule  
 average space 4 inches in ship, 3 inches per Rule  
 DECKS, Lower Deck—Web frames 15 inches in ship, 7 inches per Rule  
 do. or d'ble Ang. Iron, Plate or Tee Bulb Iron 3 inches in ship, 3 inches per Rule  
 do. or double Angle Iron on Upper Edge 15 1/2 inches in ship, 15 1/2 inches per Rule  
 average space 15 1/2 inches in ship, 15 1/2 inches per Rule

KEELSONS, Centre line, single or double plate, box, or Intercostal Plates 35 inches in ship, 9 inches per Rule  
 " Rider Plate (Double bottom, ab. centre line) 8 inches in ship, 8 inches per Rule  
 " Bulb Plate to Intercostal Keelson 4 inches in ship, 4 inches per Rule  
 " Angles Irons (Top) 4 inches in ship, 4 inches per Rule  
 " Double Angles Iron Side Keelson (Bottom) 5 inches in ship, 4 inches per Rule  
 " Side Intercostal Plate (Double bottom, Girders) 3 inches in ship, 3 inches per Rule  
 " do. Angles Irons 3 inches in ship, 3 inches per Rule  
 " Attached to outside plating with angle iron 3 inches in ship, 3 inches per Rule  
 BILGE Angle Irons 3 inches in ship, 3 inches per Rule  
 " do. Bulb Iron 3 inches in ship, 3 inches per Rule  
 " do. Intercostal plates riveted to 3 1/2 inches in ship, 3 1/2 inches per Rule  
 Angle to shell - plating for length 5 inches in ship, 4 inches per Rule  
 BILGE STRINGER Angles Irons 5 inches in ship, 4 inches per Rule  
 Intercostal plates riveted to plating for length 3 inches in ship, 3 inches per Rule  
 SIDE STRINGER Angles Irons 15 1/2 inches in ship, 7 inches per Rule  
 Do. Plate 15 1/2 inches in ship, 7 inches per Rule

The FRAMES extend in one length from Keel plate to Double bottom  
 The REVERSED ANGLE IRONS on floors and frames extend from middle line to Spar Deck  
 KEELSONS. Are the various lengths of Plates and Angles Irons properly connected? Yes And butts properly shifted? Yes  
 PLATING. Garboard, double riveted to Keel, with rivets 1/8 in. diameter, averaging 4 3/4 ins. from centre to centre.  
 " Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 1/8 in. diameter, averaging 3 1/2 ins. from centre to centre.  
 " Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 1/8 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 2/20 thicker than the plates they connect.  
 " Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 1/8 in. diameter, averaging 3 1/2 ins. from cr. to cr.  
 " Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 1/8 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, edges.  
 " Butts of Main Sheerstrake, treble riveted for half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted half length amidships.  
 " Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for half length amidships.  
 Breadth of laps of plating in double riveting 5 1/2 Breadth of laps of plating in single riveting 2 1/2

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble & double No. of Breasthooks, Five Crutches, 1  
 What description of Steel iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Siemens-Martin  
 Manufacturer's name or trade mark, Plates and Bars - Mossend, Dalzell, Coats, & Steel Co. of Scotland.  
 The above is a correct description.  
 Builder's Signature, Rapier Shanks & Bell Surveyor's Signature, W. J. Comber-Button  
 Surveyor to Lloyd's Register of British and Foreign Shipping.

State clearly where plating is of alternate thicknesses - as 'Mating' finished from distinguished thickness at ends of vessel.  
 If Iron Deck, state if whole or part, and if wood deck to laid thereon.

8462 lbs

Workmanship. Are the butts of plating planed or otherwise fitted? *Planed*  
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? *One or two in butts only*

Masts, Bowsprit, Yards, &c., are *Steel* in *good* condition, and sufficient in size and length. If of Iron or Steel give Scan 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 1 and if stamped with Maker's name.

State also Length and Diameter of Lower Masts and Bowsprit  
*Fore Mast 80 ft 2 in extreme, heel 16 1/2 x 9/32, deck 20 1/2 x 3/32, rounds 15 1/2 x 7/32, Butts triple & double seams double rivet*  
*Main Mast 82 ft 6 in, heel 16 x 9/32, deck 20 1/2 x 3/32, rounds 15 1/2 x 7/32, Butts triple & double seams double rivet*  
*Mizzen Mast 59 ft 6 in, heel 14 x 7/32, deck 17 x 1/32, rounds 13 x 7/32, Butts triple, seams single rivet*

NUMBER & LETTER for EQUIPMENT		CABLES, &c.		Test per Certificate	Inches per Rule	Machine where Tested and Superintendent, also Number of Certificate	ANCHORS, N <sup>o</sup> .	Weight, Ex. Stock	Test per Certificate	W <sup>g</sup> t req'd per Rule	Machine where Tested and Superintendent, also Number of Certificate	
N <sup>o</sup> .	SAILS.	Chain	Fathoms	Inches			Bower Anchors					
		18051	135	1 1/2	57.5 - 71.15	25/7/88 - D. G. Lewis	23160	27.0 - 2.14	27.0 - 2.14	27.0	23/7/88 - D. G. Lewis	
	Fore Sails,	18052	135	1 1/2	57.5 - 71.15	25/7/88 - D. G. Lewis	23169	27.1 - 2.2	26.15 - 0.0	27	23/7/88 - D. G. Lewis	
	Fore Top Sails,	18053	75	1 1/2	20.6 - 30.8	24/7/88 - D. G. Lewis	23158	23.0 - 3.10	23.15 - 2.14	23.0	23/7/88 - D. G. Lewis	
	Fore Topmast Stay Sails,		90	3 1/2	26	90 - 3 1/2						
	Main Sails,		90	9	90 - 9		Stream Anchor	23136	9.0 - 0.8	11.4 - 2.21	8 3/4	15/7/88 - D. G. Lewis
	Main Top Sails, and		90	7	90 - 7		Kedge	23161	4.1 - 1.0	6.15 - 0.0	4 1/2	23/7/88 - D. G. Lewis
							2nd Kedge	23162	2.1 - 1.8	4.14 - 2.0	2 1/2	23/7/88 - D. G. Lewis

Standing and Running Rigging *the hump* sufficient in size and *good* in quality. She has *one* Long Boat and *one* longboat, *one* dingy.  
The Windlass is *Clarke, Chapman & Co Steam* Capstan *Windlass*, and Rudder *good* Pumps *to approved plan*

Engine Room Skylights.—How constructed? *Of Lead* How secured in ordinary weather? *Connected to coaming on top of Hull*  
What arrangements for deadlights in bad weather? *Lanterns over gratings*

Coal Bunker Openings.—How constructed? *Side ports* How are lids secured? Height above deck? *On each side on Spar Deck*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Four freeing ports 2 1/2 in x 16 in - 6 Scuppers - 5 mooring pipes*

Cargo Hatchways.—How formed? *Coaming plates and fore & afters*  
State size *Main Hatchways on Spar Deck each Fore hatch 5 ft 0 in long x 22 ft 0 in wide Quarter hatch Main Deck 8 ft 0 in x 8 ft 0 in*

If of extraordinary size, state how framed and secured? *Yes, solid*  
What arrangement for shifting beams? *Yes, solid*

Hatches, If strong and efficient? *Yes, solid*

Order for Special Survey No. *2134*  
Date *15 Nov 1884*  
Order for Ordinary Survey No. *40*  
Date *9/5*  
No. *40* in builder's yard.

State dates of letters respecting this case *The Secretary - 11. 1887 - 3<sup>rd</sup> Nov. 12<sup>th</sup> Nov. 24<sup>th</sup> Nov. 2<sup>nd</sup> Dec. 1888. P. 25<sup>th</sup> Jan. 29<sup>th</sup> March.*

General Remarks (State quality of workmanship, &c.) *The Materials and workmanship are good and the vessel has been built in accordance with the Secretary's letters above referred to, the approved and revised Midship Sections forwarded the 13<sup>th</sup> April 1888, with the remaining approved Plans, and the Rules and Committees Circulars on Steel.*

*The fore peak has been satisfactorily tested, and the double bottom pressed and found satisfactory*

*The Freeboard assigned by the Committee 29<sup>th</sup> March 1888 has been marked upon the vessel's side after verification of the particulars - as per Report herewith. Two Forging Reports and nine Drawings herewith.*

*One deck (Steel) and Spar Deck - Web frames below Main Deck. Forecastle 28 ft long.*

State if one, two, or three decked vessel, or if spar, or awning decked; and the length of poop, bridge, fore-castle, or raised quarter deck. (If double bottom state particulars on separate form.)  
How are the surfaces preserved from oxidation? Inside *Cement and Paint* Outside *Paint*

I am of opinion this Vessel should be Classed *100 A 1 Steel Spar Deck*

The amount of the Entry Fee ..... £ *4* : *15* : *0* is received by me, *(Signature)*  
Special ..... £ *68* : *15* : *0* 13/4 1888

(to be sent as per margin) Certificate .....  
(Travelling Expenses, if any, £ .....)

Committee's Minute  
Character assigned *100 A 1 Steel Spar Deck*  
*Foremast 6 ft 2*  
*10 ft 11 Spar Deck web frames*

*H. J. Comber-Dutton*  
Surveyor to Lloyd's Register of British and Foreign Shipping  
*It is submitted that this vessel appears eligible to be classed 100 A 1 "Steel" Spar Deck as recommended with a freeboard as per attached slip inserted in the Certificate of Classification and recorded in the Register Book 100 (Steel) & Spar Deck & web frames*

Reference should be made to any correspondence connected with the case.

Certificate to be sent to  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)