

Steel & IRON SHIP.

Rec'd. 10th Nov. 1883.

No. 3708

Survey held at *Workington*

Date, First Survey *13th March 1883* Last Survey *2nd Feb'y*

1884

On the *Screw Steamer "Derwent"*

TONNAGE under Tonnage Deck } 239.11
Ditto of Third, Spar, or Awning Deck }
Ditto of Deck, or Raised Or. Dk. } 17.28
Ditto of Houses on Deck } 2.48
Ditto of Forecastle Hatch } 7.75
Gross Tonnage } 266.62
Less Crew Space } 29.29
Less Engine Room } 126.18
Register Tonnage as cut on Beam } 111.15

ONE, OR TWO DECKED, THREE DECKED VESSEL, SPAR, OR AWNING-DECKED VESSEL.
Half Breadth (moulded) ... 11.50
Depth from upper part of Keel to top of Upper Deck Beams ... 11.37
Girth of Half Midship Frame (as per Rule) ... 20.50
1st Number ... 43.37
1st Number, if a 3 Decked Vessel ... deduct 7 feet
Length ... 142.96
2nd Number ... 6200
Proportions— Breadths to Length ... 6.21
Depths to Length— Upper Deck to Keel ... 12.57
Main Deck ditto ...

Master *James Larkin*
Built at *Workington*
When built *1883* Launched *17th Dec*
By whom built *R. Williamson & Son*
Owners *Derwent Steam Ship Co. (Ld)*
Residence *John Casson & Co. Workington*
Port belonging to *Workington*
Destined Voyage *Coasting*
If Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule ... 142 11 1/2 Feet. Inches. BREADTH— Moulded ... 23 0 Feet. Inches. DEPTH top of Floors to Upper Deck Beams ... 10 5 Feet. Inches. Power of Engines ... 50. Horse. No. of Decks with flat laid ... 6 No. of Tiers of Beams ... 6

Dimensions of Ship per Register, length, 144.0 breadth, 23.0 depth, 10.4 Depth moulded 11ft. 2 in.

KEEL, depth and thickness ... 7 x 1 5/8
STEM, moulding and thickness ... 6 1/4 x 1 5/8
STERN-POST for Rudder do. do. ... 6 1/4 x 3/4
" " for Propeller ... 6 1/4 x 3/4
Distance of Frames from moulding edge to moulding edge, all fore and aft ... 21
RAMES, Angle Iron, for 1/2 length amidships ... 3 2 1/2 5
Do. for 1/2 at each end ... 3 2 1/2 5
EVERSED FRAMES, Angle Iron ... 2 1/2 2 1/2 4
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships ... 12 1/2 E.B. 7
" thickness at the ends of vessel ... 6 1/2
" depth at 1/2 the half-bdth. as per Rule ... 6 1/2
" height extended at the Bilges ... 25
BEAMS, Upper, Spar, or Awning Deck } Angle or d'ble Ang. Iron, Plate or Tee Bulb Iron }
" Angle or double Angle Iron on Upper edge ... 21
Average space ... 4 2 1/2 6
BEAMS, Main, or Middle Deck } Angle or d'ble Ang. Iron, Plate or Tee Bulb Iron }
" Angle or double Angle Iron on Upper edge ... 21
Average space ... 4 2 1/2 6
BEAMS, Lower Deck } Angle or d'ble Ang. Iron, Plate or Tee Bulb Iron }
" Angle or double Angle Iron on Upper edge ... 21
Average space ... 4 2 1/2 6
BEAMS, Hold, or Orlop } Angle or d'ble Ang. Iron, Plate or Tee Bulb Iron }
" Angle or double Angle Iron on Upper edge ... 21
Average space ... 4 2 1/2 6
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates ... 10 8 10 8
" Rider Plate ... 6 1/2 8 6 1/2 8
" Bulb Plate to Intercoastal Keelson ... 3 3 6 3 3 6
" Angle Irons ... 3 3 6 3 3 6
" Double Angle Iron Side Keelson ... 3 3 6 3 3 6
" Side Intercoastal Plate ... 2 1/4 2 1/4 4 2 1/4 2 1/4 4
" do. Angle Irons ... 2 1/4 2 1/4 4 2 1/4 2 1/4 4
" Attached to outside plating with angle iron
BILGE Angle Irons ... 3 3 6 3 3 6
" do. Bulb Iron for 3/5 Length ... 5 1/2 5 5 1/2 5
" do. Intercoastal plates riveted to plating for length
BILGE STRINGER Angle Irons ... 3 3 6 3 3 6
Bulb Intercoastal plates riveted to plating for stringer in way of R. 2nd Dk. length
SIDE STRINGER Angle Irons ... 3 3 6 3 3 6
Flat Keel Plates, breadth and thickness ...
PLATES in Garboard Strakes, br'dth & thickness ...
From Garboard to upper part of Bilges ...
Of d'ble at Bilge, or increased thickness, and length applied 1/2 length
From up. prt of Bilge to l.r. edge of Sh'rstrake ...
Main Sheerstrake, breadth and thickness ...
Of d'ble at Sh'stk. & Ing. applied 12 ft ...
From M'n. to Up. or Spar Dk. Sh'rstrake ...
Up. or Spar Dk. Sh'rstrake, br'dth & thickness ...
Butt Straps to outside plating, breadth & thickness ...
Lengths of Plating ... 7 spaces
Shifts of Plating, and Stringers ... 2 spaces
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness ...
Angle Iron on ditto ... 3 x 3 x 6 3 x 3 x 6
Tie Plates fore and aft, outside Hatchways
Diagonal Tie Plates on Beams No. of Pairs
Flat of Up., Spar, or Awning Dk. Iron
How fastened to Beams ... Riveted
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness ... 27 7 27 7
Is the Stringer Plate attached to the outside plating? yes
Angle Irons on ditto, No. one ... 3 x 3 x 6 3 x 3 x 6
Tie Plates, outside Hatchways ...
Diagonal Tie Plates on Beams, No. of pairs
Flat of Middle Deck do. Iron
How fastened to Beams ... Riveted
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams ...
Is the Stringer Plate attached to the outside plating?
Angle Irons on ditto, No.
Stringer or Tie Plates, outside Hatchways
Flat of Lower Deck
Ceiling between Decks, thickness and material ... 2 1/2 spruce 2 1/2
" in hold do. do. ... 2 1/2 2 1/2
Main piece of Rudder, diameter at head ... 3 3/4 dia. 3 3/4 dia.
" do. at heel ... 2 1/2 " 2 1/4
Can the Rudder be unshipped afloat? yes
Bulkheads No. 3 No. per Rule 3
" Thickness of 4/16
" Height up Main & R. 2nd Deck
" How secured to sides of ship double frames
" Size of Vertical Angle Irons 2 1/2 x 2 1/2 x 4 and distance apart 30 ins.
" Are the outside Plates doubled two spaces of Frames in length? yes

The FRAMES extend in one length from *keel* to *gunwale* Riveted through plates with 3/4 in. Rivets, about 6" apart.

The REVERSED ANGLE IRONS on floors and frames extend from middle line to *Bilge & to R. 2nd deck* and to *side stringer* 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 in. diameter, averaging 5 ins. from centre to centre.

" Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 3/4 in. diameter, averaging 3 3/8 ins. from centre to centre.

" Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 ins. from centre to centre.

" Butts of *one* Strake at Bilge for *half* length, treble riveted with Butt Straps 1/16 in. thicker than the plates they connect.

" Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 3/4 in. diameter, averaging 3 3/8 ins. from cr. to cr.

" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 ins. from cr. to cr.

" Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted.

" Butts of Main Sheerstrake, double riveted for length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.

" Butts of Main Stringer Plate, treble riveted for length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for length.

" Breadth of laps of plating in double riveting 4 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. No. of Breasthooks, 3 Crutches, 4

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *best outside plating steel*

Manufacturer's name or trade mark, *Steel & Iron Co. Ltd. Iron & Steel Co. Ltd. & Greenock & Co.*

The above is a correct description.
Builder's Signature, *R. Williamson & Son* Surveyor's Signature, *C. Buchanan*
Surveyor to Lloyd's Register of British and Foreign Shipping.

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? *a few in the butts of the garboard strakes.*

Masts, Bowsprit, Yards, &c., are *now* in *in* 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

Fore mast length extreme 55ft 6ins Dia at partners 12 1/2 ins Rch Pine
Main " " 59ft 8 ins " " 12 1/2 ins "
Brizen " " 45ft 6 ins " " 10 1/2 ins Spruce

NUMBER for EQUIPMENT 6820		Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Suprntd.
SAILS.												
N ^o .	CABLES, &c.											
	Chain	90	15 1/6	23.14.0.0	165 x 15 1/6		Bower Anchors	16386	6.2.24	9.0.0.0	6.2.0	
Fore Sails,	(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	75	15 1/6	15.16.0.0			(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	16387	6.2.16	9.0.0.0	6.2.0	
Fore Top Sails,	Iron Stream Chain	30	5 1/8	9.5.0.0	45 x 5 1/8		Stream Anchor	16394	2.0.17	4.15.0.0	2.0.0	
Fore Topmast Stay Sails,	or Steel Wire	15	5 1/8	4.12.0.0	185 x 5 1/8		Kedge	1	0.0		1.0.0	
Main Sails,	or Hempen Stem	75	7		75 x 7		2nd Kedge					
Main Top Sails,	Towline, Hemp.											
and	or Steel Wire	90	5		90 x 5							
	Hawser	180	4									
	Warp											
	quality good											

Standing and Running Rigging *pure manilla* sufficient in size and *good* in quality. She has *one Life Long* Boat and *one other*

The Windlass is *Emerson & Walker's* Capstan and Rudder *good* Pumps *as per approved plan.*

Engine Room Skylights. How constructed? *wood on top of casing* How secured in ordinary weather? *bolted to angle iron*

What arrangements for deadlights in bad weather? *side lights in iron casing*

Coal Bunker Openings. How constructed? *cast iron* How are lids secured? *locking* Height above deck? *12 ins*

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? *six scuppers & six water ports*

Cargo Hatchways. How formed? *Iron comings*

State size Main Hatch *22ft 9ins x 10ft 0ins* Fore hatch *22ft 9ins x 10ft 0ins* Quarter hatch *✓*

If of extraordinary size, state how framed and secured? *Strake of deck plating in way of hatchways 1 1/16" thicker*

What arrangement for shifting beams? *Two deck web plates in each hatch*

Hatches, If strong and efficient? *yes (2 1/2" solid)*

Order for Special Survey No. 346	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	1883 April 13-16. April 18-20. 24-27. May 1-4. 10-14. 17. 23-28
Date 28 th April 1883.		2nd. On the plating during the process of riveting	June 1-4. 7-11. 14. 18-29. July 5-6. 11. 18. 20-25. 27. Aug. 3-7. 11. 15. 17. 20
Order for Ordinary Survey No. 7		3rd. When the beams were in and fastened, and before the decks were laid...	22. 23. 25-31. Sept. 3-6. 8-12. 13-26. Oct. 1-6. 12-17-24. Nov. 2-6. 19. 22-27.
Date		4th. When the ship was complete, and before the plating was finally coated or cemented..	Sept. 14. 7. 12. 15. 17. 21. 1884 Jan. 4-7.
No. 80 in builder's yard.		5th. After the ship was launched and equipped	Feb. 11. 12-14. 15. 18. 20. 22-25.

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

the accompanying approved plans and the Secretary's letters dated: -
March 15th, July 13th, Aug. 28th, & November 26th 1883.

The shell plating of this vessel is steel, made by the West Cumberland & Steel Coy. & fitted in accordance with the Committee's Circulars, while the frames, floors, stringers, deck plating, keelsons & all angles are iron.

The quality of the workmanship is good. The water ballast tank has been tested prior to the launching of the vessel and proved satisfactory.

Length of Raised quarter deck 50ft. 0ins

Forecastle 19ft. 6ins

Bridge 7ft. 0ins

* *Travelling expenses £5.5/- less £2.2/- as per Secretary's letter 19th Nov. 1883*

State if one, two, or three decked vessel, or if open, or casing decked; and the lengths of poop, bridge, forecastle, & raised quarter deck. (If double bottom, state particulars on separate form)

How are the surfaces preserved from oxidation? Inside *Paint & Cement* Outside *Paint*

I am of opinion this Vessel should be Classed *100A1* with notation in the Register Book *Iron framing steel shell*

The amount of the Entry Fee *£2* is received by me, *C.B.*

Special *£13 : 6 : -* 5th Dec. 1884

Certificate (to be sent as per margin).

(Travelling Expenses, if any, £5.5/-)

Committee's Minute

TUESDAY 11 MARCH 1884

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Character assigned

100A1

Iron framing steel shell

Surveyor to Lloyd's Register of British and Foreign Shipping
It is submitted that this vessel appears eligible to be classed 100A1.
recommended
15th (1884)
Lloyd's Register
Foundation