

STEEL IRON SHIP.

RECEIVED 30th NOV. 82

5917

No. 5914 Survey held at Dumbarton Date, First Survey 23rd July 1882 Last Survey 21st Nov 1882
On the S.S. Carawera 2 masts, schooner rigged

TONNAGE under Tonnage Deck 1728.52
Ditto of Third, Spar, or Awning Deck 149.90
Ditto of Poop, or Raised Quarter Deck 79.05
Ditto of Houses on Deck 45.68
Ditto of Forecastle 2003.15
Gross Tonnage 1909.57
Less Crew Space 641.01
Less Engine Room 1268.56
Register Tonnage as cut on Beam

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

Half Breadth (moulded) 8.00
Depth from upper part of Keel to top of Upper Deck Beams 25.80
Girth of Half Midship Frame (as per Rule) 40.3
1st Number 84.1
1st Number, if a 3-Decked Vessel deduct 7 feet 7.0
Length 128.3
2nd Number 284.2
Proportions— Breadths to Length 7.8
Depths to Length— Upper Deck to Keel 10.98
Main Deck ditto 15.9

Master Sinclair
Built at Dumbarton
When built 1882 Launched 30th Sep. 1882.
By whom built Wm Denny & Bros.
Owners Union F.C. of N. Zealand (Ld)
Residence Dunedin
Port belonging to Dunedin
Destined Voyage
If Surveyed while Building, Afloat, or in Dry Dock, While Building & afloat

LENGTH on deck as per Rule 213 4 Feet. Inches. BREADTH— Moulded 36 0 Feet. Inches. DEPTH top of Floors to Upper Deck Beams 22 0 Feet. Inches. Power of Engines 253 Horse. N° of Decks with flat laid 3 N° of Tiers of Beams 3

Dimensions of Ship per Register, length, 285 breadth, 36.25 depth, 22.65 moulded depth 25.12

KEEL, depth and thickness side bars 10x18
STEM, moulding and thickness 10x23 1/4
STERN-POST for Rudder do. do. 10x5 1/2
" " for Propeller 10x5 1/2
Distance of Frames from moulding edge to moulding edge, all fore and aft 24 ins

FRAMES, Angle Iron, for 3/4 length amidships 3 1/2 3 1/2 12 3 1/2 3 1/2 12
Do. for 1/4 at each end 6 3 1/2 13 6 3 1/2 13
REVERSED FRAMES, Angle Iron 3 1/2 3 1/2 13 3 1/2 3 1/2 13
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships Solid Brackets with holes as approved on sketch of mid. Dec
" thickness at the ends of vessel
" depth at 3/4 the half-bdth. as per Rule
" height extended at the Bilges

BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron 7 1/2 3 1/2 12 7 1/2 3 1/2 12
Single or double Angle Iron on Upper Edge 48 ins 48 ins
Average space 48 ins
AMS, Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron 8 1/2 13 8 1/2 13
Single or double Angle Iron on Upper Edge 3 3 12 3 3 12
Average space 48 ins
BEAMS, Lower Deck— forward Single or d'ble Ang. Iron, Plate or Tee Bulb Iron 7 1/2 3 1/2 12 7 1/2 3 1/2 12
Single or double Angle Iron on Upper Edge 48 ins 48 ins
Average space 48 ins
BEAMS, Hold, or Orlop— lower & aft Single or d'ble Ang. Iron, Plate or Tee Bulb Iron 6 3 13 6 3 13
Single or double Angle Iron on Upper Edge 48 ins 48 ins
Average space 48 ins
KEELSONS Centre line, single or double plate, box, or intercostal, Plating 49 15 49 15
" Rider Plate part of inner bottom 36 13 36 13
" Bulb Plate to intercostal Keelson 10 10
" Angle Irons 2 girders
" Double Angle Iron Side Keelson Cellular double bottom as approved
" Side Intercostal Plate
" do. Angle Irons
" Attached to outside plating with angle iron 3 3 12 3 3 12
BILGE Angle Irons margin plate 12 12
" do. Bulb Iron
" do. Intercostal plates riveted to plating for length 6 4 15 6 4 15
BILGE STRINGER Angle Irons 11 15 11 15
SIDE STRINGER Angle Irons

Flat Keel Plates, breadth and thickness
PLATES in Garboard Strakes, br'dth & thickness 36 20 36 20
" From Garboard to upper part of Bilges 16.13 16.13
" Of d'ble at Bilge, or increased thickness and length applied 18.15 18.15
" From up. prt of Bilge to lr. edge of Sh'rstrake Main Sheerstrake, breadth and thickness 50 21.16 50 21.16
" Of d'ble at Sh'stk. & lng. applied for side light 21 10 21 10
" From M'n. to Up. or Spar Dk Sh'rstrake 21 10 21 10
" Up. or Spar Dk Sh'rstrake, br'dth & thickness 21 10 21 10
Butt Straps to outside plating, breadth & thickness 19.9 25.13 19.9 25.13
Lengths of Plating 7 spaces
Shifts of Plating, and Stringers 2 - - -
Gunwale Plate on ends of Upper Deck Beams, breadth and thickness 41 15 41 15
Angle Iron on ditto 4x4x15 4x4x15
Tie Plates fore and aft, outside Hatchways complete steel
Diagonal Tie Plates on Beams No. of Pairs 5x5/8, covered with 3 inches Teak
Flat of Up., Spar, or Awning Dk.
How fastened to Beams riveted & nut & screw bolts
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness 51 18 51 18
Is the Stringer Plate attached to the outside plating? 4x4x15 4x4x15
Angle Iron on ditto, No. 2 5 1/2 x 4 x 5 5 1/2 x 4 x 5
Tie Plates, outside Hatchways 14 16 14 16
Diagonal Tie Plates on Beams, No. of pairs 3 1/2 P.P. 3 1/2
Flat of Middle Deck do. do. 3 1/2 P.P. 3 1/2
How fastened to Beams nut & screw bolts
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams 37 15 37 15
Is the Stringer Plate attached to the outside plating? Yes Yes
Angle Irons on ditto, No. 2 4x4x15 4x4x15
Stringer or Tie Plates, outside Hatchways 14 15 14 15
Flat of Lower Deck 2 1/2 Pine 2 1/2
Ceiling betwixt Decks, thickness and material sparring
" in hold do. 2 1/2 Pine 2 1/2
Main piece of Rudder, diameter at head 7 1/2 7 1/2
" do. at heel 8 x 4 3 3/4
Can the Rudder be unshipped afloat? Yes
Bulkheads No. 4 No. per Rule 4
" Thickness of 12-10
" Height up 3 1/2 up to 3 1/2 after one to main dk with W.T.
" How secured to sides of ship double frames
" Size of Vertical Angle Irons 3 1/2 x 5 1/2 and distance apart 30 ins.
" Are the outside Plates doubled two spaces of Frames in length? Yes

The FRAMES extend in one length from Bilge to Bilge & Bilge to gunwale Riveted through plates with 7/8 in. Rivets, about 6-7 apart.
The REVERSED ANGLE IRONS on floors and frames extend from middle line to Bilge in short length from Bilge to M'n. & up dk 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 1/8 in. diameter, averaging 4 3/4 ins. from centre to centre.
" Edges of Garboards and to upper part of Bilge, worked clench, double riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from centre to centre.
" Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 1/2 ins. from centre to centre.
" Butts of all Strakes at Bilge for 160ft length, treble riveted with Butt Straps 5/8 thicker than the plates they connect.
" Edges from Bilge to Main Sheerstrake, worked clench, double or single riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from cr. to cr.
" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 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.
" Butts of Main Sheerstrake, treble riveted for length amidships Butts of Upper or Spar Sheerstrake, treble riveted 1/2 length amidships.
" Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for 1/2 length.
" Breadth of laps of plating in double riveting 5 1/4 ins. Breadth of laps of plating in single riveting

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Not done No. of Breasthooks, 4 Crutches, 2 per floor

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? "Morse's", "Dalziel"

Manufacturer's name, or trade mark, and "Hallside"

The above is a correct description.
Builder's Signature, Wm Denny & Brothers Surveyor's Signature, Lloyd's Register

Workmanship. Are the butts of plating planed or otherwise fitted? *Planed* 5917 gbs
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 very few.*

Masts, Bowsprit, Yards, &c., are *Steel* 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 *Two masts, built in accordance with the approved sketch, attached to Report on "Hawroto", 12th 5871, see Secretary's letter of the 13th April 1882.*

NUMBER for EQUIPMENT 26207		Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Suprntd.
SAILS.												
N ^o .	CABLES, &c.	1353	1 1/16	59.2.2.0	2 7/8	Refuted	Bower Anchors	13751	32.0.8	30.14.1.14	32 cwt	
	Chain	1353		52.15.0.0	1 13/16	Refuted	(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	13930	32.0.0	30.2.2.0	total	
Fore Sails,	Iron Stream Chain	139402		11.02.1882		S. 4.	19 Sept. 1882	13931	27.1.4	26.13.0.14	9 1/4	
Fore Top Sails,	or Steel Wire	75	1 1/8	34.2.2.0	75. 1/8	Lewis	4 Oct. 1882		5.3.21			
Fore Topmast	or Hempen Strm	11139		11.02.1882			4 - - -		91.1.12			
Stay Sails,	Cable						13 - - -	13968	10.2.17	12.13.0.14		
Towline, Hemp.		90	4 1/2	Steel-Bulldog	90.12.0	4 steel	Stream Anchor	13866	5.2.6	7.18.1.21	10 1/2	
Main Sails,	or Steel Wire	90	9 1/2	Manilla	90.9 1/2		Kedge	13866	1.1.9		5 1/4	
Main Top Sails,	Warp	120	7 1/2	120.6"	90.7 1/2		2nd Kedge	13860	2.4.21	5.5.0.0	2 1/2	
and spare	quality good	120	7 1/2	120.3 1/2					3.7			
Standing and Running Rigging		wire them's sufficient in size and good in quality. She has 3 Long Boat and 3 others										
The Windlass is		Paul's Patent Capstan good and Rudder good Pumps good										
Engine Room Skylights.		How constructed? Taken from Cummings Bridge How secured in ordinary weather? Bolted.										
What arrangements for deadlights in bad weather?		Gratings and carpanulins										
Coal Bunker Openings.		How constructed? Cast Iron How are lids secured? Bayonet fixing Height above deck? Flush.										
Scuppers, &c.		What arrangements for clearing upper deck of water, in case of shipping a sea? 7 water ports, 5 scuppers, 3 cargo ports, 2 gangway ports and 2 mowing pipes.										
Cargo Hatchways.		How formed? Iron Framings										
State size Main Hatch		11'9" x 11 ft Forehatch 9'9" x 9 ft Quarterhatch 10'6" x 10 ft.										
If of extraordinary size, state how framed and secured?		not of extraordinary size										
What arrangement for shifting beams?		none										
Hatches, if strong and efficient?		Yes.										

Order for Special Survey No. 1714 Date 6th January 1882
Order for Ordinary Survey No. 1714 Date 17th Jan 1882
No. 263 in builder's yard.
1st. On the several parts of the frame, when in place, and before the plating was wrought
2nd. On the plating during the process of riveting
3rd. When the beams were in and fastened, and before the decks were laid...
4th. When the ship was complete, and before the plating was finally coated or cemented...
5th. After the ship was launched and equipped
Specially Surveied: - 1882: - Feb 23, Mar 6, 16, 22, 29; April 3, 4, 13, 18, 24, 27; May 3, 9, 12, 16, 19, 24, 26, 30; June 2, 7, 9, 13, 16, 19, 23, 27, 30; July 12, 25, 28; Aug 1, 3, 9, 11, 16, 18, 29, 31; Sep: 5, 8, 12, 15, 19, 22, 26, 27, 28; Oct 3, 10, 13, 17, 20, 24, 27, 31; Nov 7, 10, 14, 17, 21.

General Remarks (State quality of workmanship, &c.)
The workmanship in this vessel is good, and she has been built in accordance with the tracings, 5 in number, herewith attached, and in accordance with the Secretary's letters of the 5th Jan'y, 17th Mar., 13th April and 29th April 1882. The steel of which this vessel has been built, was tested at the Manufacturer's Works, as set forth in the Circulars issued by the Committee. She is built on the cellular principle all fore & aft, 1st Tank from fore to 98 ft long containing 113.3 tons of water; 2nd 30 ft x 13.2 tons; 3rd 26 ft x 53.5 tons; 4th 28 ft x 51 tons and 5th 50 ft x 52 tons. Each of these tanks has been tested as required by the Rules and found satisfactory.
The Poop is 60 ft long with 4 ft wings for stairs; Open Bridge house 72 ft x house abaft 15'9" x 12 ft broad. Forecastle 44 ft long.

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

How are the surfaces preserved from oxidation? Inside Cement & Paint Outside Paint.
I am of opinion this Vessel should be Classed + 100 A.1. "3 Shot & 3 Shot" "1 Shot & 1 Shot"
The amount of the Entry Fee ... £ 5 : 0 : 0 is received by me, [Signature]
Special ... £ 42 : 15 : 0 24/11 1882
Certificate ... gratis
(Travelling Expenses, if any, £ ...)
Committee's Minute Friday, 1st December 1882.
Character assigned [Signature] 100 A.1 Steel
Double Bottoms - See particulars

Surveyor to Lloyd's Register of British and Foreign Shipping.
This submitted that this vessel appeared eligible to be classed 100 A.1 Steel as recommended.
Lloyd's Register Foundation

See plans with "Wailora" Report 5978