

# Steel SHIP

THURSDAY 19th April 1884

No. 4752 Survey held at Dundee Date, First Survey April 18th Last Survey 3rd September 1883

On the S.S. Herald

Master J.R. Savory  
Built at Dundee  
When built 1884 Launched 23rd July  
By whom built Pearce Bros.  
Owners Stone Bros.  
Residence Auckland N.Z.  
Port belonging to Auckland  
Destined Voyage Auckland N.Z.  
If Surveyed while Building, Afloat, or in Dry Dock.  
Surveyed while building

<b>TONNAGE</b> under Tonnage Deck	485.19	<b>ONE, OR TWO DECKED, THREE DECKED VESSEL,</b>	
<del>Under the Main Deck</del>	10.6	<del>SPAR, OR AWNING DECKED VESSEL.</del>	
Ditto of <del>Upper</del> Raised Or. Dk.	29.67	Half Breadth (moulded)	14.00
Ditto of Houses 4c. on Deck	26.12	Depth from upper part of Keel to top of Upper Deck Beams	14.5
Ditto of Forecastle	8.32	Girth of Half Midship Frame (as per Rule)	25.5
Gross Tonnage	559.9	1st Number	54.00
Less Crew Space	24.67	1st Number, if a 2 Decked Vessel	deduct 7 feet
	535.23	Length	170.87
Less Engine Room	179.17	2nd Number	9226.9
Register Tonnage as cut on Beam	356.06	Proportions— Breadths to Length	6.1
		Depths to Length— Upper Deck to Keel	11.4
		Main Deck ditto	

Official Number

<b>LENGTH</b> on deck as per Rule	Feet. 170 Inches. 10	<b>BREADTH</b> Moulded	Feet. 28 Inches. 0	<b>DEPTH</b> top of Floors to Upper Deck Beams	Feet. 13 Inches. 2 1/2	Power of Engines	Horse. 90	N <sup>o</sup> . of Decks with flat laid	One
Dimensions of Ship per Register, length, 172.0 breadth, 28.2 depth, 13.25				Moulded depth 13 1/2				N <sup>o</sup> . of Tiers of Beams	one

<b>KEEL</b> , depth and thickness	Flat plate	Inches in Ship	2 1/2	Inches per Rule	2 1/2	Flat Keel Plates, breadth and thickness	32	Inches in Ship	19	Inches per Rule	32	40ths per Rule	32
<b>STEM</b> , moulding and thickness	Iron	6 3/4 x 2 1/2	<b>PLATES</b> in Strakes, br'dth & thickness	15	15	15	15	15	15				
<b>STERN-POST</b> for Rudder do. do.		6 3/4 x 4 1/2	From Garboard to upper part of Bilges	12	12	12	12	12	12				
" " for Propeller		6 3/4 x 4 1/2	Of Bilge, increased thickness	12	12	12	12	12	12				
Distance of Frames from moulding edge to moulding edge, all fore and aft		21	21	21	21	From up. prt of Bilge to lr. edge of Sh'rstrake	12	12	12	12	12	12	
<b>FRAMES</b> , Angle Iron, for 1/2 length amidships		3 1/2 x 3	Main Sheerstrake, breadth and thickness	33	18	33	18	33	18				
Do. for 1/4 at each end		3 1/2 x 3	Of Bilge at Sh'rstrake & lng applied										
<b>EVERSED FRAMES</b> , Angle Iron		3 x 2 1/2	From Main to Upper Spar Dk Sh'rstrake										
<b>FLOORS</b> , depth and thickness of Floor Plate at mid line for half length amidships		15 1/2 x 12 x 10	Up. or Spar Dk Sh'rstrake, br'dth & thickness										
" thickness at the ends of vessel		8	8	8	8	Butt Straps to outside plating, breadth & thickness	10 1/2	16 1/2	11 1/2	8 1/2	11 1/2	11 1/2	
" depth at 1/4 the half-bdth, as per Rule		8	8	8	8	Lengths of Plating 12 ft 3 in	7	frame	spaces				
" height extended at the Bilges		twice midship height	twice midship height	twice midship height	twice midship height	Shifts of Plating, and Stringers	not less than	2					
<b>BEAMS</b> , Upper, Spar, or Awaiting Deck		5 x 3 x 12	Gunwale Plate on ends of	26	12	26	12	26	12				
Angle or dble Ang. Iron, Plate or Tee Bulb Iron		5 x 3 x 12	Upper Deck Beams, breadth and thickness	4 x 3 x 10	4 x 3 x 10	4 x 3 x 10	4 x 3 x 10	4 x 3 x 10	4 x 3 x 10				
Angle or double Angle Iron on Upper edge		5 x 3 x 12	Angle Iron on ditto	4 x 3 x 10	4 x 3 x 10	4 x 3 x 10	4 x 3 x 10	4 x 3 x 10	4 x 3 x 10				
Average space		32 in	32 in	32 in	32 in	Tie Plates fore and aft, outside Hatchways							
<b>BEAMS</b> , Main, or Middle Deck		3 x 2 1/2 x 8	Diagonal Tie Plates on Beams, No. of Pairs										
Angle or dble Ang. Iron, Plate or Tee Bulb Iron		3 x 2 1/2 x 8	Flat of Up., Spar, or Awaiting Dk. * Deck	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2				
Angle or double Angle Iron on Upper Edge		3 x 2 1/2 x 8	How fastened to Beams										
Average space		32 in	32 in	32 in	32 in	Stringer Plate on ends of Main or Middle Deck							
<b>BEAMS</b> , Lower Deck		3 x 2 1/2 x 8	Beams, breadth and thickness										
Angle or dble Ang. Iron, Plate or Tee Bulb Iron		3 x 2 1/2 x 8	In the Stringer Plate attached to the outside plating										
Angle or double Angle Iron on Upper Edge		3 x 2 1/2 x 8	Angle Irons on ditto, No.										
Average space		32 in	32 in	32 in	32 in	Tie Plates, outside Hatchways							
<b>BEAMS</b> , Hold or Orlop		3 x 2 1/2 x 8	Diagonal Tie Plates on Beams, No. of pairs										
Angle or dble Ang. Iron, Plate or Tee Bulb Iron		3 x 2 1/2 x 8	Flat of Middle Deck* do. do.										
Angle or double Angle Iron on Upper Edge		3 x 2 1/2 x 8	How fastened to Beams										
Average space		32 in	32 in	32 in	32 in	Stringer Plates on ends of Lower Deck, Hold or Orlop Beams under raised gr. deck							
<b>KEELSONS</b> Centre line, single or double plate, box, or Intercoastal, Plates		4 x 3 x 10	Is the Stringer Plate attached to the outside plating?										
" Rider Plate		4 x 3 x 10	Angle Irons on ditto, No. 3										
" Bulb Plate to Intercoastal Keelson		4 x 3 x 10	Stringer or Tie Plates, outside Hatchways										
" Angle Irons		4 x 3 x 10	Flat of Lower Deck*										
" Double Angle Iron Side Keelson		4 x 3 x 10	Ceiling betwixt Decks, thickness and material	13. Pine	2 in	13. Pine	2 in	13. Pine	2 in				
" Side Intercoastal Plate		4 x 3 x 10	" in hold do. do.										
" do. Angle Irons		4 x 3 x 10	Main piece of Rudder, diameter at head	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2				
" Attached to outside plating with angle iron		4 x 3 x 10	do. at heel	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4				
<b>BILGE</b> Angle Iron		4 x 3 x 10	Can the Rudder be unshipped afloat?										
" do. Bulb Iron		4 x 3 x 10	Bulkheads No. 4 No. per Rule	8 1/2	4	8 1/2	4	8 1/2	4				
" do. Intercoastal plates riveted to plating for length		4 x 3 x 10	" Thickness of	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2				
<b>BILGE STRINGER</b> Angle Irons		4 x 3 x 10	" Height up	To deck - after one to cabin side & folded back									
Intercoastal plates riveted to plating for length		4 x 3 x 10	" How secured to sides of ship	double frame									
<b>SIDE STRINGER</b> Angle Irons		4 x 3 x 10	" Size of Vertical Angle Irons	3 1/2 x 3 x 10/32									
Intercoastal plates riveted to plating for length		4 x 3 x 10	" Are the outside Plates doubled two spaces of Frames in length?	Yes									

The **FRAMES** extend in one length from Keel to gunwale

The **REVERSED ANGLE IRONS** on floors and frames extend from middle line to upper turn of bilge and to gunwale 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 3/4 in. diameter, averaging 3 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 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 2 Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 7/16 thicker than the plates they connect.

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

" Butts of Main Sheerstrake, treble riveted for 1/2 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted for 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 amidships.

Breadth of laps of plating in double riveting 4 1/2 Breadth of laps of plating in single riveting

Butt Straps of Keelsons, Stringer and Tie Plates, treble double riveted? No. of Breasthooks, 3 Crutches, 3

What description of iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *Siemens' Manganese Steel*

Manufacturer's name or trade mark, *D. Colville & Mathewell*

The above is a correct description.

Builder's Signature, *Pearce Bros* Surveyor's Signature, *Geo. Cooper*

*Wm. A. Mitchell* Surveyor to Lloyd's Register of British and Foreign Shipping.

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

**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? No

Masts, Bowsprit, Yards, &c., are Iron in Iron 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 Schedule appended  
7 Mast Deck to rounds 39.9" x 15 1/2"  
12 " " " 43.0 x 15"

NUMBER for EQUIPMENT	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.				
								N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate	Wght req'd per Rule.	
10149-2.	Fore Sails,	Chain .....	195	1 3/16	25 3/8	195-1 3/16	R. New Comm. P. 14 J. Starbuck	Bower Anchors	13683	12-0-7	13-19-2-21	12-0-0
	Fore Top Sails,	Iron Stream Chain	60 1/2	3/16	11 7/8	60-3/16		13682	11-2-0	13-7-2-0	12-0-0	
	Fore Topmast Stay Sails,	or Steel Wire ..	60 1/2	3/16	11 7/8	60-3/16		13684	11-0-0	12-17-2-0	10-1-0	
	Main Sails,	or Hempen Strm } Cable .....	60 1/2	3/16	11 7/8	60-3/16		Total	34-2-7	34-1-0		
		Towline, Hemp.										
	Main Top Sails,	or Steel Wire ..	75	8 1/2		75-8 1/2		13685	4-0-0	6-7-2-0	4-0-0	
	and	Hawser .....	90	6 1/2		90-6 1/2		Stream Anchor	13680	2-0-0	4-10-0-0	2-0-0
		Warp .....						Kedge		1-1-16	1-0-0	
	Standing and Running Rigging	wire & rope						2nd Kedge				

The Windlass is Patent Capstan Iron and Rudder Iron Pumps 5 in diam.  
 Engine Room Skylights.—How constructed? Lead skylight in air How secured in ordinary weather? bolted  
 What arrangements for deadlights in bad weather? Cranes 7 ft above main deck fitted with strong framing  
 Coal Bunker Openings.—How constructed? As Hatchways—also How are lids secured? Hatches with strong Height above deck? of bulkhead 12 in  
 Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? Lids of scuttles locked  
Freeing ports & scuppers

Cargo Hatchways.—How formed? Cranes to lower edge of beam - 24 in above deck  
 State size Main Hatch 19.3 x 14 Forehatch 14 x 12 Quarterhatch 12.3 x 12  
 If of extraordinary size, state how framed and secured? not extraordinary size  
 What arrangement for shifting beams? not plate in main hatch bulk beam in other  
 Hatches, if strong and efficient? Yes solid 2 1/2 in

Order for Special Survey No.	Date	1st.	2nd.	3rd.	4th.	5th.
454	4 April 1884	On the several parts of the frame, when in place, and before the plating was wrought	On the plating during the process of riveting	When the beams were in and fastened, and before the decks were laid....	When the ship was complete, and before the plating was finally coated or cemented..	After the ship was launched and equipped
		1884 April 28	May 6 9 13 15 19 22 June 4	11 13 20 30 July 3 7 11 16 19 23 25 30 Aug 4 8 11	13 15 19 21 25 27 29 Sep 3	

**General Remarks** (State quality of workmanship, &c.) NT 7<sup>th</sup> January 1884  
 This is a one decked screw steamer, built of steel, in accordance with the approved plans herewith & in other respects in accordance with the Rules  
 She has raised gr deck 34 ft long & 3' 6" in height - a bridge deck 43 ft long & fore-castle 18 ft 6 in long -  
 An outside bilge keelson extending with fore & aft is fitted composed of Bulb-plate 7 x 1/2 between two angles 4 x 3 x 1/2  
 Water ballast as per sketch of mid-section is fitted in after hold, & the vessel has a fore peak tank - These having been tested as per Rule are satisfactory  
 The material is all untraced & having been tested in the presence of the Society's surveyor & has proved to be very good  
 The workmanship is satisfactory

How are the surfaces preserved from oxidation? Inside Cement & paint Outside Paint  
 I am of opinion this Vessel should be Classed 100 A  
 The amount of the Entry Fee ... £ 3 : 0 : 0 is received by me, 91.6  
 Special ... £ 28 : 0 : 0 30<sup>th</sup> Aug. 1884  
 Certificate ... : : :  
 (to be sent as per margin.)  
 (Travelling Expenses, if any, £ ...)

Committee's Minute FRIDAY 5 SEPT 1884 18  
 Character assigned 100 A  
 Surveyor to Lloyd's Register of British and Foreign Shipping.  
 Lloyd's Register Foundation

The Builder claims that the Outfit may be fine to Moon. Are these H<sup>o</sup> of Lombard St. when applied for by them. Reference should be made to any correspondence connected with the case.