

# IRON SHIP.

No. 4247 Survey held at Dumbarton Date, First Survey 11<sup>th</sup> Nov<sup>r</sup> Last Survey 12<sup>th</sup> June 1876  
On the Iron Decked Sloop **WAKATIPU** Master Angus Cameron

**TONNAGE** under Tonnage Deck 1759.11  
Ditto of Third, Spar, or Awning Deck. 37.82  
Ditto of Poop, or Raised Or. Dh. 1796.63  
Ditto of Houses on Deck 64.16  
Ditto of Forecastle 1732.47  
Gross Tonnage 1796.63  
Less Crew Space 574.92  
In Fees 1157.55  
Less Engine Room  
Register Tonnage as cut on Beam

**ONE, OR TWO DECKED, THREE DECKED VESSEL.**  
**SPAR, OR AWNING-DECKED VESSEL.**  
**HALF BREADTH** (moulded) 16.5  
**DEPTH** from upper part of Keel to top of Upper Deck Beams 10.00  
**GIRTH** of Half Midship Frame (as per Rule) 30.62  
**1st NUMBER** 65.20  
**1st NUMBER, if a THREE DECKED VESSEL**  
**LENGTH** 200.5  
**2nd NUMBER** 100.10  
**PROPORTIONS**—Breadths to Length 8.74  
**Depths to Length**—Upper Deck to Keel 16.95  
Main Deck ditto 16.95

Built at Dumbarton  
When built 1876 Launched 22<sup>nd</sup> May  
By whom built M<sup>r</sup> Denny & Bro<sup>s</sup>  
Owners Two Darling and others  
Port belonging to 45 Hope Street Glasgow  
Destined Voyage Club New Zealand  
Surveyed while Building, Afloat, or in Dry Dock.

**LENGTH** on deck as per Rule 200.5 **BREADTH** Moulded 33 **DEPTH** top of Floors to Upper Deck Beams 24.29 **Power of Engines** 236 **Horse.** 236 **N<sup>o</sup>. of Decks with flat laid** 2 **N<sup>o</sup>. of Tiers of Beams** 3

Dimensions of Ship per Register, length 200 breadth 33.1 depth 24

	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule
<b>KEEL</b> , depth and thickness <u>Flat plate</u> ...	36 x 1 1/2	36 x 1 1/2						
<b>STEM</b> , moulding and thickness ...	9 x 2 1/2	9 x 2 1/2						
<b>STERN-POST</b> for Rudder do. do. ...	9 x 5	9 x 5						
for Propeller ...	9 x 5	9 x 5						
Distance of Frames from moulding edge to moulding edge, all fore and aft ...	24	(Class MA)						
<b>FRAMES</b> , Angle Iron, for 1/2 length amidships ...	4 x 3	4 x 3	16ths required	16ths required				
Do. for 1/4 at each end ...	4 x 3	4 x 3	16ths required	16ths required				
<b>REVERSED FRAMES</b> , Angle Iron ...	3 x 3	3 x 3	16ths required	16ths required				
<b>FLOORS</b> , depth and thickness of Floor Plate at mid line for half length amidships ...	10 1/2	10 1/2						
thickness at the ends of vessel ...	10 1/2	9 1/2						
depth at 1/2 the half-bdth. as per Rule ...	10 1/2	9 1/2						
height extended at the Bilges ...	39	39						
<b>BEAMS</b> , Upper, Spar, or Awning Deck Single or double Angle Iron, Plate or Tee Bulb Iron ...	7	7						
Single or double Angle Iron on Upper edge ...	40	40						
Average space ...	40	40						
<b>BEAMS</b> , Main, or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron ...	8	8						
Single or double Angle Iron, on Upper Edge ...	3	3						
Average space ...	40	40						
<b>BEAMS</b> , Lower Deck, Hold, or Orlop Single or double Angle Iron, Plate or Tee Bulb Iron ...	9	9						
Single or double Angle Iron on Upper Edge ...	4 1/2	4 1/2						
Average space ...	4 1/2	4 1/2						
<b>KEELSONS</b> Centre line, single or double plate, box, or Intercoastal, Plates ...	23 1/2	23 1/2						
Rider Plate ...	11 1/2	11 1/2						
Vertical Plate to Intercoastal Keelson ...	10	10						
Angle Irons ...	5 1/2	5 1/2						
Double Angle Iron Side Keelson ...	5 1/2	5 1/2						
Side Intercoastal Plate ...	5 1/2	5 1/2						
do. Angle Irons ...	5 1/2	5 1/2						
Attached to outside plating with angle iron ...	3	3						
<b>BILGE</b> Angle Irons ...	5 1/2	5 1/2						
do. Bulb Iron ...	8	8						
do. Intercoastal plates riveted to plating for half length ...	-	-						
<b>BILGE STRINGER</b> Angle Irons ...	5 1/2	5 1/2						
Intercoastal plates riveted to plating for 3/4 length ...	9 1/2	9 1/2						
<b>SIDE STRINGER</b> Angle Irons ...	9 1/2	9 1/2						

Flat Keel Plates, breadth and thickness ... 36 16 36 16  
**PLATES** in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilge of doubling at Bilge, or increased thickness, and length applied ... 11 11 11 11  
fin up part of Bilge to l. edge of Sh'rstrake  
Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Upper Spar Dk. Sh'rstrake. 40 13 40 13  
Upper Spar Dk Sh'rstrake, brdth & thickness 40 11 40 11  
Butt Straps to outside plating, breadth & thickness 10 1/2 17 10 1/2 17  
Lengths of Plating ... 6 frames  
Shifts of Plating, and Stringers ... 2 frames  
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness ... 4 1/2 8 4 1/2 8  
Angle Iron on ditto 4 x 4 x 8 4 4 9  
Tie Plates fore and aft, outside Hatchways 13 8 13 8  
Diagonal Tie Plates on Beams No. of Pairs  
Planksheer material and scantling Gutter Material 1/2" Teak 1" Teak 1" Teak  
Waterways do. 6 6 6 6  
Flat of Upper Deck do. 4 3 1/2 4 3 1/2  
How fastened to Beams rivets & rivets  
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness 60 10 60 10  
Is the Stringer Plate attached to the outside plating? Yes  
Angle Irons on ditto, No. 2 4 x 4 x 8 4 4 9  
Tie Plates, outside Hatchways 13 10 13 10  
Diagonal Tie Plates on Beams, No. of pairs  
Waterways materials and scantlings PP 3 1/2 3 1/2 3 1/2  
Flat of Middle Deck do. PP 3 1/2 3 1/2 3 1/2  
How fastened to Beams rivets & rivets  
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams 33 9 33 9  
Is the Stringer Plate attached to the outside plating? Yes  
Angle Irons on ditto, No. 2 4 x 4 x 8 4 4 9  
Stringer or Tie Plates, outside Hatchways 13 10 13 10  
Flat of Lower Deck Inner Angle Iron 5 1/2 x 4 x 9 5 1/2 4 9  
Ceiling betwixt Decks, thickness and material 2 1/2" PP 2 1/2 2 1/2 2 1/2  
Main piece of Rudder, diameter at head 6 1/4 6 1/4 6 1/4 6 1/4  
do. at heel 4 4 4 4  
Can the Rudder be unshipped afloat? Yes  
Bulkheads No. 4 Thickness of 9/16  
Height up fore 10 1/2 10 1/2 10 1/2 10 1/2  
How secured to sides of ship double frames amidships single frames  
Size of Vertical Angle Irons 3 x 3 x 6/16 and distance apart 30 ins.  
Are the outside Plates doubled two spaces of Frames in length? Yes

Transoms, material. Knight-heads. Hawse Timbers. Iron  
Windlass. Iron Patent Pall Bit

The **FRAMES** extend in one length from middle line to boarded stringer Riveted through plates with 5/8 in. Rivets, about 5 apart.  
The **REVERSED ANGLE IRONS** on floors and frames extend from middle line to along main deck and to boarded 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 4 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, 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 Three Strakes at Bilge for half length, treble riveted with Butt Straps 16 thicker than the plates they connect.  
Edges from bilge to Main Sheerstrake, worked clencher, double 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 single riveted. **Upper Sheerstrake**, double single riveted.  
Butts of Main Sheerstrake, treble riveted for half length amidships. Butts of Upper Spar Sheerstrake, treble riveted half length amidships.  
Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for half length.  
Breadth of laps of plating in double riveting 6 5 Breadth of laps of plating in single riveting

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Butts of Keel Keelson and part of Stringers treble R  
Waterway, how secured to Beams Gutter Material (Explain by Sketch, if necessary.) the rest double riveted  
Beams of the various Decks, how secured to the sides? Forged bracket knees No. of Breasthooks, five Crutches, three  
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Mixed Bessemer  
Manufacturer's name or trade mark, Messrs. Consett

The above is a correct description. M<sup>r</sup> Denny Surveyor's Signature, M<sup>r</sup> Denny Surveyor to Lloyd's Register of British and Foreign Shipping.



Workmanship. Are the butts of plating planed or otherwise fitted? *Planed* 16517 Iron  
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? *Absent at corners of butts*

Masts, Bowsprit, Yards, &c., are *Now* 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

*Fore Mast 80' 3" x 24 1/2" 3 plates in section butts both trilled riveted the rest with the edges double Main 73' 7" x 24 1/2" riveted Masts 6 1/2" thick Fore and Main Corn Yards 50' x 12 1/2" butts trilled riveted edges single riveted. two plates in section plates 5 1/2" thick - Corsett B B iron. Mast and yard plates hot and cold tested & attested by B. East*

NUMBER for EQUIPMENT 23362		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
No.	SAILS.	CABLES, &c.										
Run	Fore Sails,	Chain	104. 1/4	1 3/4	550. 770	270 1 1/2 550 770	Rodgers Bowers	9900	31. 0. 24	29. 11. 1. 0	30	20 1/2
Out	Fore Top Sails,	Chain	43. 5	1 3/4	29 3/4 30 1/2	29 3/4 30 1/2	LPN	9900	31. 0. 24	29. 11. 1. 0	30	20 1/2
and	Fore Topmast Stay Sails	Chain	62. 2	1 3/4	30 1/2 31 1/2	30 1/2 31 1/2	LPN	9900	31. 0. 24	29. 11. 1. 0	30	20 1/2
and	Main Sails,	Chain	90. 7/8	1 3/4	76 1/2 77 1/2	76 1/2 77 1/2	LPN	9900	31. 0. 24	29. 11. 1. 0	30	20 1/2
	Main Top Sails,	Chain	90. 7/8	1 3/4	76 1/2 77 1/2	76 1/2 77 1/2	LPN	9900	31. 0. 24	29. 11. 1. 0	30	20 1/2
		Warp					Stream	...	15. 0. 0		12	
		quality					Kedges	...	6. 1. 22		6	

Standing and Running Rigging *True Shemph* sufficient in size and *Good* in quality. She has *3* life *Long* Boat and *3* *thru*

The Windlass is *Patent* *Good* Capstan *Good* and Rudder *Good* Pumps *6" Copper Chambers*

Engine Room Skylights. How constructed? *in high iron frames* How secured in ordinary weather? *Plates*

What arrangements for deadlights in bad weather? *Portable deadlights*

Coal Bunker Openings. How constructed? *With iron coverings* How are lids secured? *by bolts* Height above deck? *flush*

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? *6 scuppers on each side open rail and steam hulkworks above the sheerstrake*

Cargo Hatchways. How formed? *With iron coverings*

State size Main Hatch *10' x 11'* Fore hatch *16' x 11'* Quarter hatch *12' x 11'*

If of extraordinary size, state how framed and secured? *Wood shifting beams in fore hatch also wood framing*

What arrangement for shifting beams? *at this end and other hatches*

Hatches, If strong and efficient? *Yes*

Order for Special Survey No. <i>1109</i>	1st. On the several parts of the frame, when in place, and before the plating was wrought	<i>Nov. 11. 22. 26. 29. Decr 2. 7. 13. 16. 23. 27. 1875</i>
Date <i>Nov. 12/75</i>	2nd. On the plating during the process of riveting	<i>Jan 4. 13. 17. 20. 24. 27. Feb 3. 10. 23. 28</i>
Order for Ordinary Survey No. <i>100</i>	3rd. When the beams were in and fastened, and before the decks were laid....	<i>Mar 2. 6. 11. 20. 27. Apr 3. 6. 13. 17. 20. 27. May 1. 4. 11</i>
Date <i>✓</i>	4th. When the ship was complete, and before the plating was finally coated or cemented..	<i>10. 21. 26. June 15. 1876</i>
No. <i>100</i> in builder's yard.	5th. After the ship was launched and equipped	

General Remarks (State quality of workmanship, &c.). *The workmanship is good, she is built in accordance with the accompanying approved midship section the fore bulkhead as planed, as sanctioned by the Committee, in their letter of 12<sup>th</sup> Nov 1875*

*She is fitted with a water ballast tank for the length of 17 spaces of frames, before the boiler bulkhead extending to the height of the hold beams. tested as per rule before launching.*

*The strengthening in lieu of beams & in the engine and boiler space has been provided in accordance with the accompanying approved plans and Secretary's letter of 3<sup>rd</sup> Decr.*

*She is fitted with side keels in lengths for the length of 134 feet amidships framed of plate 12 x 3/16 attached to plating with two angles 3 x 3 x 1/2.*

State if one, two, or three, decked ~~wood~~ *iron* spar, or running decked; and the length of poop, forecastle, or raised quarter deck, and the length of double, or part double bottom.

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 2 decks and spar deck*

The amount of the Entry Fee ... £ 5 : - : - is received by me  
Special ... £ 68 : 6 : -  
Certificate ... *Gratis*

(Travelling Expenses, if any, £ *8. 8. -*.)

Committee's Minute *16<sup>th</sup> June 1876*

Character assigned *100 A 1*

*TRW / Dk & Spar Dk*  
*2<sup>nd</sup> class Bunker*  
*1576726*