

STEEL IRON SHIP.

RECEIVED OCT. 27 1882
19th OCT. 82

No. 58 7/1 Survey held at *Dumbarton* Date, First Survey *14 Nov. 1881* Last Survey *3 October 1882*
On the *S.S. "Hawroto"* 2 masts *Schooner rigged*

TONNAGE under Tonnage Deck *1726.39* **ONE, OR TWO DECKED, THREE DECKED VESSEL,**
Ditto of Third, Spar, or Awning Deck *✓* **SPAR, OR AWNING-DECKED VESSEL.**
Ditto of Poop, Raised or not *149.90*
Ditto of Houses on Deck *68.66*
Ditto of Forecastle *43.29*
Gross Tonnage *1988.24*
Less Crew Space *76.14*
Less Engine Room *1912.10*
Less Engine Room *636.24*
Register Tonnage as cut on Beam *1275.86*

Half Breadth (moulded) *18.00*
Depth from upper part of Keel to top of Upper Deck Beams *28.83*
Girth of Half Midship Frame (as per Rule) *40.30*
1st Number *8413*
1st Number, if a 3-Decked Vessel deduct 7 feet *700*
Length *283.3*
2nd Number *21851*
Proportions— Breadths to Length *7.8*
Depths to Length— Upper Deck to Keel *10.96*
Main Deck ditto *15.9*

Master *F. Fielding*
Built at *Dumbarton*
When built *1882* **Launched** *31 Aug 82*
By whom built *Denny & Bros.*
Owners *Union L. & Co. of New Zealand*
Residence *Dunedin*
Port belonging to *Dunedin*
Destined Voyage *Dunedin*
If Surveyed while Building, Afloat, or in Dry Dock,
While Building & afloat

LENGTH on deck as per Rule	Feet. Inches.	BREADTH Moulded	Feet. Inches.	DEPTH top of Floors to Upper Deck Beams Do. do. Main Deck Beams	Feet. Inches.	Power of Engines	Horse.	Nº. of Decks with flat laid	Nº. of Tiers of Beams
Dimensions of Ship per Register, length, breadth, depth,	<i>283 4</i>	<i>36 0</i>	<i>36 0</i>	<i>22 6</i>	<i>22 6</i>	<i>250</i>	<i>250</i>	<i>2</i>	<i>3</i>
KEEL , depth and thickness	<i>25 side bars</i>	<i>10 x 1 1/2</i>	<i>10 x 1 1/2</i>	<i>10 x 1 1/2</i>	<i>10 x 1 1/2</i>				
STEM , moulding and thickness		<i>10 x 2 3/4</i>	<i>10 x 2 3/4</i>	<i>10 x 2 3/4</i>	<i>10 x 2 3/4</i>				
STERN POST for Rudder do. do.		<i>10 x 6 7/8</i>	<i>10 x 6 7/8</i>	<i>10 x 6 7/8</i>	<i>10 x 6 7/8</i>				
" " for Propeller		<i>24 in</i>	<i>24 in</i>	<i>24 in</i>	<i>24 in</i>				
Distance of Frames from moulding edge to moulding edge, all fore and aft		<i>32</i>	<i>32</i>	<i>32</i>	<i>32</i>				
FRAMES , Angle Iron for 1/2 length amidships Do. for 1/2 at each end	<i>In tank side frames</i>	<i>3 1/2</i>	<i>3 1/2</i>	<i>3 1/2</i>	<i>3 1/2</i>				
REVERSED FRAMES , Angle Iron		<i>3 1/2</i>	<i>3 1/2</i>	<i>3 1/2</i>	<i>3 1/2</i>				
FLOORS , depth and thickness of Floor Plate at mid line for half length amidships thickness at the ends of vessel depth at 3/4 the half-bdth. as per Rule height extended at the Bilges	<i>Solid Brackets with holes, as approved on sketch of midship section.</i>	<i>3 1/2</i>	<i>3 1/2</i>	<i>3 1/2</i>	<i>3 1/2</i>				
BEAMS , Upper, Spar, or Awning Deck Single or double Angle Iron, Plate or Tee Bulb Iron Single or double Angle Iron on Upper edge Average space		<i>7 1/2</i>	<i>6 1/2</i>	<i>7 1/2</i>	<i>6 1/2</i>				
BEAMS , Main, or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron Single or double Angle Iron on Upper edge Average space		<i>8 1/2</i>	<i>13</i>	<i>8 1/2</i>	<i>13</i>				
BEAMS , Lower Deck Single or double Angle Iron, Plate or Tee Bulb Iron Single or double Angle Iron on Upper edge Average space		<i>9 1/2</i>	<i>15</i>	<i>9 1/2</i>	<i>15</i>				
BEAMS , Hold, or Orlop Single or double Angle Iron, Plate or Tee Bulb Iron Single or double Angle Iron on Upper edge Average space		<i>4 1/2</i>	<i>13</i>	<i>4 1/2</i>	<i>13</i>				
KEELSONS Centre line, single or double plate, box, or intercostal, Plates Rider Plate Bulb Plate to Intercostal Keelson Angle Irons Double Angle Iron Side Keelson Side Intercostal Plate do. Angle Irons Attached to outside plating with angle iron		<i>49</i>	<i>15</i>	<i>49</i>	<i>15</i>				
BILGE Angle Irons do. Bulb Iron do. Intercostal plates riveted to plating for length	<i>margin plate</i>	<i>12</i>	<i>12</i>	<i>12</i>	<i>12</i>				
BILGE STRINGER Angle Irons Intercostal plates riveted to plating for length		<i>6 1/2</i>	<i>15</i>	<i>6 1/2</i>	<i>15</i>				
SIDE STRINGER Angle Irons		<i>11</i>	<i>15</i>	<i>11</i>	<i>15</i>				

The **FRAMES** extend in one length from *Bilge to Bilge & Bilge to gunwale* Riveted through plates with *7/8* in. Rivets, about *6 1/2* apart.
The **REVERSED ANGLE IRONS** on floors and frames extend from middle line to *Bilge in short lengths* and to *top of Sp.* 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 1/4* 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 *all* Strakes *at Bilge* for *160 ft* length, treble riveted with Butt Straps *thicker than the plates they connect.*
" Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets *7/8* in. diameter, averaging *3 1/2* ins. from er. to er.
" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets *7/8* in. diameter, averaging *3 1/2* ins. from er. to er.
" 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 *Spar* Sheerstrake, treble riveted *1/2* length amidships.
" Butts of Main Stringer Plate, treble riveted for *2* length amidships. Butts of Upper *Spar* Stringer Plate, treble riveted for *2* length.
" Breadth of laps of plating in double riveting *5 1/2* Breadth of laps of plating in single riveting *✓*
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? *Yes & done* No. of Breasthooks, *4* Crutches, *Deep floors*
What description of *steel* is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *Hallside, Dalziel*
Manufacturer's name or trade mark, *and "Inverness"*
The above is a correct description.
Builder's Signature, *J. Denny & Co.* Surveyor's Signature, *J. Denny*
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.

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. There are two masts built in accordance with the approved sketch herewith, see Secretary's letter of the 13th April 1882.

NUMBER for EQUIPMENT 26217

No.	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprtd.	ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Suprtd.
	Chain	135 1/2	1 1/3	59 1/8	270	1 1/3	1 1/3	Bower Anchors	3/32	32-2-5 1/2	30-15-2-14	32wts.	
	Fore Sails,	135	1 1/6	58 3/4	270	1 1/3	1 1/3	(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	13/27	31-1-2 1/2	29-15-0-0	total	1 1/3
	Fore Top Sails,	24 x 26 May 1882	1 1/8	58 3/4	75-1 1/8	1 1/8	1 1/8	31 May 1882	13/31	27-2-0 1/2	26-15-0-0	9 1/4	1 1/3
	Fore Topmast Stay Sails,	26 May 1882	1 1/8	58 3/4	75-1 1/8	1 1/8	1 1/8			27-2-0 1/2	26-15-0-0		1 1/3
	Main Sails,	120	4 Steel - 3 Bullivant 16"	Certificate produced	90-12 1/2	4 Steel	4 Steel	Stream Anchor	3/37	10-3-0	12-13-0-14	10 1/2	1 1/3
	Main Top Sails,	90	9 1/2	manilla	90-9 1/2			Kedge	3/40	5-0-20	7-11-3-14	5 1/2	1 1/3
	and spare	90	7 1/2		90-7 1/2			2nd Kedge	3/41	2-2-2	5-2-1-0	2 1/2	1 1/3

Standing and Running Rigging wire sufficient in size and good in quality. She has 3 Long Boat and 3 others

The Windlass is Paul & Co's patent Capstan good and Rudder good Pumps good

Engine Room Skylights. How constructed? Iron on iron house How secured in ordinary weather? Bolted

What arrangements for deadlights in bad weather? fratings & tarpaulins

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? 8 water ports, 2 cargo ports, 1 gangway port, and 6 scuppers.

Cargo Hatchways. How formed? Iron Coamings

State size Main Hatch 15' 9" x 11 ft Forehatch 9' 6" x 9 ft Quarterhatch 11 ft x 10 ft

If of extraordinary size, state how framed and secured? not of an extraordinary size

What arrangement for shifting beams? One shifting beam

Hatches, If strong and efficient? Yes

Order for Special Survey No. 1624 Date 17th Aug 1881
Order for Ordinary Survey No. 1 Date 17th Aug 1881
No. 262 in builder's yard.
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 30th June & 22nd Sep^r 1881 and 13th & 29th April 1882. The steel of which this vessel has been built, was tested at the Manufacturers Works, as set forth in the Circulars issued by the Committee. She is built on the cellular principle all fore & aft, 2nd Tank from fore 54 ft long containing 33 Tons of water; 4th 2nd 36 ft x 58 Tons; 4th 3rd 78 ft x 160 Tons, and 4th 4th 68 ft x 85 Tons. Each of these tanks has been tested as required by the Rules, and found satisfactory.

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 30th June & 22nd Sep^r 1881 and 13th & 29th April 1882. The steel of which this vessel has been built, was tested at the Manufacturers Works, as set forth in the Circulars issued by the Committee. She is built on the cellular principle all fore & aft, 2nd Tank from fore 54 ft long containing 33 Tons of water; 4th 2nd 36 ft x 58 Tons; 4th 3rd 78 ft x 160 Tons, and 4th 4th 68 ft x 85 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; House over engines 20 ft x 12 ft; Bridge 14 ft; Side houses abt bridge 4 3 ft & middle line houses abt bridge 40 ft x 12 ft; Forecastle 4 8 ft.

State if one, two, or three decked vessel, or if spar, or awning decked; and the lengths of poop, bridge, fore-castle, &c. (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. "steel"

The amount of the Entry Fee ... £ 5 : 4 : - is received by me, J. H. Smith

Special ... £ 12 : 16 : - Oct 14 1881

Certificate ... gratis

(Travelling Expenses, if any, £ ...)

Committee's Minute Tuesday, 24th October, 1882

Character assigned 100 A.1. Steel
L.P. & R. 2 Sps. pattern
3 Sps. in 3 Sps. Beams
23/10/82