IRON SHIP.

No. 4021 Survey held at Dumbarton Date, First Survey 7 September Last Survey 15 April 1875

On the Part Awning decked S^r S^r "TAUPO" Master Mc Farlane

Official Number 71711

TONNAGE under Tonnage Deck	537.50
Ditto of Third, Spar or Awning Deck	
Ditto of Poop, or Raised Qr. Dk.	145.66
Ditto of Houses on Deck	7.74
Ditto of Forecastle	28.77
Gross Tonnage	719.67
Less Crew Space 28.40	
Less Engine Room 230.29	258.78
Register Tonnage as cut on Beam	460.89

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

	Feet.
HALF BREADTH (moulded)	13.5
DEPTH from upper part of Keel to top of Upper Deck Beams	15.3
GIRTH of Half Midship Frame (as per Rule)	25.41
1st NUMBER	34.21
1st NUMBER, if a THREE-DECKED VESSEL [deduct 7 feet	
LENGTH	213.75
2nd NUMBER	113.87
PROPORTIONS—Breadths to Length	7.91
Depths to Length—Upper Deck to Keel	13.96
Main Deck ditto	

Built at Dumbarton

When built 1875 Launched 22 June 75

By whom built W. Denny & Bros.

Owners James Mills. Harbour Steam Ship Co. Dundee. 430

Port belonging to Glasgow retained at Dundee

Destined Voyage Dunedin

Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule ... Feet. 213 Inches. 9/16 | BREADTH—Moulded... Feet. 27 Inches. | DEPTH top of Floors to Upper Deck Beams ..... Do. do. Main Deck Beams..... Feet. 13 Inches. 9 | Power of Engines ... Horse. 160 | N°. of Decks with flat laid 2 and Poop. N°. of Tiers of Beams 2 and Poop.

Dimensions of Ship per Register, length, 215.8 breadth, 27.3 depth, 14.1

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	7½ × 2¼	7½ × 2¼
STEM, moulding and thickness	7½ × 2¼	7 × 2¼
STERN-POST for Rudder do. do.	7½ × 5	37 × 4½
for Propeller	7½ × 5	22 in.
Distance of Frames from moulding edge to moulding edge, all fore and aft	22	(Class 100 A)

Main & Donkey Boiler 6½ × 3 × 7/16

	Inches. In Ship.	Inches. In Ship.	16ths. In Ship.	Inches required per Rule	Inches required per Rule	16ths required per Rule
FRAMES, Angle Iron, for ⅔ length amidships	3½	3	6	3½	3	6/16
Do. for ⅓ at each end	3½	3	5	3½	3	5/16
REVERSED FRAMES, Angle Iron	2½	2½	5	2½	2½	5/16
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	15½	-	6	15½	×	6/16
thickness at the ends of vessel	-	-	5		×	5/16
depth at ¾ the half-bdth. as per Rule	7 3/4			7 3/4 in.		
height extended at the Bilges	31			31 in.		
BEAMS, Upper, Spar, or Awning Deck Single or Side Ang. Iron, Plate or Bulb Iron	5	3	7	4½	3	7/16
Single or double Angle Iron on Upper edge						
Average space	44/-			44 in.		
BEAMS, Main, or Middle Deck Single or Side Ang. Iron, Plate or Bulb Iron	6½	-	6	6½	×	6/16
Single, or double Angle Iron, on Upper Edge	2½	2½	5	2½	2½	5/16
Average space	44/-			44 in.		
FLATS, Lower Deck, Hold, or Orlop Single or Side Ang. Iron, Plate or Bulb Iron						
Single or double Angle Iron on Upper Edge						
Average space						
KEELSONS Centre line, single or double plate, box, or Intercostal Plates	12¼	-	10	12¼	×	10/16
" Rider Plate	9 5/8	-	8	9 5/8	×	8/16
Foundation Bulb Plate to Intercostal Keelson	Full length	20	8			
" Angle Irons	4½	3	7	4½	3	7/16
" Double Angle Iron Side Keelsons					×	
" Side Intercostal Plate	-	-	7		×	7/16
" do. Angle Irons	4½	3	7	4½	3	7/16
" Attached to outside plating with angle iron						
BILGE Angle Irons	4½	3	7	4½	3	7/16
" do. Bulb Iron	6½	-	6	6½	×	6/16
" do. Intercostal plates riveted to plating for ____ length						
BILGE STRINGER Angle Irons	4½	3	7	4½	3	7/16
Intercostal plates riveted to plating for ____ length.						
SIDE STRINGER Angle Irons						

	Inches. In Ship.	16ths. In Ship.	Inches. required	16ths required
Flat Keel Plates, breadth and thickness				
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges	30 × 9/16	8-9/16	30 × 9/16	8-9/16
of doubling at Bilge, or increased thickness, and length applied Half length	35 Strakes	9/16	35 Strakes	9/16
fm up. part of Bilge to lr. edge of Sh'rstrake		9-8-9/16		9-8-9/16
Main Sheerstrake, breadth and thickness	30 × 12/16		30 × 12/16	
of d'bling at Sh'rstrake, & length applied from Ma. to Upr. or Spar Dk. Sh'rstrake. Upr. or Spar Dk. Sh'rstrake, bdth & thickness				
Butt Straps to outside plating, breadth & thickness	16¾	9¾	13-8/16	16¾ 9¾ 13-8/16
Lengths of Plating	Six Spaces		Five Spaces	
Shifts of Plating, and Stringers	Two Spaces		Two	
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	23 × 6/16		23 × 6/16	
Angle Iron on ditto	3½ × 3½ × 5/16		3½ × 3½ × 5/16	
Tie Plates fore and aft, outside Hatchways	7½ × 6/16		7½ × 6/16	
Diagonal Tie Plates on Beams No. of Pairs,				
Plank sheer material and scantling	Teak			
Waterways do. do.	12 × 3 3/4			
Flat of Upper Deck do. do.	Pine 23/4		23/4	
How fastened to Beams	Bolted & Sc'd			
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	42 3/4 × 10/16		42 3/4 × 10/16	
Is the Stringer Plate attached to the outside plating?	YES			
Angle Irons on ditto, No. 2	3½ × 3½ × 7/16 and		4½ × 3 × 7/16	
Tie Plates, outside Hatchways	10 × 8/16		10 × 8/16	
Diagonal Tie Plates on Beams, No. of pairs	Part Iron Part Teak		Engine Boilers	
Waterways materials and scantlings	Teak			
Flat of Middle Deck do. do.	3½ T.		3½	
How fastened to Beams	Bolted & Sc'd.			
Stringer Plates at Sides of Lower Deck, Hold or Orlop Beams	26½ × 7/16		26½ × 7/16	
Is the Stringer Plate attached to the outside plating?	YES		yes.	
Angle Irons on ditto, No. 3	3½ × 3½ × 7/16		4½ × 3 × 7/16	
Stringer or Tie Plates, outside Hatchways			3½ × 3½ × 7/16	
Flat of Lower Deck				
Ceiling betwixt Decks, thickness and material	Batten & Space			
in hold do. do.	2½ T.			
Main piece of Rudder, diameter at head	5		5	
do. at heel	3		3	
Can the Rudder be unshipped afloat?	yes			
Bulkheads No. 4 Thickness of	5/16		5/16	
Height up	Main deck			
How secured to sides of ship	Double Bonnets. Iron Stanchions			
Size of Vertical Angle Irons 2½ × 2½ × 5/16 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 Bitt —

The **FRAMES** extend in one length from Keel to Main Deck inboard. Riveted through plates with 3/4 in. Rivets, about 5 apart.

The **REVERSED ANGLE IRONS** on floors and frames extend from middle line to upper turn of Bilge and to Main Deck 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 1/4 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 1/4 ins. from centre to centre.

Butts of 2 Strakes at Bilge for Keel length, treble riveted with Butt Straps 1/16 thicker than the plates they connect.

Edges from bilge to Main Sheerstrake, worked clencher, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.

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

Butts of Main Sheerstrake, treble riveted for Keel length amidships. Butts of Upper or Spar Sheerstrake, treble riveted ____ length amidships.

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

Breadth of laps of plating in double riveting 4½ · 5 1/4 Breadth of laps of plating in single riveting ____

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double and part treble riveted.

Waterway, how secured to Beams Bolted Back. (*Explain by Sketch, if necessary.*)

Beams of the various Decks, how secured to the sides? Beam Knees riveted to Beams No. of Breasthooks, 3 Crutches, 3

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? angles. "Bow and" "Cork."

Manufacturer's name or trade mark, Plates "Palmer"

The above is a correct description.

Builder's Signature, W. Denny & Bros

Surveyor's Signature, James Lindie

Surveyor to Lloyd's Register of British and Foreign Shipping.

1090 (24/8/74).

IRON 461 - 0162

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Workmanship. Are the butts of plating planed or otherwise fitted? Planed where practicable

Do the edges of the carvel work and of the butts fay 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? Very few and at Buttocks.

14350 Iron.

Masts, Bowsprit, Yards, &c., are — 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 —

NUMBER for EQUIPMENT 12.745

N°	SAILS.	CABLES, &c.	(State Machine where Tested, Date, & name of Surveyor)	Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.
		Chain		210	15/16	31	210 15/16	31
	Fore Sails,		Boating Stain				4 6½ Links	
	Fore Top Sails,		Tested at				R. Bros Manchester	
	Fore Topmast Stay Sails		Lon Works	19-26		May 1875.		
1	Main Sails,	Hmpn Strm Cbl		90	14/16		90 14/16	
	Main Top Sails,	Hawser		90	8		— 8"	
		Towlines ...		80	7		— 5	
	and	Warp		80	6			
		quality good		90	5 and 90-4"			

ANCHORS.	N°.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
Bowers		15.1.26	16 13/16	15¼	16 14/20
		15.1.2	16 15/20	15¼	16 14/20
		13.0.19	14 9/20	12.3.24	14 13/20
(State Machine where Tested, Date, & name of Surveyor)		Tested at Lon Works.	15 and 20	May 75.	R. Bros Manchester.
Stream S.L.	1	6.2.20	—	6½	—
Kedges ...	2	3.0.3	—	3¼	—
		1.3.4	—	1¾	—

Standing and Running Rigging Wire & Hemp sufficient in size and good in quality. She has 2 Life Long Boat and 2 others.

The Windlass is Napiers patent Capstan On and Rudder good Pumps Three & 5 auxl

Engine Room Skylights.—How constructed? Dan coming Iron above How secured in ordinary weather? Bolted down

What arrangements for deadlights in bad weather? Thick glass. Brass gratings

Coal Bunker Openings.—How constructed? Cast Iron Lids How are lids secured? Locking Lids Height above deck? Flush

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? Three large square boxes on each side

Cargo Hatchways.—How formed? Iron coamings

State size **Main Hatch** 11 × 8 Forehatch 11 × 9 Quarterhatch —

If of extraordinary size, state how framed and secured? —

What arrangement for shifting beams? Shifting beam of wood

Hatches, If strong and efficient? yes

Order for Special Survey No. 991

Date July 22/74

~~Order for Ordinary Survey No.~~ —

~~Date~~ —

No. 181 in builder's yard.

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: 1874. September. 7. 9. 14. 22. 25. 29. & Octr

2nd. On the plating during the process of riveting: 2. 6. 7. 9. 12. 15. 19. 22. 26. 29. November 2. 5. 9. 12. 16.

3rd. When the beams were in and fastened, and before the decks were laid....: 19. 23. 30. Decr. 3. 7. 14. 17. 21. 30. 1875. January 4.

4th. When the ship was complete, and before the plating was finally coated or cemented..: 18. 21. 25. 28. February 1. 4. 8. 11. 15. 18. 24. 26. March

5th. After the ship was launched and equipped: 1. 4. 11. 15. 18. 22. 29. April 1. 5. 12 and 15

General Remarks (State quality of workmanship, &c.) Sparketting plates 9 × 12/16 with Angle Iron on upper edge fitted in way of opening from Poop and bridge also from bridge and Forecastle. Bridge stanchions & Engine & Boiler openings secured in and carried up to Bridge deck.

3 fitted with Deck horses. 3 feet 6 ins × 10 feet 6 ins.

This is a sister vessel to S.S. "HAWEA". Glasgow Report No. 4001. Shell built and constructed in accordance with approved Midship section attached to Report. No. 4001.

State if one, ~~two, or three~~, decked vessel, or ~~if spar,~~ or awning decked; and the lengths of 73 feet poop, forecastle, 23½ feet ~~or raised quarter deck, and the length of double, or part double bottom~~. 18½ feet × 6½ feet or Sister to.

How are the surfaces preserved from oxidation? Inside Cement in bottom. Paint above Outside Paint

I am of opinion this Vessel should be Classed ✠ 100 A.1.

The amount of the Entry Fee ... ...£ 5 : " : " is received by me, 23rd April 1875. Special ... ...£ 3 : 12 : 11 : " 17th April " 1875 } H.B. James Noble

Certificate ... Treaty:

(Travelling Expenses, if any, £ 6. 6/-.

Committee's Minute 20th April 1875

Character assigned 100 A 1 Ave. Nile.

This vessel appears eligible to be classed as recommended viz: 100 A.1. Poop 73 ft. Forecastle 23½ ft. B.D. 30 ft. one deck 19/4/75

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