

Spar, Awning or
Part Awning Dk.

IRON OR STEEL STEAMER.

(Received at London Office)

State if Report is also sent on the Machinery of the Vessel

Date of completion of Report 22nd December 1891 Port of Glasgow

No. 11198

Survey held at Paisley

Date, First Survey 20th Nov 1891

Last Survey 15th December 1891

On the

Steel Screw Steamer Upolu

Rig

Schooner

AWNING under

between Tonnage Dk.

and 2nd, 4th, Spar or

Awning Dk.

1 under Upper Dk.

f Poop

or Break

Bridge House

uses on Deck

excess of Hatchways

Forecasts

or Crown of

Room

Tonnage

no Space

or Crown of

Room

FOR FEES

Engine Room

Navigation Spaces

er Tonnage

cut on Beam

AWNING or ~~Part~~ DECKED VESSEL,

or a Vessel having a continuous Shade Deck.

CLASS 100A.1 Awning Dk.

FEET.

Half Breadth (moulded) 18.0

Depth from upper part of keel to top of Main Deck Beams 16.95

Girth of Half Midship Frame (as per Rule) 29.0

1st Number 60.95

Length 218.53

2nd Number 13337

Proportions—Breadths to Length 7.29

Depths to Length—Main Deck to top of Keel 12.91

Master

Capt. Arthur

Year of Appointment

(1) As Master in service of
(2) As Master of vessel
(3) As Master of 1891

Built at

Paisley

When built

1890-1891 Launched 18th September 1891

By whom built

Messrs. Fleming & Ferguson

Owners

Union Steam Ship Coy. Ltd.

Managers

(Where necessary to be entered in Reg. Book.)

Residence

Port belonging to

Hunedin

Destined Voyage New Zealand

If Surveyed while Building, Afloat, or in Dry Dock while building afloat

Feet. Inches. BREADTH—Feet. Inches. DEPTH, top of Floors to Spar or Awn. Dk. Beams Feet. Inches. Power of Horse. No. of Decks with flat laid No. of Tiers of Beams

218 10 Moulded 30 0 Do. do. Main Deck Beams 23 15 6 120 2 7 1/2

FORGINGS AND CASTINGS.

INCHES IN SHIP.

INCHES PER RULE.

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KEELSONS AND STRINGERS.

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PLATING.

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11198 gbs
P. Fine Sparring
Ceiling betwixt Decks, thickness and material 6x2 1/2
in hold do. do. 2 1/2
P. Fine
Number of Breasthooks 4 and deep floors
Crutches 4 and deep floors
BULKHEADS. No. in Vessel Five
Thickness Angles Spacing Height up. Sngl. or Dbl. Frames.
W. T. BULKHEADS { Vrtel. 3/2 x 3 1/2 30 { One to Awning Deck Double
Hrztl. 3/2 x 3 1/2 48 { One to Main Deck frames.
PARTITIONS { Vrtel. Sides of tunnel plating aft. in way of
Hrztl. Running tank stiffened as per approved detail
LONGITUDINAL Vrtel. Running tank stiffened as per approved detail

Are the outside Plates doubled two spaces of Frames in length? Yes
The FRAMES extend in one length from Keel to gunwale Riveted through Plates with 3/4 in. Rivets, about 5 1/4 apart
The REVERSED ANGLE on floors and frames extend from centre line to upper part of main deck stringer
angle on every frame, and fitted in between decks throughout cargo spaces on all frames to receive sparring.
RIVETING OF EDGES AND BUTTS OF SHELL PLATING AND BUTTS OF STRINGER PLATES, TIE PLATES, KEELSONS, &c.
Garboard, double riveted to ~~Keel~~ Flat Plate Keel, with rivets 7/8 in. diameter, averaging 3 3/8 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 3/8 ins. from centre to centre.
Butts from Keel to turn of Bilge, worked carvel, treble or double riveted; treble for length; with rivets 3/4 in. dia., averaging 2 1/2 3/8 ins. from cr. to cr.
" " " " overlapped for length, treble riveted for length; with rivets 3/4 in. dia., averaging ins. from cr. to cr.
Butts of 3 Strakes at Bilge for half length, treble riveted with Butt Straps 2/20 thicker than the plates they connect.
Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 3/4 in. diameter, averaging 3 1/2 ins. from centre to centre.
Butts from Bilge to Main Sheerstrake, worked carvel, double or double riveted; treble for length; with rivets 3/4 in. dia., averaging 2 1/2 3/8 ins. from cr. to cr.
" " " " overlapped for length, treble riveted for length; with rivets 3/4 in. dia., averaging ins. from cr. to cr.
Edges of Main Sheerstrake, double or single riveted. Spar or Awning Sheerstrake, double single riveted.
Butts of Main Sheerstrake, treble riveted for half length amidships. Butts of Spar or Awning Sheerstrake, double riveted whole length amidships.
Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Spar or Awning Stringer Plate, double riveted for whole length.
" " " " Single or Double Straps for whole length amidships. " " " " Single or Double Straps for length.
Butts of Inner Bottom Plating single riveted for tank length. Butts of Centre Girder riveted.
Breadth of edge laps of Shell Plating in double riveting 4 1/2 5 1/4 Breadth of edge laps of Shell Plating in single riveting 2 1/2 2 1/4
Butt Straps of Shell Plating, breadth and thickness 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
Butt Straps of Keelsons, Stringer and Tie Plates, treble or double, riveted Treble and Double
Manufacturer's name or trade mark of the Iron or Steel (state process of manufacture of Steel) used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Siemens Martin, Middlesbrough, Clydesdale Coats Steel Coy of Scotland
Morr Steel & Iron Coy Ltd, Clydesdale.
Workmanship. Are the butts of plating planed or otherwise fitted? Planed
Is the riveted work properly closed? Yes
Are the liners between the frames 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 plating? a few in butts only
Are the butts of Plating, Stringers, &c., properly shifted and strapped? Yes

MASTS, SPARS, &c.
P. Mast
Fore Mast Steel 87' 10" At Partners. Heel 16 1/2 Hounds 17 1/2 Head 7
Main Mast Steel 83' 10" At Partners. Heel 15 1/2 Hounds 16 1/2 Head 6
Mizen Mast Steel 83' 10" At Partners. Heel 15 1/2 Hounds 16 1/2 Head 6
Bowsprit
Topmasts, Yards and Remainder of Spars Fore lower yard 51' 9" P.P. & Spruce
Rigging, Material and Size, Shrouds Steel wire 3' 2 1/4 Stays 2 1/2 2 1/4
Sails. One Suit of Sails and the following spare sails

EQUIPMENT No. 15004 LETTER m ANCHORS.

Number of Certificate.		WEIGHT, EX STOCK			WEIGHT OF STOCK			TEST, PER CERTIFICATE			WEIGHT REQ. P.R. RULE			Description of Anchor.	Makers.	Where and when tested and Superintendent.
		Cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.	Tons.	Cwts.	qrs.	lbs.	Cwts.	qrs.			
13981	1st Bower	22	3	3	stockless	23	0	2	14	18	0	0	Taylor Cast Steel H	Henry Wood & Co. Ltd.	Tipton 8/10/91. H. Green, and Sup.	
13982	2nd "	22	2	0	52	22	18	0	0	18	0	0	do.	do.	do.	
13983	3rd "	19	0	1	52	19	19	2	21	15	1	0	do.	do.	do 8/9/91 " "	
	4th "															
	Collective weight	64	2	0						51	1	0				
10775	Stream	6	2	2	1 2 22	5	15	2	0	6	2	0	Ordinary	do.	Chas. 15/9/91. A. S. Jack	
10776	Kedge	3	1	18	0 3 19	5	17	1	0	3	1	0	do	do.	do 17/9/91 do.	
	2nd Kedge	1	3	21	with stock					1	2	0				

If Patent state Name of Patentee.

CHAIN CABLES.										HAWSERS AND WARPS.			
Number of Certificate.	Fathoms.	Size.	Test per Certificate Tons.	Weight of Chain Cable.	Fathoms & Size. Per Rule.	Description.	Makers of Cables.	Where and when tested, and Superintendent.	Material.	Fathoms.	Size.	Fathoms & Size. Per Rule.	
5460	120	1 7/16	55.12.2.0 37.2.2.0	116.3.5	240 1 7/16	Shadlock	Henry Wood & Co.	Chas. 14 Sep ^r 1891	Towline* Steel	90	3 1/2	90.9 1/2 Hemp	
5462	120	1 7/16	55.12.2.0 37.2.2.0	117.2.21		oo	- oo.	oo 16 th Sep ^r 1891	Hawser Steel	90	3	90.7 1/2	
5465	60	1 1/4	55.12.2.0 16.16.0.0	25.2.4	60 1 1/4	- oo.	- oo.	oo 17 th Sep ^r 1891		120	5	90.5 1/2	
Stream Chain Steel Wire line of steel wire									Steel wire with certificate		120	5 1/2	

Boats Two life boats and two others
Pumps, Number Seven Diameter of Barrel and Tail Pipe One 5 1/2 barrel 2 1/2 pipe. Size of 4" and 2" pipes
The Windlass is G & G. M. C. One patent Capstan
Engine Room Skylights. How constructed? Teak framed on iron casings 7' 3" high
What arrangements for deadlights in bad weather? Brass rods and covers
Coal Bunker Openings. How constructed? Cast iron rings and How are lids secured? with clutches & bars Height above deck? Flush + 3' 4" high
Number of Scuppers, and number and dimensions of Freecing Ports, &c. Five scuppers each side
Cargo Hatchways. How formed? Plates and Angles Hatches. If strong and efficient? Yes, solid
State size No. 1 Hatch (Forward) 5' 4" x 6' 4" x 30" No. 2 Hatch 10' 9" x 9' 8" x 30" No. 3 Hatch 11' 0" x 10' 0" x 30" No. 4 Hatch
Number of Web Plates, Shifting Beams, and Fore and Afters to each Hatch one fore and after in each hatch
Bulwarks, height above deck and description open bulwarks Main Rail, material and size Teak 7 1/2" on iron rails
The above is a correct description.
Builder's Signature (here only) P. Memming & Co. Surveyor's Signature Charles Edwards
Surveyor to Lloyd's Register of British and Foreign Shipping.

11198 Gls

Order for Special Survey No. 2410
Date 24th Oct 1890
Order for Ordinary Survey No. ✓
Date ✓
No. 169 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 } 1890. Nov 25, Dec 12, 18, 23, 1891. 13, 19, 22, 23, 25, Feb 2, 6, 10, 18, 25.
2nd. On the plating during the process of riveting } 27 Mar 2, 5, 9, 11, 16, 20, 24, 31; Apr 2, 7, 8, 15, 21, 27, 30, May 2, 6.
3rd. When the beams were in and fastened, and before the decks were laid } 9, 15, 22, 27, June 1, 8, 11, 15, 17, 22, 26, July 1, 7, 13, 17, 28, Aug 3, 7,
4th. When the ship was complete, and before the plating was finally coated or cemented ... } 25, 31, Sep 7, 12, 21, 24, 29, Oct 2, 5, 9, 14, 19, 29, Nov 3, 6, 9.
5th. After the ship was launched and equipped } 12, 18, 21, 25, Dec 1, 7, 9, 15 Total No. of Visits 74
State dates and initials of letters respecting this case 23rd Oct 1890 (M), 10th Nov 1890 (M), 12th Nov 1890 (M), 2nd Jan 1891 (M), 20th Jan 1891 (P), 22nd Jan 1891 (M)

General Remarks (State quality of workmanship, &c.) Workmanship and Materials good throughout.
This is an Awning decked steamer constructed of steel in accordance with the approved midship section forwarded to London on the 21st Dec 1891, the enclosed sketches and the Secretary's letters of above dates.
She has double bottom compartments in the fore and after holds with trimming tank aft, all of which were tested by water pressure prior to launching and proved satisfactory.

ETICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop ✓ ft., R.Q.D. or Break ✓ ft., Bridge Dk. ✓ ft., F' castle ✓ ft.,
n feet and tenths) where the Poop is on top of the R.Q.D., or when the Poop or R.Q.D. is joined to the B.D., this should be distinctly stated ✓
and Material of Decks (if Iron or Steel) and whether wholly or partially covered with wood, and No. of tiers of Beams (this information is to be given as it
should appear in the Register Book) Two & Awning Dk. Teak Awning Dk. 6" m.d. steel wood covered, Lower Dk. W.P. 3 tiers beams
Official No. _____; Signal Letters _____

PARTICULARS OF WATER BALLAST—
Double bottom, aft, length 53' 6" and water capacity in tons 103. Double bottom, forward, length 82 and water capacity in tons 121.
Double bottom, under engines and boilers, length ✓ and water capacity in tons ✓. If under Engines only, or Boilers only, state which ✓
Double bottom, constructed on the cellular system, length ✓ and water capacity in tons ✓.
Fore peak tank, water capacity in tons ✓. After peak tank, water capacity in tons 38.
Midship deep tank, length ✓ and water capacity in tons ✓. Other tanks, if fitted, length ✓ and water capacity in tons ✓.
The above have all been tested as required by the Rules.
(If necessary, furnish further information by sketch.)
How are the surfaces preserved from oxidation? Inside Cement and Paint Outside Paint & Composition

FREEBOARD assigned by the Committee, as per Secretary's
Letter, dated 4th Dec 1891
State if marked on Vessel's sides in accordance with Notice No. 572 ✓
In Summer 1 ft. 2 1/2 ins.
In Winter 1 ft. 4 1/2 ins.
For Winter in North Atlantic 1 ft. 7 1/2 ins.
Fresh Water above the centre of disc 4 ins.
To top of Wood, Iron or Steel Upper, Spar, Awning, or Part Awning Deck. Statutory line 8' 9 1/2"
The amount of Entry Fee £ 4 : 0 : 0 is received by me, 24th Dec 1891 * Certificate to be sent to Glasgow
Special. ... £ 51 : 16 : 6 24th Dec 1891
Certificate*. £ ✓ : ✓ : ✓
Travelling Expenses, if any £ ✓ : ✓ : ✓
I am of opinion this Vessel should be Classed 100 A. 1. steel Awning Deck. Charles Edwards
Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute TUES. 5 JAN 1892
Character assigned 100 A. 1 Steel Awning dk
2 A.R.C.P. subject to freeboard of
+ 2 Mac 12, 91 58" 9 1/2 from top of
statutory dk. line at Awning Deck
2 Dks (11 ft. Steel - 118) & Awning dk
7 K
It is submitted that this vessel appears eligible to be classed 100 A. 1 (Steel) Awning Deck as recommended.
The summer freeboard of 8' 9 1/2 from the top of the statutory deck line at Awning Deck assigned by the Committee & was marked on the vessel's sides to be recorded in the Register Book & further the freeboards as set forth in accompanying verification forms to be inserted on the certificate of Class.
2 Dks (11 ft. Steel - 118) & Awning dk
11. B. (particulars above)
F.K.
G.B.
C.R.
24th Dec 1891

It should be made to any correspondence connected with this case.

The Surveys are requested not

GLS 164-0006 (2/2)