

(Received at London Office) 18 MAR 21

No. 14954 Survey held at
On the Screw Steamer

Master J. H. Clow
 Year of appointment 1878
 (1) As master in service of owner of present vessel: - 1878
 (2) As master of this vessel: - 1879
 Built at Sunderland
 When built 1889 Launched 30-1-89
 By whom built Joseph L. Thompson
 Owners Mercantile Steamship Co (Lim)
 Managers Bz Bz
 (If desired to be entered in Reg. Book)
 Residence 40 1/4, Bishopsgate Street
London. E. C.
 Port belonging to London
 Destined Voyage Middlesbro' to load
 If Surveyed while Building, Afloat, or in Dry Dock.
While Building and Afloat

	Inches in Ship.			Inches per Rule.		
	Inches. In Ship.	Inches. In Ship.	20ths In ship	Inches per Rule	Inches per Rule	20ths per Rule
KEEL , depth and thickness	9 1/2 x 2 1/2	9 1/2 x 2 1/2				
STEM , moulding and thickness... ..	9 x 2 1/2	9 x 2 1/2				
STERN-POST for Rudder do. do.	9 x 5 1/2	9 x 5 1/2				
" " for Propeller	9 x 5 1/2	9 x 5 1/2				
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24				
			(Class 100A)			
FRAMES , Angle Iron, for 1/2 length amidships	6 1/2	3	8	5	3	8
Do. for 1/4 at each end	5 1/2	3	8	5	3	8
REVERSED FRAMES , Angle Iron	3 1/2	3	8	3 1/2	3	8
FLOORS , depth and thickness of Floor Plate at mid line for half length amidships	24	10		24	10	
thickness at the ends of vessel	8			8		
depth at 3/4 the half-bdth. as per Rule	12			12		
height extended at the Bilges... ..	48			48		
FRAMES , Upper, Spar, or Awning Deck Angle or d'ble Ang. Iron, Plate or Tee Bulb Iron Angle or double Angle Iron on Upper edge	6 1/2	3	9	6 1/2	3	9
Average space... ..	24			24		
FRAMES , Main, or Middle Deck Angle or d'ble Ang. Iron, Plate or Tee Bulb Iron Angle or double Angle Iron, on Upper Edge	10	6	9	10	6	9
Average space... ..						
FRAMES , Lower Deck Angle or d'ble Ang. Iron, Plate or Tee Bulb Iron Angle or double Angle Iron on Upper Edge						
Average space... ..						
FRAMES , Hold, or Orlop Angle or d'ble Ang. Iron, Plate or Tee Bulb Iron Angle or double Angle Iron on Upper Edges	4	4	9	4	4	9
Average space... ..						
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates	18	13		18	13	
Rider Plate	12 1/2	13		12	13	
Bulb Plate to Intercoastal Keelson						
Angle Irons	5 1/2	4	9	5 1/2	4	9
Double Angle Iron Side Keelson	5 1/2	4	9	5 1/2	4	9
Side Intercoastal Plate						
do. Angle Irons						
Attached to outside plating with angle iron	3	3	4	3	3	4
GE Angle Irons do. Bulb Iron	5 1/2	4	9	5 1/2	4	9
do. Intercoastal plates riveted to plating for length	9	9		9	9	
GE STRINGER Angle Irons						
Intercoastal plates riveted to plating for length						
GE STRINGER Angle Irons						

FRAMES extend in one length from Bilge to Bilge & from M.S. to Mainwale Riveted through plates with $\frac{3}{8}$ in. Rivets, about 4 apart.
REVERSED ANGLE IRONS, on floors and frames extend from middle line to W. S. 4 in way of 1st and 2nd stringers to 1/2 alternately
2 frames are not girded. 2 frames to 1/2 height from 12 1/4 to 12 1/8 frames. Before collision butts at 1/2 length as Rule
IRON. 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 $\frac{1}{8}$ in. diameter, averaging $5\frac{1}{2}$ ins. from centre to centre.
Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets $\frac{3}{8}$ in. diameter, averaging $3\frac{1}{8}$ ins. from centre to centre.
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets $\frac{3}{8}$ in. diameter averaging $5\frac{1}{8}$ ins. from centre to centre.
Butts of all Strakes at Bilge for $\frac{1}{2}$ length, treble riveted with Butt Straps $\frac{3}{16}$ thicker than the plates they connect. excepting those
at 1/2 length which are treble riveted
Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets $\frac{3}{8}$ in. diameter, averaging $3\frac{3}{8}$ ins. from cr. to cr.
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets $\frac{3}{8}$ in. diameter, averaging $3\frac{3}{8}$ ins. from cr. to cr.
Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted for 3/4 length.
Butts of Main Sheerstrake, treble riveted for $\frac{1}{2}$ length amidships. Butts of Upper or Spar Sheerstrake, treble riveted $\frac{1}{2}$ length amidships.
Butts of Main Stringer Plate, treble riveted for $\frac{1}{2}$ length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for $\frac{1}{2}$ length.
Breadth of laps of plating in double riveting $6-5\frac{1}{2}$ Breadth of laps of plating in single riveting $4\frac{1}{2}$
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? treble & double No. of Breasthooks, 12 Crutches, three
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Steel Plates, Cast Iron, Iron
 Manufacturer's name or trade mark, Iron plates, Consell Iron Co. Iron angles, Consell Iron Co. Steel angles, Consell Iron Co. Steel plates, Consell Iron Co.
 The above is a correct description. Yes
 Builder's Signature, Joseph L. Thompson Surveyor's Signature, Jesse Williams

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

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515961-0221

(Form No. 1 for Iron or Steel Ships—500—6/12/88—Transfer In

ROBERT EDMUND TAYLOR & SON (Commercial) and General House Painters, 15, Old Street, Goswell Road, London, N 1

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*

to plate, &c., conform well to each other? *Yes*

from the faying surfaces? *Yes*

Do the holes for riveting plate to frames, butt straps, or plate

Are the rivet holes well and sufficiently countersunk in the plate and punched

Do any rivets break into or through the seams or butts of the plating? *Yes, at the butts only*

Masts, Bowsprit, Yards, &c., are *Iron & Wood* 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 *Please see sketch attached to Old Report No 14894*

Plates from the plates of which these masts are formed have been tested and have withstood the tests required by the Rules

Plates manufactured by, Consett Iron Co

Number for Equip- ment 24373 Letter for do. S	CABLES, &c.		Test per Certificate Tons.	Fathoms & Inches per Rule.	Machine where Tested and Superintendent, also Name of Chain Maker.	ANCHORS. Number of Certificate (State if any and which Anchors are Stocked.)	Weight. Ex. Stock.	Test per Certificate	Wght req'd per Rule.	Machine where Tested and Superintendent, also Name of Anchor Maker.
	Number of Certificate.	Inches.								
SAILS. Fore Sails, Fore Top Sails, Fore Topmast Stay Sails, Main Sails, Main Top Sails, and quality <i>Good</i>	4508	2 1/2	1 1/2	82 1/2	59 1/2	240-1 1/2	1-2-89			
	4485	7/8	1 1/8	34 1/2	22 1/4	45-1 1/2	31-1-89			
	<i>Masters of cables Lumsden & Co</i>									
	<i>Chains callipers as per Cr 32690 and found in date</i>									
	Iron Steam Chain	90	4	33	90-12	Steel hammers				
	TOWLINE- Hemp or Steel Wire.	90	3 1/4	22	90-9 1/2	certified by				
	Hawser	90	4 1/2	Manilla	90-7 1/2	Crown & Spading				
Warp	90	6	-	-	-	Broc				

Standing and Running Rigging *G. S. Wire & Manilla* sufficient in size and *Good* in quality. She has *Long* Boats and *two* others

The Windlass is *Napier Bro's patent (Steam)* Capstan *4 ft 6 in* and Rudder *Good* Pumps *Good*

Engine Room Skylights.—How constructed *Iron on iron* *Crane craning* How secured in ordinary weather? *Hand screws*

What arrangements for deadlights in bad weather? *Iron flaps with bulls eyes*

Coal Bunker Openings.—How constructed? *Wrought iron* How are lids secured? *Hatch bars* Height above deck? *20 x 48 in*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Guard rails and stanchions on 1st deck*

Cargo Hatchways.—How formed *Iron plates and angles in the usual way* Hatches, If strong and efficient? *3" Fir solid*

State size Main Hatch *28' 3" x 14' 0"* Fore hatch *16' 6" x 10' 0"* Quarter hatches *20' 0" x 12' 0" & 16' 0" x 12' 0"*

If of extraordinary size, state how framed and secured... *Arch plate beam and two partition bulkheads in Main Hatch* What arrangement for shifting beams? *Efficient*

Order for Special Survey No. *3443* 1st. On the several parts of the frame, when in place, and before the plating was wrought

Date *16 May 88* 2nd. On the plating during the process of riveting

Order for Ordinary Survey No. *409* 3rd. When the beams were in and fastened, and before the decks were laid...

Date *17 May 88* 4th. When the ship was complete, and before the plating was finally coated or cemented...

No. *249* in builder's yard. 5th. After the ship was launched and equipped

State dates of letters respecting this case *23rd February, 23rd May, 24th August, & 22nd November 1888.*

General Remarks (State quality of workmanship, &c.) *This steel screw steamer has been built in accordance*

with the approved photo-prints of Midship Section and Profile, and in general

conformity with the Rules for the class contemplated; and the workmanship is good throughout

She is a sister ship to the S.S. "Byron", Old Report No 14894, and like that vessel was commenced

as a modern well decker, but has been converted into a jet aug drill vessel in accordance

with the Plans approved by the Committee.

The steel used in her construction was manufactured by the Firms mentioned

on the front of this Report, and it has been tested in accordance with the requirements

of Notice No 436: iron rivets only have been used in her construction throughout.

The two best bow anchors are of "Yazacks improved patent stockless" and were manufac-

by J. Abbot & Co (Ld); the third bow is of "Macteney Smiths patent" and was manufactured by J. Spencer &

The cast steel parts of these anchors have been subjected to drop and mechanical tests by Mr

H. J. Boulds, and the marks on them correspond with the certificates issued by him.

Particulars of water ballast will be found on form attached hereto.

How are the surfaces preserved from oxidation? Inside *Portland cement and Paint* Outside *Paint*

Particulars for Record in R.B.—Length of Poop *28' 3"*, R.Q.D. *42'*, Bridge Dk. *14' 3"*, F'castle *✓* ft.; No. of Dks. (excluding spar, awn., &c.) *Rules 169 lb*

Material of dks. *Steel* If spar, awn. dk., &c. *pt aug dk* Material of spar, awn. dk., &c. *iron*; No. of tiers of beams (with and without dks. laid) *2* of stays to ditto

Official No. *100 A*; Signal Letters *✓* If double bottom, state particulars on separate form.

I am of opinion this Vessel should be Classed *100 A 1 Steel* "part-awning deck." *ACP* *Trabard to be recorded* (Winter 8-22) *✓*

The amount of the Entry Fee *£ 5 : 0 : 0* is received by me, *W.H.* *Wm 4-11* *1495*

Special *£ 24 : 16 : 0* 15 March 1889

(to be sent as per margin). Certificate ...

(Travelling Expenses, if any. £ ...)

Committee's Minute *FRIDAY 22 MARCH 1889*

Character assigned *100 A 1 Steel Pt Aug dk*

with Freeboards of 8' 3 1/2

10k Sd & Pt Aug dk

web frames

20/3/89

24/3/89

24/3/89