

STEEL SHIP.

No. 6083 Survey held at Glasgow

Date, First Survey 19th May 1882.

Rec'd 30th April 1883.

1883

On the *Steel Screw Steamer "Tona"* Special Steamer Reg.

TONNAGE under Tonnage Deck 962.65

Ditto of Third Space 125.54

Ditto of Poop, on Deck 36.24

Ditto of Houses on Deck 36.24

Ditto of Forecastle 36.24

Gross Tonnage 1179.38

Less Cargo Space 40.31

Less Engine Room 503.11

Register Tonnage as out on Beam 676.27

ONE OR TWO DECKED, THREE DECKED VESSEL.

SPAR OR LUNING DECKED VESSEL.

Half Breadth (moulded) 16.0

Depth from upper part of Keel to top of Upper Deck Beams 20.0

Girth of Half Midship Frame (as per Rule) 31.9

1st Number 67.9

1st Number, if 2 Decked Vessel deduct 7 feet

Length 258.3

2nd Number 17499

Proportions— Breadths to Length 8.05

Depths to Length— Upper Deck to Keel 12.97

Main Deck ditto

Master J. Pison

Built at Clydebank Glasgow

When built 1882-83 Launched 23rd Feb 1883

By whom built J. & C. Thomson

Owners London & Edinburgh Shipping Company

Residence Leith

Port belonging to Leith

Destined Voyage Between Leith & London

If Surveyed while Building, Afloat, or in Dry Dock.

Built under Special Survey.

LENGTH	Feet.	Inches.	BREADTH	Feet.	Inches.	DEPTH	Feet.	Inches.	Power of	Horse.	No. of Decks with flat laid	No. of Tiers of Beams
on deck as per Rule	258	4	Moulded	32	0	top of Floors to Upper Deck Beams	18	3 1/2	Engines	300	2	2
Dimensions of Ship per Register, length, 260.75 breadth, 32.15 depth, 18.25												
KEEL, depth and thickness	7 x 3 1/2		7 x 3 1/2		7 x 3 1/2		7 x 3 1/2		7 x 3 1/2		7 x 3 1/2	
STEM, moulding and thickness	8 1/2 x 2 1/2		8 1/2 x 2 1/2		8 1/2 x 2 1/2		8 1/2 x 2 1/2		8 1/2 x 2 1/2		8 1/2 x 2 1/2	
STERN-POST for Rudder do. do.	8 1/2 x 5		8 1/2 x 5		8 1/2 x 5		8 1/2 x 5		8 1/2 x 5		8 1/2 x 5	
" " for Propeller	8 1/2 x 5		8 1/2 x 5		8 1/2 x 5		8 1/2 x 5		8 1/2 x 5		8 1/2 x 5	
Distance of Frames from moulding edge to moulding edge, all fore and aft	24		24		24		24		24		24	
FRAMES, Angle Iron, for 1/2 length amidships	4	3	12	4	3	12	4	3	12	4	3	12
Do. for 1/2 at each end	4	3	10	4	3	10	4	3	10	4	3	10
REVERSED FRAMES, Angle Iron	3	3	10	3	3	10	3	3	10	3	3	10
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	20 1/2	13	20 1/2	13	20 1/2	13	20 1/2	13	20 1/2	13	20 1/2	13
" thickness at the ends of vessel	10 1/2	12	10 1/2	12	10 1/2	12	10 1/2	12	10 1/2	12	10 1/2	12
" depth at 3/4 the half-bdth. as per Rule	10 1/2	12	10 1/2	12	10 1/2	12	10 1/2	12	10 1/2	12	10 1/2	12
" height extended at the Bilges	41	41	41	41	41	41	41	41	41	41	41	41
BEAMS, Upper, Spar, or Luning Deck	7	Patent bulb	7	Patent bulb	7	Patent bulb	7	Patent bulb	7	Patent bulb	7	Patent bulb
Single or double Angle Iron, Plate or Tee Bulb Iron	48	48	48	48	48	48	48	48	48	48	48	48
Single or double Angle Iron on Upper edge	48	48	48	48	48	48	48	48	48	48	48	48
Average space	48	48	48	48	48	48	48	48	48	48	48	48
BEAMS, Main, or Middle Deck	8	Patent bulb	8	Patent bulb	8	Patent bulb	8	Patent bulb	8	Patent bulb	8	Patent bulb
Single or double Angle Iron, Plate or Tee Bulb Iron	48	48	48	48	48	48	48	48	48	48	48	48
Single or double Angle Iron on Upper edge	48	48	48	48	48	48	48	48	48	48	48	48
Average space	48	48	48	48	48	48	48	48	48	48	48	48
BEAMS, Lower Deck	8	Patent bulb	8	Patent bulb	8	Patent bulb	8	Patent bulb	8	Patent bulb	8	Patent bulb
Single or double Angle Iron, Plate or Tee Bulb Iron	48	48	48	48	48	48	48	48	48	48	48	48
Single or double Angle Iron on Upper edge	48	48	48	48	48	48	48	48	48	48	48	48
Average space	48	48	48	48	48	48	48	48	48	48	48	48
KEELSONS Centre line, single or double plate, Iron, or Intercoastal, Plates	13	16	13	16	13	16	13	16	13	16	13	16
" Rider Plate	11	16	11	16	11	16	11	16	11	16	11	16
" Bolt Plate to Intercoastal Keelson	5	4	15	5	4	15	5	4	15	5	4	15
" Angle Iron	5	4	15	5	4	15	5	4	15	5	4	15
" Double Angle Iron Side Keelson	5	4	15	5	4	15	5	4	15	5	4	15
" Side Intercoastal Plate	5	4	15	5	4	15	5	4	15	5	4	15
" do. Angle Iron	5	4	15	5	4	15	5	4	15	5	4	15
" Attached to outside plating with angle iron	5	4	15	5	4	15	5	4	15	5	4	15
BILGE Angle Iron	5	4	15	5	4	15	5	4	15	5	4	15
" do. Bulb Iron	8	13	8	13	8	13	8	13	8	13	8	13
" do. Intercoastal plates riveted to plating for length	5	4	15	5	4	15	5	4	15	5	4	15
BILGE STRINGER Angle Iron	5	4	15	5	4	15	5	4	15	5	4	15
Intercoastal plates riveted to plating for length	5	4	15	5	4	15	5	4	15	5	4	15
SIDE STRINGER Angle Iron	5	4	15	5	4	15	5	4	15	5	4	15

The FRAMES extend in one length from *Middle line* to *gunwale* Riveted through plates with *7/8* in. Rivets, about *7* apart.

The REVERSED ANGLE IRONS on floors and frames extend *from middle line to gunwale* and to *lower deck* 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 1/8* in. diameter, averaging *5 1/2* 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 *4* Strakes at Bilge for *1/2* length, treble riveted with Butt Straps *7/8* 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 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 or single riveted. *Upper Sheerstrake, double or single riveted. Keelsons riveted with 1" rivets.*

" Butts of Main Sheerstrake, treble riveted for *1/2* length amidships. Butts of Upper or Spar Sheerstrake, treble riveted *length amidships.*

" Butts of Main Stringer Plate, treble riveted for *length amidships.* Butts of Upper or Spar Stringer Plate, treble riveted for *1/2* length.

" Breadth of laps of plating in double riveting *5 1/4* Breadth of laps of plating in single riveting *5 1/4*

" Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? *Both & single* No. of Breasthooks, *5* *Keelsons* Crutches, *4* *Keelsons*

" description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *See in & Siemens Steel.*

Manufacturer's name or trade mark, *Steel - Halliday & Halliday B.W. Iron - Messrs.*

The above is a correct description.

Builder's Signature, *James & Co. Thomson* Surveyor's Signature, *Chas. Halliday*

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 *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

2 Pine pine spars.

Schooner Rig.

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprtat.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Suprtat.
SAILS.												
CABLES, &c.												
N ^o .	Chain	135	1 1/2	66.5	270-1 1/2	10.5 Mar/83	Bower Anchors	1	25.3.13	25.10.1.7	25.2.0	15.5 Mar/83
	Fore Sails,	135	1 1/2	—	—	12.5 Apr/83	(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	1	25.2.10	25.5.3.21	25.2.0	19.5 Mar/83
Fore Top Sails,	Iron Stream Chain	75	1	27.0	75-1	19.5 Mar/83		1	21.2.19	22.3.3.0	21.3.0	—
	Chain Cable tested at Deptn by D. G. Lewis											
Fore Topmast Stay Sails,	Stream Chain at Deptn by D. G. Lewis											
Main Sails,		90	3 1/2	Steel	90-3 1/2	Steel	Stream Anchor	1	9.0.26	11.6.3.14	8.2.0	12.5 Mar/83
Main Top Sails,		90	8 1/2	—	90-8 1/2	—	Kedge	1	4.1.15	6.1.2.0	4.1.0	14.5 Mar/83
Warp		90	6	—	90-6	—	2nd Kedge	1	2.1.9	4.1.2.0	2.1.0	—
quality		90	4	—	—	—						

Standing and Running Rigging *Attemp Wire* sufficient in size and *good* in quality. She has *20* Life Long Boats and *2* others.

The Windlass is *Muir & Caldwell's Capstan* and Rudder *good* Pumps *as approved.*

Engine Room Skylights.—How constructed? *Leads on Iron casing* How secured in ordinary weather? *bolts*

What arrangements for deadlights in bad weather? *Metal gratings over glass.*

Coal Bunker Openings.—How constructed? *2 in middle line hatch* How are lids secured? *Bars & Lappan's* Height above deck? *15"*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *1 Freeing port, 2 Scuppers, 1 Mooring pipe, and 1 gangway on each side of Main Deck forward; 2 Ports, 2 Scuppers, 1 Mooring pipe & gangway, each side aft.*

Cargo Hatchways.—How formed? *Iron coamings*

State size Main Hatch *15' 8" x 12' 0" x 15" high* Forehatch *5' 0" x 5' 0" x 15" above 7. Deck* Quarterhatch *15' 6" x 11' 6" x 18" high*

If of extraordinary size, state how framed and secured? *None so.*

What arrangement for shifting beams? *Web plates in Main & Quarter hatches.*

Hatches, If strong and efficient? *Yes.*

Order for Special Survey No. <i>142</i>	1st. On the several parts of the frame, when in place, and before the plating was wrought	1882. May 19. 23. 26. June 2. 6. 13. 18. 27. 30. July 7. 25. Aug.
Date <i>22 March 1882</i>	2nd. On the plating during the process of riveting	1. 4. 8. 11. 15. 18. 29. Sep. 1. 5. 8. 12. 15. 19. 26. 29. Dec.
Order for Ordinary Survey No. <i>142</i>	3rd. When the beams were in and fastened, and before the decks were laid...	6. 9. 11. 17. 20. 24. 31. Nov. 7. 10. 14. 17. 24. 28. Dec. 1. 6
Date <i>22 March 1882</i>	4th. When the ship was complete, and before the plating was finally coated or cemented...	8. 14. 19. 21. 29. Jan. 1883 12. 16. 23. 30. Feb. 6. 9. 13. 16. 21.
No. <i>142</i> in builder's yard.	5th. After the ship was launched and equipped	Mar. 5. 6. 8. 14. 16. 23. 27. 30. Ap. 3. 9. 13. 17. 19. 26.

General Remarks (State quality of workmanship, &c.) *The workmanship is good, and the vessel has been constructed in accordance with the approved sketches of midship section profile, port upper & lower deck plans, arrangement of web frames in boiler space, and pumping plan, also with the instructions contained in the Surveyor's letter of the 16th March, 17th 27th & 30th May, 8th June, and 3rd Nov 1882. This vessel has a double bottom throughout the Engine & Boiler space constructed on the Cellular system & with scantlings as approved, the ends of the vessel being of ordinary construction. This double bottom is divided into 3 parts, the forward part under the boilers is 36' 0" long, extends right across the ship & contains 57 tons, directly aft of this compartment there is a well 2' 0" wide, the next compartment, under the engines is 26' 0" long, and is subdivided at the middle line by a watertight centre plate, the capacity being 20 tons on each side, or 40 tons for the whole, there is also a 2' 0" well abaft this compartment, thus giving a total length of double bottom of 66' 0" with a capacity of 97 tons (not including capacity of wells). Steel rivets are used in the construction of the hull. Forecastle 70' 0" wood beam bulkhead. Open bridge 62' 0". Poop 16' 0" iron beam bulkhead.*

State if one, two, or three-decked vessel, or if open, or canvas decked; and the lengths of poop, bridge, fore-castle, or mainmast deck. (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. Iron bulkheads*

The amount of the Entry Fee ... £ *5: 0: 0* is received by me, *Chas. Lindley.*
Special ... £ *54: 9: 6* 25/4/1883

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

(Travelling Expenses, if any, £)

Committee's Minute

Inc. Exp. 1st May 1883.

Character assigned

IRON 100 A.1. Steel

Lloyd's Register Foundation