

IRON SHIP.

No. 4422 Survey held at Dundee in the S.S. "Diamond"

Date, First Survey 25th January Last Survey 20th August 1881

TONNAGE under Tonnage Deck

1117.44

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

Half Breadth (moulded) 15.00
Depth from upper part of Keel to top of Upper Deck Beams 17.16
Girth of Half Midship Frame (as per Rule) 28.75
1st Number 60.91
1st Number, if 3 Decked Vessel deduct 7 feet
Length 216.79
2nd Number 13204.67
Proportions— Breadths to Length 7.22
Depths to Length— Upper Deck to Keel 12.6
Main Deck ditto

Master Trebster

Built at Dundee

When built 1881 Launched 26th July

By whom built W. B. Thompson

Owners P. M. Duncan

Residence Dundee

Port belonging to Dundee

Destined Voyage Amsterdam

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

LENGTH in deck as per Rule

216 9 1/2

BREADTH— Moulded

30 0

DEPTH top of Floor to Upper Deck Beams Do. do. Main Deck Beams

15 8 1/2

Power of Engines

98

No. of Decks with flat laid 2 No. of Tiers of Beams 3

Dimensions of Ship per Register, length, 218.0 breadth, 30.2 depth, 21.1

KEEL, depth and thickness 3 1/2 x 2 1/2
STEM, moulding and thickness 7 1/2 x 2 1/2
STERN-POST for Rudder do. do. 7 1/2 x 4 3/4
" " for Propeller 7 1/2 x 4 3/4
Distance of Frames from moulding edge to moulding edge, all fore and aft 23
FRAMES, Angle Iron, for 2/3 length amidships 3 1/2 x 3 7 3 1/2 x 3 7
Do. for 1/3 at each end 3 1/2 x 3 6 3 1/2 x 3 6
EVERSED FRAMES, Angle Iron 3 x 2 1/2 6 3 x 2 1/2 6
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships Cellular double bottom
" thickness at the ends of vessel
" depth at 3/4 the half-bdth. as per Rule
" height extended at the Bilges

BEAMS, Upper, Spar, or Awning Deck Angle Iron, Plate on Tee Bulb Iron
Average space 5 3 7 5 3 7
BEAMS, Main, or Middle Deck Angle Iron, Plate on Tee Bulb Iron
Average space 5 3 7 5 3 7
BEAMS, Lower Deck Angle Iron, Plate on Tee Bulb Iron
Average space 5 3 7 5 3 7

BEAMS, Hold, or Orlop Angle Iron, Plate on Tee Bulb Iron
Average space 4 3 7 4 3 7
KEELSONS Centre line, Intercoastal plates, Angle Irons, Double Angle Iron Side Keelsons, Side Intercoastal Plate, Attached to outside plating with angle iron

BILGE STRINGER Angle Irons, Intercoastal plates riveted to plating for length

Side STRINGER Angle Irons, Intercoastal plates riveted to plating for length

FRAMES extend in one length from Keel to gunwale

REVERSED ANGLE IRONS on floors and frames extend from middle line to hold beams and to main 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 1/4 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 x 3/4 in. diameter, averaging 3 1/2 to 3 3/4 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 x 3/4 in. diameter averaging 3 1/2 to 3 ins. from centre to centre.

Butts of 3 Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 1/4 thicker than the plates they connect.

Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7/8 x 3/4 in. diameter, averaging 3 1/2 to 3 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 x 3/4 in. diameter, averaging 3 1/2 to 3 ins. from cr. to cr.

Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted. Butts of Upper or Spar Sheerstrake, treble riveted for 1/2 length amidships. Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for 1/2 length amidships. Breadth of laps of plating in double riveting 5 1/2 to 4 1/2 Breadth of laps of plating in single riveting 4 1/2 to 3 1/2 Butt Straps of Keelsons, Stringer and Tie Plates, treble or double Riveted? No. of Breasthooks, 4 Crutches, 4 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c. Bessemer, Open Hearth, &c. Manufacturer's name or trade mark, The above is a correct description. Builder's Signature, W. B. Thompson Surveyor's Signature, W. B. Thompson

PLATES in Garboard Strakes, br'dth & thickness 34 10 34 10
From Garboard to upper part of Bilges 9 9
Of Bilge, or increased thickness, and length applied to 1/2 length 10 10
From up. prt of Bilge to l.r. edge of Sh'rstrake 9 9
Main Sheerstrake, breadth and thickness 36 13 36 13
Caulking at Bilge & l.r. edge 6 5
From Main to Up. or Spar Dk. Sheerstrake 10 10
Upper Spar Dk. Sheerstrake, breadth & thickness 10 10
Butt Straps to outside plating, breadth & thickness 10 10
Lengths of Plating 13.5
Shifts of Plating, and Stringers not less than two frame spaces
Gunwale Plate on ends of Awning, 28 6
Upper Deck Beams, breadth and thickness 24 6
Angle Iron on ditto 3 1/2 x 3 1/2 5 x 3 1/2 x 7
Tie Plates fore and aft, outside Hatchways 10 6
Diagonal Tie Plates on Beams No. of Diagonal 3
Flat of Up., Spar, or Awning Dk. 3
How fastened to Beams 3
Stringer Plate on ends of Main Deck 31 10 31 10
Beams, breadth and thickness 31 10 31 10
Is the Stringer Plate attached to the outside plating? Yes
Angle Irons on ditto, No. 2 5 x 3 1/2 x 7
Tie Plates, outside Hatchways 3 1/2 x 3 1/2 8
Diagonal Tie Plates on Beams, No. of Diagonal 6
Flat of Middle Deck* do. 6
How fastened to Beams 6
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams 6
Is the Stringer Plate attached to the outside plating? Yes
Angle Irons on ditto, No. 2 5 x 3 1/2 x 7
Stringer or Tie Plates, outside Hatchways 6
Flat of Lower Deck* 6
Ceiling betwixt Decks, thickness and material 3
" in hold do. do. 3
Main piece of Rudder, diameter at head 5 1/2 5 1/2
do. at heel 3 3
Can the Rudder be unshipped afloat? Yes
Bulkheads No. 4 No. per Rule 4
Thickness of 5/8 x 5/8
Height up to deck 6
How secured to sides of ship double frames
Size of Vertical Angle Irons 3 x 2 1/2 x 1/2 and distance apart 10 ins.
Are the outside Plates doubled two spaces of Frames in length? Yes

Riveted through plates with 7/8 x 3/4 in. Rivets, about 5 1/2 apart.

And butts properly shifted? Yes

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Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 x 3/4 in. diameter averaging 3 1/2 to 3 ins. from centre to centre.

Butts of 3 Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 1/4 thicker than the plates they connect.

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What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c. Bessemer, Open Hearth, &c. Manufacturer's name or trade mark, The above is a correct description. Builder's Signature, W. B. Thompson Surveyor's Signature, W. B. Thompson

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? *few*

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

Foremast *in* Extreme 62.11 - Max. diam. 18 in Plates 7/16 - Butts *riple riveted doubled at parting*
Mainmast " " 59.3 " 18 in " 7/16 " do " do

Schooner rigged

NUMBER for EQUIPMENT 16234		Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Suprntd.
SAILES.							Bower Anchors	9539	21-3-14	22-5-2-14	21-0-0	21 1/2
CABLES, &c.							(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	2/8/01				
No.	Chain	240	1 1/2	40 5/10	240-1 1/2	40 1/2						
One	Fore Sails,	40 4/10	3 3/4	15 8/10	40-3 3/4	15 8/10						
	Fore Top Sails,	75	1 5/16	15 8/10	75-1 5/16	15 8/10						
	Fore Topmast Stay Sails,	90	4 1/4	33	90-4 1/4	33						
	Main Sails,	90	8	90-8								
	Main Top Sails,	240	6	90-5 1/2								
	quality											

Standing and Running Rigging *wire & rope* sufficient in size and *good* in quality. She has *two* Life Boats and *two* other
The Windlass is *Patent* Capstan *good* and Rudder *good* Pumps *7" x 5" in each compartment*

Engine Room Skylights.—How constructed? *Teak skylight in iron casing* How secured in ordinary weather? *bolted*

What arrangements for deadlights in bad weather? *Solid shutters & bullseyes*

Coal Bunker Openings.—How constructed? *Angle iron frame* How are lids secured? *straps* Height above deck? *5 in*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Pots & scuppers*

Cargo Hatchways.—How formed? *Angle iron & plate in the usual way*

State size Main Hatch *15.3 x 9.0* Forehatch *11.6 x 9.0* Quarterhatch *15.3 x 9.0*

If of extraordinary size, state how framed and secured? *Not extraordinary size*

What arrangement for shifting beams? *Not plate turned fore & after*

Hatches, If strong and efficient? *Yes*

Order for Special Survey No. 399	1st. On the several parts of the frame, when in place, and before the plating was wrought	1881. Jan 25. 31. Feb 4. 11. 16. 22. Mar 2. 9. 16. 17. 23. 29. Apr 8. 13. 19. 21.
Date 28th Jan 1881	2nd. On the plating during the process of riveting	26. 30. May 3. 9. 16. 23. June 3. 7. 10. 16. 20. July 6. 14. 18.
Order for Ordinary Survey No. 36	3rd. When the beams were in and fastened, and before the decks were laid...	22. 26. 29. Aug 2. 9. 10. 12. 17. 20.
Date 36	4th. When the ship was complete, and before the plating was finally coated or cemented..	
No. 36 in builder's yard.	5th. After the ship was launched and equipped	

General Remarks (State quality of workmanship, &c.) *This vessel has been built in accordance with the plans approved & which are hereto attached. She is built with cellular double bottom. The longitudinal of which - with the exception of the centre line which is described above - are 6 1/2 inch connected to the shell and the inner bottom with angle iron 3 x 2 1/2 x 5/8. The flanged side plate is 7/16 thick. The top plating is 4 1/2 x 7/16 at centre, 7/16 under keelson & boiler & the remainder 5/8 thick. This cellular bottom and the after peak tank have been subjected to pressure as per Rule & are satisfactory*

This vessel was at first submitted as a two decked vessel with poop and forecabin - On letter NE 13th January 1881 - but was subsequently altered to that of an awning decked vessel - See letter NE 5th May 1881 & NE 16th June 1881 when a load line of 15.8 was approved by the Committee - This load line has been marked on the vessel's side

The Material & workmanship are throughout satisfactory

State of one, two, or three decked vessel; or if spar, or awning decked; and the lengths of poop, bridge, forecabin, or raised quarter 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*

The amount of the Entry Fee ... £ 5 : 0 : 0 is received by me, *Q. R. C.*

Special ... £ 53 : 3 : 0 29 Aug 1881

(Travelling Expenses, if any, £)

Committee's Minute

Character assigned

Friday, September, 9th 1881

Surveyor to Lloyd's Register of British and Foreign Shipping.
This vessel has been built in accordance with the approved plans appended and appears to be eligible to be classed 100 A 1 (awning decked) 1 Deck awning deck 3 1/2 x 13 Iron deck Load line 15.8