

IRON SHIP.

No. 4422 Survey held at Dundee Date, First Survey 25th January Last Survey 20th August 1881

in the S.S. "Diamond" 4422

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*

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 a 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

Net Tonnage 1126.11

Gross Tonnage 1117.44

Net Crew Space 37.23

Gross Crew Space 1088.88

Net Engine Room 360.36

Gross Engine Room 428.52

Length in deck as per Rule	216 9 1/2	Breadth Moulded	30 0	DEPTH top of Floor to Upper Deck Beams	15 8 1/2	Power of Engines	98	No. of Decks with flat laid	2
Dimensions of Ship per Register, length, 218.0		breadth, 30.2		depth, 21.1				No. of Tiers of Beams	3

	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule
KEEL, depth and thickness	3 1/2	3	7	3 1/2	3	7	3 1/2	3	7	3 1/2
PLATE, moulding and thickness	7 3/8	2 1/2	7 3/8	2 1/2	7 3/8	2 1/2	7 3/8	2 1/2	7 3/8	2 1/2
STERN-POST for Rudder do. do.	7 1/2	4 3/4	7 1/2	4 3/4	7 1/2	4 3/4	7 1/2	4 3/4	7 1/2	4 3/4
" " for Propeller	4 1/2	4 3/4	4 1/2	4 3/4	4 1/2	4 3/4	4 1/2	4 3/4	4 1/2	4 3/4
Distance of Frames from moulding edge to moulding edge, all fore and aft	23	23	23	23	23	23	23	23	23	23
FRAMES, Angle Iron, for 2/3 length amidships	3 1/2	3	7	3 1/2	3	7	3 1/2	3	7	3 1/2
Do. for 1/3 at each end	3 1/2	3	6	3 1/2	3	6	3 1/2	3	6	3 1/2
REVERSED FRAMES, Angle Iron	3	2 1/2	6	3	2 1/2	6	3	2 1/2	6	3
FLOOR PLATES, depth and thickness of Floor Plate at mid line for half length amidships	Cellular double bottom									
" thickness at the ends of vessel	Cellular double bottom									
" depth at 3/4 the half-bdth. as per Rule	Cellular double bottom									
" height extended at the Bilges	Cellular double bottom									
BEAMS, Upper, Spar, or Awning Deck	5	3	7	5	3	7	5	3	7	5
Angle Iron, Plate on Top Pull Iron	Alternate frames									
Angle of double Angle Iron on Upper Edge	Alternate frames									
Average space	Alternate frames									
BEAMS, Main, or Middle Deck	5	3	7	5	3	7	5	3	7	5
Angle Iron, Plate on Top Pull Iron	Bulb beam 7 x 7/16 at hatchway									
Angle of double Angle Iron on Upper Edge	Every frame									
Average space	Every frame									
BEAMS, Lower Deck	8 1/2	8	8 1/2	8	8 1/2	8	8 1/2	8	8 1/2	8
Angle Iron, Plate on Top Pull Iron	Bulb beam 7 x 7/16 at hatchway									
Angle of double Angle Iron on Upper Edge	Every frame									
Average space	Every frame									
KEELSONS, Centre line	4	3	7	4	3	7	4	3	7	4
Angle Iron, Plate on Top Pull Iron	Bulb beam 7 x 7/16 at hatchway									
Angle of double Angle Iron on Upper Edge	Every frame									
Average space	Every frame									
KEELSONS, Side	4 1/2	4 1/2	7 1/2	4 1/2	4 1/2	7 1/2	4 1/2	4 1/2	7 1/2	4 1/2
Angle Iron, Plate on Top Pull Iron	Bulb beam 7 x 7/16 at hatchway									
Angle of double Angle Iron on Upper Edge	Every frame									
Average space	Every frame									
BILGE STRINGER	5	3 1/2	7	5	3 1/2	7	5	3 1/2	7	5
Angle Irons	Cellular bottom described below									
Intercostal plates riveted to plating for length	Cellular bottom described below									
Side Stringer	5	3 1/2	7	5	3 1/2	7	5	3 1/2	7	5
Angle Irons	Cellular bottom described below									
Intercostal plates riveted to plating for length	Cellular bottom described below									

The FRAMES extend in one length from Keel to gunwale Riveted through plates with 7/8 x 3/4 in. Rivets, about 5 1/2 apart.

The 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 1/4 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 Main Sheerstrake, treble riveted for 1/2 length amidships. 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

Butt Straps of Keelsons, Stringer and Tie Plates, treble or double or single Riveted? *Yes* No. of Breasthooks, 4 Crutches, 4

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c. *Best quality*

Manufacturer's name or trade mark, *James Watson, Dundee*

The above is a correct description

Builder's Signature, *W. B. Thompson* Surveyor's Signature, *W. B. Thompson*

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? *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 triple riveted doubled at partings
Mainmast " " 59.3 " 18 in " 7/16 " do " do

Shipper signed

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.
SAILS.							Bower Anchors	9539	21-3-14	22-5-2-14	21-0-0	21 1/2
CABLES, &c.							Stream Anchor	9484	7-3-14	10-0-1-7	7-1-0	9 2/20
N ^o .	Chain	240	1 1/2	40 5/70	240-1 1/2	40 3/4	Kedge	4540	4-0-0	6-7-2-0	3-2-0	5 15/20
Fore Sails,	Iron Stream Chain	75	15/16	15 8/10	75-15/16	15 8/10	2nd Kedge	9541	1-3-7	4-7-0-21	1-3-0	4 3/20
Fore Top Sails,	or Steel Wire	90	4	33								
Fore Topmast Stay Sails,	or Hempen Strm Cable	90	10		90-10							
Main Sails,	Towline, Hemp.	90	8									
Main Top Sails,	or Steel Wire	90	7		90-8							
	Hawser	90	6		90-5 1/2							
	Warp	240	6									

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? *Each 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? *Plugs & 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.	Date	Order for Ordinary Survey No.	Date	No.	in builder's yard.	DATES of Surveys held while building as per Section 18.
399	20 th Jan 1881	✓	✓	36		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. 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. 3rd. When the beams were in and fastened, and before the decks were laid... } 22. 26. 29. Aug 2. 9. 10. 12. 17. 20. 4th. When the ship was complete, and before the plating was finally coated or cemented.. } 5th. After the ship was launched and equipped

General Remarks (State quality of workmanship, &c.) *This vessel has been built in accordance with the plan 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 3/4" thick connected to the shell and the inner bottom with angle iron 3 x 2 1/2 x 3/4". The flanged side plate is 7/16" thick. The top plating is 4 x 7/16" at centre, 7/16" under keelson & boilers & the remainder 3/4" 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 - see letter No 13th January 1881 - but was subsequently altered to that of an awning decked vessel - see letter No 5th May 1881 & No 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.) *Awning deck Cellular double bottom*
 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. W. G.*
 Special ... £ 53 : 3 : 0 *29 Aug 1881*
 Certificate ...
 (Travelling Expenses, if any, £ ...)
 Committee's Minute *Friday, September, 9th 1881.*
 Character assigned *100 A 1*
 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 tons B Iron deck Load line 15.8"

Reference should be made to any correspondence connected with the case.

The Surveyor is requested not to write on or below the space for Committee's Minute.