

IRON SHIP. 1801

No. 4042 Survey held at Dundee Date, First Survey 15th Nov 76 Last Survey 21st March 1877
 On the S. S. "Bonnie Dundee" Master Foreman.

TONNAGE under Tonnage Deck	165.77	ONE, OR TWO DECKED, THREE DECKED VESSEL.
Ditto of Third, Spar, or Awning Deck.		SPAR, OR AWNING DECKED VESSEL.
Ditto of Poop, or Raised Qr. Dk.	31.03	HALF BREADTH (moulded) 9.5
Ditto of Houses on Deck	1.42	DEPTH from upper part of Keel to top of Upper Deck Beams 10.87
Ditto of Forecastle	5.17	GIRTH of Half Midship Frame (as per Rule) 18.5
Gross Tonnage	193.38	1st NUMBER 38.87
Less Crew Space	10.26	1st NUMBER, THREE DECKED VESSEL [deduct 7 feet]
Less Engine Room	183.12	LENGTH 129.0
Register Tonnage as cut on Beam	61.88	2nd NUMBER 5014.23
	121.24	PROPORTIONS—Breadths to Length 6.8
		Depths to Length—Upper Deck to Keel 11.8
		Main Deck ditto

Built at Dundee
 When built 76-77 Launched 2nd Mar 77
 By whom built Gourlay Bros & Co
 Owners G. W. Nicoll & Co
 Port belonging to Dundee
 Destined Voyage Adney
 If Surveyed while Building, Afloat, or in Dry Dock.
While building & afloat.

LENGTH on deck as per Rule 129 Feet. BREADTH—Moulded 19 Feet. DEPTH top of Floors to Upper Deck Beams 9 Feet. 11 Inches. Power of Engines 40 Horse. No. of Decks with flat laid One No. of Tiers of Beams One

Dimensions of Ship per Register, length, 130.3 breadth, 19.0 depth, 9.9

KEEL, depth and thickness	Flat Keel plate. See opposite	Inches in Ship.	Inches per Rule.
STEM, moulding and thickness		6 x 1 1/4	6 x 1 1/4
STERN-POST for Rudder do. do.		6 x 2 1/2	6 x 2 1/2
for Propeller		" "	" "
Distance of Frames from moulding edge to moulding edge, all fore and aft		20	(Class 90A)
FRAMES, Angle Iron, for 1/2 length amidships		3 2 1/2 5	3 2 1/2 5
Do. for 1/2 at each end		" "	" "
REVERSED FRAMES, Angle Iron		2 1/2 2 1/2 4	2 1/2 2 1/2 4
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships		1 1/2 x 5	1 1/2 x 5
thickness at the ends of vessel		2 1/2 x 6	2 1/2 x 6
depth at 3/4 the half-bdth. as per Rule		6	5 3/4
height extended at the Bilges		24	23
BEAMS, Upper, Spar, or Awning Deck		5 3 7	5 3 7
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron			
Single or double Angle Iron on Upper edge			
Average space		40 ins	40 ins
BEAMS, Main, or Middle Deck			
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron			
Single, or double Angle Iron, on Upper Edge			
Average space			
BEAMS, Lower Deck, Hold, or Orlop			
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron			
Single or double Angle Iron on Upper Edge			
Average space			
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates		5	5
" Rider Plate			
" Bulb Plate to Intercoastal Keelson		7 x 7	7 x 7
" Angle Irons		3 3 6	3 3 6
" Double Angle Iron Side Keelson			
" Side Intercoastal Plate			
" do. Angle Irons			
" Attached to outside plating with angle iron			
BILGE Angle Irons		3 3 6	3 3 6
" do. Bulb Iron		5 x 5	5 x 5
" do. Intercoastal plates riveted to plating for length		for 1/2 L	for 1/2 L
BILGE STRINGER Angle Irons		3 3 6	3 3 6
Intercoastal plates riveted to plating for length			
SIDE STRINGER Angle Irons		3 3 6	3 3 6
Transoms, material. Knight-heads. Hawse Timbers.			
Windlass			

Flat Keel Plates, breadth and thickness	30	8	30	8
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied	30	6	30	6
fm up. part of Bilge to l. edge of Sh'rstrake	5.6		5.6	
Main Sheerstrake, breadth and thickness of d'ble at Sh'rstrake, & length applied from Mn. to Upr. or Spar Dk. Sh'rstrake.	30	4	30	4
Up. or Spar Dk Sh'rstrake, breadth & thickness	30	4	30	4
Butt Straps to outside plating, breadth & thickness	10 1/2	8 x 1/2	9 3/4	8 x 1/2
Lengths of Plating	5 ft	Spaces	5 ft	Spaces
Shifts of Plating, and Stringers	24	"	2	"
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	31	6	31	6
Angle Iron on ditto	3 x 3	6 x 6	3 x 3	6 x 6
Tie Plates fore and aft, outside Hatchways	7	6	7	6
Diagonal Tie Plates on Beams No. of Pairs	14	6		
Planksheer material and scantling				
Waterways do. do.	Butter			
Flat of Upper Deck do. do.	3. 3. Pine	3		
How fastened to Beams	8.		8	
Stringer Plate on ends of Main or Middle Deck				
Beams, breadth and thickness				
Is the Stringer Plate attached to the outside plating?				
Angle Irons on ditto, No.				
Tie Plates, outside Hatchways				
Diagonal Tie Plates on Beams, No. of pairs				
Waterways materials and scantlings				
Flat of Middle Deck do. do.				
How fastened to Beams				
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams				
Is the Stringer Plate attached to the outside plating?				
Angle Irons on ditto, No.				
Stringer or Tie Plates, outside Hatchways				
Flat of Lower Deck				
Ceiling betwixt Decks, thickness and material				
in hold do. do.	2	Pine	2	
Main piece of Rudder, diameter at head	3 1/2		3 1/2	
do. at heel	2		2	
Can the Rudder be unshipped afloat?	300			
Bulkheads No. 3. Thickness of			4	4
Height up to Main & R. A. D. R.				
How secured to sides of ship	between double frame	LS.		
Size of Vertical Angle Irons	3/2 2 1/2 4	and distance apart	30	ins.
Are the outside Plates doubled two spaces of Frames in length?	300			

The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 5/8 in. Rivets, about 5 apart.
 The REVERSED ANGLE IRONS on floors and frames extend across middle line to except in way of R.A.D.R. Riveted to and Gunwale alternately
 KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? 300 And butts properly shifted? 300
 PLATING. Garboard, double riveted to Keel, with rivets 3/4 in. diameter, averaging 3 3/8 ins. from centre to centre.
 upper Edge of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 5/8 in. diameter, averaging 3 3/4 ins. from centre to centre.
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 5/8 in. diameter averaging 3 3/4 ins. from centre to centre.
 Butts of One Strake at Bilge for 1/2 length, double riveted with Butt Straps 1/16 thicker than the plates they connect.
 Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 5/8 in. diameter, averaging 3 3/4 ins. from cr. to cr.
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 5/8 in. diameter, averaging 2 3/4 ins. from cr. to cr.
 Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted.
 Butts of Main Sheerstrake, double riveted for 1/2 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted ✓ length amidships.
 Butts of Main Stringer Plate, double riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for ✓ length.
 Breadth of laps of plating in double riveting 4 1/2 Breadth of laps of plating in single riveting 2 1/4.

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted?
 Waterway, how secured to Beams (Butter) (Explain by Sketch, if necessary.)
 Beams of the various Decks, how secured to the sides? Solid welded knees. No. of Breasthooks, one Crutches, one.
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Good.
 Manufacturer's name or trade mark, all plates from Newcastle & Co; all angles & bulbs from Newcastle & Co.

The above is a correct description.
 Builder's Signature, James Brown Surveyor's Signature, J. H. Smith
 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 in the butts.*

Masts, Bowsprit, Yards, &c., are *of 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

Fore Mast (Pole), Deck to Heads 35ft. Set 67ft. Starboard wedging 12 1/2 ins.
Main " " " " " 28 " " " " " 9 " " "

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	Wght req'd per Rule.	Test req'd per Rule.
5516		165	14 1/16	13 3/4	165-14 1/16	13 3/4	Bowers	1	5-3-20	8 1/4	5-3-0	8 20
N ^o .												
SAILS.												
CABLES, &c.												
Chain												
Fore Sails,												
Fore Top Sails,												
Fore Topmast Stay Sails												
Main Sails,												
Main Top Sails,												
Hawser ...		90	4		90-4							
Towlines ...		90	3 1/2		90-4							
Warp ...		90	3 1/2		90-4							
quality <i>Good</i>		90	3 1/2		90-4							

Standing and Running Rigging *Mrie & Henif* sufficient in size and *Good* in quality. She has *two* Long Boats and each *18ft* long
The Windlass is *Good & efficient* Capstan and Rudder *efficient* Pumps *efficient* *18 6" Dia.*
Engine Room Skylights. How constructed? *2" wood framing on deep iron Cornings.* How secured in ordinary weather? *by nuts & bolts.*
What arrangements for deadlights in bad weather? *none req'd. Skylight is in R. & D.K.*
Coal Bunker Openings. How constructed? *Cast iron. Circular.* How are lids secured? *Screwed.* Height above deck? *flush.*
Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? *two pair of Scuppers and three pair of freeing Scuttles on Main deck & two pair of Scuppers on R. & D.K. Rly. by work on R. & D.K.*
Cargo Hatchways. How formed? *Framed with Carlings and iron Cornings & Headledges.*
State size Main Hatch *20 ft x 8 ft.* Forehatch *6 " 6 " x 5 " 6 "* Quarterhatch *✓*
If of extraordinary size, state how framed and secured? *Double width tie plates in way of main Hatch.*
What arrangement for shifting beams? *a deep web beam fitted to main Hatch.*
Hatches, If strong and efficient? *yes.*

Order for Special Survey No. <i>349</i>	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	<i>1876. Nov. 15. 27. 30. Dec. 4. 8.</i>
Date <i>23rd Nov. 76</i>		2nd. On the plating during the process of riveting	<i>12. 14. 22. 27. 1877. Jan. 12. 15.</i>
Order for Ordinary Survey No.		3rd. When the beams were in and fastened, and before the decks were laid....	<i>18. 19. 25. 30. Feb. 7. 13. 23. 28.</i>
Date		4th. When the ship was complete, and before the plating was finally coated or cemented..	<i>Mar. 6. 9. 12. 14. 19. 20. 21.</i>
No. <i>80</i> in builder's yard.		5th. After the ship was launched and equipped	

General Remarks (State quality of workmanship, &c.) *Workmanship & Materials Good.*
This vessel has been Constructed in accordance with the accompanying tracings 2ks. Submitted and approved See Seet's Letter 2 Oct-1876. She has a sunk forecastle with a water ballast tank under, tested with a head of water to the height of load water line and found tight. Has a raised quarter deck with beams of single angles 5x3x3/16 Stringers 3x6/16 ties 7x6/16 and flat of deck 3" thick.

fourth & fifth masts.

State if one, two, or three-decked vessel, or if spar, or awning deck; and the lengths of poop, forecastle, or raised quarter deck, and the length of double, or part double bottom.
How are the surfaces preserved from oxidation? Inside *Cemented to upper part of bulge and 3 coats of paint above.* Outside *Three coats of paint from keel to gunwale.*

I am of opinion this Vessel should be Classed *90 A. 1.*
The amount of the Entry Fee ... £ 2 : - : - is received by me, *John W. Mott.*
Special ... £ 9 : 3 : - *21st Mar 1877*
Certificate ... - : 2 : 6
(Travelling Expenses, if any, £ ...)

Committee's Minute *23rd March 1877*
Character assigned *90 A. 1.*
M. B. to M. Parker
W. Lloyd Mott
This vessel appears eligible to be classed as recommended
Lloyd's Register Foundation