

STEEL IRON SHIP.

8524

(Received at London 17 MAY 88)

No. 8524 Survey held at Paisley Date, First Survey 14th October 1887 Last Survey 28th April 1888
On the Steel Screw Steamer "Brunner"

TONNAGE under Tonnage Deck 433.98
Tonnage of Hatchways 10.17
Ditto of Poop, or Raised Or. Dk. 44.50
Ditto of Houses on Deck 30.81
Ditto of Forecastle 18.01
Gross Tonnage 540.47
Less Crew Space 34.77
Less Engine Room 171.95
Register Tonnage as cut on Beam 332.75

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

Half Breadth (moulded) 13.00
Depth from upper part of Keel to top of Upper Deck Beams 14.37
Girth of Half Midship Frame (as per Rule) 24.54

1st Number 57.91
1st Number, if a 3-Decked Vessel .. deduct 7 feet

Length 170.91
2nd Number 8841.93

Proportions— Breadths to Length.. 6.5
Depths to Length—Upper Deck to Keel.. 11.8
Main Deck ditto ..

Master Highman 1888-1888

Built at Paisley

When built 1887-8 Launched 12th March 1888

By whom built J. McArthur & Co.

Owners Martin Newnham

Residence Dunedin

Port belonging to Dunedin

Destined Voyage New Zealand

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

Specially surveyed while building

LENGTH on deck as per Rule 170 11 BREADTH—Moulded 26 5 DEPTH top of Floors to Upper Deck Beams 13 2 Do. do. Main Deck Beams .. 2
Dimensions of Ship per Register, length, 172.75 breadth, 26.1 depth, 13.15
Depth moulded 13 10 10

KEEL, depth and thickness 1 1/4 x 1 1/8
STEM, moulding and thickness 6 1/2 x 1 1/8
STERN-POST for Rudder do. do. 6 1/2 x 3 3/4
" for Propeller 6 1/2 x 3 3/4
Distance of Frames from moulding edge to moulding edge, all fore and aft 21 21

FRAMES, Angle Iron, for 1/2 length amidships 3 3 6 3 3 6
Do. for 1/4 at each end 3 3 5 3 3 5
REVERSED FRAMES, Angle Iron 2 1/2 2 1/2 5 2 1/2 2 1/2 5
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships 14 1/2 6 14 1/2 6
" thickness at the ends of vessel 5 5
" depth at 3/4 the half-bdth. as per Rule 1 1/4 1 1/4
" height extended at the Bilges 29 29
Floors run straight across in double bottom.

BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron 5 3 6 5 3 6
Single or double Angle Iron on Upper edge
Average space 21 21

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 21 21

BEAMS, Lower Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron
Single or double Angle Iron on Upper Edge
Average space 21 21

BEAMS, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron
Single or double Angle Iron on Upper Edge
Average space 21 21

KEELSONS Centre line, single or double plate, box, or Intercostal, Plates 11 9 11 9
" Rider Plate 7 1/4 9 7 1/4 9
" Bulb Plate to Intercostal Keelson 3 1/2 3 6 3 1/2 3 6
" Angle Irons 3 1/2 3 6 3 1/2 3 6
" Double Angle Iron Side Keelson 2 1/2 2 1/2 5 2 1/2 2 1/2 5
" Side Intercostal Plate in 1/2 B. space 4 4
" do. Angle Irons in 1/2 B. space 2 1/2 2 1/2 5 2 1/2 2 1/2 5
" Attached to outside plating with angle iron

BILGE Angle Irons 3 1/2 3 6 3 1/2 3 6
" do. Bulb Iron 6 6 6 6
" do. Intercostal plates riveted to plating for length

BILGE STRINGER Angle Irons 3 1/2 3 6 3 1/2 3 6
Intercostal plates riveted to plating for length 3 1/2 3 6 3 1/2 3 6

SIDE STRINGER Angle Irons 4 3 8 4 3 8
" " 10 8 10 8

The FRAMES extend in one length from Keel to Main Deck

The REVERSED ANGLE IRONS on floors and frames extend from middle line to Bilge Stringer 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 in. diameter, averaging 5 ins. from centre to centre.

" Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 3/4 in. diameter, averaging 3 ins. from centre to centre.

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

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

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

" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 2 3/8 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 3/4 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.

" Butts of Main Stringer Plate, treble riveted for 3/4 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 1/2
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble & double No. of Breasthooks, Three Crutches.
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Siemens-Martin
Manufacturer's name or trade mark, "Ballside," "Kussend," "Parkhead," "Dalzell," "Hoar"
The above is a correct description.
Builder's Signature, J. McArthur & Co. Surveyor's Signature, J. J. Lowther-Dutton
Surveyor to Lloyd's Register of British and Foreign Shipping.
ROBERT EDMUND TAYLOR & SON, Commercial and General Steam Printers, 19, Old Street, Gower Road, London, E.C.

State clearly where plating is of alternate thicknesses as distinguished from diminished thickness at ends of vessel.
* If Iron Deck, state if whole or part, and if wood deck to laid thereon.

GLS155-0268

*Planned***Workmanship.**

Are the butts of plating planed or otherwise fitted?

Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies?

Are the fillings between the ribs and plates solid single pieces?

Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other?

Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces?

Do any rivets break into or through the seams or butts of the plating? *In one or two cases in butts only.*

Masts, Bowsprit, Yards, &c., are *of Steel* 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 60'0" - 2 plates in round, keel 11 1/2 diam x 7/32, deck 16 x 7/32, hounds 12 x 7/32, head 10 x 7/32.**Mainmast 53'6" - 2 plates in round, keel 10 1/2 diam x 7/32, deck 14 x 7/32, hounds 10 1/2 x 7/32, head 9 x 6/32.**Double riveted landings; double and treble riveted butts. Straps 1/16" heavier.*

NUMBER & LETTER for EQUIPMENT	SAILS.	CABLES, &c.	Fathoms	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested and Superintendant, also Number of Certificate.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	Wt req'd per Rule.	Machine where Tested and Superintendant, also Number of Certificate.
N ^o .													
	Chain	18/32	90-2	1 7/32	26-14-0-0	195-1 1/32	18/4/88 - D. G. Lewis	Bower Anchors	23459	11-1-12	13-5-0-0	11 cwt	13/4/88 - D. G. Lewis
	Fore Sails,	Iron Stream Chain	17/67	1 7/32	26-14-0-0	195-1 1/32	18/4/88 - D. G. Lewis		23270	10-3-5	12-15-1-7	11 "	19/3/88 - D. G. Lewis
	Fore Top Sails,	or Steel Wire	60	13/16	11-17-2-0	60-13/16	17/4/88 - D. G. Lewis		23269	9-1-22	11-11-1-0	9 1/4 "	19/3/88 - D. G. Lewis
	Fore Topmast Stay Sails,	or Hempen Stem Cable	90	2 3/4 Steel	17-16-0-0	45-8"			23475	4-1-19	6-17-2-0	4 1/2 "	17/4/88 - D. G. Lewis
	Main Sails,	Towline, Hemp	90	2 3/4 do		90-6"			23474	1-3-12	4-7-0-21	1 7/8 "	16/4/88 - D. G. Lewis
	Main Top Sails, and	or Steel Wire	90	2 3/4 do						0-3-25		3/4 "	
		Hawser	90	6 hemp									
		Warp	90	6 do									
		quality Good	90	4 1/2									

Standing and Running Rigging *fine hemp* sufficient in size and *good* in quality. She has *two 22ft Long* Boats and *1-22ft 9in* and *1-16ft Dinghy*The Windlass is *McOnies Steam* Capstan *Windlass*, and Rudder *Good* Pumps *to approved Plan*Engine Room Skylights. How constructed? *Of Teak* How secured in ordinary weather? *Bolted to iron coamings 22" high, on Bridge Deck.*What arrangements for deadlights in bad weather? *Gratings and tarpaulins*Coal Bunker Openings. How constructed? *Iron shutters* How are lids secured? *from main to 2nd* Height above deck? *Deck*Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? *On each side - 3 wash ports, 22" x 16", 23" x 17", and 24" x 18" respectively, 5 Scuppers and 2 mooring pipes.*Cargo Hatchways. How formed? *Coamings and fore and afters - Coamings 34 1/2" x 7/16 - 3 1/2" at centre line.*State size Main Hatch *14'6" x 13'0"* Forehatch *7'0" x 6'0"* Quarterhatch *14'6" x 12'0"*

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams? *One to main and one to Quarter Hatch - full depth and 3/16" thick.*Hatches, If strong and efficient? *Yes, 2 1/2" solid.*

Order for Special Survey N ^o <i>2124</i>	1st. On the several parts of the frame, when in place, and before the plating was wrought	1887 - October 14, November 11, 22, 30. Dec. 22, 26, 30
Date <i>24th Oct. 1887</i>	2nd. On the plating during the process of riveting	1888 - January 16, 26 February 1, 6, 9, 13, 16, 21, 24, 28 + 29. March 5, 8, 12, 22, 24, 29. April 5, 10, 13, 18, 23 + 28.
Order for Ordinary Survey N ^o <i>48</i>	3rd. When the beams were in and fastened, and before the decks were laid...	
Date <i>9/88</i>	4th. When the ship was complete, and before the plating was finally coated or cemented..	
No. <i>48</i> in builder's yard.	5th. After the ship was launched and equipped	

State dates of letters respecting this case *1887 - M. The Secretary 20th October, 26th November, Pth 14th December.***General Remarks** (State quality of workmanship, &c.)

The workmanship and materials are good and the Vessel has been constructed in accordance with the Secretary's letters above referred to, the Midship Section forwarded 1st May 1888 and remaining approved Plans herewith altered where necessary to represent the Vessel as actually built. The dimensions have been checked and found to give a lower numeral than approved. The collision bulk head at the upper part has been kept further back as shown on the longitudinal section. The double bottom forward and aft has been satisfactorily tested under pressure the fore peak filled, and the Rules in all other respects and the Committee's Circular on Steel complied with. - 3 Plans and 1 Forgiving Report. - One Deck (Steel); one tier of beams. - herewith.

Forecastle 24ft long, Bridge 43ft 9ins., Poop 28ft 0ins.

State if 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 *Paint and cement* Outside *Paint*I am of opinion this Vessel should be Classed *"100 A 1. Steel"*The amount of the Entry Fee *£ 3 : - -* is received by me, *M. J. Fowler-Dutton*Special *£ 25 : 6 : -* 4/5/ 1888

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

(Travelling Expenses, if any, £ ...)

Committee's Minute

Character assigned *100 A 1 Steel**+ Sm C 5/88**Lack*

Surveyor to Lloyd's Register of British and Foreign Shipping.

It is submitted that this vessel appears eligible to be classed

100 A 1 Steel as recommended*100 (Steel)*

Lloyd's Register

Particulars appended

18/5/88