

STEEL
IRON SHIP.

THUR 3 1887

No. 4493 Survey held at Dumbarton Date, First Survey 14th Ap. 1885 Last Survey 21st Jan 1887
On the S.S. Nandaura Schooner (3 masts)

TONNAGE under 2025.54

Ditto of Third, Span, on Lower Deck 965.33

Ditto of Poop, or Raised Or. Dk. 2933.23

Ditto of Houses on Deck 82.87

Ditto of Forecastle 41.35

Gross Tonnage 3270.52

Less Crew Space 392.82

Less Engine Room 1046.57

Register Tonnage as cut on Beam 2148.05

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

Half Breadth (moulded) 21.00

Depth from upper part of Keel to top of Upper Deck Beams 30.13

Girth of Half Midship Frame (as per Rule) 46.85

1st Number 97.98

1st Number, if a 3-Decked Vessel deduct 7 feet 7.00

Length 90.98

2nd Number 307.69

Proportions— Breadths to Length 8.05

Depths to Length—Upper Deck to Keel 11.22

Main Deck ditto 15.45

Master J. Gray 1887-1887

Built at Dumbarton

When built 1885 Launched 9th Nov 1885

By whom built Wm Denny & Bros.

Owners British India Steam Navigation Co.

Residence 13 Austin Friars (Lin.) London E.C.

Port belonging to Glasgow

Destined Voyage not known

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

While Building & afloat.

LENGTH on deck as 338 3 BREADTH— Moulded 42 0 DEPTH top of Floors to Upper Deck Beams 26 10 Power of Engines 274 N° of Decks with flat laid 3

Dimensions of Ship per Register, length, 340.3 breadth, 42.2 depth, 17.85 Moulded depth 29' 3"

KEEL, depth and thickness 2 side Bars 10 x 1 1/2 10 x 1 1/2

STEM, moulding and thickness 5 x 3 1/2 10 x 3 1/2

STERN-POST for Rudder do. do. 11 x 6 1/2 11 x 6 1/2

" " for Propeller 24 ins 24 ins

Distance of Frames from moulding edge to moulding edge, all fore and aft 24 ins 24 ins

FRAMES, Angle Iron, for 1/2 length amidships 6 3 1/2 12 6 3 1/2 12

Do. for 1/4 at each end 6 3 1/2 12 6 3 1/2 12

REVERSED FRAMES, Angle Iron in Dou. Bottom 3 1/2 12 3 1/2 12

FLOORS, depth and thickness of Floor Plate 11 11

at mid line for half length amidships 11 11

thickness at the ends of vessel 11 11

depth at 3/4 the half-bdth. as per Rule Cellular bottom

height extended at the Bilges system as appd

BEAMS, Upper, Spar, or Awning Deck 9 15 9 15

Single or double Ang. Iron, Plate or Tee Bulb Iron 4 8 ins 4 8 ins

Single or double Angle Iron on Upper edge 4 8 ins 4 8 ins

Average space 4 8 ins 4 8 ins

BEAMS, Main, or Middle Deck 10 16 10 16

Single or double Ang. Iron, Plate or Tee Bulb Iron 10 16 10 16

Single or double Angle Iron on Upper edge 4 8 ins 4 8 ins

Average space 4 8 ins 4 8 ins

BEAMS, Lower Deck 10 16 10 16

Single or double Ang. Iron, Plate or Tee Bulb Iron 10 16 10 16

Single or double Angle Iron on Upper edge 4 8 ins 4 8 ins

Average space 4 8 ins 4 8 ins

BEAMS, Hold, or Orlop 4 4 15 4 4 15

Single or double Ang. Iron, Plate or Tee Bulb Iron 4 4 15 4 4 15

Single or double Angle Iron on Upper edge 4 4 15 4 4 15

Average space 4 4 15 4 4 15

KEELSONS Centre line, single or double plate, 58 16 58 16

box, or Intercoastal, Plates 36 15 36 15

" Rider Plate 36 15 36 15

" Bulb Plate to Intercoastal Keelson 4 x 4 x 15 4 x 4 x 15

" Angle Iron 4 x 4 x 15 4 x 4 x 15

" Double Angle Iron Side Keelson 4 x 4 x 15 4 x 4 x 15

" Side Intercoastal Plate 3 x 11 11 3 x 11 11

" do. Angle Irons Cellular double

" Attached to outside plating with angle iron bottom as appd

BILGE Angle Iron 4 4 13 4 4 13

" do. Bulb Iron Margin plate 4 4 13 4 4 13

" do. Intercoastal plates riveted to plating for length 4 4 13 4 4 13

BILGE STRINGER Angle Iron 6 1/2 4 15 6 1/2 4 15

Intercoastal plates riveted to plating for 3/8 length 15 15

SIDE STRINGER Angle Iron 6 1/2 4 15 6 1/2 4 15

The FRAMES extend in one length from Bilge to Bilge & thence to gunwale

The REVERSED ANGLE IRONS on floors and frames extend from middle line to Bilge in short lengths & thence to Gunwale, 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 1/8 in. diameter, averaging 5 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 all Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 5/8 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.

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

Breadth of laps of plating in double riveting 5 1/2 Breadth of laps of plating in single riveting 5

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Yes & No No. of Breasthooks, 7 Crutches, 2

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? "Moesend", "Parkhead"

Manufacturer's name or trade mark, Halliday & Dalzell

The above is a correct description.

Builder's Signature, Wm Denny & Brothers

Surveyor's Signature, J. L. Dodd

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

ROBERT EDMUND TAYLOR & SON Commercial and General Steam Printers, 10, Old Street, Goswell Road, E.C., London.

GL S153-0092

Workmanship. Are the butts of plating planed or otherwise fitted?

Planed

7793 g/s

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 very few

Masts, Bowsprit, Yards, &c., are 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 Built in accordance with the approved tracing attached herewith, see Secretary's letter 22nd Aug. 1884. The steel used is "Parkhead" which was tested at the Manufacturers Works by one of the Society's Surveyors

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Suprntd.
SAILES.							Bower Anchors					
N ^o .	Chain	150 3/4	2 1/2	107.1	300 0	Hutchinson	20060					
	Fore Sails,	49 1/2	2 1/2	76.5	276	Hutchinson	20061					
	Fore Top Sails,	12 1/2	1 3/4	87.98	90 1/2	Hutchinson	20064					
	Fore Topmast Stay Sails,	40 1/2	1 3/4	87.98	90 1/2	Hutchinson	20184					
	Main Sails,	120	4 1/2	120.4	120.4	Hutchinson	20085					
	Main Top Sails,	90	3 1/2	90.9	90.9	Hutchinson	20086					
	and spare	90	9	90.9	90.9	Hutchinson	20087					

Standing and Running Rigging wire hemp sufficient in size and g^d in quality. She has 2 Long Boat and 4 others

The Windlass is Hydraulic (Brown) Capstan 5th and Rudder g^d Pumps good

Engine Room Skylights. How constructed? Teak on Iron Craming on Ruddy panels How secured in ordinary weather? Bolted.

What arrangements for deadlights in bad weather? Brass guards and Calpans

Coal Bunker Openings. How constructed? wrought Iron How are lids secured? Covers Bolted Height above deck? 9"

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? 6 water ports, 6 scuppers,

2 gangway ports, 4 cargo ports and 4 mowing ports.

Cargo Hatchways. How formed? As usual

State size Main Hatch 21' 19" 10" x 12 ft Forehatch 10 ft x 9 ft Quarterhatch 11' 8" x 10 ft

If of extraordinary size, state how framed and secured? 2 shifting web plates in each large hatch and 3 fore

What arrangement for shifting beams? 3 afters.

Hatches, If strong and efficient? 3" white pine to main sk, which also fit up sk. where 3" gratings are fitted.

Order for Special Survey No. 2018

Date 3rd April 1885

Order for Ordinary Survey No. 307

Date 1st May 1885

No. 307 in builder's yard.

State dates of letters respecting this case 19th June, 10th July, 25th Aug, 5th Nov. 1884

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
- 2nd. On the plating during the process of riveting
- 3rd. When the beams were in and fastened, and before the decks were laid
- 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.)

The workmanship is good and the vessel has been built of steel in accordance with the tracings attached herewith, and with the instructions contained in the Society's letters above referred to, and otherwise in accordance with the requirements of the Rules. She is a sister vessel to the S. S. "Lodiana", Glasgow Report N^o 6894; to the S. S. "Laluma", Report N^o 6947 and to the S. S. "Larada", Report N^o 6981. The steel was tested at the Manufacturers Works, as req^d by Circular N^o 436. She has a cellular double bottom throughout, which is divided into five compartments: N^o 1 aft 54 ft x 20 tons; N^o 2 56 ft x 16 tons; N^o 3 62 ft x 18 tons; N^o 4 66 ft x 19 tons and N^o 5 60 ft x 9 tons, making a total of 298 ft x 770 tons. Each tank tested as req^d by the Rules & found satisfactory. The fore & after peaks were filled with water & found satisfactory. She was laid up in Builders Wet Dock from Feb 1886 till Jan 1887 for sale.

Open Bridge 26 ft; middle line house about 52 ft x 15 ft and side houses about 47 ft in length.

Poop 58 ft including 4 ft of overhang side houses. Forecastle 42 ft.

State if one, two, or three decked vessel, or if spar, or awning decked; and the lengths of poop, bridge, fore-castle, or raised quarter deck. (If double bottom, state particulars on separate form.)

How are the surfaces preserved from oxidation? Inside Portland Cement Outside Paint

I am of opinion this Vessel should be Classed

100 A.1 "Steel" "38ks (1 Steel)"

The amount of the Entry Fee

£ 5 is received by me,

Special

£ 104 14 5/3 1886

(to be sent as per margin). Certificate

(Travelling Expenses, if any, £)

Committee's Minute

FRIDAY 4 FEB 1887

18

Character assigned

100 A.1

L. M. B.

T. A. D. C.

38ks (1 Steel)

38ks (1 Steel)

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"

38ks (1 Steel)

Cellular double bottom

(particulars appended)

Lloyd's Register

Foundation

3/2/87