

IRON SHIPS.

Rec 21/4/73

12553 Survey held at Sunderland

Date, First Survey September 20

Last Survey April 17 1873

In the Sea Steamer Nordstjernen

Master Johannes Mathiesen

Under }
 Upper Deck } 258.63
 Lower Deck } 294.36
 Poop, or }
 Quarter Deck }
 Houses } 9.29
 Forecastle }
 Tonnage 1262.28
 Space, }
 as per Rule } 63.44
 Register Tonnage, }
 cut on Beam }
 Engine Room 403.93
 Register Tonnage, as a }
 Steamer, cut on Beam } 794.91

ONE OR TWO DECKED, SPAR, OR AWNING DECKED VESSELS.
 Half moulded breadth 15.95
 Depth from upper part of Keel to top of Upper Deck Beams 8.0
 Girth of Half Midship Frame (as per Rule) 30.9
 1st Number 64.85
 Length 234.
 2nd Number 15.174
 Depths to Length. Under 13

THREE DECKED VESSELS.
 Half Moulded Breadth
 Total Depth if three or more Decks
 Total Girth of Half Midship Frame
 3rd Number
 Length
 4th Number
 Breadths to Length Under 8

Built at Sunderland
 When built 1873 Launched Feb 28 73
 By whom built Bartram Haswell
 Owners Warden & Co. Messrs. G. & Co.
 Port belonging to Copenhagen
 Destined Voyage
 If Surveyed while Building, Afloat, or in Dry Dock.

PLANS

Length on deck as per Rule, 234 Feet. Inches. Moulded Breadth, 31 Feet. Inches. 11 Depths from top of Floors to Upper and Main Deck Beams, as per Rule 18 Feet. Inches. Power of Engines, 120 Horse. N^o. of Decks with flat laid Two N^o. of Tiers of Beams Three

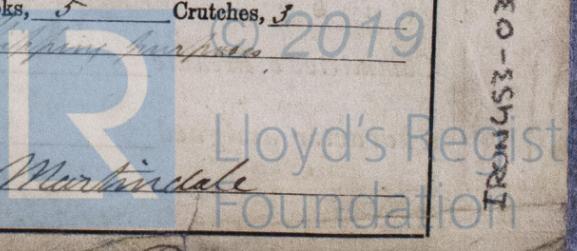
Dimensions of Ship per Register, length, 235.1 breadth, 22.3 depth, 16.2

	Inches in Ship.			Inches required per Rule.		
	Inches.	Inches.	16ths.	Inches.	Inches.	16ths.
Keel, if bar iron, depth and thickness	8	2 3/8		8	2 3/8	
Do. if centre through plate, depth and thickness	7 1/2	2 1/8		7 1/2	2 1/8	
Stem, if bar iron, moulding and thickness	8	4 3/4		8	4 3/4	
Stern-post for Rudder do. do.	8	4 1/2		8	4 1/2	
Stern-post for Propeller	23			23		
Distance of Frames from moulding edge to moulding edge, all fore and aft						
Frames, size of Angle Iron, for 2/3 length amidships	4	3	7	4	3	7
Do. for 1/3 at each end	4	3	6	4	3	6
Reversed Frames, size of Angle Iron	3	3	6	3	3	6
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	18		8.5	18		8.5
Do. at the ends			7			7
Do. do. do. at Bilge Keelson	10 1/2					
Do. height extended at the Bilges	36			36		
Beams, Upper, Spar, or Awning Deck (No. 62) single or double Angle Iron, Plate or Tee Bulb Iron	6		6	6		6
Single or double Angle Iron on Upper edge	2 1/2	2 1/2	5	2 1/2	2 1/2	5
Average space	46			46		
Beams, Main or Middle Deck (No. 59) single or double Angle Iron, Plate or Tee Bulb Iron	4 1/2		7	4 1/2		7
Single or double Angle Iron on Upper Edge	3	3	6	3	3	6
Average space	46			46		
Beams, Lower Deck, Hold or Orlop (No. 28) single or double Angle Iron, Plate or Tee Bulb Iron	4 1/2		7	4 1/2		7
Single or double Angle Iron on Upper Edge	3	3	6	3	3	6
Average space	46			46		
Keelson Centre line, single or double plate, box, or intercostal, size of Plates	14 1/2		11	14		11
Do. Bulb Plate to Intercostal Keelson	7 1/4		10	7 1/4		9
Do. Size of Angle Irons	5	3	9	5	3 1/2	8
Do. Side Intercostal Keelson, size of Plates	18		7			7
Do. Angle Irons on tops of Floors	5	3	9	5	3 1/2	8
Do. Bilge Keelson, Bulb Iron	7 1/2		7	7 1/2		7
Do. do. Intercostal plates riveted to plating for length	5	3	9	5	3 1/2	8
Do. do. Angle Irons	5	3	9	5	3 1/2	8
Side Stringers (No. /) size of Angle Irons	5	3	9	5	3 1/2	8
Do. Intercostal plates riveted to plating for length						

	Inches. In Ship.	16ths. In Ship.	Inches. required per Rule.	16ths. required per Rule.
Flat Keel Plates, breadth and thickness				
Plates in Garboard Strakes, breadth and thickness	33	10	30	10
Do. from Garboard to upper part of Bilges		9		9
Do. of doubling at Bilge, or increased thickness, and length applied	10.2	10.2	10.2	10.2
Do. fm up. part of Bilge to lr. edge of Sh'rstrake		8		8
Do. Main Sheerstrake, breadth and thickness	30 1/2	13	30	13
Do. of d'bling at Sh'rstrake, & length applied				
Do. from Mn. to Upper Spar Dk. Sh'rstrake		7		7
Do. Upper Spar Dk Sh'rstrake, brdth & thickness	33 1/2	9	30	9
Butt Straps to outside plating, breadth & thickness	10.9	14 1/2	17.8	14 1/2
Lengths of Plating				
Shifts of Plating, and Stringers				
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	46 1/2	7	46 1/2	7
Angle Iron on ditto	3 1/2	8	3 1/2	8
Tie Plates (fore and aft), outside Hatchways	11	8	11	8
Diagonal Tie Plates on Beams (No. of Pairs)				
Planksheer material and scantling				
Waterways do. do.	10	5 1/2	Pitch Pine	
Flat of Upper Deck do. do.	3 1/2		Yellow Pine	
How fastened to Beams			Screw Bolts & Nuts	
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	46 1/2	10	46 1/2	10
(Is the Stringer Plate attached to the outside plating?)			Yes	
Angle Irons on ditto (No. 2)	3 1/2	8	3 1/2	8
Tie Plates, outside Hatchways	11	9	11	9
Diagonal Tie Plates on Beams (No. of pairs)				
Waterways materials and scantlings				
Flat of Middle Deck do. do.	3 1/2		Yellow Pine	
How fastened to Beams			Screw Bolts & Nuts	
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	30	8	30	8
(Is the Stringer Plate attached to the outside plating?)			Yes	
Angle Irons on ditto (No. 2)	3 1/2	8	3 1/2	8
Stringer or Tie Plates, outside Hatchways	3 1/2	8	3 1/2	8
Flat of Lower Deck				
Ceiling betwixt Decks, thickness and material	2 1/2		Baltic Pine	
Do. in hold do. do.				
Main piece of Rudder, diameter at head	5 1/2		5 1/4	
Do. do. at heel	5 1/2		3	
(Can the Rudder be unshipped afloat?)			Yes	
Bulkheads No. 5 Thickness of				
Do. Height up				
Do. How secured to the sides of the ship			Double Frames	
Do. Size of Vertical Angle Irons				
Do. Are the outside Plates doubled two spaces of Frames in length?			Yes	

Transoms, material Iron or, if none, in what manner compensated for.
 Knight-heads Iron Hawse Timbers Iron
 Windlass Iron Patent Pall Bitt Nil
 The Frames extend in one length from Keel to Gunwale Riveted through plates with (3/4 in.) Rivets, about 6 apart.
 The Reverse Angle Irons on the floors and frames extend across the middle line to angles on lower hold beam stanchion and to gunwale angles alternately
 Keelsons. Are the various lengths of Plates and Angle Irons properly connected? Yes And are their butts properly shifted? Yes
 Plates, Garboard, double or Riveted to Keel, double or at upper edge, with Rivets (3/4 in.) diameter, averaging (3 1/2 ins.) from centre to centre.
 Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets (3/4 in.) diameter, averaging (3 1/2 ins.) from centre to centre.
 Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes (10.9/16) thick, double or single Riveted; with Rivets (3/4 in.) diameter averaging (3 1/4 ins.) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? Alternate Strakes
 Do. of 3 Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 7/16 thicker than their plates.
 Do. Edges from bilge to Main Sheerstrake, worked carvel with a lining piece () thick, or clencher, double or single riveted; with rivets (3/4 in.) diameter, averaging (3 1/4 ins.) from centre to centre.
 Do. Edges of Sheerstrake, Main, double or single Riveted. Spar Upper, double or single Riveted. At upper edge single At lower edge Double Main Sheerstrake
 Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps (8.11/16) thick, double or single Riveted; with Rivets (3/4 in.) diameter, averaging (3 1/4 ins.) from centre to centre.
 Do. Butts of Main Sheerstrake, double or treble Riveted. Butts of Upper or Spar Sheerstrake, and Upper Deck Stringer Plate, double or treble Riveted for 1/2 length amidships. Breadth of laps of plating in double Riveting (4 1/4) Breadth of laps of plating in single Riveting (2 3/4)
 Butt straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted?
 How secured to the plating of the sides. Waterway, how secured to the planksheer and to the Beams. (Explain by Sketch, if necessary.)
 The various Decks, how secured to the sides? Riveted to Frames & Stringer Plate No. of Breasthooks, 5 Crutches, 3
 Description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Shipping purposes
 Manufacturer's name or trade mark, Plates - Messrs. Iron Works Co. Angles - Bryant & Co.

We certify that the above is a correct description of the several particulars therein given.
 Builder's Signature, Bartram Haswell Surveyor's Signature, Senhouse Martin Dale



12553-0240

