

With or Without
Disconnected Erections.

STEEL STEAMER.

Received at London Office THE 26 OCT 1915

Date of completion of report 22nd October 1915. Port of West Hartlepool.
Survey held at West Hartlepool. Date, First Survey 20th July 1915. Last Survey 16th October 1915.
On the Steamer "SPIRAL" (Yard No. 165) Rig Schooner.

TONNAGE under
Tonnage Deck...
Do. between Tonnage Dk. and 3rd and 4th Dk. 1191.36
Total under Upper Dk. 21.26
Do. of Poop 36.53
Do. of R.Q.Dk. 58.17
Do. of Bridge House 34.21
Do. of Forecastle 1341.53
Do. of Houses on Dk. 61.18
Do. above Crown of Engine Room 429.29
Gross Tonnage 40.64
Less Crew Space
Room 14.75
Engine Room 429.29
Boiler Room 40.64
Tonnage in Beam 810 42/100

CLASS 100 A1

Breadth (greatest moulded) 36
Depth, at middle of length from top of keel to top of upper deck beams at side 16.55
Transverse Number 7
Length on deck from fore part of stem to after part of stern post 245.6
Longitudinal Number 11
Depth "d," at middle of length (See Secs. 2 & 13) 26
Proportions—Depth to Length—Upper Deck Beam at side to top of keel 1/16
Long Bridge Deck Beam at side to top of keel 1/16

Master C. J. Petersen.
Year of appointment 1906.
Built at Christiania.
When built 1906. Launched 1906.
By whom built Nylands Vaerksted.
Owners MINNIE Steamship Co. Ltd.
Managers E. A. Casper, Edgar & Co.
Residence West Hartlepool.
Port belonging to West Hartlepool.

Destined Voyage Norway. If Surveyed while Building, Afloat, & in Dry Dock Yes.

Feet.	Inches.	BREADTH—	Feet.	Inches.	DEPTH, ACTUAL—	Feet.	Inches.	No. of Decks with flat laid
245	0	Moulded	36	6	Do.	16	8	One
								No. of Tiers of Beams One
								Round of Upper Dk. Beam, Actual 8 ins.

FRAMING.	Inches in Ship.	Inches in Ship.	Inches in Ship.	Inches in Ship.	Inches in Ship.	Inches in Ship.
Angles, or E or L Bars amidships	7	3	11	7	3	11
in peaks	4 1/2	3	8	4 1/2	3	8
in way of Double Bottoms at Solid Floors	5	3	9	5	3	9
of Frames from centre to centre amidships	3	3	8	3	3	8
from 1/2 length to Collision bulkhead	24		24			24
in peaks	24		24			24
in way of Double Bottoms at Solid Floors	3 1/2	3	8	3 1/2	3	8
at intermediate Dk.	3	3	8	3	3	8
CELLULAR DOUBLE BOTTOM.	7		7			7
depth of girder	3 1/2	3	8	3 1/2	3	8
depth and thickness of Floor Plate at mid-line for 1/2 length amidships	E=7/10	B=9/10	E=7/10	B=9/10		
in way of Engine and Boiler Spaces	35		35			35
thickness at the ends of vessel	no		no			no
depth at 1/2 the half breadth, as per Rule	24		24			24
height extended at the Bilges	35		35			35
RS in Cell. Double Bottoms	no		no			no
state if flanged (top & bottom)	24		24			24
Spacing of Solid floors	35		35			35
RE GIRDER, in Dbl. bottom, dpth. & thkns.	4	14	8	4	4	8
Angles, Top	5	4	9	5	4	9
Bottom	3	3	9	3	3	9
to Floors	3	3	9	3	3	9
Brackets at intermdt. frmng., width & thkns	One		One			One
GIRDERS, number on each side & thickness	no		no			no
state if flanged (top and bottom)	3	3	7	3	3	7
Angles (top and bottom)	3	3	7	3	3	7
to Floors	27		27			27
GIN PLATE, depth (exclusive of flange) and thickness	3 1/2	3 1/2	8	3 1/2	3 1/2	8
Angle to Outside Plating	3	3	7	3	3	7
Floors	22 1/2		22 1/2			22 1/2
Brackets at intermdt. frmng., width & thkns	36		36			36
Height of Outside Brackets above at bilge	E=8/10	B=10/16	E=8/10	B=10/16		
R BOTTOM PLATING, breadth and thickness of Middle Line Strake	7	3	8	7	3	8
in Engine and Boiler space	7	3	8	7	3	8
Remainder in Holds	24		24			24
MS, Upper Deck, Single Angle, Bulb	6	3	6	6	3	6
Angle, Plate, Tee Bulb, or Channel	48		48			48
In way of Long Bridge	5 1/2	3	8	5 1/2	3	8
Spacing	24		24			24
BEAMS, Second Deck, Single Angle, Bulb	6	3	7	6	3	7
Angle, Plate, Tee Bulb, or Channel	48		48			48
BEAMS, Bridge Deck, Angle, Bulb Angle, Plate, Tee Bulb, or Channel	6	3	7	6	3	7
Angles on upper edge	48		48			48
Spacing	24		24			24
BEAMS, Forecastle Deck, Angle, Bulb Angle, Plate, Tee Bulb, or Channel	6	3	7	6	3	7
Angles on upper edge	48		48			48
Spacing	24		24			24

PILLARS.	Inches in Ship.	Inches in Ship.	Inches in Ship.	Inches in Ship.	Inches in Ship.	Inches in Ship.
PILLARS, in 'tween Deck, size and spacing	2 5/8	48	2 5/8	48		
Hold	3 1/2		3 1/2	48		
Quarter 'tween Dks						
in Hold						
KEELSONS & STRINGERS.	Inches in Ship.	Inches in Ship.	Inches in Ship.	Inches in Ship.	Inches in Ship.	Inches in Ship.
CENTRE LINE KEELSON, Vertical Plate above floors, Through Plate, or Intercostal Plate						
Rider Plate						
Flat Plate Keel Angles						
Horizontal Plates on Floors						
Angles or Bulb Angles						
SIDE KEELSONS, Number						
Angles or Bulb Angles						
Plate above floors, for length						
Intercostal Plate, for length						
Attached to outside Plating with Angle						
BILGE KEELSON, Angles						
Intercostal Plate, for length						
Attached to outside Plating with Angle						
SIDE STRINGERS, Number						
Angle	6	4 1/2	10	6	4 1/2	10
Intercostal Plate, for whole length	11 1/2	8	11 1/2	8		
Attached to outside plating with Angle	3 1/2	3	8	3 1/2	3	8
Upper Deck Stringer Plate, br'dth & thickness (clear of Bridge)	35	10	35	10		
br'dth & thickness (in way of Bridge)	4 1/2 x 4 1/2	9	4 1/2 x 4 1/2	9		
Angle (clear of Bridge)						
Tie Plates at sides of Hatchways						
Deck, * Iron or Steel, for whole lng.						
Thickness (clear of Bridge)						
(in way of Bridge)						
Wood Deck. Material & thickness						
Second Deck Stringer Plate, br'dth & thickness						
Angles on ditto, No.						
Tie Plates outside Hatchways						
Deck, * Iron or Steel, for lng.						
Wood Deck. Material & thickness						
Third Deck Stringer Plate, br'dth & thickness						
Angles on ditto, No.						
Tie Plates, outside Hatchways						
Deck, * Material and thickness						
Fourth and Fifth Deck Stringer Plate, br'dth & thickness						
Angles on ditto, No.						
Tie Plates outside Hatchways						
Deck, * Material and thickness						
Poop Deck Stringer Plate, breadth & thickness	20	7	20	7		
Angle on ditto	3 x 3	7	3 x 3	7		
Tie Plates	10	7	10	7		
Deck, Material and thickness	4. Pins	3	4. Pins	3		
Bridge Deck Stringer Plate, br'dth & thickness	36	8	36	8		
Angle on ditto	3 x 3	8	3 x 3	8		
Tie Plates	Steel	6	Steel	6		
Deck, Material and thickness	20	7	20	7		
Forecastle Deck Stringer Plate, br'dth & th'kns	3 x 3	7	3 x 3	7		
Angle on ditto	10	7	10	7		
Tie Plates	4. Pins	3	4. Pins	3		
Deck, Material and thickness						

* If Iron or Steel Deck, state if whole or part, and if Wood Deck is laid thereon.

Form No. 1A. WEB FRAMES. FORGINGS or CASTINGS. BULKHEADS. COLLISION. PLATING. RIVETING. STRAKES. BUTTS. THICKNESS OF SH'ERSTRAKE. UPPER DECK. STRINGER PLATE. SECOND DECK. STRINGER PLATE. FRAMES. REVERSED FRAMES. MASTS, SPARS, &c. RIGGING. SAILS.

C. S. Head No. 41 and 49 tested at Tipton, and No. 4196 at Middlesbrough. EQUIPMENT No. LETTER ANCHORS. TONNAGE U. D. K. OR PLATING No. FOR TRAWLERS. CHAIN CABLES. HAWSERS AND WARPS. Boats. Pumps. Windlass. Engine Room Skylights. Coal Bunker Openings. Number of Scuppers. Ceiling in Holds. Cargo Hatchways. State size No. 1 Hatch. Number of Web Plates. Bulwarks. Builder's Signature. Correspondence. Workmanship. Is the riveted work properly closed? Are the liners between the frames and plates solid single pieces? to plate, &c., conform well to each other? Are the butts of Plating, Stringers, &c., properly shifted and strapped? Have all the upper and weather decks been tested as required by the Rules (Sec. 26, par. 20)? Have all the gutterways been tested as required by the Rules (Sec. 26, par. 20)? General Remarks. The amount of Entry Fee. Special Survey Fee. Travelling Expenses. State whether the Vessel has been built under Special Survey. With, or without Freeboard, as condition of Class. Committee's Minute. Character assigned. 100A1. 24th. 3. 1015. 2nd. 6. 1015.

GENERAL REMARKS—(continued).

removed) spars and general equipment examined. Hatches examined in position. Steering gear rods, chains and connections examined. Vertical flywheel hand pump to bilges; hand pump to Fore Peak and W.T. Door to Shaft Tunnel examined under working conditions. Air and sounding pipes examined. Several rivets removed from various parts: Counter-sinking and workmanship satisfactory. Outside plating drilled: thicknesses as per approved plan of Midship Section. Plating examined under sidelights. Vessel measured for Freeboard and, after assignment, freeboard marks verified. (Please refer to W. App. Rpt. No. 15169 A.)

Numeral (as approved.)

$\frac{1}{2}$ Breadth 18.25
 $\frac{1}{2}$ Girth 34.24
 Depth 19.66
 Transverse No. = 72.15
 Length = 245'
 Longitudinal No. = 17676.75

Forecastle. = 27'
 Bridge. = 102'
 Poop. = 8'
 Deckhouse. = 30'
 Erections = 167'

$$\frac{17676.75 \times 167}{8 \times 245} = 1506.13$$

Longitudinal No. = 17676.75
 Erections. = 1506.13
 Equipment No. = 19182.88

$$\frac{L}{D} = 12.4$$

$$\frac{L}{B} = 6.71$$

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop 8.7 ft., R.Q.D. ft., Bridge 102.0 ft., Forecastle 28.0 ft. (in feet and tenths). When the Poop is joined to the R.Q.D., this should be distinctly stated.

No. and Material of Decks (if Iron or Steel) and whether wholly or partially covered with wood, and No. of tiers of Beams (this information is to be given as it should appear in the Register Book) One deck. Steel.

Official No. 135919; Signal Letters ✓ State if Machinery is fitted aft No. How are the surfaces preserved from oxidation? Inside Cement and paint. Outside Paint.

PARTICULARS OF WATER BALLAST.—State whether the Double bottom is constructed on the cellular system or with girders on floors.			
Where Fitted.		Cellular System.	
		*Length. Feet.	Water Capacity. Tons.
Double bottom, aft,		54	92
Double bottom, under Engines and Boilers,			
Double bottom, if under Engines only,		26	49
Double bottom, if under Boilers only,			
Double bottom, forward,		94	164
Total capacity of double bottom			305

* The wells are not to be included in the lengths of the tanks.

State whether the above have been tested as required by the Rules. Yes, to load line.

Order for Special Survey No. ✓

Date ✓

No. 165 in builder's yard.

Dates of Surveys held while building

1915. July 20. 21. 22. 23. 26. 27. 28. 29. 30. Aug 5. 6. 9. 10. 11. 12. 13. 16. 17. 18. 19. 20. 23. 24. 25. 26. 27. 31. Sep 2. 6. 8. 9. 10. 13. 14. 15. 16. 17. 20. 21. 22. 29. 30. Oct 4. 6. 7. 11. 12. 13. 14. 15. 16.

Surveyors' Signature

Jas. W. Stuart & D. McQuisla

Total No. of Visits 570