

Sailing Vessel.

IRON OR STEEL SAILING SHIP.

(Received at London Office)

Date of completion of Report

21<sup>st</sup> September 91

Port of Hamburg

No. 2042 Survey held at

Flensburg

Date of First Survey

4<sup>th</sup> April 91

Last Survey

9<sup>th</sup> Septemb. 1891

On the S.S. "Helios"

Rig

Barque

Master

F. Ostermann

TONNAGE under Tonnage Deck..

1142.76

ONE OR TWO DECKED VESSEL.

CLASS

100A1

Do. of Poop

Do. of raised Gr. (Dk. or Break)

Do. of Bridge House

Do. of Houses on Deck

Do. of excess of Hatchways

Do. of Forecastle

Gross Tonnage

1307.41

Less Crew Space

76.066

TONNAGE FOR FEES..

1307.-

Less Navigation spaces

Register Tonnage

1234.345

as cut on Beam....

Destined Voyage

If Surveyed while Building, Afloat, &amp; in Dry Dock

Year of Appointment

Built at

Flensburg

When built

1891

Launched 4<sup>th</sup> Aug.

By whom built

Flensburger Schiffst. Ges.

Owners

Wachsmuth &amp; Krogmann

Managers

(Where necessary to be entered in Reg. Book.)

Residence

Hamburg

Port belonging to

1<sup>st</sup>

LENGTH on deck as per rule .....	Feet. 221	Inches. 00	BREADTH—Moulded.....	Feet. 37	Inches. 00	DEPTH—Top of Floors to Upper Deck Beams..	Feet. 20	Inches. 8	No. of Decks with Flat laid	Two
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Dimensions of Ship per Register, Length 68.67 met breadth 11.20 met depth 6.23 met Moulded depth, ft. 21 in. 11 1/2 Round up of Beam 8 1/2 ins.

## FORGINGS AND CASTINGS.

KEEL, Bar or Side Plates, depth and thickness 9 x 2 3/8 9 x 2 3/8  
STEM, moulding and thickness 8 1/2 x 2 3/8 8 1/2 x 2 3/8  
STERN-POST, do. do. 8 1/2 x 2 3/8 8 1/2 x 2 3/8  
MAIN-PIECE of RUDDER, diameter at head 9 3/4 9 3/4  
RUDDER, how constructed forged in one piece  
Can the Rudder be unshipped afloat? yes

## FRAMING.

FRAME, Angles, on 1/2 Bms., for 1/2 length amidships 5 3 8 5 3 8  
Do. for 1/2 at each end 5 3 7 5 3 7  
Do. in way of Double Bottoms 24 24  
Distance of Frames from moulding edge to moulding edge, all fore and aft 3 1/2 3 8 3 1/2 3 8  
REVERSED FRAME, Angles 29 9 29 9  
FLOORS, depth and thickness of Floor Plate at mid line for 1/2 length amidships 58 58  
FLOORS & BRACKETS, in Cell Dble Bottoms distance apart 48 48  
CENTRE GIRDER, in Dbl. Btm., dpth & thcknss 48 48  
SIDE GIRDERS, number and thickness 48 48  
MARGIN PLATE, depth (exclusive of flange) and thickness 48 48  
INNER BOTTOM PLATING, br'dth & thckn's of Middle Line Strake 48 48  
BEAMS, Main Deck, Single Angle, Bulb Angle, Plate or Tee Bulb 3 1/2 3 7 3 1/2 3 7  
Angles on Upper Edge 48 48  
Average space 48 48  
BEAMS, Lower Deck, Plate or Tee Bulb 3 1/2 3 7 3 1/2 3 7  
Angles on Upper Edge 48 48  
Average space 48 48  
BEAMS, Hold, Plate or Tee Bulb 6 3 9 6 3 9  
Angles on Upper Edge 48 48  
Average space 48 48  
BEAMS, Poop or Bridge Deck, Single Angle, Bulb Angle, Plate or Tee Bulb 7 3 7 7 3 7  
Angles on Upper Edge 48 48  
Average space 48 48  
PILLARS, In 'tween Decks, at Centre line. Size 2 3/4 2 3/4  
Spacing 48 48  
Quarter. Size 3 1/2 3 1/2  
Spacing 48 48  
In Holds, at Centre line. Size 3 1/2 3 1/2  
Spacing 48 48  
Quarter. Size 3 1/2 3 1/2  
Spacing 48 48  
WEB-FRAMES, Breadth and thickness 48 48  
Number and Spacing 48 48  
Number of Side Stringers, breadth and thickness 48 48  
Size of Angles or Tee Bars to Web-Frames 48 48

## KEELSONS AND STRINGERS.

CENTRE LINE KEELSON, Vertical Plate above floors, Through Plate, or Intercoastal Plate 17 12 17 12  
Rider Plate 10 3/4 12 10 3/4 12  
Bulb Plate to Intercoastal Keelson 5 4 9 5 4 9  
Horizontal Plates above floors 5 4 9 5 4 9  
Angles 5 4 9 5 4 9  
SIDE KEELSON, Angles 5 4 9 5 4 9  
Bulb Plate for length 5 4 9 5 4 9  
Intercoastal Plate for whole length 3 3 7 3 3 7  
Attached to outside Plating with Angle 5 4 9 5 4 9  
BILGE KEELSON, Angle 5 4 9 5 4 9  
Bulb Plate for length 5 4 9 5 4 9  
Intercoastal Plates for len. 5 4 9 5 4 9  
Attached to outside Plating with Angle 5 4 9 5 4 9  
BILGE STRINGER, Angles 5 4 9 5 4 9  
Bulb Plate for length 5 4 9 5 4 9  
Intercoastal Plates for len. 5 4 9 5 4 9  
Attached to outside Plating with Angle 5 4 9 5 4 9  
SIDE STRINGER, Angles 5 4 9 5 4 9  
Bulb Plate for length 5 4 9 5 4 9  
Intercoastal Plate for len. 5 4 9 5 4 9  
Attached to outside Plating with Angle 5 4 9 5 4 9  
Main Deck Stringer Plate, on end of Beams, breadth and thickness 44 10 44 10  
Angle on ditto 4 1/2 x 4 1/2 9 4 1/2 x 4 1/2 9  
Tie Plates fore and aft, outside Hatchways 13 10 13 10  
Diagonal Tie Plates on Bms., No. of Prs. 4 4 4 4  
Flat of Deck\*, material and thickness 4 pine 4 pine  
Iron or Steel for length 4 4 4 4  
How fastened to Beams 4 4 4 4  
Lower Deck Stringer Plate, on ends of Beams, breadth and thickness 32 9 32 9  
Is the Stringer Plate attached to the Outside Plating? 4 4 4 4  
Angles on ditto, No. 4 4 4 4  
Tie Plates, outside Hatchways 13 10 13 10  
Diagonal Tie Plates on Bms., No. of prs. 3 3 3 3  
Flat of Deck, material and thickness 2 1/2 pine 2 1/2 pine  
How fastened to Beams 4 4 4 4  
Hold Stringer Plate, on end of Beams 19 8 19 8  
Is the Stringer Plate attached to the Outside Plating? 2 1/2 x 2 1/2 6 2 1/2 x 2 1/2 6  
Angles on ditto, No. 9 9 9 9  
Tie Plate outside Hatchways 9 9 9 9  
Flat of Deck, material and thickness 3 pine 3 pine  
Poop or Bridge Deck Stringer Plate, breadth and thickness 25 7 25 7  
Angle 48 6 48 6  
Tie Plates on Beams 48 6 48 6  
Flat of Deck, material and thickness 3 pine 3 pine

## PLATING.

FLAT PLATE KEEL, breadth and thickness 36 11 36 11  
PLATES in Garboard Strakes, br'dth & thckn's 36 11 36 11  
from Garboard to lower part of Bilges 36 11 36 11  
State Thickness of Plating in way of Double Bottom 36 11 36 11  
Bilges, number of Strakes, and thickness 3 11 3 11  
Of doubling at Bilge, or increased thickness, and length applied 3 11 3 11  
from up. part of Bilge to l. edge of Sh'rstrake 3 11 3 11  
Strake in way of Lower Deck Beams 40 12 40 12  
Sheerstrake, breadth and thickness 40 12 40 12  
Poop or Bridge Sides 40 12 40 12  
Forecastle Sides 40 12 40 12  
Lengths of Plating 13 feet

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

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BULKHEADS. No. in Vessel. Req'd. by Rule. Ceiling betwixt Decks, thickness and material. in hold do. do. W. T. BULKHEADS. PARTITIONS. LONGITUDINAL. Thickness. Angles. Spacing. Height up. Singl. or Dbl. Frames.

The FRAMES extend in one length from centre of keel to Main deck. Riveted through Plates with 7/8 in. Rivets, about 6 apart. The REVERSED ANGLES on floors and frames extend from main deck middle line to and to alternately.

RIVETING OF EDGES AND BUTTS OF SHELL PLATING AND BUTTS OF STRINGER PLATES, TIE PLATES, KEELSONS, &c. Carboard, double riveted to Bar Keel on Flat Plate, with rivets 1 1/8 in. diameter, averaging 5 5/8 ins. from centre to centre. Edges of Carboards and to upper part of Bilge, worked clench, 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 clench, treble or double riveted; treble for 1/2 length; with rivets 7/8 in. dia., averaging 3 1/6 ins. from cr. to cr. Butts of all Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 2 1/20 thicker than the plates they connect. Edges from Bilge to Sheerstrake, worked clench, double or single riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from centre to centre. Butts from Bilge to Sheerstrake, worked clench, treble or double riveted; treble for 1/2 length; with rivets 7/8 in. dia., averaging 3 1/6 ins. from cr. to cr. Edges of Sheerstrake, double riveted. Butts of Sheerstrake, treble riveted for 1/2 length amidships. Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Single or Double Straps to Stringer Plate, for length amidships. Butts of Inner Bottom Plating, riveted for length amidships. Butts of Centre Girder, riveted. Breadth of edge laps of Shell Plating in double riveting 6 x 5 1/4. Breadth of edge laps of Shell Plating in single riveting. Butt Straps of Shell Plating, breadth and thickness 1 1/2 x 2 1/20 thicker than pl. Butts, If Lapped, breadth of Laps. Butt Straps of Keelsons, Stringer and Tie Plates, treble or double riveted? Manufacturer's name or trade mark of the Iron or Steel (state process of manufacture of Steel) used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c. Workmanship. Are the butts of plating planed or otherwise fitted? Are the riveted work properly closed? Are the liners between the frames 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? Are the butts of Plating, Stringers, &c., properly shifted and strapped or lapped?

MASTS AND SPARS.

	Material.	Total length.	DIAMETER AND THICKNESS.				Number of Plates in Round.	ANGLES.		RIVETING.	
			At Partners.	Heel.	Hounds.	Head.		Number.	Size.	Seams.	Butts.
LOWER MASTS											
Fore	steel	117'6"	27	22	22 1/2		3			double	treble
Main											
Mizen		83'-	23 1/2	19	19	16 1/2	3				
Jigger											
BOWSPRIT		39'9"		29	25	14	3	3	4 x 3 1/2 x 7/20		
TOPMASTS											
Fore											
Main											
Mizen											
Jigger											
YARDS											
Fore	steel	80	At Centre	20		10				single	treble
Main											
Crossjack											
Jigger											
FORE TOPMAST YARDS											
Lower		72		18		9					
Upper		67.6		17		8					
MAIN											
Lower											
Upper											
MIZEN											
Lower		60'6"		15		7 1/2					
Upper											
JIGGER											
Lower											
Upper											

Remainder of Spars. Rigging. Material and Size, Shrouds. Sails. Suit of. Sails, and the following Spare Sails.

EQUIPMENT No. 18251 LETTER S. ANCHORS.

Number of Certificate.		WEIGHT, EX. STOCK			WEIGHT OF STOCK			TEST, PER CERTIFICATE				WEIGHT REQ. PER RULE			Description of Anchor.	Makers.	Where and when tested and Superintendent.
		Cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.			
13381	1st Bower	32	1	0	8	2	7	30	8	0	14	32	-	-	Trotman	not given	Tipton 20th Aug 91
13384	2nd "	31	3	7	8	1	7	30	0	2	14	32	-	-			Crashin R. Seiff
13382	3rd "	27	3	7	7	2	7	27	0	2	14	27 1/4	-	-			
	4th "																
	Collective weight	91	3	20								91 1/4	-	-			
13383	Stream	10	2	21	2	3	14	12	13	0	14	10 1/2	-	6	Ordinary		
13407	Kedge	5	1	7	1	2	0	7	14	0	7	5 1/4	-	0			Tipton 24/5 90
13400	2nd Kedge	2	3	0	3	16		5	5	0	0	2 1/2	-	0			

CHAIN CABLES. HAWSERS AND WARPS.

Number of Certificate.	Fathoms	Size.	Test per Certificate.	Weight of Chain Cable.			Fathoms & Size.	Description.	Makers of Cables.	Where and when tested, and Superintendent.	Material.	Fathoms	Size.	Fathoms & Size.	
				Tons.	Per Rule.									Per Rule.	
11923	135	1 1/2	182 3/4	225.013	270 1/16			St. John	not given	Tipton 20.23 Apr 91	Towline	90	11	90	11
11924	135	1 1/2	59 1/8	222.0261						Crashin R. Seiff	Hawser	90	9 1/2	90	9 1/2
11924	75	1	27	41.3.2	75 x 1"					7 January 91		90	6	90	6

Boats. Pumps, Number. Windlass. Number of Scuppers, and number and dimensions of Freeing Ports. Cargo Hatchways. State size No. 1 Hatch (Forward). Number of Web Plates, Shifting Beams, and Fore and Afters to each hatch. Bulwarks, Height above deck and description. The above is a correct description. Builder's Signature. Surveyor's Signature. Surveyor to Lloyd's Register of British and Foreign Shipping.



Order for Special Survey No. \_\_\_\_\_ Date \_\_\_\_\_  
Order for Ordinary Survey No. \_\_\_\_\_ Date \_\_\_\_\_  
No. 122 in builder's yard. 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

*Built under Special Survey*

Total No. of Visits \_\_\_\_\_

State dates and initials of letters respecting this case. *Secretary's letters 29<sup>th</sup> Oct & 26<sup>th</sup> Nov. 90 M.*

General Remarks (State quality of workmanship, &c.) *Quality of workmanship is good & the vessel has been constructed in accordance with the accompanying approved Midship-section, masts & spars plan and in all other respects with the rules. The material has been tested by the Society's Surveyors. The Report of the forging is herewith attached.*

PARTICULARS FOR RECORD IN THE REGISTER BOOK.

Length of Poop 41' 7 3/4 ft., R.Q.D. or Break 16' 5 3/4 ft., Bridge Dk. \_\_\_\_\_ ft., Forecastle 28' x 7' ft. (in feet and tenths).  
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) *Two deck wholly covered with wood*  
Official No. *will follow* Signal Letters \_\_\_\_\_

PARTICULARS OF WATER BALLAST.

Double bottom, aft, length \_\_\_\_\_ and water capacity in tons \_\_\_\_\_ Double bottom, amidships, length \_\_\_\_\_ and water capacity in tons \_\_\_\_\_  
Double bottom, forward, length \_\_\_\_\_ and water capacity in tons \_\_\_\_\_  
Double bottom, constructed on the cellular system, length \_\_\_\_\_ and water capacity in tons \_\_\_\_\_  
Fore peak tank, water capacity in tons \_\_\_\_\_ After peak tank, water capacity in tons \_\_\_\_\_  
Midship deep tank, length \_\_\_\_\_ and water capacity in tons \_\_\_\_\_ Other tanks, if fitted, length \_\_\_\_\_ and water capacity in tons \_\_\_\_\_  
The above have \_\_\_\_\_ been tested as required by the Rules.  
(If necessary, furnish further information by sketch.)  
How are the surfaces preserved from oxidation? Inside *Portl. cement & paint* Outside *Patent paint*

FREEBOARD assigned by the Committee, as per Secretary's Letter, dated \_\_\_\_\_  
ft. ins. In Salt Water  
ft. ins. In Fresh Water  
ft. ins. In Winter, in North Atlantic  
(To top of Wood, Iron or Steel upper deck.)

State if marked on Vessel's sides in accordance with Notice No. 572 \_\_\_\_\_  
The amount of Entry Fee ..... £ 4 : 0 : - is received by me, \_\_\_\_\_  
Special ... £ 65 : 3 : 6 *23/9 1891*  
Certificate\* £ ylc : \_\_\_\_\_  
Travelling Expenses, if any £ 6 : 10 : 6  
I am of opinion this Vessel should be Classed *\* 100A1*  
\* Certificate to be sent to *Hamburg Surveyor Office*  
*Emil Tackels*  
Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute *FRI 25 SEP 1891*  
Character assigned *100A1 Steel 2 Dks*  
*Lacp*  
*THW*  
*It is submitted this vessel appears to be eligible to be classed 100A.1. Steel as recommended.*  
*2 dks*

The Surveyors are requested not to write on, or below the space for Committee's Minute.