

IRON SHIP.

No. 146 Survey held at Thorskog Date, First Survey 6 June 1884 Last Survey October 1886
On the New Steel Steam Ship Solon

TONNAGE under Tonnage Deck 312.21 **ONE, OR TWO DECKED, THREE DECKED VESSEL, SPAR, OR AWNING-DECKED VESSEL.**
Ditto of Third, Spar, or Awning Deck. 408.93 **Half Breadth** (moulded) 12 **Feet.**
Ditto of Poop, or Raised Qr. Dk. 408.93 **Depth** from upper part of Keel to top of Upper Deck Beams 14.15
Ditto of Houses on Deck 30.57 **Girth** of Half Midship Frame (as per Rule) 23.55
Ditto of Forecastle 76.19 **1st Number** 49.60
Gross Tonnage 378.36 **1st Number, if a 3-Decked Vessel** deduct 7 feet 7013.93
Less Crew Space 302.17 **Length** 141.41
Less Engine Room 76.19 **2nd Number** 7013.93
Register Tonnage as cut on Beam 302.17 **Proportions—** Breadths to Length 1: 5.87
Depths to Length—Upper Deck to Keel 1: 9.99
Main Deck ditto 1: 9.99

Master J. Samuelsson
Built at Thorskog
When built 83-1886 Launched 1 Oct 1885
By whom built P. Larsson
Owners J.
Residence Thorskog near Gathen
Port belonging to J.
Destined Voyage Russia
If Surveyed while Building, Afloat, or in Dry Dock. While Building

LENGTH on deck as per Rule ...	Feet.	Inches.	BREADTH—Moulded...	Feet.	Inches.	DEPTH top of Floors to Upper Deck Beams Do. do. Main Deck Beams...	Feet.	Inches.	Power of Engines ...	Horse.	Nº. of Decks with flat laid Nº. of Tiers of Beams
Dimensions of Ship per Register, length, <u>141.7</u> breadth, <u>6.94</u> depth, <u>3.88</u>											
KEEL, depth and thickness ...			Inches in Ship. <u>7" x 1 5/8</u>			Inches per Rule. <u>7 x 1 5/8</u>			Flat Keel Plates, breadth and thickness ...		
STEM, moulding and thickness...			<u>7 x 1 5/8</u>			<u>7 x 1 5/8</u>			PLATES in Garboard Strakes, br'dth & thickness	<u>36</u>	<u>13/32</u>
STERN-POST for Rudder do. do.			<u>6 3/4 x 3 3/4</u>			<u>6 3/4 x 3 3/4</u>			" From Garboard to upper part of Bilges...	<u>6 x 5</u>	<u>13/32</u>
" " for Propeller ...			<u>6 3/4 x 3 3/4</u>			<u>6 3/4 x 3 3/4</u>			" Of d'bling at Bilge, or increased thickness, and length applied	<u>6 x 5</u>	<u>13/32</u>
Distance of Frames from moulding edge to moulding edge, all fore and aft ...			<u>21</u>			<u>21</u>			" From up. prt of Bilge to l.r. edge of Sh'rstrake...	<u>6 x 5</u>	<u>13/32</u>
FRAMES, Angle Iron, for 2/3 length amidships ...			Inches. In Ship. <u>3</u>	Inches. In Ship. <u>3</u>	16ths. In Ship. <u>5/16</u>	Inches per Rule <u>3</u>	Inches per Rule <u>3</u>	16ths per Rule <u>5/16</u>	" Main Sheerstrake, breadth and thickness.....	<u>30</u>	<u>13/32</u>
Do. for 1/4 at each end ...			<u>3</u>	<u>3</u>	<u>5/16</u>	<u>3</u>	<u>3</u>	<u>5/16</u>	" Of d'bling at Sh'stk. & lng. applied	<u>21</u>	<u>13/32</u>
REVERSED FRAMES, Angle Iron ...			<u>2 1/2</u>	<u>2 1/2</u>	<u>5/16</u>	<u>2 1/2</u>	<u>2 1/2</u>	<u>5/16</u>	" From M'n. to Upr. or Spar Dk. Sh'rstrake...		
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships ...			<u>14</u>		<u>5/16</u>	<u>14</u>		<u>5/16</u>	" Up. or Spar Dk Sh'rstrake, br'dth & thckn'ss...		
" thickness at the ends of vessel ...			<u>7 1/2</u>		<u>5/16</u>	<u>7</u>		<u>5/16</u>	Butt Straps to outside plating, breadth & thickness	<u>9 3/4 x 8</u>	<u>5 x 6</u>
" depth at 2/3 the half-bdth. as per Rule ...			<u>28</u>			<u>28</u>			Lengths of Plating	<u>10-6</u>	
" height extended at the Bilges... ..									Shifts of Plating, and Stringers	<u>42</u>	
BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron									Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness...		
le Angle Iron on Upper edge ...			<u>6</u>		<u>5/16</u>	<u>6</u>		<u>5/16</u>	Angle Iron on ditto ...		
in, or Middle Deck ...			<u>2 1/2</u>	<u>2 1/2</u>	<u>5/16</u>	<u>2 1/2</u>	<u>2 1/2</u>	<u>5/16</u>	Tie Plates fore and aft, outside Hatchways		
le Ang. Iron, Plate or Tee Bulb Iron			<u>42</u>			<u>42</u>			Diagonal Tie Plates on Beams No. of Pairs		
le Angle Iron, on Upper Edge ...									Flat of Up., Spar, or Awning Dk.*		
ce... ..									How fastened to Beams ...		
ver Deck—									Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness ...	<u>28 1/2</u>	<u>7/16</u>
Ang. Iron, Plate or Tee Bulb Iron			<u>6</u>		<u>5/16</u>	<u>6</u>		<u>5/16</u>	Is the Stringer Plate attached to the outside plating?	<u>Yes</u>	
le Angle Iron on Upper Edge ...			<u>2 1/2</u>	<u>2 1/2</u>	<u>5/16</u>	<u>2 1/2</u>	<u>2 1/2</u>	<u>5/16</u>	Angle Irons on ditto, No. 2 ...	<u>3 x 3 x 5/16</u>	<u>3 x 3 x 5/16</u>
ce... ..									Tie Plates, outside Hatchways ...	<u>8</u>	<u>7/16</u>
d, or Orlop—in Raised Quarter Deck			<u>6</u>		<u>5/16</u>	<u>6</u>		<u>5/16</u>	Diagonal Tie Plates on Beams, No. of pairs		
Ang. Iron, Plate or Tee Bulb Iron			<u>2 1/2</u>	<u>2 1/2</u>	<u>5/16</u>	<u>2 1/2</u>	<u>2 1/2</u>	<u>5/16</u>	Flat of Middle Deck* do. do.	<u>5</u>	<u>3</u>
le Angle Iron on Upper Edge ...									How fastened to Beams	<u>Same as Upper Deck</u>	
ce... ..									Stringer Plates on ends of Lower Deck, Hold or Orlop Beams—in Raised Quarter Deck	<u>20</u>	<u>5/16</u>
entre line, single or double plate, } or Intercoastal, Plates ...			<u>10</u>		<u>8/16</u>	<u>10</u>		<u>8/16</u>	Is the Stringer Plate attached to the outside plating?	<u>Yes</u>	
plate ...			<u>7 1/2</u>		<u>8/16</u>	<u>7 1/2</u>		<u>8/16</u>	Angle Irons on ditto, No.	<u>3 x 3</u>	<u>5/16</u>
ate to Intercoastal Keelson ...			<u>3 1/2</u>	<u>3</u>	<u>7/16</u>	<u>3 1/2</u>	<u>3</u>	<u>7/16</u>	Stringer or Tie Plates, outside Hatchways		
ons ...									Flat of Lower Deck*		
Angle Iron Side Keelson ...									Ceiling betwixt Decks, thickness and material ...	<u>Butter & Spar</u>	
ercoastal Plate ...									" in hold do. do.	<u>2</u>	<u>2</u>
to outside plating with angle iron									Main piece of Rudder, diameter at head ...	<u>3 3/4</u>	<u>3 3/4</u>
ons ...			<u>3 1/2</u>	<u>3</u>	<u>7/16</u>	<u>3 1/2</u>	<u>3</u>	<u>7/16</u>	do. at heel ...	<u>2 1/4</u>	<u>2 1/4</u>
Bulb Iron... ..									Can the Rudder be unshipped afloat?	<u>Yes</u>	
Intercoastal plates riveted to plating for length }									Bulkheads No. 4 No. per Rule 4		
STRINGER Angle Irons ...									" Thickness of <u>4/16</u>		
Intercoastal plates riveted to plating for length }									" Height up <u>to Main & Raised Quarter Deck</u>		
SIDE STRINGER Angle Irons <u>Bulb for 3/4 length</u>			<u>3</u>	<u>3</u>	<u>5/16</u>	<u>3</u>	<u>3</u>	<u>5/16</u>	" How secured to sides of ship <u>Riveted to double frames</u>		
The FRAMES extend in one length from <u>Keel</u> to <u>Main Deck</u>									" Size of Vertical Angle Irons <u>3 x 3 x 5/16</u> and distance apart <u>30</u> ins.		
The REVERSED ANGLE IRONS on floors and frames extend <u>from middle line to Upper Edge of Side Stringer</u> and to <u>Main Deck</u> alternately									" Are the outside Plates doubled two spaces of Frames in length? <u>Yes</u>		
KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? <u>Yes</u> And butts properly shifted? <u>Yes</u>											
PLATING. Garboard, double riveted to Keel, with rivets <u>1</u> in. diameter, averaging <u>4 3/4</u> ins. from centre to centre.											
" Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets <u>3/4</u> in. diameter, averaging <u>3</u> ins. from centre to centre.											
" Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets <u>3/4 x 5/8</u> in. diameter averaging <u>3 x 2 1/2</u> ins. from centre to centre.											
" Butts of <u>1</u> Strakes at Bilge for <u>1/2</u> length, <u>double</u> riveted with Butt Straps <u>7/16</u> thicker than the plates they connect.											
" Edges from Bilge to Main Sheerstrake, worked clencher, <u>double or single</u> riveted; with rivets <u>5/8</u> in. diameter, averaging <u>2 1/2</u> ins. from cr. to cr.											
" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets <u>5/8</u> in. diameter, averaging <u>2 1/2</u> ins. from cr. to cr.											
" Edges of Main Sheerstrake, <u>double or single</u> riveted. Upper Sheerstrake, double or single riveted.											
" Butts of Main Sheerstrake, <u>double</u> riveted for <u>all</u> length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.											
" Butts of Main Stringer Plate, <u>double</u> riveted for <u>all</u> length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for length.											
" Breadth of laps of plating in double riveting <u>4 1/2</u> Breadth of laps of plating in single riveting <u>2 1/2</u>											
Butt Straps of Keelsons, Stringer and Tie Plates, <u>treble</u> , double or single Riveted? No. of Breasthooks, <u>4</u> Crutches, <u>2</u>											
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? <u>Steel from Steel Co. of Scotland</u>											
Manufacturer's name or trade mark, The above is a correct description.											
Builder's Signature, Surveyor's Signature, <u>C. J. Hall</u>											

State clearly where plating is of alternate thickness—as distinguished from diminished thickness at ends of vessel.

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

Workmanship. Are the butts of plating planed or otherwise fitted? Planed
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? No

Masts, Bowsprit, Yards, &c., are Sundried fir 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 35 feet in length 15 inches Dmtr
Mainmast 34 " " 14 " "

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.
SAILS.												
CABLES, &c.												
Chain		165 fms	1 1/2	30 1/2	165 1/2	1 1/2	Bower Anchors					
(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)							(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)					
2	Fore Sails,	L.P.H. Tipton		3 x 19 85	E.R. Jick			1	8.2.2	10.15.0.0	8 1/4	N: 19788
	Fore Top Sails,	60	1 1/2	11.5.0.0	60 1/2	1 1/2	S.P.H. Nethers	1	8.1.24	10.12.2.6	8 1/4	" 19782
	Fore Topmast Stay Sails,						4485 Lewis	1	7.0.0	9.7.0.21	7	" 19783
	Main Sails,	75	7 1/2		75 1/2	7 1/2		1	2.2.0	4.15.0.0	2 1/2	" 19784
	Main Top Sails,	90	5 1/2		90 1/2	5 1/2	Stream Anchor	1	1.2.1		1 1/4	
	and						Kedge					
							2nd Kedge					

Standing and Running Rigging Wire and Hemp sufficient in size and good in quality. She has 2 Long Boat and 1 smaller
The Windlass is Harfield Capstan Good and Rudder Good Pumps Good

Engine Room Skylights. How constructed? Wood Skylight Iron Lining 18" How secured in ordinary weather? Secured

Coal Bunker Openings. How constructed? Iron Trunks through Bridge How are lids secured? Secured Height above deck? 13" above Bridge

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? Waterports and Scuppers

Cargo Hatchways. How formed? Iron Linnings

State size Main Hatch 17'-6" x 10' x 2'-6" Forehatch 10'-6" x 7' x 2'-6" Quarterhatch 10'-6" x 8'-6" x 2'-6"

If of extraordinary size, state how framed and secured? Webplate

What arrangement for shifting beams?

Hatches, If strong and efficient? Yes

Order for Special Survey No.	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	While building
Date		2nd. On the plating during the process of riveting	
Order for Ordinary Survey No.		3rd. When the beams were in and fastened, and before the decks were laid...	
Date		4th. When the ship was complete, and before the plating was finally coated or cemented...	
No. in builder's yard.		5th. After the ship was launched and equipped	

State dates of letters respecting this case.

General Remarks (State quality of workmanship, &c.)

The Vessel is built in accordance with the Rules and the approved tracing of the 29/1/1895 excepting that the dimensions of the Ship have been a little altered to avoid the additional marks in red for the proportions between length of depth. The steel used in the building is tested according to the Rules and stamped with Lloyd's. The Raised Quarterdeck is 45 feet, Bridgehouse 33 feet and Forecastle 19 feet in length. The Materials used in the building is of good quality and workmanship good. She is now in a good and efficient state fit to carry dry and perishable goods to and from all parts of the world.

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 Bottom Cemented, other parts painted Outside Painted

I am of opinion this Vessel should be Classed 100 A

The amount of the Entry Fee £ 20 : 8 : is received by me, Capt. L. A. de R.

Special £ 20 : 8 : Nov 1896

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

Committee's Minute

Character assigned 100 A

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

It is submitted that this vessel appears worthy to be classed 100 A. 1 "Steel" "Bee" Stringers, Floors and Keelsons of Iron" and recommended. Lloyd's Register 1896

Equipment letter of 12/11/96

BGN1106/54