

IRON SHIP.

Rec 12/2/99 & 10/8/99

No. 72 Survey held at Copenhagen Date, First Survey 10th Feb 1877 Last Survey 6th August 1877

the Steamer H. J. Pallisen Yard Number 105 Master Capt. Hansen

Tonnage under Deck } 746.46
 Tonnage on Deck }
 Tonnage of Third, Spar, or Awning Deck } 363.37
 Tonnage of Poop, or Raised Or. Dk. }
 Tonnage of Houses on Deck } 27.78
 Tonnage of Forecastle }
 Gross Tonnage } 1137.61
 Less Crew Space } 52.89
 Less Engine Room } 364.04
 Register Tonnage } 720.68
 as cut on Beam }

ONE, OR TWO DECKED, THREE DECKED VESSEL.
 SPAR, OR AWNING-DECKED VESSEL.
 HALF BREADTH (moulded) 14.75
 DEPTH from upper part of Keel to top of Upper Deck Beams 16.83
 GIRTH of Half Midship Frame (as per Rule) .. . 28.00
 1st NUMBER 59.58
 1st NUMBER, if a THREE-DECKED VESSEL deduct 7 feet
 LENGTH 210.00
 2nd NUMBER 12511.8
 PROPORTIONS—Breadths to Length 1:7.12
 Depths to Length—Upper Deck to Keel 1:8.8
 Main Deck ditto 1:12.4

Built at Copenhagen
 When built 1877 Launched 1877
 By whom built Bernier & Wain
 Owners Pallisen & Co. Steamship Company
 Port belonging to Copenhagen
 Destined Voyage Mediterranean & Baltic
 If Surveyed while Building, Afloat, or in Dry Dock. while in Dock & afloat

LENGTH on deck as per Rule ... 210 Feet. Inches. 29 6
 BREADTH—Moulded ... 29 6 Feet. Inches. 22 6
 DEPTH top of Floors to Upper Deck Beams ... 15 6 Feet. Inches. 120
 Power of Engines ... 120 Horse.
 N° of Decks with flat laid 2
 N° of Tiers of Beams 3

Dimensions of Ship per Register, length, breadth, depth,	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	8 x 2 3/8	8 x 2 3/8
STEM, moulding and thickness	8 x 2 3/8	7 1/4 x 2 3/8
STERN-POST for Rudder do. do.	9 x 4 1/4	9 x 4 1/4
for Propeller	9 x 4 1/4	9 x 4 1/4
Distance of Frames from moulding edge to moulding edge, all fore and aft	22	(Class 100 A)
FRAMES, Angle Iron, for 3/4 length amidships	3 1/2 x 3	3 1/2 x 3
Do. for 1/2 at each end	3 1/2 x 3	3 1/2 x 3
REVERSED FRAMES, Angle Iron	2 1/2 x 3	2 1/2 x 3
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	17 1/2	17 1/2
thickness at the ends of vessel	17 1/2	17 1/2
depth at 3/4 the half-bdth. as per Rule	11	11
height extended at the Bilges	35	35
BEAMS, Upper, Spar, or Awning Deck Single or double Angle Iron, Plate or Tee Bulb Iron	6 x 7/16	6 x 7/16
Single or double Angle Iron on Upper edge	2 1/2 x 2 1/2	2 1/2 x 2 1/2
Average space	44	44
BEAMS, Main or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron	7 x 7/16	7 x 7/16
Single or double Angle Iron, on Upper Edge	3 x 3	3 x 3
Average space	44	44
BEAMS, Lower Deck, Hold or Orlop Single or double Angle Iron, Plate or Tee Bulb Iron	7 x 7/16	7 x 7/16
Single or double Angle Iron on Upper Edge	44	44
Average space	44	44
KEELSONS Centre line, single or double plate, box, or Intercostal, Plates	13 x 10/16	13 x 10/16
" Rider Plate	11 x 10/16	11 x 10/16
" Bulb Plate to Intercostal Keelson	4 1/2 x 3 1/2	4 1/2 x 3 1/2
" Angle Irons	4 1/2 x 3 1/2	4 1/2 x 3 1/2
" Double Angle Iron Side Keelson	4 1/2 x 3 1/2	4 1/2 x 3 1/2
" Side Intercostal Plate	3 1/2	3 1/2
" do. Angle Irons	4 1/2 x 3 1/2	4 1/2 x 3 1/2
" Attached to outside plating with angle iron	3 x 3	3 x 3
BILGE Angle Irons	4 1/2 x 3 1/2	4 1/2 x 3 1/2
" do. Bulb Iron	7 x 7/16	7 x 7/16
" do. Intercostal plates riveted to plating for length	4 1/2 x 3 1/2	4 1/2 x 3 1/2
BILGE STRINGER Angle Irons	4 1/2 x 3 1/2	4 1/2 x 3 1/2
Intercostal plates riveted to plating for 3/4 length.	4 1/2 x 3 1/2	4 1/2 x 3 1/2
SIDE STRINGER Angle Irons		
Transoms, material. Knight-heads. Hawse Timbers.		
Windlass <i>Højhus Patent</i> Pall Bitt		

Flat Keel Plates, breadth and thickness	Inches in Ship.	16ths in Ship.	Inches required	16ths required
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges	32 x 10/16		32	10/16
of doubling at Bilge, or increased thickness, and length applied	22 x 16		22	16
fm up. part of Bilge to lr. edge of Sh'rstrake	8 x 9		8	9
Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Spar Dk. Sh'rstrake.	36 x 4/16		36	4/16
Up. or Spar Dk Sh'rstrake, brdth & thickness	42 x 10/16		42	10/16
Butt Straps to outside plating, breadth & thickness	14 1/4 x 16 3/4		14 1/4	16 3/4
Lengths of Plating	132		132	
Shifts of Plating, and Stringers	44		44	
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	34 x 4/16		34	4/16
Angle Iron on ditto	3 1/2 x 3 1/2		3 1/2	3 1/2
Tie Plates fore and aft, outside Hatchways	10 x 4/16		10	4/16
Diagonal Tie Plates on Beams No. of Pairs, 5	10 x 4/16		10	4/16
Planksheer material and scantling				
Waterways do. do. Oak	18 x 4 1/2		18	4 1/2
Flat of Upper Deck do. do. Rig pine	6 x 3 1/2		6	3 1/2
How fastened to Beams	double fastening			
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	34 x 8/16		34	8/16
Is the Stringer Plate attached to the outside plating?	Yes			
Angle Irons on ditto, No. 2	4 1/2 x 3 1/2		4 1/2	3 1/2
Tie Plates, outside Hatchways	10 x 8/16		10	8/16
Diagonal Tie Plates on Beams, No. of pairs 5	10 x 8/16		10	8/16
Waterways materials and scantlings				
Flat of Middle Deck do. do. Rig pine	6 x 3 1/2		6	3 1/2
How fastened to Beams	double fastening			
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	27 x 7/16		27	7/16
Is the Stringer Plate attached to the outside plating?	Yes			
Angle Irons on ditto, No. 2	3 1/2 x 3 1/2		3 1/2	3 1/2
Stringer or Tie Plates, outside Hatchways				
Flat of Lower Deck				
Ceiling betwixt Decks, thickness and material in hold do. do.	Rig pine 2 1/4 - 1 1/2			
Main piece of Rudder, diameter at head	5 1/4		5	
do. at heel	3		3	
Can the Rudder be unshipped afloat?	Yes			
Bulkheads No. 5 Thickness of	5/16		5	1/16
Height up	to Collision Bulkhead to Spandeck the others to Main Deck			
How secured to sides of ship	to double frames			
Size of Vertical Angle Irons	2 1/2 x 3 x 4/16 and distance apart 26 ins.			
Are the outside Plates doubled two spaces of Frames in length?	Yes			

The FRAMES extend in one length from Keel to Spardeck Riveted through plates with 3/4 in. Rivets, about 6 apart.
 The REVERSED ANGLE IRONS on floors and frames extend from middle line to Main Deck and to Spardeck 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 3/4 in. diameter, averaging 3 ins. from centre to centre.
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 ins. from centre to centre.
 Butts of 3 Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 7/16 thicker than the plates they connect.
 Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 3/4 in. diameter, averaging 3 ins. from cr. to cr.
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 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 1/2 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 4/16 Breadth of laps of plating in single riveting
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted?
 Waterway, how secured to Beams (Explain by Sketch, if necessary.)
 Beams of the various Decks, how secured to the sides? by welded Ribs No. of Breasthooks, 3 Crutches, 3
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Best Staffordshire
 Manufacturer's name or trade mark, Goodrich & Sons, Charnock & Sons, & Sons
 The above is a correct description.
 Builder's Signature, *M. J. ...* Surveyor's Signature, *J. W. ...*

IRON 473-0273

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? Solid in one length
 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

1903 7 Br

Masts, Bowsprit, Yards, &c., are red pine 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
 Mainsmast Length 60' Diameter 19"
 Masts - 2' 64' 2' - 19"

NUMBER for EQUIPMENT 15451.		Fathoms.	Inches.	Test per Certificate.	Lngh. & Size req'd pr Rule	Test req'd per Rule.	ANCHORS, &c.	N°.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
N°.	SAILS.											
	Fore Sails,	240	18 1/2	40 1/2	340 - 18 1/2	40 1/2	Bowers ...	2	22 cut	23 Dec 0-2-7		
	Fore Top Sails,						(State Machine where Tested, Date, and name of Superintendent.)	1	16	17-1-3-14		
	Fore Topmast Stay Sails											
	Main Sails,	90	8"		10		Stream ...	1	9			
	Main Top Sails,	90	7"		9		Kedges ...	1	4 1/2			
	and	180	6"		5 1/2							
		180	5 1/2"									
		180	3 1/2"									

Standing and Running Rigging adequate sufficient in size and good in quality. She has 4 ~~Boats~~ (2 Life boats)

The Windlass is Wheeler's patent. Capstan and Rudder good Pumps one in each compartment.

Engine Room Skylights.—How constructed? infilled with a Deckhouse How secured in ordinary weather? deck lights with bulwarks

Coal Bunker Openings.—How constructed? very substantial. How are lids secured? With Cross bars. Height above deck? 6" from Spar

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? As there is no bulwark but she has the water runs down by a scull.

Cargo Hatchways.—How formed? very strong. 3 feet higher above Deck.

State size Main Hatch 16 1/2 x 9' Forehatch 14 1/2 x 9' Quarterhatch 12 1/2 x 9'

If of extraordinary size, state how framed and secured? beams of extra strength.

What arrangement for shifting beams? yes.

Order for Special Survey No.	Date	Order for Ordinary Survey No.	Date	No. in builder's yard.	DATES of Surveys held while building as per Section 16.	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
1	17/2 1877			105		14 th of March	20 th April	5 th of June	30 th Nov.	20 th July

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

This vessel now finished and built for class 100 A-1. has been carefully constructed and built from good materials and by good workmanship. Builders and Engine likewise good and substantial and has undergone survey and trials as required by law of 24th April 1875 of this Country. I beg to recommend said vessel for the class in Lloyd's Book as desired by 100 A-1. If so it may please the Committee to grant, and that Certificate to that effect may be sent into my hands.

Water tank is fitted amidships between 2 watertight bulkheads. Height of tank 10 feet. Capacity about 200 tons. Besides a water tank at each end of the ship fore and aft the bulkheads.

Two Decket. Spar Decket. none

State if one, two or three decked vessel, or if spar or awning decked, and lengths of poop, forecabin or raised quarter deck, or of double or part double bottom.

How are the surfaces preserved from oxidation? Inside at the sides 3 coats of red lead paint Outside 3 coats of patent paint

I am of opinion this Vessel should be Classed 100 A-1

The amount of the Entry Fee £ 5 : 0 : 0 is received by me, Special Certificate ... £ 53 : 8 : 6 7th August 1877 J. J. Sadron

(Travelling Expenses) (if any) £ 58.13.6

Committee's Minute 10th August 1877. Character assigned 100 A-1



J. J. Sadron & Spar Deck St. B