

# IRON SHIP.

18th JULY, 82.

510

No. 510 Survey held at Postock Date, First Survey Feb 7 82 Last Survey July 4 1882  
 On the Iron Steamer "Defiance" Master N. Houge

TONNAGE under Tonnage Deck	435.74
Ditto of Third, Spar, or Awning Deck	
Ditto of Poop, or Raised Qr. Dk.	
Ditto of Houses on Deck	
Ditto of Forecasts	
Gross Tonnage	698.05
Less Crew Space	33.29
Less Engine Room	136.54
Register Tonnage as out on Beam	528.22

ONE, OR TWO DECKED, THREE DECKED VESSEL.	
SPAR, OR AWNING-DECKED VESSEL.	
HALF BREADTH (moulded)	12.11
DEPTH from upper part of Keel to top of Upper Deck Beams	14.5
GIRTH of Half Midship Frame (as per Rule)	24.0
1st NUMBER	57.4
1st NUMBER, if a 3-DECKED VESSEL, deduct 7 feet	
LENGTH	173
2nd NUMBER	8880
PROPORTIONS—Breadths to Length	over 6
Depths to Length—Upper Deck to Keel	over 11
Main Deck ditto	

Built at Postock  
 When built 1882 Launched May 15 1882  
 By whom built Postocker Actien-Gesellschaft für Schiff und Maschinenbau  
 Owners Christopher Fahren, Halvorsen & Falk Compagni af 1881  
 Port belonging to Bergen, Norway  
 Destined Voyage  
 If Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule	173	BREADTH—Moulded	25	10	DEPTH top of Floors to Upper Deck Beams	13	2 1/2	Power of Engines	75	N° of Decks with flat laid	2	N° of Tiers of Beams	2
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Dimensions of Ship per Register, length, 173.57 breadth, 8.02 depth, 3.92

	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule
KEEL, depth and thickness	175.5	7 1/4 - 1 1/8	175.5	7 1/4 - 1 1/8		
STEM, moulding and thickness						
STERN-POST for Rudder do. do.		7 1/4 - 3 1/4		7 1/4 - 3 1/4		
Distance of Frames from moulding edge to moulding edge, all fore and aft	21		21			
FRAMES, Angle Iron, for 2/3 length amidships	3	3	6	3	3	6
Do. for 1/3 at each end	3	3	5	3	3	5
REVERSED FRAMES, Angle Iron	2 1/2	2 1/2	5	2 1/2	2 1/2	5
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	14 1/2		6	14 1/2		6
thickness at the ends of vessel			5			5
depth at 1/4 the half-bdth. as per Rule						
height extended at the Bilges	29		29			
BEAMS, Upper, Spar, or Awning Deck	5	3	6	5	3	6
Single or double Ang. Iron, Plate or Tee Bulb Iron						
Single or double Angle Iron on Upper edge	42		42			
Average space						
BEAMS, Main, or Middle Deck	5	3	6	5	3	6
Single or double Ang. Iron, Plate or Tee Bulb Iron						
Single or double Angle Iron on Upper Edge	21		21			
Average space						
BEAMS, Lower Deck, Hold or Orlop						
Single or double Ang. Iron, Plate or Tee Bulb Iron						
Single or double Angle Iron on Upper Edge						
Average space						
KEELSONS Centre line, single or double plate, box, or intercostal, Plates	11		9.8x7	11		
Rider Plate	7 1/2		9.8x8	7 1/2		9.8x8
Bulb Plate to Intercostal Keelson	3 1/2	3	6 1/6	3 1/2	3	6
Angle Irons						
Double Angle Iron Side Keelson						
Side Intercostal Plate						
do. Angle Irons						
Attached to outside plating with angle iron						
BILGE Angle Irons	3 1/2	3	6	3 1/2	3	6
do. Bulb Iron	6		6			
do. Intercostal plates riveted to plating for length						
BILGE STRINGER Angle Irons	3 1/2	3	6	3 1/2	3	6
Intercostal plates riveted to plating for length						
SIDE STRINGER Angle Irons						
Transoms, material. Knight-heads. Hawse Timbers.						
Windlass <u>Walker's</u> Pall Bitt						

	Inches in Ship	16ths in Ship	Inches per Rule	16ths per Rule		
Flat Keel Plates, breadth and thickness				4.8 section		
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges	30	9x8	30	9x8		
of doubling at Bilge, or increased thickness, and length applied			7x8	7x8		
fin up part of Bilge to Ir. edge of Sh'rstrake.			7x8	7x8		
Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Upper or Spar Dk. Sh'rstrake.	33	9x8	33	9x8		
Up. or Spar Dk Sh'rstrake, brdth & thckns			5			
Butt Straps to outside plating, breadth & thickness			7.8.10			
Lengths of Plating			12.6			
Shifts of Plating, and Stringers	42.8	6.3				
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	21.6	6x5				
Angle Iron on ditto	2 1/4 x 2 1/2	5				
Tie Plates fore and aft, outside Hatchways	8	6x5				
Diagonal Tie Plates on Beams No. of Pairs						
Planksheer material and scantling						
Waterways do. do.						
Flat of Upper Deck do. do.	2 3/4					
How fastened to Beams	by bolts					
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	38.6	20	7x6	38.6	20	7x6
Is the Stringer Plate attached to the outside plating?	yes					
Angle Irons on ditto, No. 2	3 1/2 - 3 1/2	6 1/6				
Tie Plates, outside Hatchways						
Diagonal Tie Plates on Beams, No. of pairs						
Waterways materials and scantlings						
Flat of Middle Deck do. iron do. deck			5			
How fastened to Beams						
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	12	7x6	12	7x6		
Is the Stringer Plate attached to the outside plating?	No					
Angle Irons on ditto, No. 4	3 1/2 - 3 1/2	6				
Stringer or Tie Plates, outside Hatchways						
Flat of Lower Deck						
Ceiling betwixt Decks, thickness and material	2 1/2	pine	2 1/2			
in hold do. do.	2 1/2	do.	2 1/2			
Main piece of Rudder, diameter at head	4 1/2		4 1/2			
do. at heel	2 1/2		2 1/2			
Can the Rudder be unshipped afloat?	yes					
Bulkheads No. 5 Thickness of 1/4 inch						
Height up Main deck						
How secured to sides of ship	double frame					
Size of Vertical Angle Irons	2 1/2 - 2 1/2					
and distance apart						
Are the outside Plates doubled two spaces of Frames in length?						

The FRAMES extend in one length from centre line of keel to Awning deck Riveted through plates with 5/8 in. Rivets, about 5 apart.  
 The REVERSED ANGLE IRONS on floors and frames extend from middle line to upper deck and to lower deck 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 3/4 in. diameter, averaging 3 1/4 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 1/4 ins. from centre to centre.  
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 1/4 ins. from centre to centre.  
 Butts of one Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 1/16 thicker than the plates they connect.  
 Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 5/8 in. diameter, averaging 2 3/4 ins. from cr. to cr.  
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 5/8 in. diameter, averaging 2 3/4 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 whole length amidships.  
 Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for whole length.  
 Breadth of laps of plating in double riveting 4 1/2 Breadth of laps of plating in single riveting 2 7/8  
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted?  
 Waterway, how secured to Beams of iron (Explain by Sketch, if necessary.)  
 Beams of the various Decks, how secured to the sides? By knee plates No. of Breasthooks, Crutches,  
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? All very good German iron  
 Manufacturer's name or trade mark,  
 The above is a correct description.  
 Builder's Signature, ... Surveyor's Signature, Emil Fackelmann  
 Surveyor to Lloyd's Register of British and Foreign Shipping.

3010-116-0103

**Workmanship.** Are the butts of plating planed or otherwise fitted? *Carefully 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 *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

No.	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.		No.	Weight. Ex. Stock.	Test per Certificate	W'ght req'd per Rule.	Machine where Tested & Suprntd.
								Bower Anchors	Stream					
	Fore Sails,	Chain	105.3 1/4	1 1/4	42.2.2.0	210 x 1 1/4				1	13.3.24	15.12.2.0	13 1/2	
	Fore Top Sails,	Iron Str'm Chain	107.2 1/2	1 1/4	42.2.2.0	60 x 1 1/4				1	13.3.16	15.12.2.0	do.	
	Fore Topmast Stay Sails,	Ditto do.	60	1 3/16	17.16.0.0					1	11.3.0	13.12.2.0	11 1/2	38 1/2
	Main Sails,	Hmpn Strm Cbl				75 x 8 1/2				1	4.3.8	7 1/4	4 3/4	
	Main Top Sails,	Hawser ...	75	8 1/2		90 x 6 1/2				1	2.0.21	4 3/4	2 1/2	
	and	Towlines ...	90	6 1/2		100 x 5				1	1.1.0		1 1/4	
		Warp ...	100	5		90 x 4								
		quality	90	4										

Standing and Running Rigging *are* sufficient in size and *good* in quality. She has *3* Long Boat and *17/18* / *20*  
 The Windlass is *Walker's* Capstan and Rudder *and* Pumps *are good*

Engine Room Skylights.—How constructed? *of Iron, spruce above deck* How secured in ordinary weather? *well*

Coal Bunker Openings.—How constructed? *2 on each side 40 x 24* How are lids secured? *atches of iron* Height above deck? *14 inches*

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

Cargo Hatchways.—How formed? *of iron 3/8" x 24"*  
 State size *Main Hatch 17 1/2 x 9* Forehatch *10 1/2 x 7* Quarterhatch *10 1/2 x 8*

If of extraordinary size, state how framed and secured?  
 What arrangement for shifting beams?

Hatches, If strong and efficient? *of iron.*

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	<i>Built under special survey</i>
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	

General Remarks (State quality of workmanship, &c.)  
*Awning deck, lead line marked giving a draught of 13' 4", and leaving a free board of 1' 5" to the main deck and 7' 10" to the awning deck.*  
*Water Ballast, double bottom 83 tons 63' long*  
*Aft 19 tons 27' 6"*  
*Peak 11 tons*

*The iron is of the best German material and the workmanship has been executed very carefully. The decks are of Swedish pine, the companion deck houses, rails & skylight are of teak*

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

How are the surfaces preserved from oxidation? *Inside She received 3 coats of paint Outside 3 coats of paint, bottom patent paint*

I am of opinion this Vessel should be Classed *100 A1* *Awning Deck Lead Line marked 13' 4"*

The amount of the Entry Fee ... £ 5 : 0 : 0 is received by me,  
 Special ... £ 34 : 18 : 0 187  
 Certificate ... — : 5 : 0

*Gerrit J. Adderley*  
 Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute *Friday 21st July, 1892.*

Character assigned *100 A1*  
*Freeboard 18 5/8 in 1st Awning Deck*  
*Lead line 13 feet 4 in*  
 Lloyd's Register of British and Foreign Shipping