

IRON SHIP.

No. 5360 Survey held at Glasgow
On the S. S. "Catania"

Date, First Survey 5th Oct. 1880 Last Survey 26th April 1881

Master W. C. Petersen

Tonnage under Tonnage Deck	1955.21
Ditto of Third, Fourth, or Awning Deck	
Ditto of Poop, Raised Or Deck	91.96
Ditto of Houses on Deck	22.13
Bridge House	65.69
Ditto of Forecastle	56.11
Excess of Hatches	7.38
Gross Tonnage	2198.48
Crew Space	65.64
	2132.84
Engine Room	703.51
Register Tonnage as cut on Beam	1429.43

ONE, OR TWO DECKED, THREE DECKED VESSEL, SPAR, OR AWNING DECKED VESSEL	
HALF BREADTH (moulded)	17.66
DEPTH from upper part of Keel to top of Upper Deck Beams	26.5
GIRTH of Half Midship Frame (as per Rule)	40.25
1st NUMBER	84.41
1st NUMBER, if a 3-DECKED VESSEL, deduct 7 feet	77.41
LENGTH	313.33
2nd NUMBER	24254
PROPORTIONS—Breathths to Length	8.87
Depths to Length—Upper Deck to Keel	11.82
Main Deck ditto	16.56

Built at Glasgow
 When built 1880-81 Launched 13 April 1881
 By whom built Alex^r Stephen & Sons
 Owners Rob. M. Stoman & Co.
 Port belonging to Hamburg
 Destined Voyage Hamburg
 and
 Surveyed while Building, Afloat, or in Dry-Dock.
 Built under Special Survey

LENGTH on deck as per Rule	Feet. 313	Inches. 4	BREADTH—Moulded	Feet. 35	Inches. 4	DEPTH top of Floors to Upper Deck Beams	Feet. 23	Inches. 1 1/2	Power of Engines	Horse. 200	N ^o . of Decks with flat laid	Two
						Do. do. Main Deck Beams	15	0 1/2			N ^o . of Tiers of Beams	Three

Dimensions of Ship per Register, length, 315.1 breadth, 35.7 depth, 22.6

	Inches in Ship			Inches per Rule		
	In Ship	In Ship	In Ship	Inches per Rule	Inches per Rule	Inches per Rule
KEEL, depth and thickness <u>side plates</u>	10	1 1/4	10	1 1/4	10	1 1/4
STEM, moulding and thickness	10	2 3/4	10	2 3/4	10	2 3/4
STERN-POST for Rudder do. do.	10	5 1/2	10	5 1/2	10	5 1/2
" " for Propeller	10	5 1/2	10	5 1/2	10	5 1/2
Distance of Frames from moulding edge to moulding edge, all fore and aft	24					
FRAMES, Angle Iron, for 2/3 length amidships	5	3	8	5	3	8
Do. for 1/3 at each end	5	3	7	5	3	7
REVERSED FRAMES, Angle Iron	3 1/2	3	8	3 1/2	3	8
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	Bracket Bottom					
" thickness at the ends of vessel	Bracket Bottom					
" depth at 3/4 the half-bdth. as per Rule	Bracket Bottom					
" height extended at the Bilges	Bracket Bottom					
BEAMS, Upper, Spar, or Awning Deck	6	3	8	6	3	8
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	8 1/2	x	8	8 1/2	x	8
Single or double Angle Iron on Upper edge	3	3	7	3	3	7
Average space	24					
BEAMS, Main or Middle Deck	6	3	8	6	3	8
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	8 1/2	x	8	8 1/2	x	8
Single or double Angle Iron, on Upper Edge	3	3	7	3	3	7
Average space	24					
BEAMS, Lower Deck, Hold, or Orlop	9 1/2	x	9	9 1/2	x	9
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	4	4	8	4	4	8
Single or double Angle Iron on Upper Edge	4	4	8	4	4	8
Average space.. (Top plates 8 3/4 x 8 1/6)	10 1/2 frame					
KEELSONS Centre line, single or double plate, box, or Intercostal Plates	40 1/2	x	10	40 1/2	x	10
" Rider Plate	54	x	9	54	x	9
" Bulb Plate to Intercostal Keelson	6	4	9	6	4	9
" Angle Irons	6	4	9	6	4	9
" Double Angle Iron Side Keelson	7	x	7	7	x	7
" Side Intercostal Plate	3 1/2	3 1/2	7	3 1/2	3 1/2	7
" do. Angle Irons	3 1/2	3 1/2	7	3 1/2	3 1/2	7
" Attached to outside plating with angle iron	Top plating					
BILGE Angle Irons	6	4	9	6	4	9
" do. Bulb Iron	6	4	9	6	4	9
" do. Intercostal plates riveted to plating for length	Bilge space 7					
BILGE STRINGER Angle Irons	6	4	9	6	4	9
Intercostal plates riveted to plating for 3/5 length	7					
SIDE STRINGER Angle Irons	7					
Transoms, material. Knight-heads. Hawse Timbers.	Iron					
Windlass <u>Emerson</u> <u>W. Walters</u> Pall Bitt	Iron					

	Inches in Ship	16ths in Ship	Inches per Rule	16ths per Rule
Flat Keel Plates, breadth and thickness	36	12	36	12
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges	10-12		10-12	
" do. ditto at Bilge, or increased thickness, and length applied 2 strakes 1/6	12		12	
" fm up. part of Bilge to lr. edge of Sh'rstrake	11		11	
" Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Upr. or Spar Dk. Sh'rstrake	41	14	40	14
" Up. or Spar Dk. Sh'rstrake, breadth & thickness				
Butt Straps to outside plating, breadth & thickness	19-11 1/4	15-10	19-11 1/4	15-10
Lengths of Plating	6 spaces		5 spaces	
Shifts of Plating, and Stringers	2 spaces		2 spaces	
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	45	9	45	9
Angle Iron on ditto	4 x 4 x 9		4 x 4 x 9	
Tie Plates fore and aft, outside Hatchways	Complete iron		Complete iron	
Diagonal Tie Plates on Beams No. of Pairs	deck 4/6 to 7/6		deck 6/6 to 5/6	
Planksheer material and scantling	not covered		not covered	
Waterways do. do.	7/16 in. way of main hatch		7/16 in. way of main hatch	
Flat of Upper Deck do. do.	Riveted		Riveted	
How fastened to Beams	Riveted		Riveted	
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	45	10	45	10
Is the Stringer Plate attached to the outside plating?	Yes		Yes	
Angle Irons on ditto, No. 2	4 x 4 x 9		4 x 4 x 9	
Tie Plates, outside Hatchways	Complete iron		Complete iron	
Diagonal Tie Plates on Beams, No. of pairs	deck not		deck not	
Waterways materials and scantlings	covered with wood		covered with wood	
Flat of Middle Deck do. do.	wood 6/6 to 5/6		wood 6/6 to 5/6	
How fastened to Beams	Riveted		Riveted	
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	40	9	40	9
Is the Stringer Plate attached to the outside plating?	Yes		Yes	
Angle Irons on ditto, No. 2	4 x 4 x 9		4 x 4 x 9	
Stringer or Tie Plates, outside Hatchways	Strong Beams		Strong Beams	
Flat of Lower Deck	Sparring		Sparring	
Ceiling betwixt Decks, thickness and material	2 1/2		2 1/2	
" in hold do. Red Pine	2 1/2		2 1/2	
Main piece of Rudder, diameter at head	7 1/2		7 1/2	
do. at heel	3 3/4		3 3/4	
Can the Rudder be unshipped afloat?	Yes		Yes	
Bulkheads No. 4 Thickness of	7-6		7-6	
" Height up No. 1 (Collision) to upper deck No. 2 to upper deck water tight to main deck No. 3 to upper deck water tight to main deck No. 4 to main deck				
" How secured to sides of ship				
" Size of Vertical Angle Irons 3 1/2 x 3 x 8/16 and distance apart 30 ins.				
" Are the outside Plates doubled two spaces of Frames in length?	Yes			

The FRAMES extend in one length from Keel to Gunwale 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 and to upper 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 1 1/2 in. diameter, averaging 5 1/2 ins. from centre to centre.

" Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 7/8 in. diameter, averaging 3 3/8 ins. from centre to centre.

" Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 3/8 ins. from centre to centre.

" Butts of three Strakes at Bilge for half 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 7/8 in. diameter, averaging 3 3/8 ins. from cr. to cr.

" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 3/8 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 5 1/2 Breadth of laps of plating in single riveting 5

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted?

Waterway, how secured to Beams By bracket plates (Explain by Sketch, if necessary.)

Beams of the various Decks, how secured to the sides? By cross knees pinned down

No. of Breasthooks, Six Crutches, Four and two up floors

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Best

Manufacturer's name or trade mark, "Mossend"

The above is a correct description.

Builder's Signature, Alex Stephen & Sons Surveyor's Signature, Saml. Santhorne

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

Workmanship. Are the butts of plating planed or otherwise fitted? *Planed* 5360 90s
 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? *A few*

Masts, Bowsprit, Yards, &c., are *all* 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 *Two masts Schooner rigged*
Morand's B.B. Iron (Fore Mast 81 - 2 1/2 - 19 - 20 - 17 } Two plates in circle, 60 x 7/16, double riveted edges
 Mast plate quality } Main Mast 76.6 - 2 3/4 - 20 - 18 - 15 } triple riveted butts, butt straps 1/16 thicker, doubled
 but & crew tested } for 7th at partners.

NUMBER for EQUIPMENT 29093		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.
SAILS.	CABLES, &c.											
	Chain	270	1 1/8	63.25	270-1 1/8	Lloyd's Patent	Bower Anchors	190	34.0.24	31.15.1.7	34	
Fore Sails,	(State Machine where Tested, Date, or No. of Certificate, & Name of Superintd.)	75 1/4	1 1/8	22.75	75-1 1/8	W. Frazer	Stream	222	29.3.1	28.8.3.0	29	
Fore Top Sails,	Iron Str'm Chain	90	1 1/8	34.125	90-1 1/8	do	Kedge	206	5.2.0	7.16.1.0	5 1/2	
Fore Topmast Stay Sails,	Ditto do.	90	1 1/8		90-1 1/8	do	Ditto	207	2.2.12	5.2.2.0	2 1/2	
Main Sails,	Hmpn Strm Cbl	90	1 1/8		90-1 1/8	do						
Main Top Sails, and 4 spare	Hawser ...	90	1 1/8		90-1 1/8	do						
	Towlines ...	90	7/8		90-7/8	do						
	Warp ...	180	5			do						
	quality <i>New</i>											

Standing and Running Rigging *Wire & Hemp* sufficient in size and *good* in quality. She has *two* ~~long~~ Boatswain (2 with buoyancy)
 The Windlass is *Good* Capstans *2 Good* and Rudder *Good* Pumps *Good and efficient as per approved sketch*

Engine Room Skylights.—How constructed? *Steel framing on top of iron house 1/2" above deck* How secured in ordinary weather? *By bars*

Coal Bunker Openings.—How constructed? *Plate & angle iron* How are lids secured? *Solid wood covers* Height above deck? *about 23 ins*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Two divisional web plates in main hatch and one in each of the quarter hatches.*

Cargo Hatchways.—How formed? *Plate and angle iron*

State size Main Hatch *24 x 13* Forehatch *12 x 9* Quarterhatch *20 x 12 and 20 x 12*

If of extraordinary size, state how framed and secured? *Two divisional web plates in main hatch and one in each of the quarter hatches.*

Hatches, If strong and efficient? *Solid covers of wood*

Order for Special Survey No. *1520* Date *3rd Sept 1880*
 Order for Ordinary Survey No. *1521* Date *1st Oct 1880*
 No. *253* in builder's yard. DATES of Surveys held while building as per Section 18.

General Remarks (State quality of workmanship, &c.) *The workmanship is of good quality—Built in accordance with the approved midship and longitudinal sketches herewith and in general conformity with the Rules with a view to the grade contemplated*

Fitted with double bottom on the longitudinal and bracket system as far as practicable all fore and aft—
 Forward compartment (ex well) *102* — *133*
 Under Engines and Boilers, — do. — *38* — *158*
 After compartment — do. — *92* — *161*
 Length of wells *36*
 Total, ft. *268* containing *452* tons

Fitted with Poop 40 feet long, Forecastle 41 feet, Enclosed bridge with fore and aft gangway at port side (protected with iron doors at each end) 32 to 37 feet long Snow casing about 7 feet above deck over engines and boilers, with cabins at fore end 49 x 12 to 14 feet wide

State if one, two, or three decked vessel, or if open, or running decked, and the lengths of poop, forecabin, or raised quarter deck, and the length of spade, or part double bottom. *40 feet 41 feet as above*

How are the surfaces preserved from oxidation? Inside *Cement and Paint* Outside *Paint*

I am of opinion this Vessel should be Classed *100 A 1 Three-decked Rule, Double Bottom.*
 The amount of the Entry Fee ... £ *5 : 1 : 1* is received by me, } *Saml. Laphore*
 Special ... £ *78 : 6 : 6* 22/4/ 1881 }
 Certificate ... " : " : " }
 (Travelling Expenses, if any, £ *—*.)

Committee's Minute *Friday, April, 29th 1881.*
 Character assigned *100 A 1 Lloyd's Register*
Lloyd's Register of Shipping
 This vessel is built in accordance with the rules and appears eligible to be classed * 100 A 1 as recommended by the Committee.

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