

IRON SHIP.

No. 2785 Survey held at Belfast, completed at Glasgow Date, First Survey 9th March 1881 Last Survey 22nd August 1881

On the S.S. "Ethelwolf"

Master A. G. Walker

TONNAGE under Tonnage Deck 403.82
Ditto of Third, Spar, or Awning Deck 60.84
Ditto of Poop, or Raised Or. Dk. 24.91
Ditto of Houses on Deck 22.70
Gross Tonnage 512.27
Less Crew Space 25.82
Less Engine Room 165.11
Register Tonnage as cut on Beam 325.05

ONE, OR TWO DECKED, THREE DECKED VESSEL.

SPAR, OR AWNING DECKED VESSEL.

HALF BREADTH (moulded) 12.25

DEPTH from upper part of Keel to top of Upper Deck Beams 14.25

GIRTH of Half Midship Frame (as per Rule) 23.9

1st NUMBER 50.40

1st NUMBER, if a THREE-DECKED VESSEL

[deduct 7 feet]

LENGTH 169.0

2nd NUMBER 857.6

PROPORTIONS—Breadths to Length 6.89

Depths to Length—Upper Deck to Keel 11.8

Main Deck ditto

Built at Belfast

When built 1881 Launched 22nd July 1881

By whom built Kirkman, Clark & Co.

Owners Colvill, Lowden & Co.

Port belonging to Glasgow

Destined Voyage Valencia (Mediterranean)

X Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 169 0 BREADTH—Moulded 24 6 DEPTH top of Floors to Upper Deck Beams 13 1 Do. do. Main Deck Beams 13 1 Power of Engines 70 Horse. No. of Decks with flat laid one No. of Tiers of Beams one

Dimensions of Ship per Register, length, 170.0 breadth, 24.65 depth, 12.85

| KEEL, depth and thickness | Inches in Ship. | Inches per Rule. | Flat Keel Plates, breadth and thickness | Inches in Ship. | 16ths in Ship. | Inches per Rule. | 16ths per Rule. |
|--|-----------------|------------------|--|-----------------|----------------|------------------|-----------------|
| STEM, moulding and thickness | 7 1/4 x 2 | 7 1/4 x 1 1/8 | PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges | 30 | 9 | 30 | 9 |
| STERN-POST for Rudder do. do. | 7 1/4 x 2 | 7 1/4 x 1 1/8 | " of doubling at Bilge, or increased thickness, and length applied | all strakes | 7 | all strakes | 7 |
| " " for Propeller | 6 1/2 x 4 | 6 1/2 x 3 3/4 | " fm up. part of Bilge to l. edge of Sh'rstrake. | all strakes | 7 | all strakes | 7 |
| Distance of Frames from moulding edge to moulding edge, all fore and aft | 21 | 21 | " Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake. | 3 | 10 | 33 | 10 |
| FRAMES, Angle Iron, for 1/2 length amidships | 3 | 3 | " Up. or Spar Dk Sh'rstrake, brdth & thickness | 33 | 10 | 33 | 10 |
| Do. for 1/2 at each end | 3 | 3 | Butt Straps to outside plating, breadth & thickness | 11 1/2 | 11 1/2 | 11 1/2 | 11 1/2 |
| REVERSED FRAMES, Angle Iron | 2 1/2 | 2 1/2 | Lengths of Plating | 12 1/2 | 12 1/2 | 105 | 105 |
| FLOORS, depth and thickness of Floor Plate at mid line for half length amidships | 14 | 14 | Shifts of Plating, and Stringers | 42 | 42 | 42 | 42 |
| " thickness at the ends of vessel | Eng. do. 7 | Eng. do. 7 | Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness | 24 | 24 | 24 | 24 |
| " depth at 1/2 the half-bdth. as per Rule | 28 | 28 | Angle Iron on ditto | 3 1/2 x 3 | 3 1/2 x 3 | 3 1/2 x 3 | 3 1/2 x 3 |
| " height extended at the Bilges | 4 | 4 | Tie Plates fore and aft, outside Hatchways | 5 | 5 | 5 | 5 |
| BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron | 4 | 4 | Diagonal Tie Plates on Beams No. of Pairs, Planksheer material and scantling | 3 | 3 | 3 | 3 |
| Single or double Angle Iron on Upper edge | 21 | 21 | Waterways do. do. | 3 | 3 | 3 | 3 |
| Average space | 21 | 21 | Flat of Upper Deck do. do. | 3 | 3 | 3 | 3 |
| BEAMS, Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron | 3 | 3 | How fastened to Beams | 3 | 3 | 3 | 3 |
| Single, or double Angle Iron, on Upper Edge | 3 | 3 | Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness | 12 | 12 | 12 | 12 |
| Average space | 3 | 3 | Is the Stringer Plate attached to the outside plating? | yes | yes | yes | yes |
| BEAMS, Lower Deck, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron | 3 1/2 | 3 1/2 | Angle Irons on ditto, No. | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 |
| Single or double Angle Iron on Upper Edge | 3 1/2 | 3 1/2 | Tie Plates, outside Hatchways | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 |
| Average space | 3 1/2 | 3 1/2 | Diagonal Tie Plates on Beams, No. of pairs | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 |
| KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates | 11 | 11 | Waterways materials and scantlings | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 |
| " Rider Plate | 7 1/2 | 7 1/2 | Flat of Middle Deck do. do. | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 |
| " Bulb Plate to Intercoastal Keelson | 3 1/2 | 3 1/2 | How fastened to Beams | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 |
| " Angle Irons | 3 1/2 | 3 1/2 | Stringer Plates on ends of Lower Deck, Hold, or Orlop Beams | 12 | 12 | 12 | 12 |
| " Double Angle Iron Side Keelson | 3 1/2 | 3 1/2 | Is the Stringer Plate attached to the outside plating? | yes | yes | yes | yes |
| " Side Intercoastal Plate | 3 1/2 | 3 1/2 | Angle Irons on ditto, No. | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 |
| " do. Angle Irons | 3 1/2 | 3 1/2 | Stringer or Tie Plates, outside Hatchways | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 |
| " Attached to outside plating with angle iron | 3 1/2 | 3 1/2 | Flat of Lower Deck | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 | 3 1/2 x 3 x 6 |
| BILGE Angle Irons | 3 1/2 | 3 1/2 | Ceiling betwixt Decks, thickness and material | 2 1/2 | 2 1/2 | 2 1/2 | 2 1/2 |
| " do. Bulb Iron for half length | 6 | 6 | " in hold do. do. | 2 1/2 | 2 1/2 | 2 1/2 | 2 1/2 |
| " do. Intercoastal plates riveted to plating for length | 6 | 6 | Main piece of Rudder, diameter at head | 4 1/4 | 4 1/4 | 4 1/4 | 4 1/4 |
| BILGE STRINGER Angle Irons | 3 1/2 | 3 1/2 | " do. at heel | 2 1/2 | 2 1/2 | 2 1/2 | 2 1/2 |
| Intercoastal plates riveted to plating for length | 3 1/2 | 3 1/2 | Can the Rudder be unshipped afloat? | yes | yes | yes | yes |
| SIDE STRINGER Angle Irons | 3 1/2 | 3 1/2 | Bulkheads No. 3 Thickness of | 4 | 4 | 4 | 4 |
| Transoms, material. Knight-heads. Hawse Timbers. | Iron | Iron | " Height up upper deck | 4 | 4 | 4 | 4 |
| Windlass Iron Patent | Iron | Iron | " How secured to sides of ship | double frames | double frames | double frames | double frames |
| Pall Bitt | Iron | Iron | " Size of Vertical Angle Irons 2 1/2 x 2 1/2 x 5- and distance apart | 30 ins. | 30 ins. | 30 ins. | 30 ins. |
| | Iron | Iron | " Are the outside Plates doubled two spaces of Frames in length? | yes | yes | yes | yes |

The FRAMES extend in one length from Keel to upper deck

The REVERSED ANGLE IRONS on floors and frames extend across middle line to Hold Stringer

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 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 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 two Strakes at Bilge for whole length, double 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 1/4 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.

Edges of Main Sheerstrake, double or single riveted.

Butts of Main Sheerstrake, double riveted for length amidships.

Butts of Main Stringer Plate, double riveted for length amidships.

Butts of Upper or Spar Sheerstrake, double riveted for whole length amidships.

Breadth of laps of plating in double riveting 4 1/2 Breadth of laps of plating in single riveting 3

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

How secured to Beams Gutter (Explain by Sketch, if necessary.)

How secured to the sides? Turned knees welded No. of Breasthooks, 3 Crutches, 2

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

Manufacturer's name or trade mark, Stockton & Co. Ltd.

The above is a correct description.

Builder's Signature, J. M. Seaward

Surveyor's Signature, J. M. Seaward

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

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 *1 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
Two wood pole masts as auxiliary to the steam power.

| NUMBER for EQUIPMENT 9369 | | Fathoms. | Inches. | Test per Certificate. | Length & Size req'd pr Rule. | Test req'd per Rule. | ANCHORS. | No. | Weight. Ex. Stock. | Test per Certificate. | W'ght req'd per Rule. | Test req'd per Rule. |
|---|--|----------|---------|-----------------------|------------------------------|----------------------|----------|-----|-----------------------------|-----------------------------------|-----------------------|-----------------------|
| N°. <i>See full. 1st & 2nd of sails</i> | SAILS. | 195 | 1 7/16 | 22 3/4 tons | 195-1 7/16 | 22 3/4 | Bowers | 3 | 10-2-3 10-0-16 8-2-10 | 12-9-1-0 12-2-2-0 10-14-3-0 | 10 cwt 10 8 1/2 | 12 Tons -- 10-6 |
| | CABLES, &c. Chain | | | | | | | | | | | |
| | Fore Sails, | | | | | | | | | | | |
| | Fore Top Sails, | | | | | | | | | | | |
| | Fore Topmast Stay Sails | | | | | | | | | | | |
| | Main Sails, | | | | | | | | | | | |
| and | Main Top Sails, | 60 1/2 | 3/4 | 10 1/8 tons | 60- 1/2 | 10 1/8 | Stream | 1 | 4-0-17 | 6-11-0-0 | 3 3/4 | 6 3/4 Tons |
| | Warp | | | | | | | | | | | |
| | quality <i>good</i> | | | | | | | | | | | |
| | Standing and Running Rigging <i>wire & hemp</i> | | | | | | | | | | | |
| | The Windlass is <i>good</i> | | | | | | | | | | | |
| | Capstan <i>good</i> and Rudder <i>good</i> Pumps <i>good</i> | | | | | | | | | | | |

Standing and Running Rigging *wire & hemp* sufficient in size and *good* in quality. She has *two* Long Boats and
The Windlass is *good* Capstan *good* and Rudder *good* Pumps *good*
Engine Room Skylights.—How constructed? *Strongly of Teak* How secured in ordinary weather? *always shipped*
What arrangements for deadlights in bad weather? *Circular bulls' eyes*
Coal Bunker Openings.—How constructed? *Circular cast iron* How are lids secured? *lugs* Height above deck? *8"*
Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *fine scuppers and 4 freeing ports on each side.*

Cargo Hatchways.—How formed? *Plates and angles*
State size Main Hatch *14 x 9; 17-0 x 9-6* Fore Hatch *5-3 x 6-0* Quarter Hatch
If of extraordinary size, state how framed and secured? *✓*
What arrangement for shifting beams? *Deep portable beam & oak fore & after*
Hatches, If strong and efficient? *yes - solid.*

| | | | |
|---|---|---|---|
| Order for Special Survey No. <i>103</i> | 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>March 9, 20, April 5, 11, 15, 27, May 6, 17, 27 - June 3, 7, 17, 21, 24, 29 July 4, 18, 21, August 20, 22, 1881.</i> |
| Date <i>1881</i> | | 2nd. On the plating during the process of riveting | |
| Order for Ordinary Survey No. <i>✓</i> | | 3rd. When the beams were in and fastened, and before the decks were laid.... | |
| Date <i>✓</i> | | 4th. When the ship was complete, and before the plating was finally coated or cemented... | |
| No. <i>8</i> in builder's yard. | | 5th. After the ship was launched and equipped | |

General Remarks (State quality of workmanship, &c.) *This raised quarter deck vessel has been built in accordance with the drawing submitted and approved see Secretary's letter of the 31st December 1880; and in other respects to the Rules for the 100 A Grade. The raised quarter deck is ~~30 ft~~ 36 ft long, at the fore end of which there is a bridge deck 18 ft long with catwalks under. The forecastle is 36 ft long, only partly enclosed. The foremost and after ballast tanks were tested by a head of water to the height of the load line and found to be satisfactory. Workmanship and Materials - Good.*

State if one, two, or three decked vessel, or if spar, or arming decked; and the lengths of ~~poop~~ forecastle, or raised quarter deck, and the length of ~~double~~ *ap* part double bottom.

How are the surfaces preserved from oxidation? Inside *Cement & paint* Outside *Paint.*
I am of opinion this Vessel should be Classed *+ 100 H.I.*

The amount of the Entry Fee ... £ 5 : 0 : 0 is received by me, *Jwt*
Special ... £ 25 : 16 : 0 *2nd Sept 1881*
Certificate ... *Grant*
(Travelling Expenses, if any, £ 5 : 5 : 0.)

Committee's Minute *Friday, September, 9th 1881.*
Character assigned *100A Lloyd's Reg*
Double Bottom, Particulars not appended Length of Raised Quarter Deck not stated
Surveyor to Lloyd's Register of British and Foreign Shipping, etc.
This vessel appears to be eligible to be classed 100A as recommended
1881

LRF/PUN/B-LSL/417R