

COMPOSITE SHIP.

2974

No. 2974 Survey held at Glasgow Date 10th May 1869
 on the Ship Orkham Castle Master A. Marshall
 Tonnage under tonnage deck 30.41 Built at Glasgow When built 1869 Launched April 30th 1869
 Ditto of quarter deck 30.41
 Ditto of poop, fore-castle, or other erections on upper deck 32.40 By whom built A. Stephen & Sons Owners Chas. Skinner & Co.
 Ditto of spar deck 34.13 Port belonging to Glasgow Destined Voyage Singapore
 Ditto of engine room 698.06 If Surveyed while Building, Afloat, or in Dry Dock On the building slip and afloat

Length aloft (Dimensions of Ship per Register, length)	Feet. Inches.	Extreme Breadth	Feet. Inches.	Depth from top of Upper Deck Beam to top of Floor		Feet. Inches.	Power of Engines	Horse.	N ^o . of Decks	
				Inches in Ship.	Inches required per Rule.				Inches in Ship.	Inches required by Rule.
Keel, siding and moulding	14 1/2 x 15 1/2	28 x 12 1/2	14 x 15 1/2	14 x 15 1/2	18 3/4	18 3/4	One Complete			
„ plate, breadth and thickness	28 x 12 1/2									
Stem, siding and moulding	14 1/4 x 19	14 x 14	14 x 14	14 x 14						
Fore deadwood plate, breadth and thickness	12 x 13 1/2	14 x 13 1/2	14 x 13 1/2	14 x 13 1/2						
Stern-post, siding and moulding	14 1/4 x 19	14 x 15 1/2	14 x 15 1/2	14 x 15 1/2						
After deadwood plate, breadth and thickness	12 x 13 1/2	14 x 13 1/2	14 x 13 1/2	14 x 13 1/2						
Distance of Frames from moulding edge to moulding edge, all fore and aft	21	21	21	21						
Frames, Size of Angle Iron, single or double	2 3/2	8/16	2 3/2	8/16						
„ „ Reversed Iron, if to every frame or every frame	3	3/32	3	3/32						
Floors, depth and thickness of Floor Plate at Mid line	20 3/4 x 8/16									
„ Ditto ditto at Bilge Keelson	11 x 8/16	11 x 8/16	11 x 8/16	11 x 8/16						
Size of Reversed Angle Iron, and N ^o . at top of Floor Plate	3	3/32	3	3/32						
„ of Wood, siding & moulding, at Mid line										
„ „ double Angle Iron, Plate, Tee, or Bulb Iron	7 1/2 x 15/32									
„ „ double or single Angle Iron, on upper edge	2 1/2 x 5/16									
„ „ average space between	4 2	4 2	4 2	4 2						
„ „ Hold, or Lower Deck (N ^o . 2 nd name) double Angle, Tee, Plate, or Bulb Iron	7 1/2 x 15/32									
„ „ double or single Angle Iron on upper edge	2 1/2 x 5/16									
„ „ average space between	4 2	4 2	4 2	4 2						
Keelson, single or double plate, box, or intercostal	14 x 12/16	14 x 12/16	14 x 12/16	14 x 12/16						
Size of Plates	13 x 8/16	13 x 8/16	13 x 8/16	13 x 8/16						
Size of Angle Irons	4 1/2 x 3/16 x 7/16									
„ „ of Wood, siding and moulding										
„ „ Side, single or double, plate, box, or intercostal	13 x 8/16	13 x 8/16	13 x 8/16	13 x 8/16						
„ „ Bilge (N ^o . One) at each Bilge, single, or double, plate or box	4 1/2 x 3/16 x 7/16									

The Keel consists of Scotch elm The Stem Teak Stern Post Teak Apron Teak
 Inner Stern Post Teak Deadwood Teak Knight-heads, and Hawse Timbers Teak
 The Floors Iron plates Wood-Frames Teak and Ceiling upon them Teak
 Beams of bulb-iron and Keelsons Iron and are found free from all defects.

Planking Outside.—From the Keel to the Height of one-fifth the depth of Hold as per Table I Teak elm
 Ditto ditto from Keel to the Height of two-fifths the depth of Hold ditto Teak elm and Teak (see Sketch)
 Ditto ditto from two-fifths the depth of Hold to Gunwale Teak
 The Upper Deck Waterway Iron plates Spirketting None Planksheer Teak moulding and Roughtree Timbers Iron stanchions
 The Main Piece of Rudder Chamish Oak Windlass Iron & Balast and Pall Bitt plate 3/8. Base 1 1/2 x 1 1/2
 The Decks yellow pine State of good & new How fastened to Beams by Nut and Screws (patented iron)
 The Shifts of the Planking are not less than 7 Feet 0 Inches. N. B. If less than prescribed by the Rule, state whether general or partial, and if partial, in what part of the Ship. The Planking is wrought three between, and without step-butting.

Planking Inside.—The Limber-strakes and Bilge-strakes are Green heart
 The Ceiling, Lower Hold, and between Decks Teak elm & hold pine battens above Shelf pieces and Clamps
 Butt Straps of Keel Plates, Keelsons, Stringer and Tie Plates, of every description, are they of proper dimensions, and Rivetted in accordance with the Rules? yes State which Table H Set 4 double or single rivetting exists.
 Planksheer, how secured to the plating of the sides? Explain by sketch } See approved tracing of midship section
 Waterway „ „ planksheer and to the Beams? if necessary. } appended to report.
 Deck Beams, how secured to the side? By three plates forged out of bulb-iron beams and riveted to frames
 Hold or Lower Deck Beams ditto? a a a a
 General Quality of Workmanship good No. of breasthooks 4 crutches at all angles and rudders

What description of Iron is used for the Frames, Beams, Keelsons, Stringer and Tie Plates, Outside Plating, Rivets, &c.? 2019
 Manufacturer's name or trade mark Crossland
 We certify that the above is a correct description of the several particulars therein given.
 Builder's Signature A. Stephen & Sons Surveyor's Signature J. J. Light
 Lloyd's Register Foundation
 65144-0232

2974 Gls

Size of Bolts in Fastenings, distinguishing whether Copper, Yellow Metal, Galvanized Iron, or Iron, and Rivets.

	Copper or Y.M. in Ship.	Iron in Ship.	Inches required per Rule		Copper or Y.M. in Ship.	Iron in Ship.	Inches required per Rule		Copper or Y.M. in Ship.	Iron in Ship.	Inches required per Rule
Deadwood forward and aft ..	1/8	✓	1/8	Transoms and throats of Hooks	—	—	—	Pintles of the Rudder.....	3/2	✓	3/4
Scarphs of Keel, No. 8	1/8 & 1/4	✓	1/4	Arms of Hooks	—	—	—	Hold-Bears	—	—	—
Keelson Bolts through Keel at each Floor	—	—	—	Thro' Frames and Planking....	1/4	1/4	1/4	Bolts-in	—	—	—
Bolts through Iron Keel Plate and Wood Keel	1/8	✓	1/8	Butt End Bolts ..	1/4	1/4	1/4	Deck-Beam	—	—	—
Garboard Bolts Athwartship..	1/4 & 1/2	✓	1/4	Rivets.....	1/2 & 7/8	✓	3/4 & 7/8	Bolts-in	—	—	—
								Nails or Bolts in Flat of Deck	—	3/16	—

Her Masts, Bowsprit, Yards, &c., are in good condition, and sufficient in size and length. If they are of Iron or Steel give the 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 rivetting, quality of Materials, and if stamped with Maker's name.

State also Length and Diameter of Lower Masts and Bowsprit Fore 41' 2 1/2 in Main 44' 1/2 in Mizzen 49' 1/2 in Bowsprit 49' 1/2 in
Fore Main Mizzen Masts of Iron each of 3 plates excepting Mizzen 2 plates 7/16 lands 4 in double rivetted clencher. Butts triple rivetted larvel
Fore & Main lower yards of Iron 5/16 & 5/16. Mizzen yard 5/16 & 4/16. Fore & Main Lower
Yards of Steel 5/16 & 4/16 in
She has SAILS.

No.	CABLES, &c.	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	No.	Weight. Ex. Stock.	Test as per Certificate.	Wght req'd per Rule.	Test req'd per Rule.
Fore Sails,	Chain	5544	135	1/2	20 1/2	18 1/2	3' 1/2	3	21.1.0	21.14.0	21	21 1/4
Fore Top Sails,	Droy's	5-5-5-2	135	1/2	20 1/2	18 1/2	3' 1/2	3	21.0.0	21.14.0	21	21 1/4
Fore Topmast Stay Sails,	Netted and proof											
Main Sails,	Hempen Stream Cable..	60	13 1/2	1/2	12 1/2	11 1/2	Stream	1	9.0.16	—	9.0.0	—
Main Top Sails,	Hawser	90	12 1/2	1/2	12 1/2	11 1/2	Kedges	2	4.1.20	—	4.2.0	—
	Towlines	90	12 1/2	1/2	12 1/2	11 1/2			2.1.4	—	2.1.0	—
	Warp	90	12 1/2	1/2	12 1/2	11 1/2						
	All of <u>good</u> quality.											

Her Standing and Running Rigging of wire and hemp sufficient in size and good in quality.

She has A Long Boat and 3 others

The present state of the Windlass is good Capstan two of iron and Rudder good Pumps 2 Davis' patent double action and bilge pumps

- 1st. Examination of the wood keel, stem, stern post, and deadwood before they are coated
 - 2nd. Of the frame before it is painted, strapped, or plated
 - 3rd. Of all the beams, stringers, plates, &c., when in place, rivetted-up ready to receive the planking
 - 4th. When the vessel is planked outside, dubbed fair, and all the fastenings completed, but before she is either caulked, coated, or cemented, so that the inside and outside of the planking, and the bolts and their nuts, may be carefully examined
 - 5th. When the vessel is caulked and completed under special survey for whole time of build till for on 4th January till 2nd March 1869 23 (with) yes.
 - 6th. When the vessel is launched and equipped yes.
- State if she has a Spar Deck No. Poop No. Forecastle yes. or raised Quarter Deck yes.

General Remarks,

So far as I can examine this vessel she appears to be eligible for the contemplated Class 17 A. The equipment has yet to be completed.

Hawsers, Warps and Anchors Examined by me J.F.L.

In what manner are the surfaces of Iron Work preserved from oxidation inside and outside? By paint and Portland Cement over frames at bottom and extend up bilge

Present condition of Caulking of Bottom good Deck, good and Waterways good.

If Sheathed, Doubled, Felted, or Coppered yellow-metal (noisy under) When last done now done

I am of opinion this Vessel should be Classed 17 A

The Amount of the Fee.....£ 5 : : is received by me,
 Special£ 34 : 19 :
 Certificate£ 10 : 10 :

Committee's Minute 8th June 1869

Character assigned 1 for 17 years

J.F.L.
 This Vessel appears to be eligible to be Classed as recommended above by J.F.L.
 Lloyd's Register Foundation