IRON SHIP.

Ru 22/12/81

No. 12756 Survey held at Sunderland Date, First Survey March 15th Last Survey December 16th 1881

On the S.S. "Clan Monroe" Yard No 116

TONNAGE under Tonnage Deck	2033.89
Ditto of Third Spar or Awning Deck	11.26
Ditto of Poop, or Raised Qr. Dk.	71.60
Ditto of Houses on Deck	45.16
Ditto of Forecastle	35.36
Gross Tonnage	2197.27
Less Crew Space	57.23
Less Engine Room	703.13
Register Tonnage as cut on Beam	1436.91

Official Number

~~ONE, OR TWO DECKED,~~ THREE DECKED VESSEL, ~~SPAR, OR AWNING-DECKED VESSEL.~~

	Feet.
Half Breadth (moulded)	18.4
Depth from upper part of Keel to top of Upper Deck Beams	26.5
Girth of Half Midship Frame (as per Rule)	40.85
1st Number	85.75
1st Number, if a 3-Decked Vessel deduct 7 feet	7.0
	78.75
Length	283.0
2nd Number	22,286
Proportions— Breadths to Length	7.6
Depths to Length—Upper Deck to Keel	10.6
Main Deck ditto	14.6

Master	Cobbitt
Built at	Sunderland
When built	1881 Launched Nov 8th
By whom built	Bartram Haswell & Co
Owners	Cayzer Irvine & Co.
Residence	Hope St Glasgow
Port belonging to	Glasgow
Destined Voyage	Glasgow and —
~~If~~ Surveyed while Building, ~~Afloat, or in Dry Dock.~~	

LENGTH on deck as per Rule ... Feet 283 Inches — | BREADTH—Moulded... Feet 36 Inches 10½ | DEPTH top of Floors to Upper Deck Beams 24 ft 6 in; Do. do. Main Deck Beams 17 ft 6 in | Power of Engines ... Horse 300 | No. of Decks with flat laid Two; No. of Tiers of Beams Three

Dimensions of Ship per Register, length, 285.5 breadth, 37.2 depth, 24.4

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	10 × 2¾	10 × 2¾
STEM, moulding and thickness	10 × 2¾	10 × 2¾
STERN-POST for Rudder do. do.	10½ × 6	10 × 5
" " for Propeller		
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24 (Class 100A)

	Inches. In Ship.	Inches. In Ship.	16ths. In Ship.	Inches per Rule	Inches per Rule	16ths per Rule
FRAMES, Angle Iron, for ¾ length amidships	5	3	8	5	3	8
Do. for ⅛ at each end	5	3	7	5	3	7
REVERSED FRAMES, Angle Iron	3½	3	8	3½	3	8
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	—	24	10	—	24	10
thickness at the ends of vessel			8			8
depth at ¾ the half-bdth. as per Rule		12			12	
height extended at the Bilges	Twice amidship depth					
BEAMS, Upper, ~~Spar, or Awning~~ Deck	6	3	8	6	3	8
Single ~~or d'ble~~ Ang. Iron, ~~Plate or Tee~~ Bulb Iron		8½	8		8½	8
Single ~~or double~~ Angle Iron on Upper edge	4	4	8	4	4	8
Average space	on every frame					
BEAMS, Main, or Middle Deck	6	3	8	6	3	8
Single ~~or d'ble~~ Ang. Iron, ~~Plate or Tee~~ Bulb Iron		8½	8		8½	8
Single, ~~or double~~ Angle Iron, on Upper Edge	4	4	8	4	4	8
Average space	on every frame					
BEAMS, Lower Deck Box — Bulbs		9	9½		9	9
~~Single or~~ d'ble ~~Ang. Iron, Plate or Tee~~ Bulb Iron	[3½.3.7/16]			3½ 3 7/16 (top plate)		
~~Single or~~ double Angle Iron on Upper Edge						
Average space	from four to 12 spaces of frames					
BEAMS, Hold, or Orlop— Single or d'ble Ang. Iron, Plate or Tee Bulb Iron						
Single or double Angle Iron on Upper Edge						
Average space Standing on Floors						
KEELSONS Centre line, single ~~or double~~ plate, ~~box, or Intercostal, Plates~~	—	19	13	—	19	13
Rider Plate		12¾	13		12¾	13
Bulb Plate to Intercostal Keelson						
Angle Irons	6	4	9	6	4	9
Double Angle Iron Side Keelson	6	4	9	6	4	9
Side Intercostal Plate			9			9
do. ~~Angle Irons~~ Bulb		8½	8		8½	8
Attached to outside plating with angle iron	3½	3½	8	3½	3½	8
BILGE Angle Irons	6	4	9	6	4	9
do. Bulb Iron		8½	8		8½	8
do. ~~Intercostal plates riveted to plating for Box length~~						
BILGE STRINGER Angle Irons	6	4	9	6	4	9
Intercostal plates riveted to plating for half length	—		9	—		9
SIDE STRINGER Angle Irons						

	Inches. In Ship.	16ths. In Ship.	Inches. per Rule	16ths. per Rule
Flat Keel Plates, breadth and thickness				
PLATES in Garboard Strakes, br'dth & thickness	36	12	36	12
,, From Garboard to upper part of Bilges		11		11
,, Of d'bling at Bilge, or increased thickness, and length applied				
,, From up. prt of Bilge to lr. edge of Sh'rstrake	—	11		11
,, Main Sheerstrake, breadth and thickness	40	13	40	13
,, Of d'blng at Sh'stk. & lng. applied 140 ft		11	Nil	
,, ~~From M'n. to Upr. or Spar Dk. Sh'rstrake~~ Strake below Sheerstrake				
,, ~~Up. or Spar Dk. Sh'rstrake, brdth & thickn's~~				
Butt Straps to outside plating, breadth & thickness	9¾.16¾	9.14	9¾.16¾	9.14
Lengths of Plating	Five spaces of frames			
Shifts of Plating, and Stringers	Two and three		Do	
Gunwale Plate on ends of ~~Awning, Spar, or~~ Upper Deck Beams, breadth and thickness	40½	9	40½	9
Angle Iron on ditto	4.4.9		4.4.9	
Tie Plates fore and aft, outside Hatchways	Iron Deck			
Diagonal Tie Plates on Beams No. of Pairs				
Flat of Up., ~~Spar, or Awning~~ Dk.* Iron plates				
How fastened to Beams	Rivets	6.5		6.5
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	40½	10	40½	10
Is the Stringer Plate attached to the outside plating?	Yes			
Angle Irons on ditto, No. Two	4.4.9		4.4.9	
Tie Plates, outside Hatchways				
Diagonal Tie Plates on Beams, No. of pairs				
Flat of Middle Deck* do. do. Iron plates				
How fastened to Beams	Rivets	6.5		6.5
Stringer Plates on ends of ~~Lower Deck~~, Hold or ~~Orlop~~ Beams	35	10	38	9
Is the Stringer Plate attached to the outside plating?	Yes			
Angle Irons on ditto, No. Four	4.4.9 / 4.3½.7		4.4.9 / 4 3½ 7	
Stringer or Tie Plates, outside Hatchways				
Flat of Lower Deck*				
Ceiling betwixt Decks, thickness and material	1¾	R.P.	batten	5 Spc
in hold do. do.	2½	Solid	to Bilges	
Main piece of Rudder, diameter at head	7½	—	7½	—
do. at heel	3¾	—	3¾	—
Can the Rudder be unshipped afloat?	Yes			

Bulkheads No. 6. No. per Rule 4

" Thickness of 7.6 also 4 & 6

" Height up 3 to Up. Dk.; 2 to Main Dk.; after, Iron platform

" How secured to sides of ship between double frs

" Size of Vertical Angle Irons 3½.3.8/16 and distance apart 30 ins.

" Are the outside Plates doubled two spaces of Frames in length? Yes

* If Iron Deck, state if whole or part, and if wood deck is laid thereon.

State clearly where plating is of alternate thicknesses—as distinguished from diminished thickness at ends of vessel.

The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 7/8 in. Rivets, about 7 ins apart.

The REVERSED ANGLE IRONS on floors and frames extend from middle line to above M. Dk. Str angle and to gunwale 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 1/8 in. diameter, averaging 5½ 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 full 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 full 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 full 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 full 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 half length amidships. ~~Butts of Upper or Spar Sheerstrake, treble riveted length amidships.~~

" Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Upper ~~or Spar~~ Stringer Plate, treble riveted for half length.

" Breadth of laps of plating in double riveting 5¼ ins Breadth of laps of plating in single riveting Nil

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double & treble No. of Breasthooks, Six Crutches, Four

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Plates: Stockton Malleable I. Co; Consett I. Co.

Manufacturer's name or trade mark, Angles and Bulbs S. Tyzack and Co; Forgings C. H. Reid & Co

The above is a correct description.

Builder's Signature, for Bartram Haswell & Co, Thos Campbell Surveyor's Signature, Joseph Kellen

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

ROBT. EDMD. TAYLOR & SON Commercial and General Steam Printers, 19, Old Street, Goswell Road, E.C., London.

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

Do the edges of the carvel work and of the butts fay 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 Single pieces*

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? *at the butts in a few places only*

Masts, Bowsprit, Yards, &c., are *Iron* 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 *please see Sketch attached*

6/16 plate bent cold with grain 11 7/0 and thus —

" " " " — across — " — 25 and 20/0

Plates Manufactured by Stockton Mall Iron Co.

NUMBER for EQUIPMENT *26693*

SAILS. No. *one Complete Suit* — Fore Sails, Fore Top Sails, Fore Topmast Stay Sails, Main Sails, Main Top Sails, and quality *Good*

CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntdt.
Chain (State Machine where Tested, Date, or No. of Certificate, & Name of Superintendant.)	270	1 13/16	59 8/1. 82 3/4	270.1 13/16	Nov 29/81
Iron Stream Chain or Steel Wire	75	1 2/16	22 3/4. 34 3/0	75.1 2/16	Nov 29/81
	Tested at R.W.C.P.T. by J. Hartness				
~~Hempen~~ Strm. Cable *Steel wire*	90	4	30 tons	90.4	
Towline, Hemp, or Steel Wire	*Certified by Makers Messrs J.H. Smith Newcastle 12 Nov /81.*				
Hawser ~~Hemp~~	90	10½		90.9½	
Warp "	90	7½		90.7½	
	270	6			

ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate	W'ght req'd per Rule.	Machine where Tested & Suprntdt.
Bower Anchors (State Machine where Tested, Date, or No. of Certificate, & Name of Superintendant.)	9733	32.1.0	30.6.1.0	32.0.0	Oct 1/81
	9651	31.2.0	29.15.0.0	32.0.0	Sep 7/81
	9450	27.3.14	27.0.2.14	27.1.0	July 12/81
	Tested at R.W.C.P.T. by J. Hartness				
Stream Anchor	9768	10.1.0	12.4.1.14	10.2.0	Oct 15/81
Kedge	9770	6.1.0	8.10.0.0	5.1.0	— " —
2nd Kedge	9771	2 2 2	15.5.0.0	2.2.0	— " —

Standing and Running Rigging *G.I.W. and Rope* sufficient in size and *good* in quality. She has *2 Life* ~~Long~~ Boats and *two others*

The Windlass is *Harfields Patent* / Capstan *& 4 Winches* and Rudder *good* Pumps *4 hand. good.*

Engine Room Skylights.—How constructed? *Iron Coamings Wood Sk. Lt.* How secured in ordinary weather? *hand Screws*

What arrangements for deadlights in bad weather? *Solid Shutters fitted with Bulls Eyes*

Coal Bunker Openings.—How constructed? *Iron Coamt.* How are lids secured? *Hatch bars* Height above deck? *2 7/6 12 ins*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Scuppers and Iron ports fitted in the Bulwarks*

Cargo Hatchways.—How formed? *Iron Coamings fitted in the usual manner*

State size **Main Hatch** *24 × 12 feet* Forehatch *10 × 12 feet* Quarterhatch *16 × 12 ft and 14 × 12 ft*

If of extraordinary size, state how framed and secured? What arrangement for shifting beams? *Web plate and Shifting Beams as per Rule and wood fore and aft Carlings*

Hatches, If strong and efficient? *Solid and efficient*

Order for Special Survey No. *2968* Date *30th December/80*

Order for Ordinary Survey No. — Date —

No. *116* in builder's yard.

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 *Built under S.S. and Surveyed 1881 March 15.18.21.25.2[illegible]*

2nd. On the plating during the process of riveting *30 April 1.5.6.7.12.14.21.25.29 May 3.6.10.12.13.17.19.23.27.31 June 2.4.11.1[illegible]*

3rd. When the beams were in and fastened, and before the decks were laid.... *17.22.24 July 1.2.5.8.14.18.21.23.27.29 August 2.4.8.10.12.18.23.26.29 Septr. 5.7*

4th. When the ship was complete, and before the plating was finally coated or cemented.. *9.12.14.15.16.17.19.20.21.23.28.30 Octr. 3.5.7.10.12.14.17.19.24.26.28.31 Nov. 2.3.24*

5th. After the ship was launched and equipped *25.28.30 Decr. 3.6.8.9.14.16.*

General Remarks (State quality of workmanship, &c.) *Good. See letters 7 and 8 Feb. 25 July 1881.*

This Vessel has a Topgallant Forecastle 35 ft long a Bridge House 70 ft long, and a Full Poop 33 ft long.

She has a Water Ballast Tank on the Mc Intyre's plan extending throughout the after Hold and under Engines and Boilers and for 22 feet into the Fore Hold total length 146 ft containing 279 tons each tank has now been pressed as per Rule and proved efficient

She has been built under Special Survey, in accordance with the Rules, and the accompanying Drawings.

Please Return Drawings for 11[illegible] and 119 J. Keen

~~State if one, two, or~~ three decked vessel, ~~or if spar, or awning decked~~; and the lengths of poop, bridge, forecastle, ~~or raised quarter deck~~. *see above* (If double bottom, state particulars on separate form.)

How are the surfaces preserved from oxidation? Inside *Cement to Bilges paint above* Outside *Paint*

I am of opinion this Vessel should be Classed ✠ *100 A.1 Three Trs Bms. 2 Dks.*

The amount of the Entry Fee ... ...£ *5 : 0 : 0* is received by me, *HW*
Special ... ...£ *78 : 10 : 0 14th Decr.* 18*81*
Certificate ... *—*
(to be sent as per margin). *Dec [illegible]*
(Travelling Expenses, if any, £ *nil*).

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

This vessel appears eligible to be class 100 A.1 as recommended Two decks [illegible]

Committee's Minute *Friday, December, 23rd. 1881.*

Character Assigned *100 A 1* ✠ *Lloyd's [illegible] TBW A. F.C. 3 Tr. Bs. 2 Dks [illegible] Trs of Bms* *27/12/81*