

IRON SHIP.

No. *5183* Survey held at *Glasgow*
On the *S. S. "Alverton"*

Date, First Survey *6 January 80* Last Survey *6 Oct 1880*
Master *J. S. Tonkin*

TONNAGE under *1032.01* ONE, OR TWO DECKED, THREE DECKED VESSEL.
Tonnage Deck *119.83* SPAR, OR AWNING-DECKED VESSEL.
Ditto of Third, Spar, or Awning Deck. *77.81*
Ditto of Poop, or Raised Qr. Dk. *31.23*
Ditto of Houses *3.47*
on Deck *119.83*
Ditto of Forecastle *31.23*
Excess of Hatchways *56.86*
Gross Tonnage *1321.23*
Less Crew Space *35.73*
Net Tonnage *1285.50*
Less Engine Room *432.79*
Register Tonnage *862.71*
as out on Beam

HALF BREADTH (moulded) *16.9*
DEPTH from upper part of Keel to top of Upper Deck Beams *19.16*
GIRTH of Half Midship Frame (as per Rule) *32.9*
1st NUMBER *68.96*
1st NUMBER, if a 3-DECKED VESSEL, deduct 7 feet *61.96*
LENGTH *238.7*
2nd NUMBER *164.60*
PROPORTIONS—Breadth to Length *7.0*
Depths to Length—Upper Deck to Keel *12.4*
Main Deck ditto

Built at *Glasgow*
When built *1880* Launched *23 Sept 80*
By whom built *A. Stephens & Sons*
Owners *Osborn & Wallis*
Port belonging to *Cardiff*
Destined Voyage *Cardiff*
If Surveyed while Building, Afloat, or in Dry Dock.
under special survey

LENGTH Feet. Inches. BREADTH Feet. Inches. DEPTH top of Floors to Upper Deck Beams Feet. Inches. Power of Engines Horse. No. of Decks with flat laid No. of Tiers of Beams

per Rule *238* *7* Moulded *33* *8* Deck Beams *17* *5* *130* *1* *2*

Dimensions of Ship per Register, length, *238.7* breadth, *34.0* depth, *15.95*

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness (Flat Plate)	<i>8 x 2 1/2</i>	<i>8 x 2 1/2</i>
STEM, moulding and thickness	<i>8 x 5</i>	<i>8 x 5</i>
STERN-POST for Rudder do. do.	<i>8 x 5 1/4</i>	<i>8 x 5</i>
" " for Propeller	<i>23</i>	<i>23</i>
Distance of Frames from moulding edge to moulding edge, all fore and aft	<i>23</i>	<i>23</i>
FRAMES, Angle Iron, for 1/2 length amidships	<i>4 1/2 x 3 7/16</i>	<i>4 1/2 x 3 7/16</i>
Do. for 1/2 at each end	<i>4 1/2 x 3 7/16</i>	<i>4 1/2 x 3 7/16</i>
REVERSED FRAMES, Angle Iron	<i>3 x 3 7/16</i>	<i>3 x 3 7/16</i>
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	<i>5 1/2 x 3 8/16</i>	<i>5 1/2 x 3 8/16</i>
" thickness at the ends of vessel	<i>5 1/2 x 3 8/16</i>	<i>5 1/2 x 3 8/16</i>
" depth at 1/2 the half-bdth. as per Rule	<i>5 1/2 x 3 8/16</i>	<i>5 1/2 x 3 8/16</i>
" height extended at the Bilges	<i>5 1/2 x 3 8/16</i>	<i>5 1/2 x 3 8/16</i>
BEAMS, Upper, Spar, or Awning Deck Angle or Double Angle Iron, Plate or Tee Bulb Iron	<i>5 1/2 x 3 8/16</i>	<i>5 1/2 x 3 8/16</i>
Angle or double Angle Iron on Upper edge	<i>23</i>	<i>23</i>
Average space	<i>23</i>	<i>23</i>
BEAMS, Main, or Middle-Deck Angle or Double Angle Iron, Plate or Tee Bulb Iron	<i>5 1/2 x 3 8/16</i>	<i>5 1/2 x 3 8/16</i>
Angle or double Angle Iron on Upper edge	<i>23</i>	<i>23</i>
Average space	<i>23</i>	<i>23</i>
BEAMS, Lower Deck, Hold, or Orlop Single or Double Angle Iron, Plate or Tee Bulb Iron	<i>9 x 3 9/16</i>	<i>9 x 3 9/16</i>
Angle or double Angle Iron on Upper edge	<i>4 x 3 1/2 8/16</i>	<i>4 x 3 1/2 8/16</i>
Average space	<i>10 1/2</i>	<i>10 1/2</i>
KEELSONS Centre line, single or double plate, box, or intercostal, Plates	<i>36 x 9 1/16</i>	<i>36 x 9 1/16</i>
" Rider Plate	<i>54 x 8 1/16</i>	<i>54 x 8 1/16</i>
" Bulb Plate to Intercostal Keelson	<i>5 x 3 1/2 9/16</i>	<i>5 x 3 1/2 9/16</i>
" Angle Irons	<i>5 x 3 1/2 9/16</i>	<i>5 x 3 1/2 9/16</i>
" Double Angle Iron Side Keelson	<i>5 x 3 1/2 9/16</i>	<i>5 x 3 1/2 9/16</i>
" Side Intercostal Plate	<i>5 x 3 1/2 9/16</i>	<i>5 x 3 1/2 9/16</i>
" do. Angle Irons	<i>5 x 3 1/2 9/16</i>	<i>5 x 3 1/2 9/16</i>
" Attached to outside plating with angle iron	<i>5 x 3 1/2 9/16</i>	<i>5 x 3 1/2 9/16</i>
BILGE Angle Irons	<i>5 x 3 1/2 9/16</i>	<i>5 x 3 1/2 9/16</i>
" do. Bulb Iron	<i>5 x 3 1/2 9/16</i>	<i>5 x 3 1/2 9/16</i>
" do. Intercostal plates riveted to plating for length	<i>5 x 3 1/2 9/16</i>	<i>5 x 3 1/2 9/16</i>
BILGE STRINGER Angle Irons	<i>5 x 3 1/2 9/16</i>	<i>5 x 3 1/2 9/16</i>
Intercostal plates riveted to plating for length	<i>5 x 3 1/2 9/16</i>	<i>5 x 3 1/2 9/16</i>
SIDE STRINGER Angle Irons	<i>5 x 3 1/2 9/16</i>	<i>5 x 3 1/2 9/16</i>

	Inches in Ship.	16ths in Ship.	Inches per Rule.	16ths per Rule.
Flat Keel Plates, breadth and thickness	<i>48 x 14 1/16</i>	<i>34 x 14 1/16</i>	<i>34</i>	<i>14 1/16</i>
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges	<i>45</i>	<i>11</i>	<i>34</i>	<i>11</i>
" " at Bilge, or increased thickness, and length applied	<i>10-11</i>	<i>10-11</i>	<i>10-11</i>	<i>10-11</i>
" " fin up part of Bilge to l.e. edge of Sh'rstrake.	<i>9-10</i>	<i>9-10</i>	<i>9-10</i>	<i>9-10</i>
" Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake.	<i>46</i>	<i>14</i>	<i>36</i>	<i>14</i>
" Up. or Spar Dk Sh'rstrake, brdth & thickness	<i>20 1/2</i>	<i>9</i>	<i>20 1/2</i>	<i>9</i>
Butt Straps to outside plating, breadth & thickness	<i>19-9 3/4</i>	<i>15-9 3/4</i>	<i>19 1/2</i>	<i>15-9 3/4</i>
Lengths of Plating	<i>6 spaces</i>	<i>5 spaces</i>	<i>6 spaces</i>	<i>5 spaces</i>
Shifts of Plating, and Stringers	<i>2 spaces</i>	<i>2 spaces</i>	<i>2 spaces</i>	<i>2 spaces</i>
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	<i>36</i>	<i>10</i>	<i>36</i>	<i>10</i>
Angle Iron on ditto	<i>3 1/2 x 3 1/2 x 8</i>	<i>3 1/2 x 3 1/2 x 8</i>	<i>3 1/2 x 3 1/2 x 8</i>	<i>3 1/2 x 3 1/2 x 8</i>
Tie Plates fore and aft, outside Hatchways	<i>Iron deck</i>	<i>Iron deck</i>	<i>Iron deck</i>	<i>Iron deck</i>
Diagonal Tie Plates on Beams No. of Pairs	<i>6-5 1/16</i>	<i>6-5 1/16</i>	<i>6-5 1/16</i>	<i>6-5 1/16</i>
Planksheer material and scantling	<i>6-5 1/16</i>	<i>6-5 1/16</i>	<i>6-5 1/16</i>	<i>6-5 1/16</i>
Waterways do. do.	<i>36</i>	<i>10</i>	<i>36</i>	<i>10</i>
Flat of Upper Deck do. do.	<i>36</i>	<i>10</i>	<i>36</i>	<i>10</i>
How fastened to Beams	<i>Riveted</i>	<i>Riveted</i>	<i>Riveted</i>	<i>Riveted</i>
Stringer Plate on ends of Main or Middle-Deck Beams, breadth and thickness	<i>36</i>	<i>10</i>	<i>36</i>	<i>10</i>
Is the Stringer Plate attached to the outside plating?	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
Angle Irons on ditto, No. 1	<i>5 x 3 1/2 x 9</i>	<i>5 x 3 1/2 x 9</i>	<i>5 x 3 1/2 x 9</i>	<i>5 x 3 1/2 x 9</i>
Tie Plates, outside Hatchways	<i>Iron deck</i>	<i>Iron deck</i>	<i>Iron deck</i>	<i>Iron deck</i>
Diagonal Tie Plates on Beams, No. of pairs	<i>6-5 1/16</i>	<i>6-5 1/16</i>	<i>6-5 1/16</i>	<i>6-5 1/16</i>
Waterways materials and scantlings	<i>6-5 1/16</i>	<i>6-5 1/16</i>	<i>6-5 1/16</i>	<i>6-5 1/16</i>
Flat of Middle Deck do. do.	<i>31</i>	<i>9</i>	<i>31</i>	<i>9</i>
How fastened to Beams	<i>Riveted</i>	<i>Riveted</i>	<i>Riveted</i>	<i>Riveted</i>
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	<i>31</i>	<i>9</i>	<i>31</i>	<i>9</i>
Is the Stringer Plate attached to the outside plating?	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
Angle Irons on ditto, No. 2	<i>4 x 4 x 8 1/16</i>	<i>4 x 4 x 8</i>	<i>4 x 4 x 8 1/16</i>	<i>4 x 4 x 8</i>
Stringer or Tie Plates, outside Hatchways	<i>Iron deck</i>	<i>Iron deck</i>	<i>Iron deck</i>	<i>Iron deck</i>
Flat of Lower Deck	<i>2 1/2</i>	<i>2 1/2</i>	<i>2 1/2</i>	<i>2 1/2</i>
Ceiling betwixt Decks, thickness and material	<i>Wood spanning</i>	<i>Wood spanning</i>	<i>Wood spanning</i>	<i>Wood spanning</i>
" in hold do. do.	<i>2 1/2</i>	<i>2 1/2</i>	<i>2 1/2</i>	<i>2 1/2</i>
Main piece of Rudder, diameter at head	<i>5 3/4</i>	<i>5 3/4</i>	<i>5 3/4</i>	<i>5 3/4</i>
do. at heel	<i>3</i>	<i>3</i>	<i>3</i>	<i>3</i>
Can the Rudder be unshipped afloat?	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
Bulkheads No. 4 Thickness of	<i>4 1/16</i>	<i>4 1/16</i>	<i>4 1/16</i>	<i>4 1/16</i>
" Height up forward to main deck Boiler bulkhead to main deck, engine room to main deck, after one to lower deck	<i>Don't know</i>	<i>Don't know</i>	<i>Don't know</i>	<i>Don't know</i>
" How secured to sides of ship	<i>Don't know</i>	<i>Don't know</i>	<i>Don't know</i>	<i>Don't know</i>
" Size of Vertical Angle Irons 3 x 3 x 7/16 and distance apart	<i>30</i>	<i>30</i>	<i>30</i>	<i>30</i>
" Are the outside Plates doubled two spaces of Frames in length?	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>

Transoms, material. Knight-heads. Hawse Timbers. *Iron*

Windlass *Harfield's Patent* Pall Bitt

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

The REVERSED ANGLE IRONS on floors and frames extend from middle line to *abre don't* and to *Main & 2nd 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 *7/8* in. diameter, averaging *3 3/4* 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 3/4* ins. from centre to centre.

" Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets *7/8* in. diameter averaging *3 3/4* ins. from centre to centre.

" Butts of *Three* Strakes at Bilge for *1/2* length, treble riveted with Butt Straps *1 1/16* 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 3/8* ins. from cr. to cr.

" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets *3/4* 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 length amidships.

" Butts of Main Stringer Plate, treble riveted for *1/2* length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for length.

" Breadth of laps of plating in double riveting *6 1/4* *5 1/4* Breadth of laps of plating in single riveting

Butt Keelsons, Stringer and Tie Plates, treble, double or single Riveted? *Don't know and settle as per rule*

Waterways secured to Beams *Iron decks* (Explain by Sketch, if necessary.)

Beams various Decks, how secured to the sides? *Beams Keelsons Riveted to frames* No. of Breasthooks, *Three* Crutches, *Three*

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

Manufacturer's name or trade mark, *Plates J. B. & Co.*

The above is a correct description.

Builder's Signature, *Ala Stephens & Sons*

Surveyor's Signature, *James Jardie*

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

IRON 95-0403

Do any rivets break into or through the seams or butts of the plating? *Very few*

State also Length and Diameter of Lower Masts and Bowsprit *Two Masts Schooner Rigged*

Fore mast 94×20
Main mast 90×20 } Pitch Pine pole masts.

NUMBER for EQUIPMENT		18106	Fathoms.	Inches.	Test per Certificate.	Inches per Rule	Machine where Tested & Suprntd. t.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate	W'ght req'd per Rule.	Machine where Tested & Suprntd.
N ^o .	SAILS.	CABLES, &c.						Bower Anchors	5361	23.3.16 4.2.10	23.17.2.10	23 1/2	
	Fore Sails,	Chain (State Machine where Tested, Date, or No. of Certificate, & Name of Superintndt.)	270 Breaking	1 9/16	43 9/10 61 4/10	270-1 9/16		(State Machine where Tested, Date, or No. of Certificate, & Name of Superintndt.)	5362	23.2.7 4.2.11	23.11.3.14	23 1/2	
	Fore Top Sails,	Iron Str'm Chain	75 1/2 Breaking	1	18 27	75-1	Section E. H. Satt 22.12.14 July 1850		5363	20.1.7 4.0.10	21.1.2.7	20	
	Fore Topmast Stay Sails,	Hmpn Strm Cbl	90	3 3/4	Steel	90-10 1/2 hump		Total =	67.3.2	Total =	67		
	Main Sails,	Hawser ...	90	9 1/2	Hemp	90-9 1/2		Stream	5358	7.3.22 1.2.24	6.12.2.10	8	do
	Main Top Sails,	Towlines ...	90	6	Hemp	90-6		Kedge	5359	4.0.16 1.0.21	4.11.0.0	4	do
	and	Warp ... quality New	-	-				Ditto	5364	1.3.18 2.10		2	do

Standing and Running Rigging *Wire R Hemp* sufficient in size and *new* in quality. She has *Three* ~~Four~~ Boats *and* *(with buoyancy)*

The Windlass is Good Capstan ✓ and Rudder Good Pumps Good and efficient

Engine Room Skylights.—How constructed? *Teak framing on iron comings on bridge deck* How secured in ordinary weather? *Bars*

What arrangements for deadlights in bad weather? *Thick teak covers with Bull's eyes*

Coal Bunker Openings.—How constructed? *Framed hatch* How are lids secured? *Hatched* Height above deck? *12 to 30 ins*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *2 water ports and 2 scuppers on main deck*
3 water ports and 3 scuppers on quarter deck

Cargo Hatchways.—How formed? *with plate and angle iron as her approved accompanying sketch*

State size **Main Hatch** $40' 3" \times 20'$ **Forehatch** $15' 4" \times 14'$ **Quarterhatch** $34' 6" \times 20'$

If of extraordinary size, state how framed and secured? } with dup divisional plate coming, well secured,
What arrangement for shifting beams? }

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

Order for Special Survey No. <u>1460</u>	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	<u>1880 January 6. 9. 12. 16. 20. 23. 27. February 4. 6. 13. 17</u>
Date <u>6th Jan. 1880</u>		2nd.	On the plating during the process of riveting	<u>26. March 5. 8. 11. 15. 22. 25. 29. April 1. 5. 16. 13. 16. 20.</u>
Order for Ordinary Survey No. <u>1461</u>		3rd.	When the beams were in and fastened, and before the decks were laid....	<u>April 27. 30. May 7. 12. 13. 18. 21. 25. 27. 31 June 4. 7. 9</u>
Date		4th.	When the ship was complete, and before the plating was finally coated or cemented..	<u>June 14. 18. 19. 24. 28 July 1. 2. 5. 8. 10 Augt. 3. 10. 11. 13. 18</u>
No. <u>250</u> in builder's yard.		5th.	After the ship was launched and equipped	<u>Augt 19. 24. 26. 27 Sept. 3. 7. 9. 13. 14. 16. 21. 27. 29</u>

General Remarks (State quality of workmanship, &c.) *The workmanship is of good quality, built in accordance with the approved sketches of midship and longitudinal sections which accompanied Glasgow Report No 5134 on the S. S. "Carlo," with which this (except hatchways) is a sister vessel, and in general conformity with the Rules with a view to the grade contemplated.*

Fitted with Double Bottom on the longitudinal cellular principle as per sketch whole length practicable, (184 feet), containing in forward compartment 160 tons, midship 80 tons, after 60 tons - Total 300 tons tested as required and proving satisfactory.

Fitted with Forecastle 27.6 long. Bridge on main deck 58 feet, Quarter Deck 73 feet long Chart room 8x10, Galley 5x10 fitted on bridge deck

The Equipment of Harpers understood to be in accordance with the
Owner's wishes is similar to that supplied to the sister vessel approved
by the Committee.

~~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, or part double bottom.~~

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**

The amount of the Entry Fee£ 5 : 7 : 11 is received by me,

Special £ 57 3: , Oct 187

Certificate ... *Gratis*

(Travelling Expenses, if any, £).

Committee's Minute

Character assigned

Friday, October 5th 1880

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

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