

STEEL HULL SHIP.

No. 510 Survey held at Port Glasgow Date, First Survey 15th Dec 1883 Last Survey 27th Sept 1883
 On the Steel Barque "R.A. Calderon" (Received at London Office) THURSDAY 4 OCT 1883

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| TONNAGE under Tonnage Deck <u>785.89</u> Ditto of Third, Spar, or Awinning Deck. } Ditto of Poop, or Raised Or. Dk. } <u>32.83</u> Ditto of Houses on Deck } <u>21.16</u> Ditto of Forecastle } Gross Tonnage <u>839.88</u> Less Crew Space <u>25.26</u> Less Engine Room } Register Tonnage as cut on Beam } <u>814.62</u> | TWO DECKED, THREE DECKED VESSEL. Half Breadth (moulded) <u>15.5</u> Feet. Depth from upper part of Keel to top of Upper Deck Beams <u>21.5</u> Girth of Half Midship Frame (as per Rule) <u>33.05</u> 1st Number <u>70.05</u> 2nd Number <u>130.99</u> Length <u>187</u> Proportions— Breadths to Length <u>6.03</u> Depths to Length— Upper Deck to Keel <u>8.70</u> Main Deck ditto | Master <u>J. Thompson</u> Built at <u>Port Glasgow</u> When built <u>1883</u> Launched <u>3 Sept 1883</u> By whom built <u>J. Reid & Co</u> Owners <u>M & J. Lockett</u> Residence <u>Liverpool</u> Port belonging to <u>Liverpool</u> Destined Voyage <u>Saguine</u> Surveyed while Building, Afloat, or in Dry Dock. |
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| LENGTH on deck as per Rule ... | Feet. Inches. | | BREADTH— Moulded ... | Feet. Inches. | | DEPTH top of Floors to Upper Deck Beams ... | Feet. Inches. | | Power of Engines ... | Horse. | N° of Decks with flat laid | N° of Tiers of Beams |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------|---|----------------------|---------------|---------------|---------------------------------------------|---------------|-------|-----------------------------------------------------------------------------------------|--------|----------------------------|----------------------|
| | 187 | 0 | | 31 | 0 | | 19 | 8 1/4 | | | | |
| Dimensions of Ship per Register, length, <u>199.7</u> breadth, <u>31.2</u> depth, <u>19.55</u> | | | | | | | | | | | | |
| KEEL, depth and thickness ... | 8 x 2 3/8 | | 8 x 2 3/8 | | 8 x 2 3/8 | | 8 x 2 3/8 | | Flat Keel Plates, breadth and thickness ... | | | |
| STEM, moulding and thickness ... | 7 x 2 3/8 | | 7 x 2 3/8 | | 7 x 2 3/8 | | 7 x 2 3/8 | | PLATES in Garboard Strakes, br'dth & thickness ... | | | |
| STERN-POST for Rudder do. do. ... | 7 x 2 3/8 | | 7 x 2 3/8 | | 7 x 2 3/8 | | 7 x 2 3/8 | | " From Garboard to upper part of Bilges ... | | | |
| " " for Propeller ... | 22 | | 22 | | 22 | | 22 | | " Of Bilge at Bilge, or increased thickness, and length applied ... | | | |
| Distance of Frames from moulding edge to moulding edge, all fore and aft ... | 22 | | 22 | | 22 | | 22 | | " From up. prt of Bilge to lr. edge of Sh'rstrake ... | | | |
| FRAMES, Angle Iron, for 1/2 length amidships ... | 4 1/2 x 3 | | 4 1/2 x 3 | | 4 1/2 x 3 | | 4 1/2 x 3 | | " Main Sheerstrake, breadth and thickness ... | | | |
| Do. for 1/2 at each end ... | 4 1/2 x 3 | | 4 1/2 x 3 | | 4 1/2 x 3 | | 4 1/2 x 3 | | " Of Bilge at Sh'ath & log applied ... | | | |
| REVERSED FRAMES, Angle Iron ... | 3 x 3 | | 3 x 3 | | 3 x 3 | | 3 x 3 | | " From Main to Upper or Spar Dk. Sh'rstrake ... | | | |
| FLOORS, depth and thickness of Floor Plate at mid line for half length amidships ... | 2 1/2 | | 2 1/2 | | 2 1/2 | | 2 1/2 | | " Up or Spar Dk. Sh'rstrake, breadth & thickness ... | | | |
| " thickness at the ends of vessel ... | 12 | | 12 | | 12 | | 12 | | Butt Straps to outside plating, breadth & thickness ... | | | |
| " depth at 1/2 the half-bdth. as per Rule ... | 10 3/4 | | 10 3/4 | | 10 3/4 | | 10 3/4 | | Lengths of Plating <u>7 frame spaces</u> ... | | | |
| " height extended at the Bilges ... | 43 | | 43 | | 43 | | 43 | | Shifts of Plating, and Stringers ... | | | |
| BEAMS, Upper, Spar, or Awinning Deck } Single or d'ble Ang. Iron, Plate or Tee Bulb Iron } Single or double Angle Iron on Upper edge ... | 7 1/2 | | 12 | | 7 1/2 | | 12 | | Gunwale Plate on ends of Awinning, Spar, or Upper Deck Beams, breadth and thickness ... | | | |
| Average space ... | 44 | | 44 | | 44 | | 44 | | Angle Iron on ditto ... | | | |
| BEAMS, Main, or Middle Deck } Single or d'ble Ang. Iron, Plate or Tee Bulb Iron } Single or double Angle Iron on Upper Edge ... | 3 | | 3 | | 3 | | 3 | | Tie Plates fore and aft, outside Hatchways ... | | | |
| Average space ... | 44 | | 44 | | 44 | | 44 | | Diagonal Tie Plates on Beams No. of Pairs <u>2</u> ... | | | |
| BEAMS, Lower Deck } Single or d'ble Ang. Iron, Plate or Tee Bulb Iron } Single or double Angle Iron on Upper Edge ... | 7 1/2 | | 12 | | 7 1/2 | | 12 | | Flat of Up., Spar, or Awinning Dk. * <u>Y. Pine</u> ... | | | |
| Average space ... | 44 | | 44 | | 44 | | 44 | | How fastened to Beams <u>Sawn</u> ... | | | |
| BEAMS, Hold, or Orlop } Single or d'ble Ang. Iron, Plate or Tee Bulb Iron } Single or double Angle Iron on Upper Edge ... | 3 | | 3 | | 3 | | 3 | | Stringer Plate on ends of Main or Middle Deck } Beams, breadth and thickness ... | | | |
| Average space ... | 44 | | 44 | | 44 | | 44 | | Is the Stringer Plate attached to the outside plating? <u>Yes</u> ... | | | |
| KEELSONS Centre line, single or double plate, } " Rider Plate ... | 13 | | 16 | | 13 | | 16 | | Angle Irons on ditto, No. <u>2</u> ... | | | |
| " Double Plate to Intercoastal Keelson ... | 9 3/4 | | 16 | | 9 3/4 | | 16 | | Tie Plates, outside Hatchways ... | | | |
| " Angle Irons ... | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | Diagonal Tie Plates on Beams, No. of pairs ... | | | |
| " Double Angle Iron Side Keelson ... | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | Flat of Middle Deck* do. do. <u>Riga Pine</u> ... | | | |
| " Side Intercoastal Plate <u>Wash Plate</u> ... | 7 3/4 | | 12 | | 7 3/4 | | 12 | | How fastened to Beams <u>Wash & Saw</u> ... | | | |
| " do. Angle Irons ... | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | Stringer Plates on ends of Lower Deck, Hold or Orlop Beams ... | | | |
| " Attached to outside plating with angle iron ... | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | Is the Stringer Plate attached to the outside plating? ... | | | |
| BILGE Angle Irons ... | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | Angle Irons on ditto, No. ... | | | |
| " do. <u>Bull plate for 90°</u> ... | 7 | | 14 | | 7 | | 14 | | Stringer or Tie Plates, outside Hatchways ... | | | |
| " do. Intercoastal plates riveted to plating for length ... | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | Flat of Lower Deck ... | | | |
| BILGE STRINGER Angle Irons ... | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | Ceiling betwixt Decks, thickness and material <u>P. Pine</u> ... | | | |
| SIDE STRINGER Angle Irons ... | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | 4 1/2 x 3 1/2 | | " in hold do. do. <u>2</u> ... | | | |

The FRAMES extend in one length from Middle line to Upper Deck Stringer Riveted through plates with 3/4 x 7/8 in. Rivets, about 6 1/2 apart.
 The REVERSED ANGLE IRONS on floors and frames extend from middle line to Upper Deck Stringer and to Lower 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 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 1/2 ins. from centre to centre.
 " Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 ins. from centre to centre.
 " Butts of 3 Strakes at Bilge for 1/2 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 3/4 x 7/8 in. diameter, averaging 3 1/2 x 3 1/2 ins. from cr. to cr.
 " Butts from Bilge to Main Sheerstrake, worked carvel, double or single riveted; with rivets 3/4 x 7/8 in. diameter, averaging 3 + 3 1/2 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 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted 1/2 length amidships.
 " Butts of Main Stringer Plate, treble riveted for length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for 1/2 length.
 " Breadth of laps of plating in double riveting 4 1/2 + 5 1/4 Breadth of laps of plating in single riveting ...
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted } No. of Breasthooks, 3 Crutches, 3
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Good. Plates. Steel. Cast. Scotland
 Manufacturer's name or trade mark Henry Frank - Messrs - Masts - Laird.
 The above is a correct description.
 Builder's Signature, Mr. Reid Surveyor's Signature, J. Shear
 Surveyor to Lloyd's Register of British and Foreign Shipping.

State clearly where plating is of alternate thicknesses—as distinguished from plating of uniform thickness at ends of vessel.
 * If Iron Deck, state if whole or part, and if wood deck is laid thereon.

G R K 300 - 0323

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? A few, only, at the butts.

Masts, Bowsprit, Yards, &c., are Steel & Wood 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

Masts - some Yards - and Bowsprit of Steel in accordance with approved sketch, attached hereto.

| No. | SAILS. | CABLES, &c. | 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. |
|-----|--------------------------|----------------------|----------|---------|-----------------------|------------------|---------------------------------|---------------|-----|--------------------|-----------------------|-----------------------|---------------------------------|
| | | | | | | | | | | | | | |
| | Fore Sails, | Chain | 135 3/4 | 1 5/8 | 47.5; 66.5 | 270 - 1 1/2 | Glasgow | Bower Anchors | 837 | 25.2.0 | 25.3.3.0 | 2 5/4 cuts | |
| | Fore Top Sails, | Iron Stream Chain | 135 | | | | M. Grass | | 838 | 25.2.0 | 25.3.3.0 | | |
| | Fore Topmast Stay Sails, | or Steel Wire | 75 | 7/8 | 9.125; 18.25 | 75 | | | 836 | 22.0.9 | 22.18.131 | | |
| | Main Sails, | or Hempen Strm Cable | 90 | 10 | | 90.10 | | Total | 73 | 0.9 | Total | 72 3/4 cuts | Glasgow |
| | Main Top Sails, | Towline, Hemp. | 90 | 8 | | 90.8 | | Stream Anchor | 835 | 8.1.10 | 10.8.3.0 | 8 1/2 cuts | M. Grass |
| | and | or Steel Wire | 90 | 5 | | 90.5 | | Kedge | 834 | 4.1.9 | 6.8.2.0 | 4 1/2 | |
| | | Hawser | 90 | | | | | 2nd Kedge | 833 | 2.1.23 | 4.18.3.0 | 2 1/2 | |
| | | Warp | 90 | | | | | | | | | | |

Standing and Running Rigging Spine & hemp sufficient in size and good in quality. She has 1 Long Boat and 3 others
 The Windlass is Iron Patent Capstan Good and Rudder Good Pumps Good & sufficient
 Engine Room Skylights.—How constructed? ✓ How secured in ordinary weather? ✓

What arrangements for deadlights in bad weather? ✓ Height above deck? ✓
 Coal Bunker Openings.—How constructed? ✓ How are lids secured? ✓

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? 3 scuppers on each side also - 4 Scuppers - on each side.
 Cargo Hatchways.—How formed? By plate coaming & head layer - connected by angle iron

State size Main Hatch 14.9 x 13.6 Forehatch 7.6 x 6.6 Quarterhatch 7.6 x 8.6
 If of extraordinary size, state how framed and secured? ✓

What arrangement for shifting beams? A deep shifting beam and a fore & after to main hatchway.
 Hatches. If strong and efficient? Yes. Solid. 3.

| Order for Special Survey No. | Date | Order for Ordinary Survey No. | Date | No. | in builder's yard. | DATES of Surveys held while building as per Section 18. |
|------------------------------|-------------------------|-------------------------------|------|-----|--------------------|---------------------------------------------------------|
| 11153 | 22 nd Dec 82 | | | 7/F | | 17/6/82 |
| | | | | | | 19/12/82 |
| | | | | | | 10/3/82 |

1st. On the several parts of the frame, when in place, and before the plating was wrought
 2nd. On the plating during the process of riveting
 3rd. When the beams were in and fastened, and before the decks were laid...
 4th. When the ship was complete, and before the plating was finally coated or cemented...
 5th. After the ship was launched and equipped

Specially surveyed 1882: - Dec 15, 1883: - Feb 7, 19. 20. 26; Apr 8. 9. 24. 30; May 2. 4. 8. 17. 23; June 4. 13. 14. 21. 26; July 17. 24. 25. 30; Aug 3. 7. 17. 24. 31; Sept. 8. 12. 14. 20. 27

General Remarks (State quality of workmanship, &c.)
This is a steel sailing barque, built in accordance with the approved plans, attached hereto, and with the Rules generally. There being one or two slight additions thereto as stated upon the other side.
The Society's Circulars in regard to the use of steel have been complied with and the workmanship is good.

State if one, two, or three decked vessel, and the lengths of poop, bridge, fore-castle, and raised quarter deck. (If double bottom, state particulars on separate form.)
 How are the surfaces preserved from oxidation? Inside Paint and blémet Outside Paint and composite
 I am of opinion this Vessel should be Classed 100 A 1 "Steel"

The amount of the Entry Fee £ 3 : : : is received by me,
Special £ 40 : 15 : : 2nd Oct. 1883 }
 (to be sent as per margin). Certificate ... Gratis
 (Travelling Expenses, if any, £)

Committee's Minute
 Character assigned
 FRIDAY 5 OCT 1883 18
 Surveyor to Lloyd's Register of British and Foreign Shipping.
 Lloyd's Register Foundation