

# Sailing Vessel. ~~IRON OR~~ STEEL SAILING SHIP.

(Received at London Office)

10957  
16 SEP 91

Date of completion of Report 12<sup>th</sup> September 1891 Port of Glasgow

No. 10957 Survey held at Ardrossan Date of First Survey 4<sup>th</sup> Feb<sup>r</sup> 1891 Last Survey 11<sup>th</sup> September 1891

On the Schooner "Clwen"

Rig Schooner 3 masts

TONNAGE under Tonnage Deck 122.59

ONE OR TWO DECKED VESSEL.

Master Capt<sup>n</sup> Owen

Do of Poop

CLASS 100 A

Year of Appointment (1) As master in service of owner of present vessel - 18 (2) As master of this vessel - 1891

Do of raised Qr. }  
Dk. or Break

Built at Ardrossan

No. of Bridge House

Half Breadth (moulded) 11.0

When built 1891 Launched 7<sup>th</sup> August 1890

No. of Houses on Deck

Depth from upper part of Keel to top of Upper Deck Beams 10.46

By whom built Ardrossan Shipbuilding Coy.

Do. of excess of Hatchways 1.93

Girth of Half Moulded Frame (as per Rule) 19.08

Owners Richards & Coy

Do of Forecastle

1st Number 40.54

Managers

Gross Tonnage 124.52

Length 88.94

(Where necessary to be entered in Reg. Book)

Less Crew Space 15.70

2nd Number 3601.57

Residence 4 Cornhill Port of London

TONNAGE FOR FEES 108.82

Proportions Breadths to Length 4.04

Port belonging to London

Less Navigation spaces 9.45

Depths to Length—Upper Deck to top of Keel 8.49

Register Tonnage 99.37  
as cut on Beam

Destined Voyage Cadiz

If Surveyed while Building, Afloat, or in Dry Dock While building & Afloat

LENGTH on deck as per rule	Feet.	Inches.	BREADTH Moulded	Feet.	Inches.	DEPTH Top of Floors to Upper Deck Beams	Feet.	Inches.	No. of Decks with Flat laid	No. of Tiers of Beams
98	10		22	0		9	2 1/2		one	one

Dimensions of Ship per Register, Length 93 breadth 22.1 depth 9 Moulded depth, ft. 10 in. 0 Round up of Beam 5 1/2 ins.

## FORGINGS AND CASTINGS.

	Inches in Ship.	Inches per Rule. Or as Approved.
EL. Bar or Side Plates, depth and thickness	7 x 1 1/4	7 x 1 1/4
LM, moulding and thickness	7 x 1 1/4	7 x 1 1/4
ERN-POST, do. do.	7 x 1 1/4	7 x 1 1/4
AIN-PIECE of RUDDER, diameter at head	3	3
DDER, how constructed	Forged frame with plated sides	
in the Rudder be unshipped afloat?	Yes	

## FRAMING.

	Inches in Ship.	Inches in Ship.	16ths or 20ths in Ship.	Inches per Rule. Or as Approved.	Inches per Rule. Or as Approved.	16ths or 20ths in Ship.
FRAME, Angles, on 1 Bar, for 1/2 length amidships	3	2 1/2	5/16	3	2 1/2	5/16
Do. for 1/2 at each end	3	2 1/2	5/16	3	2 1/2	5/16
Do. in way of Double Bottoms						
Distance of Frames from moulding edge to moulding edge, all fore and aft	21			21		
REVERSED FRAME, Angles	2 1/2	2 1/2	4/16	2 1/2	2 1/2	4/16
FLOORS, depth and thickness of Floor Plate at mid line for 1/2 length amidships	15			15		
" thickness at the ends of vessel	8 1/2			7 1/2		
" depth at 1/2 the half breadth, as per Rule	24			24		
height extended at the Bilges						

## KEELSONS AND STRINGERS.

	Inches in Ship.	Inches in Ship.	16ths or 20ths in Ship.	Inches per Rule. Or as Approved.	Inches per Rule. Or as Approved.	16ths or 20ths in Ship.
CENTRE LINE KEELSON, Vertical Plate above floors, Through Plate, or Intercoastal Plate	8 1/2			8 1/2		
Rider Plate	6 1/2			7 1/6		
Bulk Plate to Intercoastal Keelson				6 1/2		
Horizontal Plate above floors	3	3	6/16	3	3	6/16
Angles						
SIDE KEELSON, Angle						
Bulk Plate for length				1/4		
Intercoastal Plate for length	2 1/2	2 1/2	1/4	2 1/2	2 1/2	1/4
Attached to outside Plating with Angle				6/16		
BILGE KEELSON, Angle	3	3	6/16	3	3	6/16
Bulk Plate for length						
Intercoastal Plates for length						
Attached to outside Plating with Angle	3	3	6/16	3	3	6/16
BILGE STRINGER, Angles						
Bulk Plate for length						
Intercoastal Plate for length						
Attached to outside Plating with Angle						
SIDE STRINGER, Angles						
Bulk Plate for length						
Intercoastal Plate for length						
Attached to outside Plating with Angle						
Main Deck Stringer Plate, on end of Beams, breadth and thickness	21			20		
Angle on ditto	3 x 3			6/16		
Tie Plates fore and aft, outside Hatchways	7			7		
Diagonal Tie Plates on Bms., No. of Prs.	3 pairs			3		
Flat of Deck*, material and thickness	77 3			77 3		
Iron or Steel for length						
How fastened to Beams	Galvanized rub & screw bolts					
Lower Deck Stringer Plate, on end of Beams, breadth and thickness						
Is the Stringer Plate attached to the Outside Plating?						
Angles on ditto, No						
Tie Plates outside Hatchways						
Diagonal Tie Plates on Bms. No. of prs.						
Flat of Deck, material and thickness						
How fastened to Beams						
Hold Stringer Plate, on end of Beams						
Is the Stringer Plate attached to the Outside Plating?						
Angles on ditto, No						
Tie Plate outside Hatchways						
Flat of Deck, material and thickness						
Pooper or Bridge Deck Stringer Plate, breadth and thickness						
Angle						
Tie Plates on Beams						
Flat of Deck, material and thickness						
Forecastle Deck Stringer Plate, b'dth & thkn						
Angle						
Tie Plates on Beams						
Flat of Deck, material and thickness						

## PLATING.

	Inches in Ship.	16ths or 20ths in Ship.	Inches per Rule. Or as Approved.	16ths or 20ths in Ship.
PLATE PLATE KEEL, breadth and thickness	30			7/16
PLATES in Garboard Strakes, b'dth & thkn's from Garboard to lower part of Bilges				6/16
State Thickness of Plating in way of Double Bottom				6/16
Bilges, number of Strakes, and thickness				6/16
Of doubling at Bilge, or increased thickness, and length applied				6/16
from up. part of Bilge to l. edge of Sh'rstrake				6/16
Strake in way of Lower Deck Beams	30			7/16
Sheerstrake, breadth and thickness				7/16
Pooper or Bridge Sides				
Forecastle Sides				
Lengths of Plating	Seven spaces			Six spaces



10957 Gfs

W. P. Spanning  
Ceiling betwixt Decks, thickness and material 3" x 2"  
" in hold do do 2 1/2"  
Red pine  
Number of Breasthooks 3  
" Crutches no with cup  
floors  
BULKHEADS. No. in Vessel one  
Thickness 1/4" Angles 3/4" x 3/4" 30  
Hrztntl 3/4" x 3/4" 48  
PARTITIONS  
LONGITUDINAL Vrtel  
Are the outside Plates doubled two spaces of Frames in length? Yes  
The FRAMES extend in one length from Keel to Foremast  
The REVERSED ANGLES on floors and frames extend from the middle line to upper turn of keel  
Riveted through Plates with 3/4" in. Rivets, about 5/8" apart.  
RIVETING OF EDGES AND BUTTS OF SHELL PLATING AND BUTTS OF STRINGER PLATES, TIE PLATES, KEELSONS, &c.  
Carboard, double riveted to Bar Keel on Flat Plate, with rivets 1/2" in diameter, averaging 3" ins. from centre to centre.  
Edges of Carboards and to upper part of Bilge, worked clencher, double riveted; with rivets 3/4" in. diameter, averaging 3" ins. from centre to centre.  
Butts from Keel to turn of Bilge, worked carvel, double or double riveted; treble for 1/2 length; with rivets 3/4" in. dia., averaging 2 1/2" ins. from cr. to cr.  
overlapped for whole length, treble riveted for half length; with rivets 3/4" in. dia., averaging 2 1/2" ins. from cr. to cr.  
Butts of Strakes at Bilge for 1/2 length, treble riveted with Butt Straps thicker than the plates they connect.  
Edges from Bilge to Sheerstrake, worked clencher, double or single riveted; with rivets 3/4" in. diameter, averaging 3" ins. from centre to centre.  
Butts from Bilge to Sheerstrake, worked carvel, double or double riveted; treble for 1/2 length; with rivets 3/4" in. dia., averaging 2 1/2" ins. from cr. to cr.  
overlapped for whole length, treble riveted for half length; with rivets 3/4" in. dia., averaging 2 1/2" ins. from cr. to cr.  
Edges of Sheerstrake double riveted.  
Butts of Main Stringer Plate, double riveted for whole length amidships. Single or Double Straps to Stringer Plate, for 1/2 length amidships.  
Butts of Inner Bottom Plating, riveted for 1/2 length amidships. Butts of Centre Girder, riveted.  
Breadth of edge laps of Shell Plating in double riveting 4 1/2" Breadth of edge laps of Shell Plating in single riveting 2 1/2"  
Butt Straps of Shell Plating, breadth and thickness 9/16" x 1/2" Butts, If Lapped, breadth of Laps 7 1/2"  
Butt Straps of Keelsons, Stringer and Tie Plates, treble or double riveted? Double and double  
Manufacturer's name or trade mark of the Iron or Steel (state process of manufacture of Steel) used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c. James Martin Steel Company of Scotland and Co. Ltd.  
Workmanship. Are the butts of plating planed or otherwise fitted? Planed  
Is the riveted work properly closed? Yes  
Are the liners between the frames 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  
Are the butts of Plating, Stringers, &c., properly shifted and strapped or lapped? Yes

MASTS AND SPARS.

	Material.	Total length.	DIAMETER AND THICKNESS.				Number of Plates in Round.	ANGLES.		RIVETING.	
			At Partners.	Heel.	Hounds.	Head.		Number.	Size.	Seams.	Butts.
LOWER MASTS.....	Fore	P. Pine 24 1/2	12	10 1/2		12					
	Main	30 1/2	14	12		11					
	Mizen	42	13	11		10					
	Jigger										
BOWSPRIT .....											
TOPMASTS .....	Fore	24 1/2		10							
	Main	25 1/2		9							
	Mizen	19 1/2		8							
	Jigger										
YARDS.....	Fore	24 1/2	At Centre		At Ends						
	Main										
	Crossjack										
	Jigger										
FORE TOPMILL YARDS	Lower	29 1/2									
	Upper	25 1/2									
MAIN .....	Lower										
	Upper										
MIZEN .....	Lower										
	Upper										
JIGGER.....	Lower										
	Upper										

Remainder of Spars  
Rigging. Material and Size, Shrouds 2 1/4" 2. Stays 1 1/2" 2. 2 1/4" 3. 1 1/4" Quality Good  
Sails. one Suit of Sails, and the following Spare Sails

EQUIPMENT No. 3601 LETTER C ANCHORS.

Number of Certificate.		WEIGHT, EX. STOCK			WEIGHT OF STOCK			TEST, PER CERTIFICATE			WEIGHT REQ. PER RULE			Description of Anchor.	Makers.	Where and when tested and Superintendent.
		Cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.	Tons	cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.		
22214	1st Bower	5	0	14	1	1	14	7	9	2	21	5	0	0	Rodgers Patent	5. Taylor & Son
22312	2nd "	5	0	0	1	1	0	7	7	2	0	5	0	0	"	G. H. & Co.
	3rd "															
	4th "															
	Collective weight	10	0	14								10	0	0		
	Stream	2	0	22								1	2	0		
	Kedge	1	0	13								0	3	0		
	2nd Kedge															

CHAIN CABLES.

Number of Certificate.	Fathoms	Size.	Test per Certificate.	Weight of Chain Cable.	Fathoms & Size.	Description.	Makers of Cables.	Where and when tested, and Superintendent.	Material.	Fathoms	Size.	Fathoms & Size.
9225	135	7/8	6520	50.2.3	135	3/8" link	S. Taylor & Son	Liverpool 20 July 1891	ROVINE	70	1 1/2	70.5 1/2
9224	2	1/2	634	6.0.14		each length Callipered	J. H. & Co.		Hawser	90	4	90.3
										90	3	

Boats Two boats, one life boat and another  
Pumps, Number 2  
Windlass Clarke Chapman & Co. patent  
Number of Scuppers, and number and dimensions of Freeing Ports Two scuppers with 3 scuppers and two freeing pipes.  
Cargo Hatchways.—How formed? Plates and angles  
State size No. 1 Hatch (Forward) 10.0 x 9.0 x 18 No. 2 Hatch 7.0 x 8.0 x 19 No. 3 Hatch 7.0 x 8.0 x 19  
Number of Web Plates, Shifting Beams, and Fore and Afters to each hatch One fore and after in each  
Bulwarks, Height above deck and description 1/4" iron plates  
The above is a correct description.  
Builder's Signature (here only) Andrew & Ship Co. Ld.  
Surveyor's Signature Charles E. Macdonald  
Surveyor to Lloyd's Register of British



10957. 9/2

Order for Special Survey No. 2436  
Date 15<sup>th</sup> January 1891  
Order for Ordinary Survey No. ✓  
Date ✓  
No. 151 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
- 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

1891. Feb<sup>o</sup> 4. 19. 26. Mar 12. 19. April 6. 10. 14  
17. 24. 28. May 5. 8. 14. 25. June 8. 11. 18. 25  
29. July 6. 8. 15. 27. 29. Aug<sup>o</sup> 6. 11. 18. 24. 26. 31  
Sept<sup>r</sup> 11.

Total No. of Visits 33

State dates and initials of letters respecting this case. 12<sup>th</sup> Jan<sup>y</sup> 1891 (21) 23<sup>rd</sup> Feb<sup>y</sup> 1891 (21)

General Remarks (State quality of workmanship, &c.) Workmanship and materials good throughout  
This is a one deck three masted sailing Schooner built of steel in accordance with the approved Midship Section forwarded to London on the 18<sup>th</sup> inst. the Enclosed sketch and Secretamp Letters of the above dates.  
This is a sister vessel to the Schooner "Bronwen" Glasgow 1<sup>st</sup> Entry report 10891

PARTICULARS FOR RECORD IN THE REGISTER BOOK.

Length of Poop ✓ ft., R.Q.D. or Break ✓ ft., Bridge Dk. ✓ ft., Forecastle ✓ ft. (in feet and tenths).  
No. and Material of Decks (if Iron or Steel) and whether wholly or partially covered with wood, and No. of tiers of Beams (this information is to be given as it should appear in the Register Book) one deck wood, one tier of beams  
Official No. 98977 Signal Letters ✓

PARTICULARS OF WATER BALLAST.

Double bottom, aft, length ✓ and water capacity in tons ✓. Double bottom, amidships, length ✓ and water capacity in tons ✓.  
Double bottom, forward, length ✓ and water capacity in tons ✓.  
Double bottom, constructed on the cellular system, length ✓ and water capacity in tons ✓.  
Fore peak tank, water capacity in tons ✓. After peak tank, water capacity in tons ✓.  
Midship deep tank, length ✓ and water capacity in tons ✓. Other tanks, if fitted, length ✓ and water capacity in tons ✓.  
The above have ✓ been tested as required by the Rules.  
(If necessary, furnish further information by sketch.)  
How are the surfaces preserved from oxidation? Inside Cement and Paint Outside Paint & Composition

FREEBOARD assigned by the Committee, as per Secretary's Letter, dated 10<sup>th</sup> September 1891  
1 ft. 5 1/2 ins. In Salt Water  
1 ft. 3 1/2 ins. In Fresh Water  
1 ft. 8 1/2 ins. In Winter, in North Atlantic  
State if marked on Vessel's sides in accordance with Notice No. 572 Yes

The amount of Entry Fee ..... £ 1 : 0 : 0 is received by me, ✓  
Special.... £ 6 : 3 : 0 16<sup>th</sup> 9. 1891  
Certificate\* £ : :  
Travelling Expenses, if any £ 2 : 14 : 1.  
I am of opinion this Vessel should be Classed 100 A.I. steel  
Certificate to be sent to ✓  
Charles Edwards  
Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute FRI 18 SEP 1891  
Character assigned 100A1 Steel  
a + c p 10k.  
It is submitted that this vessel appears eligible to be Classed 100 A.I. (Steel) as recommended.  
10k