

## Spar, or Awning Dk. IRON OR STEEL STEAMER.

No. 21253

State if Report is also sent on the Machinery of the Vessel

Yes

Port of *Glasgow* Date of completion of Report *19<sup>th</sup> Oct 1903* Received at London Office *10<sup>th</sup> Dec 1903*  
Survey held at *Glasgow* Date, First Survey *26<sup>th</sup> February* Last Survey *14<sup>th</sup> October 1903*  
On the *Steel Screw Steamer "SIERRA MORENA"* Rig *Schooner, 2 Masts.*

AGE under  
age Deck... 3346.20  
Between Tonnage Dk.  
3rd, 4th, Spar or  
ing Dk.  
Under Upper Dk. 3346.20

Poop  
Bridge Houses 93.69  
Forecasts 50.11  
Houses on Deck 9.86  
Access of Hatchways 20.95  
Above Crown of  
Engine Room 14.96  
Tonnage 3535.77  
Crew Space 73.78  
Above Crown of  
Engine Room 14.96  
AGE FOR FEES... 3447.03  
Engine Room 1131.45  
Navigation Spaces  
Act 194 47.69  
Master Tonnage  
cut on Beam... 2282.85

SPAR, AWNING OR PART AWNING DECKED VESSEL,

or a Vessel having a continuous Shade Deck.

CLASS *10091 "Spar Deck"*

FEET.

Half Breadth (moulded) 23.0  
Depth from upper part of keel to top of Main Deck Beams 21.14  
Girth of Half Midship Frame (as per Rule) 40.52  
1st Number 8466  
Length 358.6  
2nd Number 30359.07  
Proportions—Breadths to Length 7.79  
Depths to Length—Main Deck to top of Keel 16.9

Destined Voyage *Galveston.*

Is Surveyed while Building? Afloat, or in Dry Dock

Master *C. Hausak*Year of Appointment *1903*(1) As Master in service of  
owner of present vessel:—1903  
(2) As Master of the  
vessel:—1902Built at *Scotofoun.*When built *1903* Launched *8<sup>th</sup> Sept/03.*By whom built *C. Connell & Co. Ld.*Owners *Sierra S.S. Co. Ld.*Managers *Thompson, Anderson & Co.*

(Where necessary to be entered in Reg. Book.)

Residence

Port belonging to *Liverpool.*

NGTH on Deck Feet. Inches. BREADTH—Feet. Inches. DEPTH, top of Floors to Spar — Dk. Beams Feet. Inches. Power of Horse. No. of Decks with flat laid  
per Rule 358 7/4 Moulded 46 0 Do. do. Main Deck Beams 17 7/4 Engines No. of Tiers of Beams *Two*

ensions of Ship per Register, Length 361.0 breadth 46.2 depth. 25.65 Spar or Awn. Dk. Moulded depth, ft. 20 ins. 2/4 To Main Dk. Round up of } 11/2 ins.  
Main Deck. Beam, Main Dk. }

## FRAMING.

	Inches in Ship.	Inches in Ship.	20ths in Ship.	Inches per Rule Or as Approved.	Inches per Rule Or as Approved.	20ths in Ship.
NAME, Angles, <i>7-10-10</i> Bars, for $\frac{1}{2}$ length amidships	6	3 1/2	9	6	3 1/2	9
Do. for $\frac{1}{2}$ at each end	6	3 1/2	8	6	3 1/2	8
Do. in way of Double Bottoms at Solid Floors	3 1/2	3 1/2	8	3 1/2	3 1/2	8
Distance of Frames from moulding edge to moulding edge, all fore and aft	24			24		
VERSED FRAME, Angles	7	3 1/2	9.8	7	3 1/2	9.8
STEP FRAMING, depth of girder		10			10	
FLOORS, depth and thickness of Floor Plate at mid-line for $\frac{1}{2}$ length amidships						
" in way of Engines and Boilers						
" thickness at the ends of vessel						
" depth at $\frac{1}{2}$ the half-bdth. as per Rule						
" height extended at the Bilges						
FLOORS & BRACKETS, in Cell Dble Bottoms						
Distance apart	24			24		
INTRE GIRDER, in Double bottom, depth and thickness	42		10	42		10
" Angles, Top	4	4	9	4	4	9
" Bottom	4 1/2	4 1/2	10	4 1/2	4 1/2	10
DE GIRDERS, number and thickness	6 1/2		8	6 1/2		8
" Angles	3 1/2	3 1/2	8	3 1/2	3 1/2	8
MARGIN PLATE, depth (exclusive of flange) and thickness	37 1/2		9	32 1/2		9
" Angles	4	4	9	4	4	9
NER BOTTOM PLATING, breadth and thickness of Middle Line Strake	36	4	9 1/2	36	4	9 1/2
" thickness in Engine and Boiler space	8 1/2	8 1/2	9 1/2	8 1/2	8 1/2	9 1/2
Remainder in Holds	11		11	11		11
BEAMS, Spar or Awning Deck, Single Angle, Bulb Angle, Plate or Tee Bulb	11		11	11		11
" Angles on upper edge						
" Average space	48			48		
BEAMS, Main Deck, Single Angle, Bulb Angle, Plate or Tee Bulb	12		12	12		12
" Angles on upper edge						
" Average space	48			48		
BEAMS, Lower Deck, Single Angle, Bulb Angle, Plate or Tee Bulb						
" Angles on upper edge						
" Average space						
BEAMS, Hold, or Orlop, Plate or Tee Bulb						
" Angles on upper edge						
" Average space						
BEAMS, Poop Deck, Angle, Bulb Angle, Plate or Tee Bulb	8 1/2	8 1/2	10	8 1/2	8 1/2	10
" Angles on upper edge						
" Average space	48			48		
BEAMS, Bridge Deck, Angle, Bulb Angle, Plate or Tee Bulb	9	5 1/4	10	9	5 1/4	10
" Angles on upper edge						
" Average space	48			48		
BEAMS, Forecastle Deck, Angle, Bulb Angle, Plate or Tee Bulb	9	5 1/4	10	9	5 1/4	10
" Angles on upper edge						
" Average space	48			48		
RS, In 'tween Deck, size and spacing	27/8		48	27/8		48
" Hold	5		48	5		48
" Quarter, 'tween Dks., "						
" in Hold						
3-FRAMES, In Fore Body, No. and spacing brdth. & thickness						
No. of Side Stringers						
4-FRAMES, In E. & B. Space, No. & spacing brdth. & thickness						
5-FRAMES, In After Body, No. and spacing brdth. & thickness						
No. of Side Stringers						
Size of Angles or Tee Bars to Web Frames						
ACKET PLATES to Stringers between Web Frames, depth and thickness						

## FORGINGS AND CASTINGS.

	Inches in Ship.	Inches in Ship.	20ths in Ship.	Inches per Rule Or as Approved.	Inches per Rule Or as Approved.	20ths in Ship.
HEEL, Bar or Side Plates, depth and thickness	11	2 3/4		11	2 3/4	
STEM, moulding and thickness	11	2 3/4		11	2 3/4	
STERN-POST for Rudder do. do.	11	2 3/4		11	2 3/4	
for Propeller	11	2 3/4		11	2 3/4	
MAIN PIECE of Rudder, diameter at head	9			9		
do. at heel	8 1/4			4 1/2		
RUDDER, how constructed <i>Forged frame, single plate 2 3/4</i>						
Can the Rudder be unshipped afloat? <i>Yes</i>						
KEELSONS AND STRINGERS.	Inches in Ship.	Inches in Ship.	20ths in Ship.	Inches per Rule Or as Approved.	Inches per Rule Or as Approved.	20ths in Ship.
CENTRE LINE KEELSON, Vertical Plate above floors, Through Plate, or Intercostal Plate						
" Rider Plate						
" Bulb Plate to Intercostal Keelson						
" Horizontal Plates on Floors						
" Angles						
SIDE KEELSON, Angles						
" Bulb or Plate above floors, for length						
" Intercostal Plate, for length						
" Attached to outside plating with Angle						
BILGE KEELSON, Angles						
" Bulb or Plate above floors, for length						
" Intercostal Plate, for length						
" Attached to outside plating with Angle						
BILGE STRINGER Angles						
" Bulb Plate, for length						
" Intercostal Plate, for length						
" Attached to outside plating with Angle						
3SIDE STRINGER Angles	6 1/2	4 1/2	10	6 1/2	4 1/2	10
" Bulb or Intercostal Plate, for length	3 1/2	3 1/2	9	3 1/2	3 1/2	9
" Attached to outside plating with Angle						
Spar, or Awning Deck Stringer Plates, breadth and thickness	55		10	55		10
" Angle on ditto	4 1/2	4 1/2	11	4 1/2	4 1/2	11
" Tie Plates, fore and aft, outside Hatchways						
" Diagonal Tie Plates, No. of pairs						
" Deck * <i>Iron</i> Steel, for full length				8.7		8.7
" Wood Deck, Material & thickness				7.6		7.6
Main Deck Stringer Plate, breadth & thickness	55		10	55		10
" Angles on ditto, No. 2	4	4	9.8	4	4	9.8
" Tie Plates, outside Hatchways						
" Diagonal Tie Plates, No. of pairs						
" Deck * <i>Iron</i> Steel, for full length				8.7		8.7
" Wood Deck, Material & thickness						
Lower Deck Stringer Plates, br'dth & thickn's						
" Angles on ditto, No.						
" Tie Plates, outside Hatchways						
" Deck * Material and thickness						
Hold, or Orlop Stringer Plate, br'dth & thickn's						
" Angles on ditto, No.						
" Tie Plates, outside Hatchways						
" Deck. Material and thickness						
Poop Deck Stringer Plate, breadth & thickness	31		7	31		7
" Angles on ditto	3 1/2	3 1/2	7	3 1/2	3 1/2	7
" Tie Plates						
" Deck. Material and thickness						
Bridge Deck Stringer Plate, br'dth & thickness	46		10	46		10
" Angle on ditto	3 1/2	3 1/2	10	3 1/2	3 1/2	10
" Tie Plates						
" Deck. Material and thickness						
Forecastle Deck Stringer Plate, br'dth & th'kns	31		7	31		7
" Angle on ditto	3 1/2	3 1/2	7	3 1/2	3 1/2	7
" Tie Plates						
" Deck. Material and thickness						

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

## BULKHEADS.

	Number.	Thickness.	STIFFENERS.	Single or Double Frames.	Height up.
	In Vessel.	Per Rule.	Horizontal.	Vertical.	
W. T. BULKHEADS	6	6	7.6	7.6	48
PARTITION					
LONGITUDINAL					

Are the outside Plates doubled two spaces of Frames in length? *Double plates.*



PLATING.										RIVETING.																			
AS IN SHIP.					PER RULE OR AS APPROVED.					EDGES.					BUTTS.														
STRAKES.					AMIDSHIP.					RIVETS.					STRAIPS.					IF LAPPED.									
Breadth.					Thickness.					Breadth.					Thickness.					Breadth.					Thickness.				
Inches.					16ths or 20ths.					Inches.					16ths or 20ths.					Inches.					16ths or 20ths.				
FLAT PLATE KEEL										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
GARBOARD OR A STRAKE										BREADTH OF LAP.										RIVETS.									
State actual thickness in way of Double Bottom.										Inches.										Diam.									
B										Inches.										Spacing or to center.									
C										Inches.										Inches.									
D										Inches.										Inches.									
E										Inches.										Inches.									
F										Inches.										Inches.									
G										Inches.										Inches.									
H										Inches.										Inches.									
J										Inches.										Inches.									
K										Inches.										Inches.									
L										Inches.										Inches.									
M										Inches.										Inches.									
N										Inches.										Inches.									
O										Inches.										Inches.									
P										Inches.										Inches.									
Q										Inches.										Inches.									
DOUBLING OF PLATE KEEL										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Length and thickness of Bilge.										Inches.										Diam.									
of Sheerstrakes.										Inches.										Spacing or to center.									
of Strake below.										Inches.										Inches.									
POOP SIDES										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
BRIDGE SIDES										BREADTH OF LAP.										RIVETS.									
FORECASTLE SIDES										Inches.										Diam.									
Manufacturer's name or trade mark of the Iron or Steel (state process of manufacture of Steel) used for Frames, Floors, Beams, Keelsons, Tie and Stringer Plates, Plating, &c.?										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
"Blazon", "Lancashire", "Palmers", "Sigsbee", "Catharine", "Morand", "Blackburn", "Wheat", "Hill & Co. (Iron)"										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
FRAMES extend in one length from										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
REVERSED FRAMES on floors and frames extend from										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
To Floor & Main Strake, in aft peak all to upper strake										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
MASTS, SPARS, &c.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Material.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Total Length										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
At Partners.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Heel.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Hounds.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Head.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
No. of Plates in round.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Number.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Size.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Seams.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Butts.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
LOWER MASTS.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Fore										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Main										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Mizen										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Bowsprit										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Topmasts, Yards and Remainder of Spars										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Rigging, Material and Size, Shrouds										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Sails.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
EQUIPMENT No. 40118 LETTER										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
ANCHORS.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Number of Certificate.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Anchors.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Weight, Ex. Stock										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Weight of Stock										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Test, per Certificate.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Weight Req. by Rule.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Description of Anchor.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Makers.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Where and when tested and Superintendent										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
50198 1st Bower										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
50199 2nd "										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
50197 3rd "										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Collector weight										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
50340 Stream										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
50345 Kedg										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
2nd Kedg										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
CHAIN CABLES.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
HAWERS AND WARPS.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Number of Certificate.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Fathoms.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Size.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Test per Certificate, Tons.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Weight of Chain Cable.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Supplied.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Per Rule.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Fathoms and Size Per Rule.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Description.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
Makers of Cables.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									
When and where tested, and Superintendent.										SINGLE OR DOUBLE.										DOUBLE OR TROUBLE AND FOR WHAT LENGTH.									

**Correspondence.**—State dates and initials of letters respecting this case (*Reference should be made to any correspondence connected with this case*)

7, 23/103, 29/103, 2/203, 6/203, 12/203, 21/203, 25/203, 27/203, 40/203, 26/303, 11/203

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

Is the riveted work properly closed?.....*Yes.*

Are the liners between the frames and plates solid single pieces? *yes.*

to plate, &c., conform well to each other? *Yes.*

from the faying surfaces?.....*Yes.*

Are the butts of Plating, Stringers, &c., properly shifted and strapped? *Yes.*

**General Remarks** (State quality of workmanship, &c.)

The workmanship throughout is good. The vessel has been built in accordance with the approved plans, the Secretary's letter referred to, and in general conformity with the Rules for the class contemplated. This vessel has an installation of Electric Light.

*The Surveyor should state the Number of Report and Name of any Sister Vessel.*

**PARTICULARS FOR RECORD in the REGISTER BOOK.**—Length of Poop 31 ft., R.Q.D. or Break 1 ft., Bridge Dk. 200 ft., F'castle 40 ft.  
(in feet and tenths). When the Poop is joined to the B.D., this should be distinctly stated —

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). *1 Deck (Stl) + 5 span BK (Stl) + deep framing.*

Official No. .... ; Signal Letters

How are the surfaces preserved from oxidation? Inside Portland cement & paint Outside Paint

**PARTICULARS OF WATER BALLAST.**—State whether the Double bottom is constructed on the cellular system *Yes.*

Where fitted.	Length.	Water Capacity.	Where fitted.	Length.	Water Capacity.
	Feet.	Tons.		Feet.	Tons.
Double bottom, aft.	120	279	Fore peak tank.	-	99
Double bottom, forward.	146	378	After peak tank.	-	42
Double bottom, under Engines and Boilers.	-	-	Midship deep tank.	24	540
Double bottom, if under Engines only.	24	72	Other tanks, if fitted.	-	-
Double bottom, if under Boilers only.	-	-	(If necessary, furnish further information by sketch.)	-	-

State whether the above have been tested as required by the Rules.....Yes

Order for Special Survey No.	<u>3615</u>	1st.	On the several parts of the frame, when in place, and before the plating was wrought	1903: Feb 26, Mar 26, 10, 12, 14, 19, 26 Apr. 3, 8, 9, 15, 21, 23, 27, 30 May,
Date	<u>4:2:03</u>	2nd.	On the plating during the process of riveting	5, 9, 12, 15, 9, 20, 26, 28 June 2, 10, 16, 22, 24, 29 July 6, 8, 10, 15, 30 Aug 3, 7
Order for Ordinary Survey No.	<u>✓</u>	3rd.	When the beams were in and fastened, and before the decks were laid	11, 13, 17, 18, 21, 25, 26, 27, 28 Sep 1, 2, 7, 10, 17, 24 Oct 1, 6, 12, 13, 14
Date	<u>✓</u>	4th.	When the ship was complete, and before the plating was finally coated or cemented	
No.	<u>280</u> in builder's yard.	5th.	After the ship was launched and equipped	Total No. of Visits <u>57</u>
Dixes of Surveys held while building as per Section 18.				

The amount of Entry Fee.....£ 5: : 22/10/1903  
Special Survey Fee ...£11: 3/6 Received by me, 27.10.03  
Travelling Expenses, if any £ : : 23/10/1903

I am of opinion this Vessel should be Classed \* 100A1, "Special Deck"  
With, or without Freeboard, as condition of Class Without.

Certificate to be sent to Glasgow  
F. R. Pooton.  
Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute  
Character assigned + *Glasgow 26 OCT 1903*  
*100M (Steel) "Spae dB." Lloyd & Co. S.*  
*When fee is paid*