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Floyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index No. **30921**
(For London Office only.)

-6 MAY 1932

GLASGOW REPORT No. **5 2 4 4 2**

Computation of Freeboard for Steamer, Sailing Ship, Tanker

RAISED QUARTER DECK, BRIDGE and FORECASTLE

(Type of Superstructures.)

Port of Survey **Glasgow**Date of Survey **3rd MAY 1932**Name of Surveyor **A. D. Aitken**Particulars of Classification **+100A.1.****"SAINT ORAN."**Ship's Name
Nationality and Port of Registry
Official Number
Gross Tonnage
Date of Build**British**
Glasgow
147858
233
1923-6Dimensions: Length **122-10"** Breadth **21-6"** Depth **10-3"**
Moored displacement at moulded draught = 85 per cent. of moulded depth **460** tonsCoefficient of fineness for use with Tables **705**

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth 10-25	(a) Where D is greater than Table depth (D - Table depth) R = (10-28 - 8-13) .938 = +2-02	Moulded Breadth (B) 21-5 Standard Round of Beam = $\frac{B \times 12}{50} =$ 5-16 Ship's Round of Beam = 7"
Stringer plate 40" 0-03	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Difference 1-84
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Restricted to
Depth for Freeboard (D) = 10-28		Correction = $\frac{\text{Diff}^\circ}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{1-84}{4} \times .4022 =$ -02

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<i>None</i>				
" overhang	<i>None</i>				
R.Q.D. enclosed	42-5	42-5	3-6"		42-5
" overhang	8-17				
Bridge enclosed <i>Side 89</i>	8-17	8-17	9-3"		8-17
" overhang aft	<i>None</i>				
" overhang forward	<i>None</i>				
File enclosed <i>89</i>	20-38	20-38	6-6"		20-38
" overhang	1-87				1-87
Trunk aft	<i>None</i>				
" forward	<i>None</i>				
Tonnage opening aft	<i>None</i>				
" forward	<i>None</i>				
Total	74-80	72-92			72-92

Standard Height of Superstructure	6-0
" " R.Q.D.	3-15
Deduction for complete superstructure	18-2
Percentage covered $\frac{S}{L} =$	61-31
" " $\frac{S_1}{L} =$	59-78
" " $\frac{E}{L} =$	59-78
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	45-69
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	
Interpolation for bridge less than .2L (if required)	
Deduction = $.4569 \times 18-2 =$	8-32

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	22-20	1		22-20	24-2375	22-20	1		22-20
$\frac{1}{2}$ L from A.P.	9-88	4		39-52	10-948	9-88	4		39-52
$\frac{3}{4}$ L "	2-44	2		4-88	2-237	2-44	2		4-88
Amidships		4					4		
$\frac{1}{4}$ L from F.P.	4-88	2		9-76	3-375	3-75	2		7-50
$\frac{1}{2}$ L "	19-76	4		79-04	14-1501	15-01	4		60-04
F.P.	44-40	1		44-40	33-345	34-50	1		34-50
Total				199-80					168-64

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ **$\frac{31-16}{18} (.75 - .3065) + .77$**

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Mean actual sheer aft = Excess	22-20	1	22-20	23-75	1	23-75
Mean standard sheer aft	9-88	3	29-64	9-48	3	28-44
	2-44	3	7-32	2-37	3	7-11
	0	1	0	0	1	0

Mean actual sheer forward = **Defic**Length of enclosed superstructure forward of amidships = **0**" " aft of " = $\frac{1-87}{122} \times .0153$ **840 actual**
Standard**3-5**
3-15
3-5
12
4-2**length of Super**
no allowanceDeduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.Depth to Freeboard Deck = **10-28**
Summer freeboard = **5-58**
Moulded draught (d) = **9-70**Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **2-42**
Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ **5-28**

Tons per inch immersion at summer load water line

 $T =$ **5-18**Deduction = $\frac{\Delta}{40T}$ inches**2-55 = 2-1/2**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient **705+68****1-36**

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

+ -

2-02**8-32****77****02****-****-****279****834****5-55**Summer Freeboard = **6-88**SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, **Steel**, Deck:—

Tropical Fresh Water Line above Centre of Disc	
Fresh Water Line " "	
Tropical Line " "	
Winter Line below " "	2-1/2
Winter North Atlantic Line " "	

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

Winter North Atlantic

1906 **Freeboards assigned****002109-0048-0016**

Foundation

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECK									
Description of Hatchway	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...
COAMINGS	Height above Deck	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...
	Sides	...	...	...	...	...	...	...	...
	Ends	...	...	...	...	...	...	...	...
	Stiffeners	...	...	...	...	...	...	...	...
Brackets, Stays	...	...	...	...	...	...	...	...	...
HATCH BEAMS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
	FORE AND AFTERS	...	...	...	...	...	...	...	...
HATCH COVERS	Material	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...
	How fitted	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
	Spacing of Cleats	...	...	...	...	...	...	...	...
Number of Tarpaulins	...	...	...	...	...	...	...	...

*Are wood fore and afters steel shod at all bearing surfaces? ☒

Are battens and wedges efficient and in good condition? ☒

Are tarpaulins in good condition and in accordance with rule requirements? ☒

Are lashings provided in accordance with rule requirements? ☒

Particulars of ~~adder~~ funnel and ventilator coamings:— *Engine room skylight of wood strongly constructed.*
No fiddle opening. Ventilators in good condition. Funnel in good condition.

Particulars of ~~adder~~ *Mine Hatches.* Hatch Bunkers Scuttles:—
Hatch to boatwain's store for 24" x 18". Coaming 18" high x 25". Cover 2 3/8" W.P. rest 1 1/2". Cleats 14". Tarpaulins 2.
Coal hatch to cross bunker (on casing top) 11'7" x 4'10". steel hinged flaps 2 1/2" rest. Covers efficiently closed.

Particulars of Companionways:— *Wood companion booby hatch on bridge to chart room 3'3" x 2'6". 9" sill, wood door 1 1/2" thick, strongly constructed.*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—

Deck	Vent to	Coaming	6" dia"	30 thick	Fitted with plugs & covers
Forecastle Deck	Vent to Fore	3'0"	Do.	32	Do.
Freeboard	Do.	3'0"	Do.	32	Do.
Bridge	Do.	2'6"	Do.	30	Do.
Do.	Do.	2'9"	Do.	32	Do.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

Pipe	Location	Dia"	Height	Fitted with plug & cover
1 air pipe	on forecastle deck under breasthook 10" to band	3"	Do.	Do.
1 Do	on R. Q.	2"	Do.	Do.

Particulars of Gangway Cargo and Coaling Ports:—

NONE.



Particulars of Sanitary Discharge Pipes:—
Sanitary Discharge Pipes. Three gunwale only and above freeboard deck.
From W.C.S. under forecastle deck. Discharges above freeboard deck, fitted with N.R. Valve.
Particulars of Side Scuttles:— In forecastle only. No deadlights fitted. 7" glass.
No sidelights below freeboard or raised quarter Deck. ✓
Particulars of Guard Rails:— Forecastle Dk. 3'-1" high fitted with 2 rods. Stanchions about 5'-0" apart. ✓
In well. steel bulwark 3'-9½" high. 30 plate. stays 6"x37 bulb plate about 5'-3" apart. ✓
Bridge. steel bulwark 3'-8" Do. 30 Do. ✓
R. Q. D. Do. 2'-9½" Do. 30 Do. stays 6"x37 bulb plate about 5'-0" apart. ✓

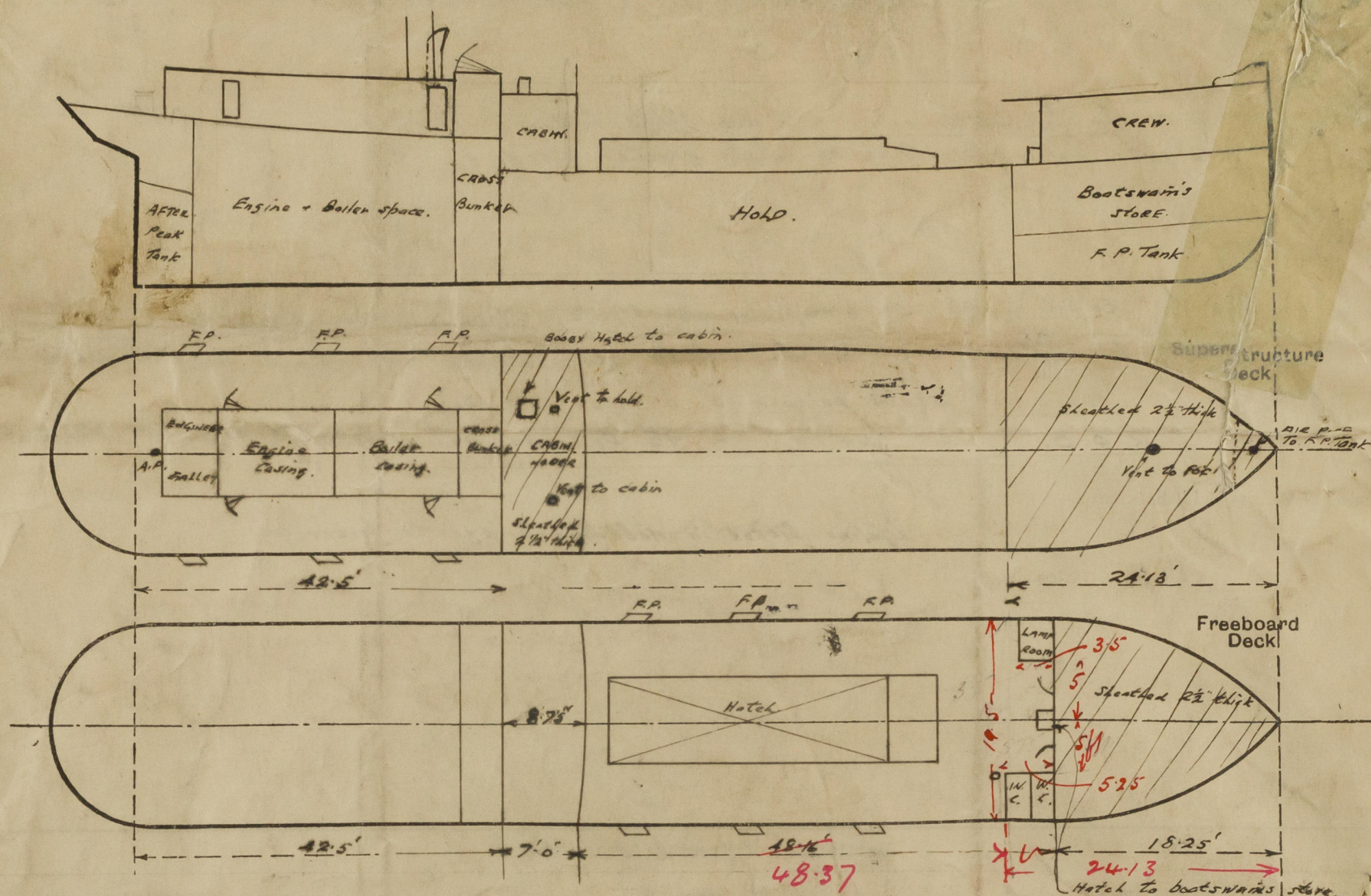
Particulars of Gangways, Lifelines, etc.:—
Lifeline fitted in hall from bridge to forecastle. ✓
A gangway fitted over the hatchway and a lifeline with stanchions stepped in. Rackets run to the hatchway coaming.

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Raised Quarter Dk. After Well	42'-6"	33½"	36" x 18"	3.	13.5 sq ft	10.75 sq ft ✓
Forward Well	48'-2"	45½"	38" x 24"	3.	18.96 sq ft	11.25 sq ft ✓
State position of each freeing port (F. and A. position and height above deck edge) } R.Q.D. From BRIDGE AFT Bulkhead. to Centre. 6'-10". 19'-4". 33'-8". 3" above. After Well: From Do. Forp. Do. 5'-0". 17'-1". 30'-1". 9½" Do. State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Fitted with hinged shutters. 10 on R.Q.D. 2 bars. Forp Well.						
Additional area where sheer is less than standard.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	✓							
Raised Quarter Deck Bulkhead	✓	26	5½ x 3 x 30 bulb angle.	30	Scrapped to coak bulker casing stiff.	None	✓	3'-6"
Bridge, After Bulkhead	✓	30	5 x 3 x 30 Bulb Angle.	30.	Lugs top & bottom.	None	✓	9'-3"
Bridge, Forward Bulkhead	✓	26	2½ x 2½ x 26	27½.	None.	4'-6" x 2'-0"	15"	6'-8½"
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	✓	38	3 x 2½ x 28.	30"	To Ground base.	4'-5½ x 21"	18	6'-6"
Exposed Machinery Casings on Superstructure Decks	✓							
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓							
Deckhouses on Flush Deck Ships	✓							

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	✓
Raised Quarter Deck Bulkhead	NONE. ✓
Bridge, After Bulkhead	NONE. ✓
Bridge, Forward Bulkhead	NONE. ✓
Forecastle Bulkhead	WOOD DOORS 1½" Thick. operated from both sides. ✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	STEEL DOORS IN HALVES. Do. Do. Do. ✓
Exposed Machinery Casings on Superstructure Decks	✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓
Deckhouses on Flush Deck Ships	✓

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, galley, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shown on the following sketches:—



State any special features in the construction of the ship:—

This vessel is employed in the coasting trade and is at present under survey for S.S. No. 2. No timber freeboard required.

Full displacement at 10' 0" draft, 507 tons, T.M., 5.15. Tons.

Do. 11' 0" do 569 do. do. 5.24. do.

Bridge

8.75

7.00

175

2

350

117

7.00

8.17

Equal Bll^o Yole

4.75 + 3.5 = 16.62

+ 4.75 + 5.25

24.90

41.52

19.5

+ 18.25

30.38

Total length 24.13

20.38

overhang

3.75

Builder's name and yard number Scott & Sons, Bonning. No 292.

Names of sister ships "S^e MODAN." Same builders No 218.

Owners J. & A. GARDNER & Co. L^d.

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Received by me



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