

Rpt. Q.11.

Index. No. 31623
(For London Office only.)Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

GREENOCK REPORT N° 19421

Computation of Freeboard for Steamer, ~~Sailing Ship~~, Tanker
having Raised quarter deck, bridge & forecastle.

(Type of Superstructures.)

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
MINARD	BRITISH GLASGOW	148,887	241 ✓	1926 1

Moulded Dimensions: Length 143 ✓ Breadth 25 ✓ Depth 10' 3" ✓
Moulded displacement at moulded draught = 85 per cent. of moulded depth 497 tons
Coefficient of fineness for use with Tables .559. Use .68. ✓

Port of Survey Greenock
Date of Survey July 18th 1932
Name of Surveyor Kenneth Inglis.
Particulars of Classification +100A.1. FOR COASTING PURPOSES- IRISH SEA LONDONDERRY & STORNOWAY. SS&K No. 1-30

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>10' 25"</u> ✓	(a) Where D is greater than Table depth (D - Table depth) R = <u>(10' 33" - 9' 53") 1.100</u> <u>.80 x 1.1 = .880</u> ✓	Moulded Breadth (B) <u>25'</u> Standard Round of Beam = $\frac{B \times 12}{50} = \frac{6}{50} = \frac{6}{5}$ Ship's Round of Beam = <u>$\frac{6}{4}$</u> ✓ Difference <u>.25</u> ✓ Restricted to Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{.25}{4} \times (1 - \frac{.3900}{1}) = \frac{.25}{4} \times .61 = .02$ ✓
Stringer plate <u>.40"</u> <u>.03</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = .21 \left(\frac{.244}{1} \right) = .05$ ✓	If restricted by superstructures	
Depth for Freeboard (D) = <u>10' 33"</u> ✓		

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed						Standard Height of Superstructure <u>6.0</u>
" overhang						" " R.Q.D. <u>3.29</u> ✓
R.Q.D. enclosed	<u>53'</u>	<u>53.00</u>	<u>3-6</u>		<u>53.00</u>	Deduction for complete superstructure <u>20.3</u> ✓
" overhang	<u>32.5</u>					Percentage covered $\frac{S}{L} = \frac{75.86}{124} = .61$ ✓
Bridge enclosed...Not ...	<u>35</u>	<u>16.25</u>	<u>7-0</u>		<u>16.25</u>	" " $\frac{S_1}{L} = \frac{61.00}{124} = .49$ ✓
" overhang aft						" " $\frac{E}{L} = \frac{61.00}{124} = .49$ ✓
" overhang forward ...						Percentage from Table, Line A. <u>47.70</u> ✓ (corrected for absence of forecastle (if required))
Fore enclosed	<u>11' 9"</u>	<u>11.75</u>	<u>7-0"</u>		<u>11.75</u>	Percentage from Table, Line B. <u>6.23</u> ✓ (corrected for absence of forecastle (if required))
" overhang	<u>11' 3"</u>	<u>6.23</u>	<u>7-0"</u>		<u>6.23</u>	Interpolation for bridge less than .2L (if required)
Trunk aft						Deduction = <u>9.48</u> ✓
" forward						
Tonnage opening aft ...						
" " forward						
Total	<u>108.50</u>	<u>87.23</u>			<u>87.23</u>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual sheer aft	Mean standard sheer aft
A.P.	<u>24.30</u>	1		<u>24.30</u>	<u>18</u>	<u>18.00</u>	1		<u>18.00</u>	Mean actual sheer forward = <u>Deficient</u> Mean standard sheer forward = <u>Deficient</u>	
$\frac{1}{8}$ L from A.P.	<u>10.82</u>	4		<u>43.28</u>	<u>7.9</u>	<u>7.90</u>	4		<u>31.60</u>		
$\frac{2}{8}$ L "	<u>2.67</u>	2		<u>5.34</u>	<u>1.97</u>	<u>1.97</u>	2		<u>3.94</u>	Length of enclosed superstructure forward of amidships = " " aft of " =	
Amidships		4		<u>0</u>	<u>0</u>	<u>0</u>	4		<u>0</u>		
$\frac{3}{8}$ L from F.P.	<u>5.34</u>	2		<u>10.68</u>	<u>3.95</u>	<u>3.95</u>	2		<u>7.90</u>	Mean actual sheer aft = <u>Deficient</u> Mean standard sheer aft = <u>Deficient</u>	
$\frac{4}{8}$ L "	<u>21.63</u>	4		<u>86.52</u>	<u>15.8</u>	<u>15.80</u>	4		<u>63.20</u>		
F.P.	<u>48.60</u>	1		<u>48.60</u>	<u>36</u>	<u>36.00</u>	1		<u>36.00</u>	If limited on account of midship superstructure. If limited to maximum allowance of 1½ ins. per 100 ft.	
Total				<u>218.72</u>					<u>160.64</u>		
Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{218.72 - 160.64}{18} \left(.75 - \frac{.3900}{2} \right) = \frac{58.08}{18} \left(.75 - .195 \right) = \frac{58.08}{18} \times .555 = 1.80$ ✓											

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard.	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 588$ Tons per inch immersion at summer load water line $T = 6.32$ Deduction = $\frac{\Delta}{40T}$ inches $= \frac{588}{40 \times 6.32} = 2.33$	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient <u>.68</u> Depth Correction Deduction for superstructures Sheer correction Round of Beam correction Correction for Thickness of Deck amidships Other corrections, scantlings, etc.	14.59. 14.59. j.m.m. 26.7-32 5.72 5.95 Summer Freeboard = <u>8.87</u>
Depth to Freeboard Deck = <u>10.49</u> Summer freeboard = <u>.73</u> Moulded draught (d) = <u>9.76</u> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = $\frac{9.76}{4} = 2.44 = 2\frac{1}{2}$ Addition for Winter North Atlantic Freeboard (if required) =			

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—

Fresh Water Line	above Centre of Disc	0-2½	Fresh Water	0-2½
Tropical Line	"	"	"	"
Winter Line	below	0-2½	Winter	0-2½
Winter North Atlantic Line	"	"	"	"

2 passenger line to be added 3" below the Centre
or from Bot. T. 30/1/32

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway	No 1.	No 2.						
Dimensions of Hatchway	Upper Dk	Port QRT Dk						
COAMINGS	Height above Deck	...	12" Above Wood Deck							
	Thickness	Sides	.40	.40						
	Stiffeners	Ends	.40	.40						
	Brackets, Stays	...	NONE							
HATCH BEAMS	Number	...	No							
	Spacing	...	HATCH							
	Scantling and Sketch	...	BEAMS							
	Bearing Surface	...								
FORE AND AFTERS	Number	...	ONE	ONE						
	Spacing	...	3'-4 1/2"	3'-4 1/2"						
	Unsupported Lengths	...	10'-0"	10'-0"						
	Scantling* and Sketch	...	8 1/2" x 8"	8 1/2" x 8"						
HATCH COVERS	Bearing Surface	...	3"	3"						
	Material	...	WOOD	WOOD						
	Thickness	...	2 1/2"	2 1/2"						
	How fitted	...	ATHWARTSHIPS							
Spacing of Cleats			24	24						
Number of Tarpaulins			2	2						
*Are wood fore and afters steel shod at all bearing surfaces? YES. Are battens and wedges efficient and in good condition? YES. Are tarpaulins in good condition and in accordance with rule requirements? YES Are lashings provided in accordance with rule requirements? YES. STEEL LOCKING BARS ON NO 1 HATCH										

Particulars of fiddle, funnel and ventilator coamings:—

- ✓ Stakehold gratings covered by strong hinged steel covers.
- ✓ Fiddle, funnel & ventilators in efficient condition.
- ✓ Engine skylight of steel strongly constructed.

Particulars of Flush Bunker Scuttles:—

- ✓ One scuttle on bridge deck Port & Starboard of cast steel fitted with bayonet joints
- ✓ Two scuttles on upper deck in alleyway Port & Starboard of cast steel fitted with bayonet joints
- ✓ no chain attachments.

Particulars of Companionways:—

- ✓ One steel companion 3'-0" x 2'-6" under fore-castle deck to seamen's quarters, fitted with strong wood door
- ✓ 4'-9" x 22" with 16" coaming above wood deck.
- ✓ One steel companion 7'-0" x 2'-6" on raised quarter deck to officers accommodation, substantially constructed,
- ✓ fitted with wood door 4'-9" x 22" of substantial construction with coaming 16" above wood deck.

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

- ✓ 1 Vent on fore deck. 6" dia coaming 18" x 30 to seamen's quarters.
 - ✓ 1 Vent " " 5" " 18" x 30 to firemen's quarters.
 - ✓ 1 " " R.Q. " 6" " 18" x 30 to tunnel.
- All vents constructed in accordance with the rules & the coamings closed with wood plugs & canvas covers.

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

- ✓ One 2" air pipe from fore peak tank, led through firemen's quarters & led to fore-castle bulkhead 12" above deck.
 - ✓ Two 2" air pipes on R.Q. deck, from double bottom tanks. 2'-10" high.
 - ✓ Two 2" air pipes on upper deck under bridge, from double bottom tanks. 30" high above wood deck.
- air pipes fitted with wood plugs.

Particulars of Gangway Cargo and Coaling Ports:—

None.



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Particulars of Scuppers and Sanitary Discharge Pipes —

angled bar cut for all scuppers from freeboard & raised quarter decks.

sanitary discharge pipes fitted with C.S. non-return valves at ship's side & efficient trap at inner end. —

Particulars of Side Scuttles:

Side scuttles below freeboard & raised quarter deck of substantial construction & fitted with hinged deadlights.

Side scuttles in fore & bridge of substantial construction but not fitted with deadlights. ✓

Particulars of Guard Rails:—

Rails with 4 rods & stanchions 4' apart. Height of rails 3'-6".

Well & bulwark 5' high with round iron stays 5 ft apart.

Quarter deck & bulwark. 3'-9" high with round iron stays about 5 ft apart.

Fore & bulwark. 3'-6" high with portable open rails in way of gangway. —

Particulars of Gangways, Lifelines, etc.:—

An efficient gangway fitted to allow crew to proceed to their quarters.

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Star Well	53'	3'-9"	30" x 18"	2	7.50	11.80
Forward Well	31'-3"	5'-0"	30" x 18"	3	11.25	9.63

State position of each freeing port

(F, and A. position and height above deck edge)

After Well:— 4' & 20' aft of aft end of bridge.

Forward Well:— 8' ft of Br. front: 7' aft of Br. front & 30' aft of Br. front.

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:—

Forward well fitted with hinged shutters & one rod.

After well open with two rods.

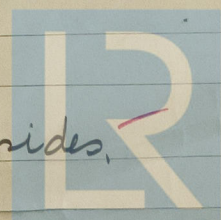
Additional area where sheer is less than standard.

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 ...	✓	30	5 1/2 x 3 x 40 BA	21"	None. continuous to W. T. Bulkhead.	None.	✓	✓
Bridge, After Bulkhead		30	do.	21"	Continuous from W. T. Bulkhead below.	Open stairway.	6" at R.Q.D.	✓
FORE END OF CASING		30	5 1/2 x 3 x 35 BA	30"		Open stairway.		
Bridge, Forward Bulkhead		30	5 1/2 x 3 x 35 BA	30"		Open stairway.		
Forecastle Bulkhead	25	25	3 x 3 x 30	30	None.	4'-9" x 22"	16" above deck	7'-0"
Trunk, Aft ✓								
Trunk, Forward ✓								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	30	25	3 1/2 x 3 x 25	21"	Back at top none at bottom	4'-9" x 21"	17" above wood	7'-0"
Exposed Machinery Casings on Superstructure Decks	✓	30	3 1/2 x 3 x 25	21"	Back at top	None.	None	18"
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 ...	No openings.
Bridge, After Bulkhead	Open stairway 24" wide. ✓
Bridge, Forward Bulkhead	Open bridge front. ✓
Forecastle Bulkhead	wood door, substantial construction; manipulated from both sides. ✓
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ... ✓	
Exposed Machinery Casings on Superstructure Decks	No openings.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	steel doors, manipulated from both sides. ✓
Deckhouses on Flush Deck Ships ... ✓	

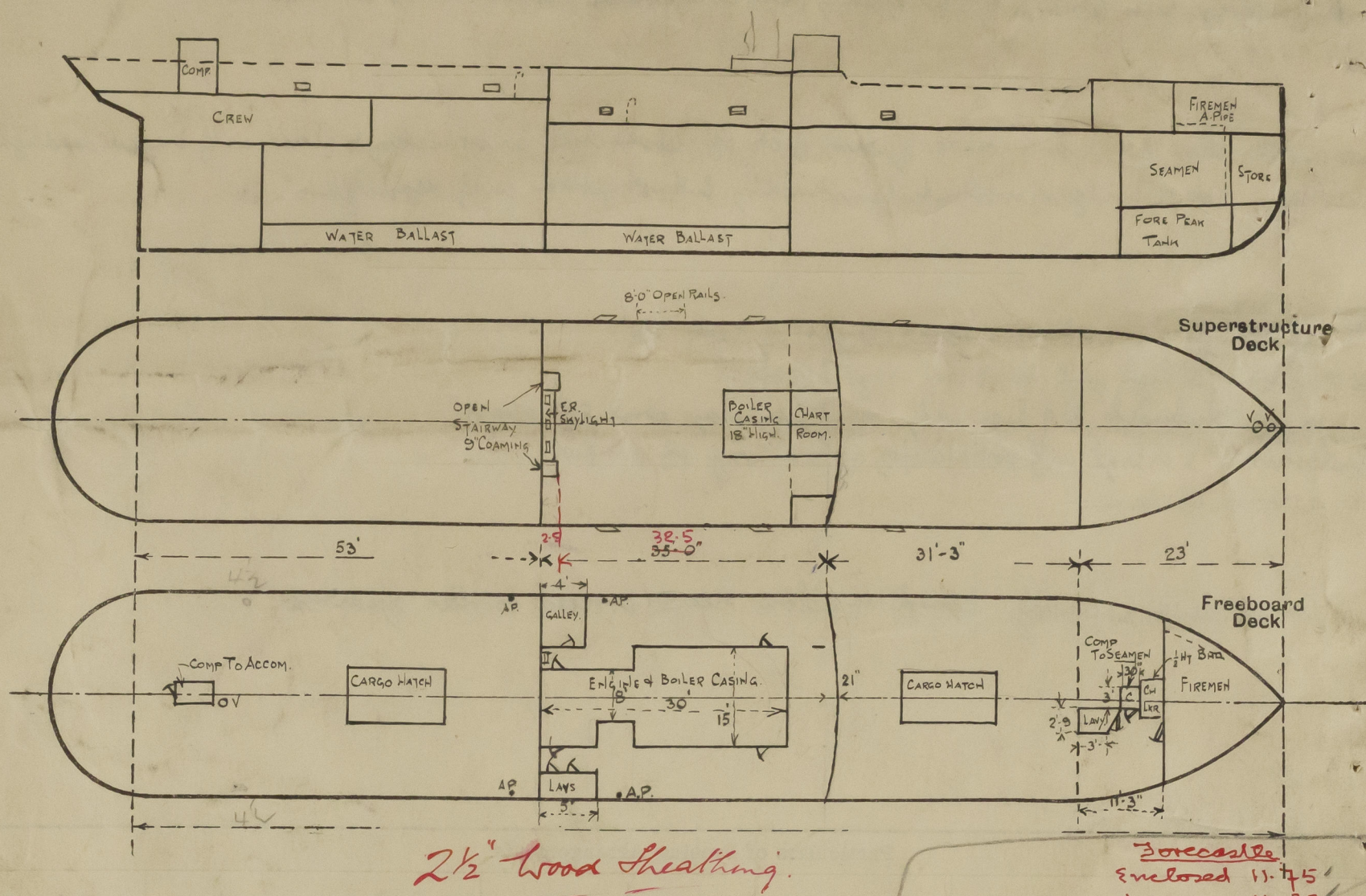


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Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the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



Forecastle
 Enclosed 11.75
 IL = 14.30
 2.55
 Sheer forward 73.547
 allowed 1.88
 Overhang 11.25 - 2.55 = 8.70
 4.35
 10.58.6.23

State any special features in the construction of the ship.

Vessel classed for coasting purposes - Irish sea - Londonderry & Stromoway.
 Vessel surveyed in dry dock.

external displacement at extreme draught of 9 feet = 486 tons. tons per inch = 6.12.
 " " " " " 10 " = 560 " " " = 6.32

Builder's name and yard number *Scott & Sons, Bowling, No 305.*

Names of sister ships ☒

Owners *Clyde Cargo Steamers Ltd (J.D. Rodger)*

Fee *3 : 8 : 0* Received by me *[Signature]*



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