

Basic computation to scantling purposes only
C.S.S.
Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
 (COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index No. **36834**
 (For London Office only).

Ship's Name <i>Greenock Ship Co. Ltd</i> <i>Mar No 454</i>	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length <i>470.5</i> ✓ Breadth <i>65.5</i> ✓ Depth <i>32.38</i> ✓ <i>Actual freeboard</i>					Date of Survey <i>20-4-42</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth					Surveyor's Signature
Coefficient of fineness for use with Tables <i>68 (actual: len) ✓</i>					Particulars of Classification <i>wood with fuel tank (Contemplated)</i>

Depth for Freeboard (D). Moulded depth ... ✓ <i>32.38</i> Stringer plate ... ✓ <i>.04</i> Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <i>32.38</i>	Depth correction. (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(32.38 - 31.36) 3 = + 3.06$ (b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$ If restricted by superstructures	Round of Beam correction. Moulded Breadth (B) Standard Round of Beam = $\frac{B \times 12}{50} =$ Ship's Round of Beam = Difference <i>assumed 8 inches</i> Restricted to Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) =$ <i>Nil</i>
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
„ overhang ...					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...					
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed ...					
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total ...					

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Standard Height of Superstructure <i>7.5</i>	
„ „ R.Q.D. <i>42</i> ✓	
Deduction for complete superstructure	
Percentage covered $\frac{S}{L} =$	
„ „ $\frac{S_1}{L} =$	<i>100.2</i>
„ „ $\frac{E}{L} =$	
Percentage from Table, Line A. <i>100.2</i> ✓	
(corrected for absence of forecastle (if required))	
Percentage from Table, Line B.	
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction = <i>42 x 1.0 = -42.0</i> ✓	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...		1					1		
$\frac{1}{4}$ L from A.P. ...		4					4		
$\frac{2}{4}$ L „ ...		2					2		
Amidships ...		4					4		
$\frac{2}{4}$ L from F.P. ...		2					2		
$\frac{1}{4}$ L „ ...		4					4		
F.P. ...		1					1		
Total ...									

assumed standard

Mean actual sheer aft =	
Mean standard sheer aft =	
Mean actual sheer forward =	
Mean standard sheer forward =	
Length of enclosed superstructure forward of amidships =	
„ „ aft of „ =	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - \frac{S}{2L}}{2L} \right) =$ *-50* ✓

If limited on account of midship superstructure.

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

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *32.38*
 Summer freeboard = *4.51*
 Moulded draught (d) = *27.87*
 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches =
 Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta =$
 Tons per inch immersion at summer load water line
 $T =$
 Deduction = $\frac{\Delta}{40T}$ inches =

TABULAR FREEBOARD corrected for Flush Deck (if required)
 Correction for coefficient

	+	-
Depth Correction ...	<i>3.06</i>	
Deduction for superstructures ...		<i>42.00</i> ✓
Sheer correction ...		<i>.50</i> ✓
Round of Beam correction ...		
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc. ...	<i>1.8</i>	
	<i>3.06</i>	<i>42.50</i>
Summer Freeboard =		<i>54.01</i>

93.45 ✓
93.45 ✓
52.8
20.42
3.2
44

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

Tropical Fresh Water Line above Centre of Disc ...
 Fresh Water Line „ „ ...
 Tropical Line „ „ ...
 Winter Line below „ „ ...
 Winter North Atlantic Line „ „ ...

Tropical Fresh Water Freeboard ...
 Fresh Water „ „ ...
 Tropical „ „ ...
 Winter „ „ ...
 Winter North Atlantic „ „ ...