

Basic Computation for Scantlings purposes only
as F.S. Ship (50% erection)

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 Bay. Co. Ltd.</i> <i>Maid No 454</i>	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length <i>470.9</i> Breadth <i>65.5</i> Depth <i>assumed 40.38</i> <i>(actual 40.251)</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>696 (estimated)</i>					Particulars of Classification <i>100% with freedom (complete)</i>

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... <i>40.38</i>	(a) Where D is greater than Table depth (D - Table depth) R = <i>(40.44 - 31.39) x 3 = 27.15</i>	Moulded Breadth (B)
Stringer plate ... <i>.06</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam =
Depth for Freeboard (D) = <i>✓ 40.44</i>		Difference <i>assumed standard</i>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ <i>Nil.</i>

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 ...					

assumed 50%

Standard Height of Superstructure *7.5* ✓
 „ „ R.Q.D. ✓
 Deduction for complete superstructure *42* ✓
 Percentage covered $\frac{S}{L} =$
 „ „ $\frac{S_1}{L} =$ } *50%* ✓
 „ „ $\frac{E}{L} =$
 Percentage from Table, Line A.
 (corrected for absence of forecastle (if required))
 Percentage from Table, Line B. *36*
 (corrected for absence of forecastle (if required))
 Interpolation for bridge less than 2L (if required)
 Deduction = *42 x 36 = -15.12* ✓

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...		1				1	
$\frac{1}{8}L$ from A.P. ...		4				4	
$\frac{2}{8}L$ „ ...		2				2	
Amidships ...		4				4	
$\frac{2}{8}L$ from F.P. ...		2				2	
$\frac{1}{8}L$ „ ...		4				4	
F.P. ...		1				1	
Total ...							

assumed standard

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) =$ *Nil*
 If limited on account of midship superstructure.

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 „ =

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 = <i>✓ 40.44</i> Summer freeboard = <i>✓ 8.89</i> Moulded draught (d) = <i>✓ 31.55</i> 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 $\frac{696 + .08}{1.36} = \frac{1.376}{1.36}$ <table border="1"> <thead> <tr> <th></th> <th>+</th> <th>-</th> </tr> </thead> <tbody> <tr><td>Depth Correction ...</td><td><i>27.15</i></td><td></td></tr> <tr><td>Deduction for superstructures ...</td><td></td><td><i>15.12</i></td></tr> <tr><td>Sheer correction ...</td><td></td><td></td></tr> <tr><td>Round of Beam correction ...</td><td></td><td></td></tr> <tr><td>Correction for Thickness of Deck amidships ...</td><td></td><td></td></tr> <tr><td>Other corrections, scantlings, etc. ...</td><td></td><td></td></tr> <tr><td>Summer Freeboard =</td><td><i>27.15</i></td><td><i>15.12</i></td></tr> </tbody> </table>		+	-	Depth Correction ...	<i>27.15</i>		Deduction for superstructures ...		<i>15.12</i>	Sheer correction ...			Round of Beam correction ...			Correction for Thickness of Deck amidships ...			Other corrections, scantlings, etc. ...			Summer Freeboard =	<i>27.15</i>	<i>15.12</i>
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93.57 ✓
94.66 ✓
8.89 ✓
106.69 ✓

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

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