

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No.
(For London Office only).

Ship's Name S.S. "SUMMIT I"	Official Number 659	Nationality and Port of Registry LIBERIAN MONROVIA	Gross Tonnage 7875	Date of Build 1941-9	Port of Survey Santos
Moulded Dimensions: Length 450' - 0" Breadth 63' - 6" Depth 34' - 6"					Date of Survey 4th and 5th September, 1956
Moulded displacement at moulded draught = 85 per cent. of moulded depth: 17290 tons					Surveyor's Signature <i>[Signature]</i>
Coefficient of fineness for use with Tables .722					Carrying Petroleum in Bulk Particulars of Classification + 100 A 1

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... 34' .6"	(a) Where D is greater than Table depth (D—Table depth) R= (34.565 - 30) 3 = 13.695	Moulded Breadth (B) 63' - 6"
Stringer plate78"	(b) Where D is less than Table depth (if allowed) (Table depth—D) R= 4.565	Standard Round of Beam = $\frac{B \times 12}{50} =$ 15.24"
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = 16"
Depth for Freeboard (D) = 34.565		Difference 0.76
		Restricted to .76/4 (1 - .313)
		Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) =$.1295

DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	103.00	8'-0"		103.00
" overhang ...				
R.Q.D. enclosed ...				
" overhang ...				
Bridge enclosed ...	40.00	7'-10"		40.00
" overhang aft ...				
" overhang forward ...				
F'cle enclosed OPEN ...	36.25	7'-9"		24.74
" overhang ...				
Trunk aft ...				
" forward ...				
Tonnage opening aft ...				
" forward ...				
Total ...	179.25	143.00		167.74

Standard Height of Superstructure **7.5**
" " R.Q.D.
Deduction for complete superstructure **42**
Percentage covered $\frac{S}{L} =$ **.398**
" " $\frac{S_1}{L} =$ **.313**
" " $\frac{E}{L} =$ **.373**
Percentage from Table, Line A.
(corrected for absence of forecandle (if required))
Percentage from Table, Line B. **Tanker 28.26**
(corrected for absence of forecandle (if required))
Interpolation for bridge less than .2L (if required)
Deduction = **.2826 X 42 = 11.87**

SHEER CORRECTION.

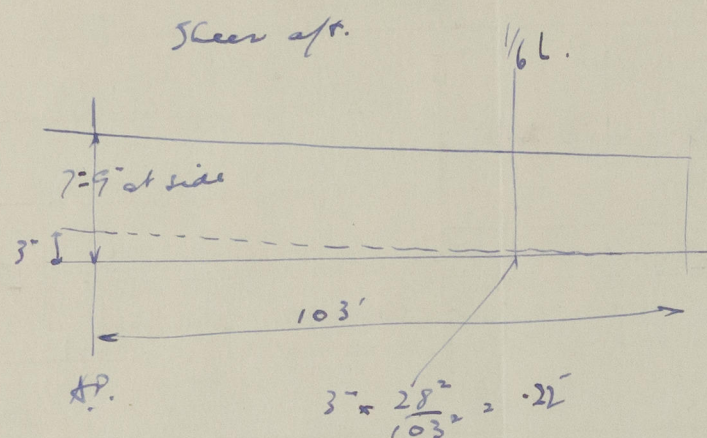
Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	55.00	1		55.00	44"	47.00	1		47.00
1/2L from A.P. ...	24.47	4		97.88	12"	12.25	4		49.00
1/2L " ...	6.05	2		12.10	0"	0	2		0
Amidships ...	0	4		0	0"	0	4		0
1/2L from F.P. ...	12.10	2		24.20	2"	2.00	2		4.00
1/2L " ...	48.90	4		195.60	30"	30.00	4		120.00
F.P. ...	110.00	1		110.00	104"	104.00	1		104.00
Total ...				494.78					324.00

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{170.78}{18} (.75 - .199) = + 5.223$
If limited on account of midship superstructure. **.551**
If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	75.10
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient. $\frac{.722 + .68}{1.36} = 1.031$	77.43
Depth to Freeboard Deck = 34.57	$\Delta =$ 16.182 T.		
Summer freeboard = 7.02	Tons per inch immersion at summer load water line	Depth Correction ... 13.70 -	
Moulded draught (d) = 27.55	T = 56.22	Deduction for superstructures ... 11.87 -	
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40T}$ inches = 7 1/4"	Sheer correction ... 5.22 -	
Winter freeboard = $\frac{d}{4}$ inches = 6.887		Round of Beam correction13 -	
Addition for Winter North Atlantic Freeboard (if required) = 4.5	16182 40 X 56.22 = 7.19	Correction for Thickness of Deck amidships ... -	
		Other corrections, scantlings, etc. ... -	
		18.92 12.00 + 6.92	
		Summer Freeboard = 84.35	

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—			
Tropical Fresh Water Line above Centre of Disc	14 1/4"	Tropical Fresh Water Freeboard	5-10
Fresh Water Line	7 1/4"	Fresh Water	6-5
Tropical Line	7"	Tropical	6-5 1/4
Winter Line below	7"	Winter	7-7 1/4
Winter North Atlantic Line	11 1/2"	Winter North Atlantic	7-11 3/4

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.



Effective length of forecath:

Actual Sheer		
0	1	0
2	3	6
30	3	90
104	1	104
		200

Standard Sheer.		
0	1	0
12.1	3	36.3
48.9	3	146.7
110	1	110
		293.0

Fore 36.25 x $\frac{200}{293}$ = 24.74.

Trade of ship.....

Names of sister ships.....

Builder's name and yard number.....

Owners.....

Fee £.....



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Foundation