

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 dept. 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 = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right) =$.1295

DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	Standard Height of Superstructure
Poop enclosed	103.00	8'-0"		103.00	7.5
" overhang					" " R.Q.D.
R.Q.D. enclosed					Deduction for complete superstructure 42
" overhang					Percentage covered $\frac{S}{L} =$.398
Bridge enclosed	40.00	7'-10"		40.00	" " $\frac{S_1}{L} =$.313
" overhang aft					" " $\frac{E}{L} =$.373
" overhang forward					Percentage from Table, Line A. (corrected for absence of forecastle (if required))
Fore enclosed OPEN	36.25	7'-9"		24.74	Percentage from Table, Line B. Tanker 28.26 (corrected for absence of forecastle (if required))
" overhang					Interpolation for bridge less than .2L (if required)
Trunk aft					Deduction = .2826 X 42 = 11.87
" forward					
Tonnage opening aft					
" " forward					
Total	179.25			167.74	

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

Mean actual sheer aft =)
Mean standard sheer aft =) **Deficient**

Mean actual sheer forward =)
Mean standard sheer forward =)

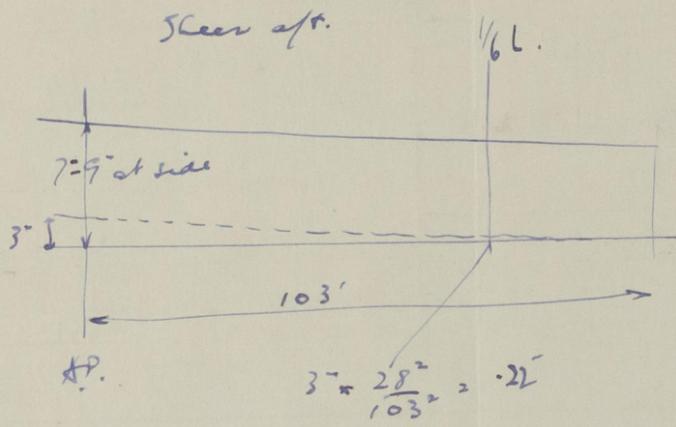
Length of enclosed superstructure forward of amidships =
" " aft of " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{170.78}{18} (.75 - .199) = + 5.223$
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. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 34.57 Summer freeboard = 7.02 Moulded draught (d) = 27.55 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.887 Addition for Winter North Atlantic Freeboard (if required) = 4.5	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ 16.182 T. Tons per inch immersion at summer load water line $T =$ 56.22 Deduction = $\frac{\Delta}{40T}$ inches = 7.19	TABULAR FREEBOARD corrected for Flush Deck (if required) 75.10 Correction for coefficient. $\frac{.722 \downarrow .68}{1.36} = 1.031$ 77.43 <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align: center;">+</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Depth Correction</td> <td style="text-align: center;">13.70</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Deduction for superstructures</td> <td style="text-align: center;">-</td> <td style="text-align: center;">11.87</td> </tr> <tr> <td>Sheer correction</td> <td style="text-align: center;">5.22</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Round of Beam correction</td> <td style="text-align: center;">-</td> <td style="text-align: center;">.13</td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> </tr> <tr> <td></td> <td style="text-align: center;">18.92</td> <td style="text-align: center;">12.00</td> </tr> <tr> <td></td> <td colspan="2" style="text-align: right;">+ 6.92</td> </tr> <tr> <td></td> <td colspan="2" style="text-align: right;">84.35</td> </tr> </table> Summer Freeboard = 84.35		+	-	Depth Correction	13.70	-	Deduction for superstructures	-	11.87	Sheer correction	5.22	-	Round of Beam correction	-	.13	Correction for Thickness of Deck amidships	-	-	Other corrections, scantlings, etc.	-	-		18.92	12.00		+ 6.92			84.35	
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—		7'-0 1/4"
Tropical Fresh Water Line above Centre of Disc ...	14 1/4"	5-10
Fresh Water Line " " ...	7 1/4"	6-5
Tropical Line " " ...	7"	6-5 1/4
Winter Line below " " ...	7"	7-7 1/4
Winter North Atlantic Line " " ...	11 1/2"	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
		<u>200</u>

Standard Sheer.		
0	1	0
12.1	3	36.3
48.9	3	146.7
110	1	110
		<u>293.0</u>

Force $36.25 \times \frac{200}{293} = 24.74$

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £



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Foundation