

# LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

## SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

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Ship's Name <b>"Sumpitan"</b> (SHELT Type VESSEL)	Official Number <b>180378</b>	Nationality and Port of Registry <b>BRITISH SINGAPORE</b>	Gross Tonnage <b>522</b>	Date of Build <b>7/1945</b>	Port of Survey <b>7th May, 1954</b>
Moulded Dimensions: Length <b>140.36'</b> Breadth <b>27.0'</b> Depth <b>18.0'</b>					Surveyor's Signature
Freeboard Length .....					Particulars of Classification <b>B.5.*</b> <b>East Indian Archipelago Service</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>1323</b> tons (excluding bossing)					
Coefficient of fineness for use with Tables <b>.798</b>					

**DEPTH FOR FREEBOARD (D).**

Moulded depth ... .. **18.00**

Stringer plate ... .. **.02**

Wood Sheathing on exposed deck  
 $T \left( \frac{L-S}{L} \right) =$

Depth for Freeboard (D) = **18.02**

**DEPTH CORRECTION.**

(a) Where D is greater than Table depth  
 $(D - \text{Table depth}) R = (18.02 - 9.36) 1.08$   
 $= +9.35''$

(b) Where D is less than Table depth (if allowed)  
 (Table depth - D) R =  $\checkmark$

If restricted by superstructures  $\checkmark$

**ROUND OF BEAM CORRECTION.**

Moulded Breadth (B) **27.00**

Standard Round of Beam =  $\frac{B \times 12}{50} =$  **6.48**

Ship's Round of Beam **6" Straight Camber** = **7.29 (Equiv.)**

Difference **.81**

Restricted to

Correction =  $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{.81}{4} \times .8842 = -.18''$

**DEDUCTION FOR SUPERSTRUCTURES.**

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>i</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..					
" overhang ... ..					
R.Q.D. enclosed ... ..					
" overhang ... ..					
Bridge enclosed <b>OPEN</b> ...	<b>32.5</b>	<b>16.25</b>	<b>7.0'</b>	<b>-</b>	<b>16.25</b>
" overhang aft ... ..					
" overhang forward ... ..					
F'cle enclosed ... ..					
" overhang ... ..					
Trunk aft ... ..					
" forward ... ..					
Tonnage opening aft ... ..					
" " forward ... ..					
Total ... ..	<b>32.5</b>	<b>16.25</b>			<b>16.25</b>

Standard Height of Superstructure **6.00'**

" " R.Q.D.  $\checkmark$

Deduction for complete superstructure **20.04'**

Percentage covered  $\frac{S}{L} =$  **23.16**

" "  $\frac{S_i}{L} =$  **11.58**

" "  $\frac{E}{L} =$  **11.58**

Percentage from Table, Line A.  
 (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) **1.63**

Deduction = **20.04 x .0167 = -.33''**

**SHEER CORRECTION.**

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ... ..	<b>24.04</b>	1	<b>24.04</b>			1	
$\frac{1}{4}L$ from A.P. ... ..	<b>10.70</b>	4	<b>42.80</b>			4	
$\frac{2}{4}L$ " ... ..	<b>2.64</b>	2	<b>5.28</b>			2	
Amidships ... ..	<b>0</b>	4	<b>0</b>	<b>0</b>	<b>0</b>	4	<b>0</b>
$\frac{3}{4}L$ from F.P. ... ..	<b>5.29</b>	2	<b>10.58</b>			2	
$\frac{1}{4}L$ " ... ..	<b>21.39</b>	4	<b>85.56</b>			4	
F.P. ... ..	<b>48.07</b>	1	<b>48.07</b>			1	
Total ... ..			<b>216.33</b>				

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 =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{216.33}{18} (.75 - .1158) = +7.62''$

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 = **18.02**

Summer freeboard = **2.67**

Moulded draught (d) = **15.35**

Keel allowance =

Extreme draught =

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 =  $\frac{\Delta}{40 T}$  inches

**TABULAR FREEBOARD corrected for Flush Deck (if required)**

Correction for coefficient

Depth Correction ... .. **9.35**

Deduction for superstructures ... .. **.33**

Sheer correction ... .. **7.62**

Round of Beam correction ... .. **.18**

Correction for Thickness of Deck amidships ... ..

Other corrections, scantlings, etc. ... ..

**14.25**

**15.49**

**16.97**

**.51**

**+ 16.46**

Summer Freeboard = **31.95**

**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 " " ... ..