

# 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>"SENAI"</b>	Official Number <b>180437</b>	Nationality and Port of Registry <b>BRITISH SINGAPORE</b>	Gross Tonnage <b>522</b>	Date of Build <b>JUNE 1945</b>	Port of Survey .....
Moulded Dimensions: Length <b>140.36</b> Breadth <b>27.0</b> Depth <b>18.0</b>					Date of Survey <b>6th February, 1954.</b>
Freeboard Length <b>140.36</b>					Surveyor's Signature .....
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>1323.</b> tons (excluding bossing)					Particulars of Classification <b>BS * with freeboard "for SERVICE IN EAST INDIAN ARCHIPLAGO"</b>
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-Table depth) R = **(18.02-18.00) 1.080**  
 $= +9.35$

(b) Where D is less than Table depth (if allowed) (Table depth-D) R = **✓**

If restricted by superstructures ✓

**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 (Equid.) = **7.29**

Difference **.81**

Restricted to

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

**DEDUCTION FOR SUPERSTRUCTURES.**

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..					
" overhang ... ..					
R.Q.D. enclosed ... ..					
" overhang ... ..					
Bridge enclosed (OPEN) <b>32.50</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>32.50</b>	<b>16.25</b>			<b>16.25</b>

Standard Height of Superstructure **6.0**

" " R.Q.D. **✓**

Deduction for complete superstructure **20.04.**

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

" "  $\frac{S_1}{L} =$  **11.58**

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

Percentage from Table, Line A.  
 (corrected for absence of forecastle (if required)) **1.67**

Percentage from Table, Line B.  
 (corrected for absence of forecastle (if required))

Interpolation for bridge less than .2L (if required)

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>	<b>1</b>		<b>24.04</b>			<b>1</b>		
$\frac{1}{8}L$ from A.P. ... ..	<b>10.70</b>	<b>4</b>		<b>42.80</b>			<b>4</b>		
$\frac{2}{8}L$ " ... ..	<b>2.64</b>	<b>2</b>		<b>5.28</b>					
Amidships ... ..	<b>0</b>	<b>4</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>		<b>0</b>
$\frac{2}{8}L$ from F.P. ... ..	<b>5.29</b>	<b>2</b>		<b>10.58</b>			<b>2</b>		
$\frac{1}{8}L$ " ... ..	<b>21.39</b>	<b>4</b>		<b>85.56</b>			<b>4</b>		
F.P. ... ..	<b>48.07</b>	<b>1</b>		<b>48.07</b>			<b>1</b>		
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 =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{216.33}{18} \left( .75 - \frac{11.58}{23.16} \right) = +7.62"$

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** Ft.

Summer freeboard = **8.04**

Moulded draught (d) = **9.98**

Keel allowance =

Extreme draught =

Deduction for Tropical freeboard and addition for =

Winter freeboard =  $\frac{d}{4}$  inches = **2.49**  $2\frac{1}{2}$

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

$d \frac{1}{4} \cdot 2\frac{1}{2}"$

**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. To ... .. **64.55**

CORRESPOND TO A SUMMER MOULDED DRAUGHT OF **9'-11 3/4"**

**14.25**

**15.49.**

**8.2.54**

**+ 81.01**

Summer Freeboard = **96.50.**

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

Tropical Fresh Water Line above Centre of Disc ... .. **2 1/2"**

Fresh Water Line " " ... .. **2 1/2"**

Tropical Line " " ... .. **NIL.**

Winter Line below " " ... .. **NOT ASSIGNED.**

Winter North Atlantic Line " " ... .. **NOT ASSIGNED.**

Tropical Fresh Water Freeboard ... .. **7'-10"**

Fresh Water " " ... .. **7'-10"**

Tropical " " ... .. **8'-0 1/2"**

Winter " " ... .. **NOT ASSIGNED**

Winter North Atlantic " " ... .. **NOT ASSIGNED**