

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

Ship's Name <b>T.S.S. MONOWAI</b>	Official Number <b>147816</b>	Nationality and Port of Registry <b>BRITISH WELLINGTON N.Z.</b>	Gross Tonnage <b>10852</b>	Date of Build <b>1925-2</b>	Port of Survey <b>SYDNEY, N.S.W.</b>
Moulded Dimensions: Length <b>499.2'</b> Breadth <b>63.0'</b> Depth <b>46.0'</b>					Date of Survey <b>31-8-48</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth tons					Surveyor's Signature <b>F. V. L. Bink</b>
Coefficient of fineness for use with Tables <b>.72570 (ASSUMED)</b>					Particulars of Classification <b>100 A1 WITH FREEBOARD (6.46)</b>

<b>Depth for Freeboard (D)</b> Moulded depth <b>46.0'</b> Stringer plate <b>.045'</b> Sheathing on exposed deck <b>2 1/2"</b> $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) <b>= 46.25</b>	<b>Depth correction</b> (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(46.25 - 33.28) 3 = + 38.91$ (b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$ If restricted by superstructures <input checked="" type="checkbox"/>	<b>Round of Beam correction</b> Moulded Breadth (B) <b>63.00'</b> Standard Round of Beam $= \frac{B \times 12}{50} = 15.12$ Ship's Round of Beam $= 6$ Difference $= 9.12$ Restricted to Correction $= \frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{9.12^2}{4} = + 2.28$
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## DEDUCTION FOR SUPERSTRUCTURES

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed						Standard Height of Superstructure
" overhang						" " R.O.D.
R.O.D. enclosed						Deduction for complete superstructure
" overhang						Percentage covered $\frac{S}{L} =$
Bridge enclosed						" " $\frac{S_1}{L} =$
" overhang aft						" " $\frac{E}{L} =$
" overhang forward						Percentage from Table, Line A.
F'cle enclosed						(corrected for absence of forecastle (if required))
" overhang						Percentage from Table, Line B.
Trunk aft						(corrected for absence of forecastle (if required))
" forward						Interpolation for bridge less than 2L (if required)
Tonnage opening aft						Deduction = <b>NIL</b>
" forward						
Total						

## SHEER CORRECTION

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual sheer aft	Mean standard sheer aft	
A.P.	59.92	1	59.92	47.64	47.64	1	47.64			} deficient		
1/8 L from A.P.	26.66	4	106.64	16.40	16.40	4	65.60				Mean actual sheer forward	Mean standard sheer forward
2/8 L	6.59	2	13.18	3.50	3.50	2	7.00					
Amidships	-	4	-	-	-	-	4			Length of enclosed superstructure forward of amidships =	NIL	
2/8 L from F.P.	13.18	2	26.36	12	12.00	2	24.00			" " aft of " =	NIL	
1/8 L	53.33	4	213.32	49	49.00	4	196.00					
F.P.	119.84	1	119.84	102	102.00	1	102.00					
Total			539.26				442.24					

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{97.02}{18} \times .75 = + 4.04$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

<b>Deduction for Tropical Freeboard</b> <b>Addition for Winter and Winter North Atlantic Freeboard</b> Depth to Freeboard Deck = <b>46.25</b> Summer freeboard = <b>20.28</b> Moulded draught (d) = <b>26.002</b> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>6.50 = 6 1/2</b> Addition for Winter North Atlantic Freeboard (if required) = <b>✓</b>	<b>Deduction for Fresh Water</b> 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 $=$	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) Correction for coefficient $\frac{.725 + .68}{1.36} = 1.405 / 1.36$ Depth Correction <b>38.91</b> Deduction for superstructures <b>4.04</b> Sheer correction <b>2.28</b> Round of Beam correction <b>84.34</b> Correction for Thickness of Deck amidships <b>129.57</b> Other corrections, scantlings, etc. corresponding to a summer mild draught of <b>26'-0 1/4"</b> Summer Freeboard = <b>242.75</b>	<b>102.06 + 7.49</b> <b>109.56</b> <b>113.18</b> <b>20.9.48</b> <b>+ 129.57</b> <b>242.75</b>
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**SUMMER FREEBOARD** amidships from Centre of Disc to top of Deck Line

Tropical Fresh Water Line above Centre of Disc	12 1/2"	Wood, Deck	20'-2 1/4"
Fresh Water Line	6 1/2"	Tropical Fresh Water Freeboard	19'-2 1/4"
Tropical Line	6"	Fresh Water	19'-8 3/4"
Winter Line	below	Tropical	20'-2 1/4"
Winter North Atlantic Line	✓	Winter	
		Winter North Atlantic	



T.S.S. Monowai.

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.

Note! Bridge section ignored as large plate glass windows are fitted  
in same

Trade of ship.....

Names of sister ships.....

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

Owners.....

19 Fee £.....



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Foundation