

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

Ship's Name "OLINDA"	Official Number 183193	Nationality and Port of Registry BRITISH LONDON	Gross Tonnage 5420 5424	Date of Build 1950	Port of Survey GLASGOW
Moulded Dimensions: Length 420'-0" Breadth 57'-3" Depth 28'-6" TO 2ND DECK 420.65' TO CENTRE OF RUDDER STOCK 38'-0" TO UPPER DECK.					Date of Survey WHILE BUILDING
Moulded displacement at moulded draught = 85 per cent. of moulded depth 12220 tons					Surveyor's Signature <i>Wm. J. J. J. J.</i>
Coefficient of fineness for use with Tables .733					Particulars of Classification 100A.1. WITH FREEBOARD (CLASS CONTEMPLATED)

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 28'-5"	(a) Where D is greater than Table depth (D-Table depth) R = (28.53-28.05)3 = +1.44"	Moulded Breadth (B) 57'-25"
Stringer plate40"	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = .48"	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{57.25 \times 12}{50} = 13.74"$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures ✓	Ship's Round of Beam = 14"
Depth for Freeboard (D) = 28.53		Difference = +26
		Restricted to
		Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{26}{4} \times 0.052 = 0.338$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	56.65'	56.65	8'-0"	✓	56.65
" overhang25'	.13			.13
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	67'	50			50
" overhang aft ...	359.0'	359.00	9'-6"	✓	359.00
" overhang forward ...					
F'cle enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...			1/2 DIFF		
Tonnage opening aft ...	4.08'	2.19	11'-1"		2.19
" " forward ...					
Total ...	420.65	418.47			418.47

Standard Height of Superstructure	7.50'
" " R.Q.D.	✓
Deduction for complete superstructure	42.00"
Percentage covered $\frac{S}{L} =$	100
" " $\frac{S_1}{L} =$	99.48
" " $\frac{E}{L} =$	99.36
Percentage from Table, Line A. & B	99.36
(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)	✓
Deduction = $42 \times 99.36 =$	- 41.73"

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	52.06	1		52.06	72.4	66.00	1		66.00
1/4 L from A.P. ...	23.17	4		92.68	19	29.37	4		117.48
2/4 L " ...	5.73	2		11.46	5	7.26	2		14.52
Amidships ...	-	4		-	-	-	4		-
3/4 L from F.P. ...	11.45	2		22.90	9	11.88	2		23.76
1/4 L " ...	46.34	4		185.36	37	48.06	4		192.24
F.P. ...	104.13	1		104.13	84	108.00	1		108.00
Total ...				468.59					522.00

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{53.41}{18} \left(\frac{.75 - .50}{.25} \right) = - .74"$

If limited on account of midship superstructure. **✓**

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

Actual tween deck height = **9'-0"**

Steel " " " = **7.50**

Mean actual sheer aft = **2.00**

Mean standard sheer aft = **2.24**

Mean actual sheer forward = **1.44**

Mean standard sheer forward = **1.44**

Length of enclosed superstructure forward of amidships = **23.76**

" " aft of " = **192.24**

C.S.S. = **25.10.49**

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard.	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 12860$ Tons per inch immersion at summer load water line $T = 48$ Deduction = $\frac{\Delta}{40 T}$ inches = 6.70 = 6 3/4	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{733 + 68}{1.36} = 1.413$ Depth Correction ... 1.44 Deduction for superstructures ... 41.73 Sheer correction74 Round of Beam correction ... - Correction for Thickness of Deck amidships ... - Other corrections, scantlings, etc. ... - 1.44-42.47-41.03 Summer Freeboard = 40.01
Depth to Freeboard Deck = 28.53		
Summer freeboard = 3.33		
Moulded draught (d) = 25.20		
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.30 = 6 3/4		
Addition for Winter North Atlantic Freeboard (if required) = ✓		

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

Tropical Fresh Water Line above Centre of Disc	13
Fresh Water Line	6 3/4
Tropical Line	6 1/4
Winter Line below	6 1/4
Winter North Atlantic Line	✓

Tropical Fresh Water Freeboard	3'-4"
Fresh Water	2'-3"
Tropical	2'-3 1/4"
Winter	2'-9 3/4"
Winter North Atlantic	3'-10 1/4"

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.

This vessel has been built in accordance with, or equivalent to, the approved plans.

Trade of ship *INDIA AND EAST AFRICA.*

Names of sister ships *"ORMARA", GLASGOW REPORT N^o 71456. SAME BUILDERS N^o 1433, NOW BUILDING.*

Builder's name and yard number *WILLIAM DENNY AND BROTHERS L^o. DUMBARTON. YARD N^o 1432.*

Owners *BRITISH INDIA STEAM NAVIGATION CO. L^o.*

Fee £ *28* . 0 . 0.



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