

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, ~~SAILING SHIP, TANKER.~~)

Ship's Name "LA PAZ" (Ex "ALETTA")	Official Number	Nationality and Port of Registry Panamanian Panama	Gross Tonnage	Date of Build 1927/5.	Port of Survey
Moulded Dimensions: Length 304.62' Breadth 50.0' Depth 19.25'					Date of Survey 20th May, 1955.
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) 5590 tons					Surveyor's Signature
Coefficient of fineness for use with Tables .785					Particulars of Classification +100 A1

DEPTH FOR FREEBOARD (D). Moulded depth ... 19.25 Stringer plate04 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 19.29	DEPTH CORRECTION. (a) Where D is greater than Table depth (D-Table depth) R = (b) Where D is less than Table depth (if allowed) (Table depth-D) R = $(20.31 - 19.29) 2.343 = 2.39$ If restricted by superstructures $\frac{5.50}{6.546} = -2.01$	ROUND OF BEAM CORRECTION. Moulded Breadth (B) 50.0' Standard Round of Beam = $\frac{B \times 12}{50} = 12.00$ Ship's Round of Beam = 12.00 Difference NIL. Restricted to Correction = $\frac{\text{Diff}^c}{4} \times \left(1 - \frac{S_1}{L} \right) = \text{NIL.}$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed (as R.Q.D.)	86.37	86.37	5'6"	✓	86.37
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...					
F'cle enclosed ...	47.04	47.04	7.5	✓	47.04
" overhang ...					
Trunk aft ...		112.82	5.5	5.5	94.82
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	133.41	246.23			228.23

Standard Height of Superstructure **6.546'**
 " " R.Q.D. **✓ 4.728'**
 Deduction for complete superstructure **35.64"**
 Percentage covered $\frac{S}{L} = 43.79$
 " " $\frac{S_1}{L} = 80.82$
 " " $\frac{E}{L} = 74.91$
 Percentage from Table, Line A. & B **69.04** ✓
 (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 = $35.64 \times .6904 = 24.60$ ✓

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	40.46	1	40.46	32.125	36.00	1	36.00
$\frac{3}{8}$ L from A.P. ...	18.00	4	72.00	11.50	13.43	4	53.72
$\frac{3}{8}$ L " ...	4.45	2	8.90	2.375	3.36	2	6.72
Amidships ...	0	4	0	0	0	4	0
$\frac{3}{8}$ L from F.P. ...	8.90	2	17.80	5.375	6.42	2	12.84
$\frac{3}{8}$ L " ...	36.01	4	144.04	25.375	25.67	4	102.68
F.P. ...	80.92	1	80.92	58.875	60.00	1	60.00
Total ...			364.12				271.96

Mean actual sheer aft =
 Mean standard sheer aft =

Mean actual sheer forward =
 Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =
 L

" " aft of " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{92.16}{18} \times \frac{(.75 - .2189)}{2} = +2.72$ ✓
 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 = **19.29**
 Summer freeboard = **2.00**
 Moulded draught (d) = **17.29**
 Keel allowance =

Extreme draught =
 Deduction for Tropical Freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = $4.32 = 4\frac{1}{4}$ inches = **108** ✓

Addition for Winter North Atlantic Freeboard (if required) = $4\frac{1}{4} + 2 = 6\frac{1}{4} = 159$ ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 5996$
 Tons per inch immersion at summer load water line
 $T = 31.8$

Deduction = $\frac{\Delta}{40 T}$ inches
 $= \frac{5996}{40 \times 31.8} = 4.71 = 4\frac{3}{4}$ ✓
 $= 121$ ✓

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

+	-
	2.01
	24.60
2.72	
2.72	26.61
Summer Freeboard = $24.12 = 24$ ✓	

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

Tropical Fresh Water Line above Centre of Disc	229
Fresh Water Line " "	121
Tropical Line " "	108
Winter Line below " "	108
Winter North Atlantic Line " "	159

Tropical Fresh Water Freeboard	610
Fresh Water " "	381
Tropical " "	489
Winter " "	502
Winter North Atlantic " "	718
	769