

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

Ship's Name PINE LAND.	Official Number 182696.	Nationality and Port of Registry BRITISH LEITH.	Gross Tonnage 2759.	Date of Build 1949.	Port of Survey.....
Moulded Dimensions: Length 300.625' Breadth 46.0' Depth 23.28' To & of Rudder Stock.					Date of Survey 4-7-49.
Moulded displacement at moulded draught = 85 per cent. of moulded depth.....tons					Surveyor's Signature.....
Coefficient of fineness for use with Tables.....					Particulars of Classification + 100 A1.

DEPTH FOR FREEBOARD (D).

Moulded depth

Stringer plate

Sheathing on exposed deck

$$T \left(\frac{L-S}{L} \right) =$$

Depth for Freeboard (D) = **23.31.**

DEPTH CORRECTION.

(a) Where D is greater than Table depth
(D-Table depth) R =

$$+ 7.56. /$$

(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)

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

$$\text{Ship's Round of Beam} =$$

Difference

Restricted to

$$\text{Correction} = \frac{\text{Diff}^c}{4} \times \left(1 - \frac{S_1}{L} \right) = + 29.$$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
File enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	128.34	127.16.			127.16.

Standard Height of Superstructure **6.51'**" " R.Q.D. ☒Deduction for complete superstructure **35.37.**

$$\text{Percentage covered } \frac{S}{L} = 42.69.$$

$$\left. \begin{array}{l} \frac{S_1}{L} = \\ \frac{E}{L} = \end{array} \right\} 42.30.$$

Percentage from Table, Line A. **TIMBER.** **64.44**

(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) ☒

$$\text{Deduction} = 35.37 \times 64.44 = 22.79. /$$

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.		1				1	
$\frac{1}{8}L$ from A.P.		4				4	
$\frac{2}{8}L$ "		2				2	
Amidships		4				4	
$\frac{2}{8}L$ from F.P.		2				2	
$\frac{1}{8}L$ "		4				4	
F.P.		1				1	
Total			360.55.				364.50

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{3.95}{18} \left(\frac{.75 - 2/34}{2} \right) = -.12.$$

If limited on account of midship superstructure. ☒Mean actual sheer aft
Mean standard sheer aft =

} EXCESS.

Mean actual sheer forward
Mean standard sheer forward =Length of enclosed superstructure forward of amidships = **7.1L.**" " aft of " = **7.1L.**

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **23.31.**TIMBER, Summer freeboard = **2.46**Moulded draught (d) = **20.85**

Deduction for TIMBER, Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **5.21 = 5 1/4"**

Addition for TIMBER, Winter North Atlantic Freeboard (if

required) = $\frac{d}{3} = 6.95 = 7"$

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

$$= 5 1/4"$$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{1.389}{1.36}$

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

+	-
7.56	-
-	22.79
-	42.
29	-
-	-
-	-
7.85	22.91

Summer Freeboard = **29.43**TIMBER. SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~W~~ Steel, Deck :-

TIMBER

Tropical Fresh Water Line above Centre of Disc ...

Fresh Water Line " "

Tropical Line " "

Winter Line below ABOVE " "

Winter North Atlantic Line " "

22 3/4" 579

17 1/2" 444

17 1/2" 444

5 1/4" 133

7" 178

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

Winter North Atlantic

2 1/2" 21

1 1/2" 7

2 1/2" 21

2 1/2" 21

3 1/2" 21

4 1/2" 21

749

483

66

66

927

1235