

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "LODESTONE"	Official Number 166585	Nationality and Port of Registry BRITISH LONDON	Gross Tonnage 1938	Date of Build 1938	Port of Survey
Moulded Dimensions: Length 410.99 Breadth 56.29 Depth 36'-2"				Date of Survey 4.6.41	
Moulded displacement at moulded draught = 85 per cent. of moulded depth				Surveyor's Signature	
Coefficient of fineness for use with Tables .759 (estimated)				Particulars of Classification +100 A.I. with freeboard.	

Depth for Freeboard (D).		Depth correction.		Round of Beam correction.	
Moulded depth ...	36.17	(a) Where D is greater than Table depth $(D - \text{Table depth}) R = \frac{(36.24 - 35.40) \times 3}{8.84} = +26.52'$		Moulded Breadth (B)	56.29
Stringer plate90	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	= 13.51
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	✓			Ship's Round of Beam	= 13.00
Depth for Freeboard (D) =	36.24	If restricted by superstructures	✓	Difference	.51
				Restricted to	✓
				Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right)$	= .51 = +.13"

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					
F'cle enclosed ...					
.. overhang ...					
Trunk aft ...					
.. forward ...					
Tonnage opening aft ...					
.. forward					
Total ...					

Flush deck

Standard Height of Superstructure

" " R.Q.D. **✓**

Deduction for complete superstructure

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

" " $\frac{S_1}{L} =$ **✓**

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

Percentage from Table, Line A.
(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 = **Nie**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	51.10	1		51.10	120.0	120.0	1		120.00
$\frac{1}{8}L$ from A.P. ...	12.74	4		90.96	47.0	47.0	4		188.00
$\frac{2}{8}L$ " ...	5.62	2		11.24	7.0	7.0	2		14.00
Amidships ...	-	4		-	-	-	4		-
$\frac{3}{8}L$ from F.P. ...	11.24	2		22.48	9.75	9.75	2		19.50
$\frac{4}{8}L$ " ...	45.48	4		181.92	57.75	57.75	4		231.00
F.P. ...	102.20	1		102.20	144.00	144.00	1		144.00
Total ...				459.90					716.50

$$\frac{\text{Mean actual sheer aft}}{\text{Mean standard sheer aft}} =$$

$$\frac{\text{Mean actual sheer forward}}{\text{Mean standard sheer forward}} =$$

$$\frac{\text{Length of enclosed superstructure forward of amidships}}{L} =$$

$$\frac{\text{Length of enclosed superstructure aft of amidships}}{L} =$$

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{256.04}{18} (.75) = -10.69"$$

If limited on account of midship superstructure. **No, flush deck**

$$\text{If limited to maximum allowance of } 1\frac{1}{2} \text{ ins. per 100 ft. } -6.16"$$

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

$$\begin{aligned} \text{Depth to Freeboard Deck} &= 36.24 \\ \text{Summer freeboard} &= 10.17 \\ \text{Moulded draught (d)} &= 26.07 \end{aligned}$$

$$\text{Deduction for Tropical freeboard and addition for Winter freeboard} = \frac{d}{4} \text{ inches} = 6.52 = 6\frac{1}{2}"$$

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

$$T =$$

$$\text{Deduction} = \frac{\Delta}{40T} \text{ inches} = 7"$$

TABULAR FREEBOARD corrected for Flush Deck (if required)

$$\text{Correction for coefficient} = \frac{74.92 + 6.16}{1.36} = 1.439/1.36$$

$$\text{Depth Correction} = 26.52 - 6.16 = 20.36$$

$$\text{Deduction for superstructures} = 13.00 - 6.16 = 6.84$$

$$\text{Sheer correction} = 13.00 - 6.16 = 6.84$$

$$\text{Round of Beam correction} = 13.00 - 6.16 = 6.84$$

$$\text{Correction for Thickness of Deck amidships} = 15.73 - 6.16 = 9.57$$

$$\text{Other corrections, scantlings etc. } 41.38 - 6.16 = 35.22$$

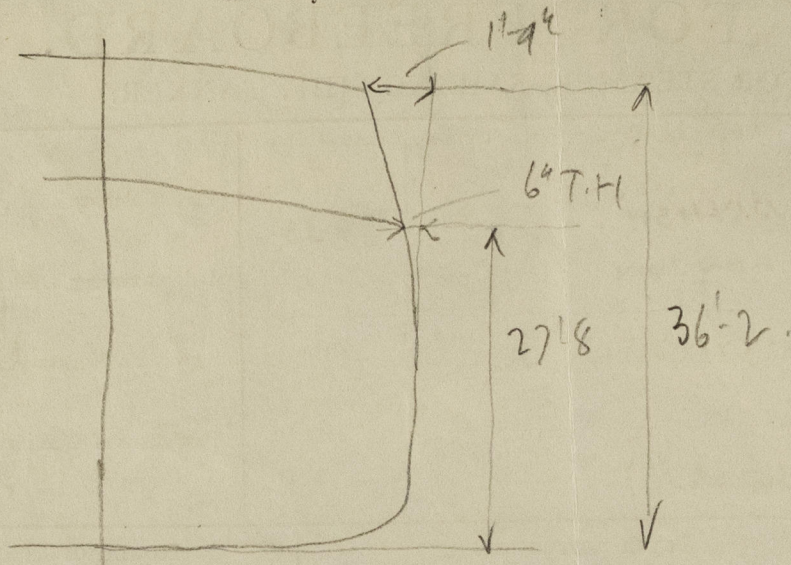
$$\text{Summer Freeboard} = 122.00$$

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

Tropical Fresh Water Line above Centre of Disc	13 1/2"
Fresh Water Line	7"
Tropical Line	6 1/2"
Winter Line	6 1/2"
Winter North Atlantic Line	5"

Tropical Fresh Water Freeboard	9'-0 1/2"
Fresh Water	9'-0"
Tropical	9'-7 1/2"
Winter	10'-8 1/2"
Winter North Atlantic	10'-5"

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.



all these
dimensions given
in the plan, thus.

Height
of turn in
hull given

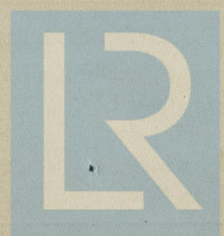
Trade of ship.....

Names of sister ships.....

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

Owners.....

Fee £.....



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Foundation