

# Amended Computation for deeper loading of tankers

## LLOYD'S REGISTER OF SHIPPING

### SURVEYS FOR FREEBOARD

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

For LONDON OFFICE ONLY

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Ship's Name <b>LEBEDIN</b>	Official Number	Nationality and Port of Registry <b>Russian Odessa</b>	Gross Tonnage	Date of Build <b>July 1962</b>	Port of Survey <b>H. Q.</b>
Moulded Dimensions: Length <b>195.5<sup>M</sup></b> Breadth <b>27<sup>M</sup></b> Depth <b>14.250<sup>M</sup></b>					Date of Survey <b>30-8-63</b>
Freeboard Length <b>195.5<sup>M</sup></b>					Surveyor's Signature <b>[Signature]</b>
Moulded displacement at moulded draught = 88 per cent. of moulded depth <b>51836 METRIC tons</b> (excluding bossing)					Particulars of Classification <b>+100 A1 oil tanker</b>
Coefficient of fineness for use with Tables <b>.793</b>					

<b>DEPTH FOR FREEBOARD (D).</b> Moulded depth ... <b>14.250</b> Stringer plate ... <b>26</b> Wood Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <b>14.276</b>	<b>DEPTH CORRECTION.</b> (a) Where D is greater than Table depth (D-Table depth) R = <b>+319<sup>m</sup></b> (b) Where D is less than Table depth (if allowed) (Table depth-D) R = If restricted by superstructures	<b>ROUND OF BEAM CORRECTION.</b> Moulded Breadth (B) Standard Round of Beam = $\frac{B \times 12}{50} =$ Ship's Round of Beam = Difference Restricted to Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) =$ <b>+17 m/m</b>
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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 <b>Equil</b> ...	<b>44.784</b>	<b>44.784</b>	<b>2.6</b>		<b>44.784</b>
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...					
F'cle enclosed ...	<b>23.270</b>				
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	<b>66.054</b>				

Standard Height of Superstructure **2.29 M**  
 " " R.Q.D. **—**  
 Deduction for complete superstructure **1067 m/m**  
 Percentage covered  $\frac{S}{L} =$   
 $\frac{S_1}{L} =$  **34.90**  
 $\frac{E}{L} =$   
 Percentage from Table, Line A. **Tanker 25-90**  
 (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 = **1067 x .2590 = 276**

## 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 ...	0	4	0	0	0	4	0
$\frac{2}{8}$ L from F.P. ...		2				2	
$\frac{1}{8}$ L " ...		4				4	
F.P. ...		1				1	
Total ...							

Mean actual sheer aft =  
 Mean standard sheer aft =  
 Mean actual sheer forward =  
 Mean standard sheer forward =  
 Length of enclosed superstructure forward of amidships =  
 " " aft of " =  
 Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) =$  **+355 m/m**  
 If limited on account of midship superstructure. If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100ft.

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> Depth to Freeboard Deck = <b>14.276</b> Summer freeboard = <b>3.565</b> Moulded draught (d) = <b>10.711</b> Keel allowance = Extreme draught = Deduction for Tropical freeboard and addition for = Winter freeboard = $\frac{d}{48}$ inches = <b>223 m/m</b> Addition for Winter North Atlantic Freeboard (if required) = <b>223 + 162 = 385 m/m</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 = $\frac{\Delta}{40 T}$ inches = <b>248 m/m</b>	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) Correction for coefficient <b>1473/1.36</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>+</th> <th>-</th> </tr> </thead> <tbody> <tr> <td>Depth Correction</td> <td><b>319</b></td> <td><b>—</b></td> </tr> <tr> <td>Deduction for superstructures</td> <td><b>—</b></td> <td><b>276</b></td> </tr> <tr> <td>Sheer correction</td> <td><b>355</b></td> <td><b>—</b></td> </tr> <tr> <td>Round of Beam correction</td> <td><b>17</b></td> <td><b>—</b></td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td><b>—</b></td> <td><b>—</b></td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td><b>—</b></td> <td><b>—</b></td> </tr> <tr> <td><b>Total</b></td> <td><b>691</b></td> <td><b>276</b></td> </tr> </tbody> </table> Summer Freeboard = <b>3565</b>		+	-	Depth Correction	<b>319</b>	<b>—</b>	Deduction for superstructures	<b>—</b>	<b>276</b>	Sheer correction	<b>355</b>	<b>—</b>	Round of Beam correction	<b>17</b>	<b>—</b>	Correction for Thickness of Deck amidships	<b>—</b>	<b>—</b>	Other corrections, scantlings, etc.	<b>—</b>	<b>—</b>	<b>Total</b>	<b>691</b>	<b>276</b>
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~ Steel, Deck :-

<b>110 SEP 1963</b> Tropical Fresh Water Line above Centre of Disc <b>471 m/m</b> Fresh Water Line <b>248</b> Tropical Line <b>223</b> Winter Line below <b>223</b> Winter North Atlantic Line <b>385</b>	Tropical Fresh Water Freeboard <b>3565 m/m</b> Fresh Water <b>3094</b> Tropical <b>331.7</b> Winter <b>334.2</b> Winter North Atlantic <b>378.8</b> <b>395.0</b>
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