

# LLOYD'S REGISTER OF SHIPPING

## SURVEYS FOR FREEBOARD

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

For LONDON OFFICE ONLY

Received .....  
Index No. ....  
Govt. Copy .....  
Owners C11 .....

Ship's Name <b>GANESSELLA</b>	Official Number	Nationality and Port of Registry <b>BRITISH</b> <b>LIBERIAN</b> <b>MONROVIA</b>	Gross Tonnage	Date of Build <b>1946</b> <b>ALTERATIONS?</b> <b>1952-10</b>	Port of Survey <b>London</b>
Moulded Dimensions: Length <b>384'</b>	Breadth <b>62' 6"</b>	Depth <b>26' 3"</b>			Date of Survey <b>3.3.60</b>
Freeboard Length <b>384'</b>					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing)		<b>12545</b> tons			Particulars of Classification <b>+100A1 OIL TANKER</b>
Coefficient of fineness for use with Tables <b>82</b>					

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	<b>26.25</b>	(a) Where D is greater than Table depth (D-Table depth) R = <b>(26.30-25.60) 2.954 = 2.07</b>	Moulded Breadth (B)	<b>62' 6"</b>	
Stringer plate	<b>16 mm</b>		Standard Round of Beam = $\frac{B \times 12}{50}$	<b>15.00</b>	
Wood Sheathing on exposed deck		(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Ship's Round of Beam	<b>16.00</b>	
$T \left( \frac{L-S}{L} \right) =$			Difference	<b>1"</b>	
Depth for Freeboard (D) = <b>26.30</b>		If restricted by superstructures	Restricted to		
			Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left( 1 - \frac{S}{L} \right)$	<b><math>\frac{1}{4} \times .7551 = -.19</math></b>	

### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed						Standard Height of Superstructure <b>7.34</b>
" overhang						R.Q.D.
R.Q.D. enclosed						Deduction for complete superstructure <b>40.93</b>
" overhang						Percentage covered $\frac{S}{L} = 24.52$
AFT. Bridge enclosed	<b>63.87</b>	<b>63.87</b>	<b>8.0</b>		<b>63.87</b>	$\frac{S_1}{L} = 24.49$
" overhang aft	<b>55</b>	<b>41</b>			<b>41</b>	$\frac{E}{L} = 24.49$
" overhang forward						Percentage from Table, Line A. <b>TANKER</b> <b>17.14</b>
F'cle enclosed	<b>29.75</b>	<b>29.75</b>			<b>29.75</b>	(corrected for absence of forecastle (if required))
" overhang						Percentage from Table, Line B.
Trunk aft						(corrected for absence of forecastle (if required))
" forward						Interpolation for bridge less than 2L (if required)
Tonnage opening aft						Deduction = <b>40.93 + 17.14 = 7.02</b>
" " forward						
Total	<b>94.17</b>	<b>94.03</b>			<b>94.03</b>	

### SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product	
A.P.	<b>48.40</b>	1	<b>48.40</b>	<b>27.50</b>	<b>27.50</b>	1	<b>27.50</b>	Mean actual sheer aft = Mean standard sheer aft =
$\frac{1}{4}$ L from A.P.	<b>21.54</b>	4	<b>86.16</b>	<b>2.99</b>	<b>2.99</b>	4	<b>11.96</b>	
$\frac{2}{4}$ L	<b>5.32</b>	2	<b>10.64</b>	<b>0</b>	<b>0</b>	2	<b>0</b>	Mean actual sheer forward = Mean standard sheer forward =
Amidships	<b>0</b>	4	<b>0</b>	<b>0</b>	<b>0</b>	4	<b>0</b>	
$\frac{2}{4}$ L from F.P.	<b>10.65</b>	2	<b>21.30</b>	<b>0</b>	<b>0</b>	2	<b>0</b>	Length of enclosed superstructure forward of amidships = aft of =
$\frac{1}{4}$ L	<b>43.08</b>	4	<b>172.32</b>	<b>1.50</b>	<b>1.50</b>	4	<b>6.00</b>	
F.P.	<b>96.80</b>	1	<b>96.80</b>	<b>53.00</b>	<b>53.00</b>	1	<b>53.00</b>	
Total	<b>435.60</b>		<b>435.62</b>				<b>98.46</b>	

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{337.16}{18} \left( .75 - \frac{122.6}{211.534} \right) = +11.75$

If limited on account of midship superstructure.

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

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.		Correction for coefficient <b><math>\frac{68+82}{1.36} = 1.50/1.36</math></b>
Depth to Freeboard Deck = <b>26.30</b>	Displacement in salt water at summer load water line	Depth Correction <b>2.07</b>
Summer freeboard = <b>8.29</b>	$\Delta =$	Deduction for superstructures <b>7.02</b>
Moulded draught (d) = <b>18.01</b>	Tons per inch immersion at summer load water line	Sheer correction <b>11.75</b>
Keel allowance =	T =	Round of Beam correction <b>19</b>
Extreme draught =	Deduction = $\frac{\Delta}{40 T}$ inches	Correction for Thickness of Deck amidships <b>28.01</b>
Deduction for Tropical freeboard and addition for = <b>4.50</b>	<b>4.2</b>	Other corrections, scantlings, etc. <b>10</b>
Winter freeboard = $\frac{d}{4}$ inches = <b>4.2</b>		<b>CORRESPOND TO A SUMMER. MOULDED DRAUGHT OF 18.01 (ACTUAL 18.01)</b>
Addition for Winter North Atlantic Freeboard (if required) = <b>4.50 + 3.84 = 8.34 = 8.4</b>		Summer Freeboard = <b>99.50</b>

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

Tropical Fresh Water Line above Centre of Disc	<b>9"</b>	<b>22 cm</b>	Tropical Fresh Water Freeboard	<b>7.62</b>	<b>231 cm</b>
Fresh Water Line	<b>4.2</b>	<b>11 cm</b>	Fresh Water	<b>7.11</b>	<b>242 cm</b>
Tropical Line	<b>4.2</b>	<b>11 cm</b>	Tropical	<b>7.11</b>	<b>242 cm</b>
Winter Line below	<b>4.2</b>	<b>11 cm</b>	Winter	<b>8.34</b>	<b>264 cm</b>
Winter North Atlantic Line	<b>8.4</b>	<b>21 cm</b>	Winter North Atlantic	<b>8.11 3/4</b>	<b>274 cm</b>

12 APR 1960