

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

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

11 JUN 1947

Ship's Name <b>"LAGOSIAN"</b>	Official Number <b>181095</b>	Nationality and Port of Registry <b>BRITISH, LIVERPOOL.</b>	Gross Tonnage <b>5106.50</b>	Date of Build <b>1947</b>	Port of Survey <b>Sunderland</b>
Moulded Dimensions: Length <b>425.79</b> Breadth <b>56.0</b> Depth <b>27.3021</b> To & of Rudder Stock				Date of Survey <b>While building</b>	
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>11769</b> tons				Surveyor's Signature <b>R.M. Wilson</b>	
Coefficient of fineness for use with Tables <b>.747 .744</b>				Particulars of Classification <b>*100 A1 with freeboard (Contemplated)</b>	

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... .. <b>27.3021</b>	(a) Where D is greater than Table depth (D-Table depth) R =	Moulded Breadth (B) <b>56.0</b>
Stringer plate ... <b>.44</b> ... .. <b>.04</b>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 13.44$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	<b>(28.39 - 27.34) = 1.05 = -3.15"</b>	Ship's Round of Beam (see over) = <b>6.11"</b>
Depth for Freeboard (D) = <b>27.34</b>	If restricted by superstructures <b>NO - complete superstructure.</b>	Difference <b>-7.33"</b>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{7.33}{4} \times .0066 = +.01"$

DEDUCTION FOR SUPERSTRUCTURES.					Standard Height of Superstructure <b>7.50'</b>	
	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	R.Q.D.
Poop enclosed ... ..	<b>32.29</b>	<b>32.29</b>			<b>32.29</b>	
" overhang ... ..	<b>3.00</b>	<b>1.50</b>			<b>1.50</b>	
R.Q.D. enclosed ... ..						
" overhang ... ..						
Bridge enclosed ... ..						
" overhang aft ... ..						
" overhang forward ... ..						
F'cle enclosed ... ..	<b>386.42</b>	<b>386.42</b>	<b>10.75'</b>		<b>386.42</b>	
" overhang ... ..						
Trunk aft ... ..						
" forward ... ..						
Tonnage opening aft ... ..	<b>4.08</b>	<b>2.79</b>	<b>1/2 diff.</b>		<b>2.79</b>	
" " forward ... ..						
Total ... ..	<b>425.79</b>	<b>423.00</b>			<b>423.00</b>	

Deduction for complete superstructure <b>42"</b>	Percentage covered $\frac{S}{L} = 100.00$
" " $\frac{S_1}{L} = 99.34$	" " $\frac{E}{L} =$
Percentage from Table, Line A. + B <b>99.19</b>	(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 = <b>42" x .9919 = -41.66"</b>	

SHEER CORRECTION.							
Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	Product
A.P. ... ..	<b>52.58</b>	1		<b>52.58</b>	<b>+39"</b>	<b>49.75</b>	<b>49.75</b>
1/4 L from A.P. ... ..	<b>73.40</b>	4		<b>293.60</b>	<b>.125</b>	<b>22.14</b>	<b>88.56</b>
1/2 L " ... ..	<b>57.18</b>	2		<b>115.6</b>		<b>5.47</b>	<b>10.94</b>
Amidships ... ..		4					
3/4 L from F.P. ... ..	<b>11.57</b>	2		<b>23.14</b>		<b>12.95</b>	<b>25.90</b>
1/4 L " ... ..	<b>46.80</b>	4		<b>187.20</b>	<b>5.75</b>	<b>44.75</b>	<b>179.00</b>
F.P. ... ..	<b>105.16</b>	1		<b>105.16</b>	<b>78.75</b>	<b>117.75</b>	<b>117.75</b>
Total ... ..				<b>473.24</b>	<b>+39.00</b>		<b>471.90</b>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{1.34}{18} \times .25 = +.02"$   
If limited on account of midship superstructure. ✓

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

Mean actual sheer aft = **>.75**  
Mean standard sheer aft = **>.75**

Mean actual sheer forward = **>1.00**  
Mean standard sheer forward = **>1.00**

Length of enclosed superstructure forward of amidships = **65.5**  
aft of " = **39"**

Deduction for Tropical Freeboard.		Deduction for Fresh Water.		TABULAR FREEBOARD corrected for Flush Deck (if required)	
Addition for Winter and Winter North Atlantic Freeboard.		Displacement in salt water at summer load water line		Correction for coefficient	
Depth to Freeboard Deck = <b>27.34</b>		$\Delta = 12352 \text{ tons}$		<b>.744 + .68 = 1.424</b>	<b>79.59</b>
Summer freeboard = <b>3.21</b>		Tons per inch immersion at summer load water line		<b>1.36</b>	<b>83.34</b>
Moulded draught (d) = <b>24.13</b>		T = <b>47.85 tons</b>			
Deduction for Tropical freeboard and addition for		Deduction = $\frac{\Delta}{40 T} \text{ inches}$			
Winter freeboard = $\frac{d}{4} \text{ inches} = 6.03 = 6"$		<b>= 6.45</b>			
Addition for Winter North Atlantic Freeboard (if required) =		<b>= 6 1/2"</b>			

	+	-	
Depth Correction		<b>3.15</b>	
Deduction for superstructures		<b>41.66</b>	
Sheer correction	<b>.22</b>		
Round of Beam correction	<b>.01</b>		
Correction for Thickness of Deck amidships			
Other corrections, scantlings, etc.			
	<b>.03</b>	<b>44.81</b>	<b>-44.78</b>
Summer Freeboard =			<b>38.56</b>

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

Tropical Fresh Water Line above Centre of Disc	...	...	1.0 1/2"	Tropical Fresh Water Freeboard	...	...	2.0 1/2"
Fresh Water Line	"	"	6 1/2"	Fresh Water	"	"	2.0 1/2"
Tropical Line	"	"	6 1/2"	Tropical	"	"	2.0 1/2"
Winter Line below	"	"	6 1/2"	Winter	"	"	2.0 1/2"
Winter North Atlantic Line	"	"	6 1/2"	Winter North Atlantic	"	"	2.0 1/2"



Lagosian.

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.

Displacement at 24'-0" draught = 12250 tons

Tons per inch = 47.8 tons.

Equivalent number of freeboard decks

$$= \frac{10 \times 6 + \frac{18 \times 6}{2}}{28 \times \frac{2}{3}} = 6.11"$$

unit

Trade of ship

Ocean going

28795

Names of sister ships

CHEF MECANICIEN DURAND & LOUIS E. DURAND SLO. RPT 34562.

Builder's name and yard number

Shipbuilding Corporation Ltd (Wear Branch) Sunderland Yard No. 11.

Owners

United Africa Company Limited (& Ministry of Transport)

Fee £

16

Will be charged on F.E.



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Foundation