

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

Received 22 DEC 1956

Index No.

Govt. Copy

Owners C11

Ship's Name "EKATERINI ALEXANDRA"	Official Number	Nationality and Port of Registry LIBERIAN MONROVIA.	Gross Tonnage PREVIOUSLY 3063	Date of Build 1931-1.	Port of Survey Flangesund
Moulded Dimensions: Length 470' 0" Breadth 64.25' Depth 35.33'					Date of Survey 15th DECEMBER 1956
Freeboard Length 470.0'					Surveyor's Signature S. A. Eide
Moulded displacement at moulded draught = 85 per cent. of moulded depth 20370 cub. metres (excluding bossing) = 20553 tons					Particulars of Classification 100 A1 CARRYING PETROLEUM IN BULK.
Coefficient of fineness for use with Tables .792					

DEPTH FOR FREEBOARD (D).

Moulded depth ... **35.33**
 Stringer plate ... **.80"** ... **.07**
 Wood Sheathing on exposed deck ✓
 $T \left(\frac{L-S}{L} \right) =$
 Depth for Freeboard (D) = **35.40**

DEPTH CORRECTION.

(a) Where D is greater than Table depth
 $(D - \text{Table depth}) R =$
 $(35.40 - 31.33) 3 = 12.21$
4.07
 (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) **64.25**
 Standard Round of Beam = $\frac{B \times 12}{50} =$ **15.42**
 Ship's Round of Beam (ON FREEBOARD DECK) = **16.00"**
 Difference **Excess .58**
 Restricted to
 Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.58}{4} \times .6223 = .09$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	100.00	100.00	7'-9"	✓	100.00
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed	30.46	30.46	7'-6"		30.46
" overhang aft	NONE				
" overhang forward	NONE				
F'cle enclosed	46.26	46.26	7'-10"		46.26
" overhang within 4/10	.74	.69			.69
" overhang abaft 4/10	.25	.13			.13
" forward					
Tonnage opening aft					
" forward					
Total	177.71	177.54			177.54

Standard Height of Superstructure **7.50**
 " " R.Q.D.
 Deduction for complete superstructure **42.00**
 Percentage covered $\frac{S}{L} =$ **37.81**
 " " $\frac{S_1}{L} =$ **37.77**
 " " $\frac{E}{L} =$ **37.77**
 Percentage from Table, Line A. Tanker **28.77**
 (corrected for absence of forecastle (if required))
 Percentage from Table, Line B.
 (corrected for absence of forecastle (if required))
 Interpolation for bridge less than 3L (if required)
 Deduction = **42 x .2877 = 12.08**

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P.	57.00	1	57.00	52	55.00	1	55.00
1/4 L from A.P.	25.34	4	101.36	22	22.14	4	88.56
2/4 L "	6.27	2	12.54	6 3/4	6.75	2	13.50
Amidships	0	4	0	0	0	4	0
3/4 L from F.P.	12.54	2	25.08	22 1/4	22.25	2	44.50
1/4 L "	50.73	4	202.92	53	53.00	4	212.00
F.P.	114.00	1	114.00	117 1/4	117.25	1	117.25
Total			512.90				530.81

Mean actual sheer aft **93.31%**
 Mean standard sheer aft = **93.31%**
 Mean actual sheer forward = **Excess**
 Mean standard sheer forward = **Excess**

Length of enclosed superstructure forward of amidships =
 " " aft of " = **Tanker**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{17.91}{18} (.75 - .1891) = .56$
 If limited on account of midship superstructure. If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **35.40**
 Summer freeboard = **7.19**
 Moulded draught (d) = **28.21**
 Keel allowance =
 Extreme draught =
 Deduction for Tropical freeboard and addition for =

Winter freeboard = $\frac{d}{4}$ inches = **7.05" = 7"**

Addition for Winter North Atlantic Freeboard (if required) = **4.70 + 7.05 = 11.75 = 11 3/4**

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 = $\frac{\Delta}{40}$ inches = **8**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.792 + .68}{1.36} = 1.472 / 1.36$

Depth Correction ... **12.21**
 Deduction for superstructures ... **12.08**
 Sheer correction ... **.56**
 Round of Beam correction ... **.09**
 Correction for Thickness of Deck amidships ...
 Other corrections, scantlings, etc. ...

Summer Freeboard = **86.28**

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

Norske Veritas
 Freeboards reassigned
 15.1.57

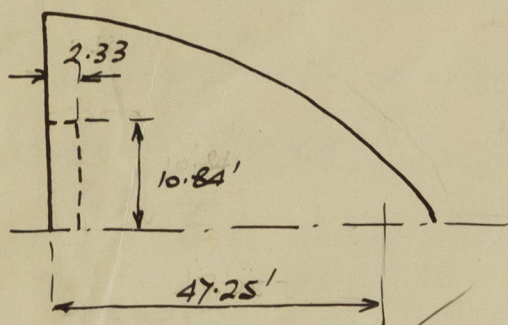
Tropical Fresh Water Line above Centre of Disc ... **15"**
 Fresh Water Line " " ... **8"**
 Tropical Line " " ... **7"**
 Winter Line below " " ... **7"**
 Winter North Atlantic Line " " ... **11 1/2"**

Tropical Fresh Water Freeboard ... **6'-0"**
 Fresh Water " " ... **6'-7"**
 Tropical " " ... **6'-8"**
 Winter " " ... **7'-10"**
 Winter North Atlantic " " ... **8'-2 1/2"**

© 2011 Lloyd's Register Foundation

Ekatérini Alexandra

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.



Equivalent length =

$$47.25 - \frac{2.33 \times 10.84}{25.5} = 46.26'$$

overhang = .99'

$\frac{L}{10} = 47.00$

Overhang up to $\frac{L}{10} = 47.00 - 46.26 = .74$

Effective overhang up to $\frac{L}{10} = .74 \times .9331 = .69$

overhang abaft $\frac{L}{10} = 47.25 - 47.00 = .25'$

Sheers aft

Standard height of Tween Deck 7'-6"

Height of Port Tween Deck 7'-9"

Excess 3"

Sheer at AP = $52 + 3 = 55$

Sheer at $\frac{L}{6} = 22 + 3 \left(\frac{21.67^2}{1000} \right) = 22.14$

Trade of ship

UNRESTRICTED

Names of sister ships

✓

Builder's name and yard number

BLOHM & VOSS, HAMBURG. YARD No 454.

Owners

CIA RHEA MARITIMA S.A., PANAMA.

Fee

720.-

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950," paragraph 11.)



© 2020

Lloyd's Register
Foundation