

C.11 (Comp.)

# 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>KAYO MATAPAS</b>	Official Number <b>1816</b>	Nationality and Port of Registry <b>LIBERIAN</b> <b>MONROVIA</b>	Gross Tonnage <b>1946</b>	Date of Build <b>1946</b>	Port of Survey <b>LONDON H.Q.</b>
Moulded Dimensions: Length <b>360.42'</b> Breadth <b>52.50'</b> Depth <b>31.50'</b>					Date of Survey <b>12. 3. 65</b>
Freeboard Length .....					Surveyor's Signature .....
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) <b>10680</b> tons					Particulars of Classification <b>+ 100. A1</b>
Coefficient of fineness for use with Tables <b>.738</b>					<b>With FREEBOARD.</b>

## DEPTH FOR FREEBOARD (D).

Moulded depth ... **31.50**  
 Stringer plate ... **.39** ... **.03**  
 Wood Sheathing on exposed deck  
 $T \left( \frac{L-S}{L} \right) =$   
 Depth for Freeboard (D) = **31.53**

## DEPTH CORRECTION.

- (a) Where D is greater than Table depth  
 (D-Table depth) R =  
 $(31.53 - 24.03) 2.772 = +20.79$   
 (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) **52.50'**  
 Standard Round of Beam =  $\frac{B \times 12}{50} =$  **12.60"**  
 Ship's Round of Beam = **13.00**  
 Difference **.40**  
 Restricted to  
 Correction =  $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) = .10 \times .6314 = -0.06$

## DEDUCTION FOR SUPERSTRUCTURES.

## BRIDGE AFT

Deck enclosed **OPEN**

" overhang ...

R.Q.D. enclosed ...

" overhang ...

Bridge enclosed **OPEN**

" overhang aft ...

" overhang forward ...

F'cle enclosed **OPEN**

" overhang ...

Trunk aft ...

" forward ...

Tonnage opening aft ...

" " forward ...

Total ...

Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
15.17	7.58	7.50	-	7.58
124.29	93.22	7.75	-	93.22
32.04	32.04	7.50	-	32.04
171.50	132.84			132.84

Standard Height of Superstructure **85.25'**

" " R.Q.D. ...

Deduction for complete superstructure **39.36"**Percentage covered  $\frac{S}{L} =$  **47.58**

" "  $\frac{S_1}{L} =$  **36.86**  
 " "  $\frac{E}{L} =$

Percentage from Table, Line A.

(corrected for absence of forecastle (if required))

Percentage from Table, Line B. **24.83**

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = **39.36 × .2483 = -9.77"**

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	46.04	1		46.04	48.38	48.38	1		48.38
1/2 L from A.P. ...	20.49	4		81.96	20.23	20.23	4		80.92
2/2 L " ...	5.06	2		10.12	5.60	5.60	2		11.20
Amidships ...	0	4		0	0	0	4		0
1/2 L from F.P. ...	10.13	2		20.26	10.98	10.98	2		21.96
1/2 L " ...	40.98	4		163.92	48.17	48.17	4		192.68
F.P. ...	92.08	1		92.08	109.41	109.41	1		109.41
Total ...				414.38					461.55

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) =$ If limited on account of midship superstructure. **YES - NIL**

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 " =

.5121

$(.75 - .2379) = -1.34$  But no allowance  
 If limited to maximum allowance of 1 1/2 ins. per 100ft. /

## Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **31.53**  
 Summer freeboard = **8.60**  
 Moulded draught (d) = **22.93**  
 Keel allowance =  
 Extreme draught =  
 Deduction for Tropical freeboard and addition for = **5.73**

Winter freeboard =  $\frac{d}{4}$  inches = **5 3/4"**Addition for Winter North Atlantic Freeboard (if required) = **NOT REQUIRED**

## Deduction for Fresh Water.

Displacement in salt water at summer load water line  
 $\Delta =$   
 Tons per inch immersion at summer load water line  
 $T =$

Deduction =  $\frac{\Delta}{40 T}$  inches**5 3/4"**

## TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient  $\frac{.738 + .68}{1.36} =$  **1.04265**Depth Correction ... **20.79**Deduction for superstructures ... **9.77**Sheer correction ... **0.06**Round of Beam correction ... **0.06**

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. To

CORRECTION TO **22.93**DRAUGHT OF **22.93**

(Actual 22.93)

Summer Freeboard = **103.25**

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

Tropical Fresh Water Line above Centre of Disc **11 1/2"**  
 Fresh Water Line " **5 3/4"**  
 Tropical Line " **5 3/4"**  
 Winter Line below " **5 3/4"**  
 Winter North Atlantic Line " **NOT REQUIRED**

Tropical Fresh Water Freeboard **7 1/2"**  
 Fresh Water " **8 1/2"**  
 Tropical " **8 1/2"**  
 Winter " **9 1/2"**  
 Winter North Atlantic " **NOT REQUIRED**

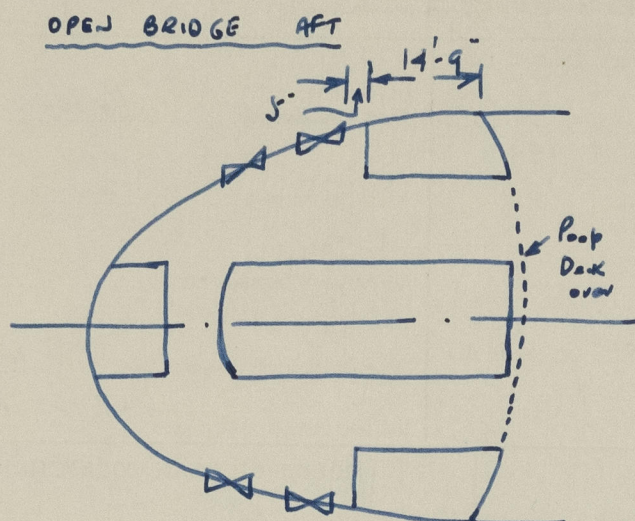
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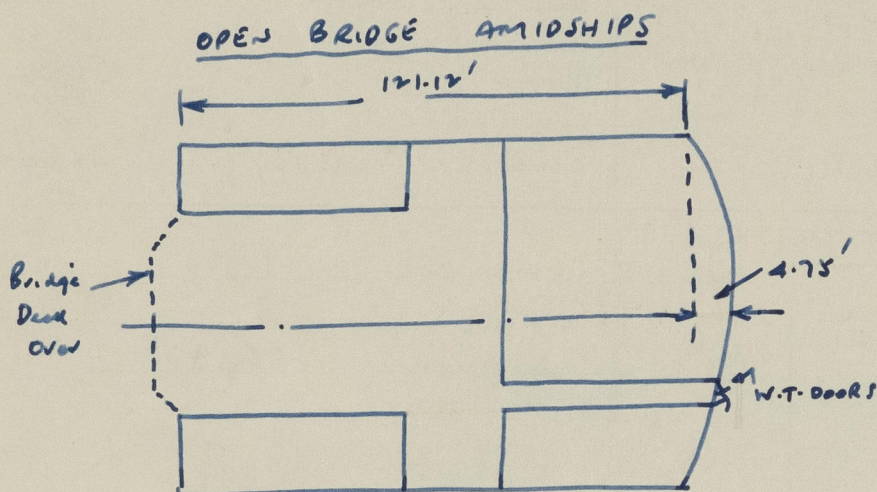
RAYO MATAPAS

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.



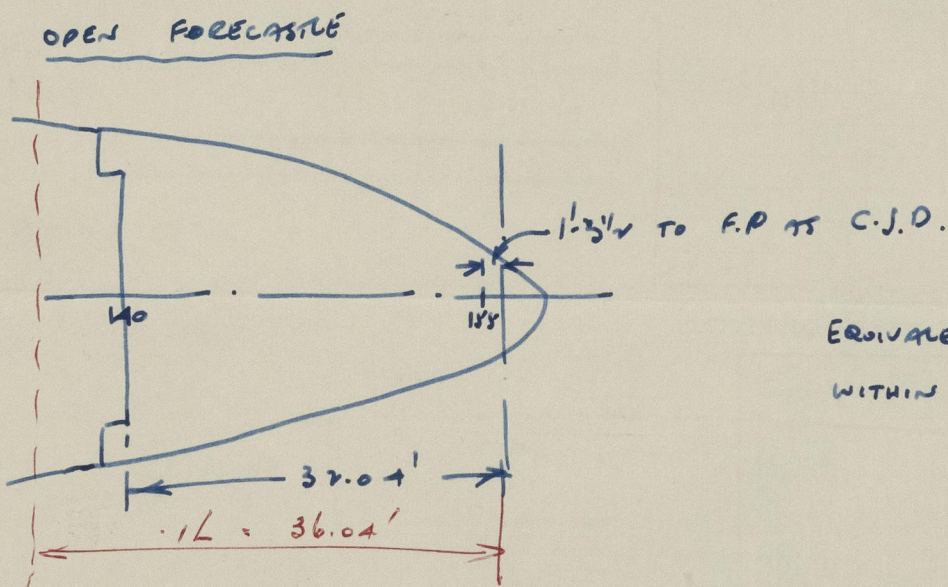
$$\text{MEAN COVERED LENGTH} = 14'-9'' + 5'' = 15.17'$$

$$\text{EQUIVALENT LENGTH ENCLOSED} = 15.17 \times .50 = 7.58'$$



$$\text{MEAN COVERED LENGTH} = 121.12 + \left( \frac{2}{3} \times 4.75 \right) = 124.29'$$

$$\text{EQUIVALENT LENGTH ENCLOSED} = 124.29 \times .75 = 93.22'$$



$$\text{EQUIVALENT LENGTH} = 32.04' \text{ BEING WITHIN } .1L \text{ WITH EXCESS SHEERS.}$$

Trade of ship.....

Names of sister ships.....

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

Owners .....

Fee £.....

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



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