

# LLOYD'S REGISTER OF SHIPPING

## SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

Received .....  
 Index No. 47802  
 Govt. Copy .....  
 Owners C11.....

Ship's Name KASADO YARD Official Number ..... Nationality and Port of Registry ..... Gross Tonnage ..... Date of Build 1958

Port of Survey .....  
 Date of Survey 19.8.58  
 Surveyor's Signature .....  
 Particulars of Classification 100 A.1.  
(contemplated)

Moulded Dimensions: Length 97.0 m Breadth 15.0 m Depth 7.70 m  
 Freeboard Length 97.0 m  
 Moulded displacement at moulded draught = 85 per cent. of moulded depth ..... tons  
 (excluding bossing)  
 Coefficient of fineness for use with Tables 0.750 assumed

## DEPTH FOR FREEBOARD (D).

Moulded depth ... 7.700  
 Stringer plate ... 20/83  
 Wood Sheathing on exposed deck  
 $T \left( \frac{L-S}{L} \right) =$  NONE  
 Depth for Freeboard (D) = 7.720

## DEPTH CORRECTION.

(a) Where D is greater than Table depth  
 (D-Table depth) R = 20/83(7.720-6.467)24.49 = +256 m/m  
 (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) 15.00 m  
 Standard Round of Beam =  $\frac{B \times 12}{50} =$  300 m/m  
 Ship's Round of Beam = 300 m/m  
 Difference NIL  
 Restricted to .....  
 Correction =  $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) =$  NIL

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poep enclosed <u>equiv</u> ...	<u>25.380</u>	<u>25.380</u>	<u>2000</u>	<u>25.38 x 2000</u>	<u>24.897</u>
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...	<u>9.77</u>	<u>9.77</u>			<u>9.104</u>
F'cle enclosed ...	<u>9.790</u>	<u>9.790</u>	<u>1900</u>	<u>9.79 x 1900</u>	<u>9.123</u>
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					<u>34.001</u>
" forward ...					
Total ...	<u>35.170</u>	<u>35.170</u>			<u>34.020</u>

Standard Height of Superstructure 2039 m/m  
 " " R.Q.D. ....  
 Deduction for complete superstructure 929 m/m  
 Percentage covered  $\frac{S}{L} =$  36.25 36.24  
 $\frac{S_1}{L} =$  .....  
 $\frac{E}{L} =$  35.07 35.06  
 Percentage from Table, Line A. 19.31 19.30  
 (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) 19.30  
 Deduction = 929 x 19.31 = 179 m/m

## SHEER CORRECTION.

Station	Standard Ordinate m/m	S	M	Product	Actual Ordinate m/m	Effective Ordinate m/m	S	M	Product
A.P. ...	<u>1062</u>	✓	1	<u>1062</u>	<u>1102</u>	<u>1102</u>	✓	1	<u>1102</u>
$\frac{1}{4}$ L from A.P. ...	<u>472</u>	✓	4	<u>1888</u>	<u>469</u>	<u>469</u>	✓	4	<u>1876</u>
$\frac{3}{4}$ L " ...	<u>118</u>	✓	2	<u>236</u>	<u>124</u>	<u>124</u>	✓	2	<u>248</u>
Amidships ...	<u>0</u>	✓	4	<u>0</u>	<u>0</u>	<u>0</u>	✓	4	<u>0</u>
$\frac{3}{4}$ L from F.P. ...	<u>236</u>	✓	2	<u>472</u>	<u>247</u>	<u>247</u>	✓	2	<u>494</u>
$\frac{1}{4}$ L " ...	<u>944</u>	✓	4	<u>3776</u>	<u>957</u>	<u>957</u>	✓	4	<u>3828</u>
F.P. ...	<u>2124</u>	✓	1	<u>2124</u>	<u>2230</u>	<u>2230</u>	✓	1	<u>2230</u>
Total ...				<u>9558</u>					<u>9778</u>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) =$  220/18 (.75 - 1813/2230) = 5.687  
 If limited on account of midship superstructure.

Mean actual sheer aft = Excess  
 Mean standard sheer aft = .....  
 Mean actual sheer forward = Excess  
 Mean standard sheer forward = .....  
 Length of enclosed superstructure forward of amidships = .....  
 " " aft of " = .....  
 = 7 m/m  
 If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100ft. ....

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 7.720  
 Summer freeboard = 1.350  
 Moulded draught (d) = 6.370  
 Keel allowance = .....  
 Extreme draught = .....  
 Deduction for Tropical freeboard and addition for = .....  
 Winter freeboard =  $\frac{d}{4}$  inches = .....  
 Addition for Winter North Atlantic Freeboard (if 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 = .....

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

Correction for coefficient

Depth Correction ... 256  
 Deduction for superstructures ... 179  
 Sheer correction ... 7  
 Round of Beam correction ...  
 Correction for Thickness of Deck amidships ...  
 Other corrections, scantlings, etc. ...

1217  
1280  
256 186 + 70  
 Summer Freeboard = 1350 m/m

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

Tropical Fresh Water Line above Centre of Disc ...  
 Fresh Water Line " " ...  
 Tropical Line " " ...  
 Winter Line below " " ...  
 Winter North Atlantic Line " " ...

Tropical Fresh Water Freeboard ...  
 Fresh Water " ...  
 Tropical " ...  
 Winter " ...  
 Winter North Atlantic " ...



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.

$$\begin{aligned} \text{Length Loop @ side} &= \left. \begin{aligned} 0-8 &= 8 @ 610 = 4.880 \text{ m.} \\ 8-34 &= 26 @ 750 = 19.500 \text{ m.} \end{aligned} \right\} \\ \text{Plus } \frac{2}{3} \text{ bow front} &= \frac{2}{3} \times \frac{1.500}{1} = \frac{1.000}{1} \\ \therefore \text{Equiv Length Loop} &= \underline{25.380 \text{ m.}} \end{aligned}$$

From Profile & Deck plan No H-02

$$\begin{aligned} \text{Length Side @ side} &= \left. \begin{aligned} 120-123 &= 3 @ 640 = 1.920 \text{ m.} \\ 123-135 &= 12 @ 610 = 7.320 \text{ m.} \\ 135-PP &= .550 \text{ m.} \end{aligned} \right\} \\ &= \underline{9.790 \text{ m.}} \\ &= 9.770 \end{aligned}$$

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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