

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

GRK. REPORT N° 22.841.

Ship's Name EMPIRE KUMASI	Official Number 169517	Nationality and Port of Registry BRITISH GREENOCK	Gross Tonnage 7201 APPROX. 7000	Date of Build 1944.	Port of Survey GREENOCK
Moulded Dimensions: Length 426' 427 Breadth 56' 0' Depth 36' 11" To 1st of Stock To UPPER DK = 16440 To 2nd DK = 11985 tons					Date of Survey WHILE BUILDING 1944
Moulded displacement at moulded draught = 85 per cent. of moulded depth					Surveyor's Signature J. J. Jamieson
Coefficient of fineness for use with Tables 768					Particulars of Classification +100 A.1. WITH FREEBOARD.

Depth for Freeboard (D) Moulded depth ... UPPER DK. = 36.92 Stringer plate UPPER DK. 170/180 ... 06 Sheathing on exposed deck 2 1/2" WOOD OVER ACCOM. AFT $T \left(\frac{L-S}{L} \right) =$ ✓ Depth for Freeboard (D) = 36.98	Depth correction. (a) Where D is greater than Table depth (D - Table depth) R = (36.98 - 28.43) × 3 = +25.65 (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) 56' 0' Standard Round of Beam = $\frac{B \times 12}{50} =$ 13.44 Ship's Round of Beam = 14' Difference 0.56 Restricted to ✓ Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ 0.56/4 × 9197 = -1.3
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
„ overhang ...					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...					
„ overhang aft ...					
„ overhang forward ...					
F'ele enclosed ...	34' 3"	34.25	7' 6"	✓	34.25
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total ...	34.25	34.25			34.25

Standard Height of Superstructure **7.5**
„ „ R.Q.D. **✓**
Deduction for complete superstructure **42**
Percentage covered $\frac{S}{L} =$ **8.03**
„ „ $\frac{S_1}{L} =$ **8.03**
„ „ $\frac{E}{L} =$ **8.03**
Percentage from Table, Line A. **4.01**
(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 = **42 × 0.41 = -1.72** **1.68**

SEE OVER FOR SKETCH OF SHEER.

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	52.64	1		52.64	53"	53.00	1		53.00
1/8 L from A.P. ...	23.43	4		93.72	22"	22.00	4		88.00
3/8 L „ ...	5.79	2		11.58	23 1/8"	2.19	2		4.38
Amidships ...	-	4		-	LEVEL AMIDSHIPS	-	4		-
5/8 L from F.P. ...	11.58	2		23.16	9 7/8"	9.87	2		19.74
3/4 L „ ...	46.85	4		187.40	46"	46.00	4		184.00
F.P. ...	105.28	1		105.28	106 5/8"	106.62	1		106.62
Total ...				473.78					455.74

Mean actual sheer aft = **Deficient**
Mean standard sheer aft = **Deficient**
Mean actual sheer forward = **Deficient**
Mean standard sheer forward = **Deficient**
Length of enclosed superstructure forward of amidships = **1**
„ „ aft of „ = **1** **inc.**

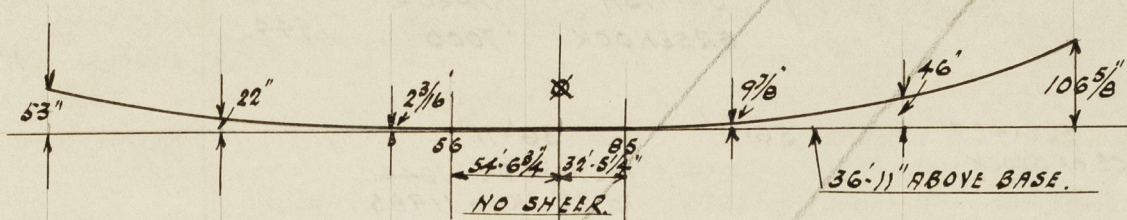
Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) =$ **18.04/18 (75-0.401) = +7.1**
If limited on account of midship superstructure. **✓**
If limited to maximum allowance of 1 1/2 ins. per 100 ft. **✓**

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 36.98 Summer freeboard = 10.87 Moulded draught (d) = 26.11 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.53 = 6 1/2 Addition for Winter North Atlantic Freeboard (if required) = ✓	Deduction for Fresh Water. Displacement in salt water at summer load water line 26' 0" = 13395 $\Delta =$ 27' 0" = 13975 Tons per inch immersion at summer load water line 26' 0" = 48.00 27' 0" = 48.32 Deduction = $\frac{\Delta}{40 T}$ inches = 6.97 = 7"	TABULAR FREEBOARD corrected for Flush Deck (if required) 79.79 + 1.26 Correction for coefficient 768 + 68 = 1.448 1.36 1.36 Depth Correction ... 25.65 Deduction for superstructures ... 1.72 Sheer correction ... 71 Round of Beam correction ... 13 Correction for Thickness of Deck amidships ... 19.69 Other corrections, scantlings, etc. to correspond to a summer moulded draught of 26' 1/4" 46.05 Summer Freeboard = 130.50
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~ Steel Deck:

Tropical Fresh Water Line above Centre of Disc ...	13 1/2"	Tropical Fresh Water Freeboard ...	9' 9"
Fresh Water Line „ „ ...	7"	Fresh Water „ „ ...	10' 3 1/2"
Tropical Line „ „ ...	6 1/2"	Tropical „ „ ...	10' 4"
Winter Line below „ „ ...	6 1/2"	Winter „ „ ...	11' 5"
Winter North Atlantic Line „ „ ...	✓	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.



SKETCH OF SHEERS.

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Trade of ship INTERNATIONAL.

Names of sister ships _____

Builder's name and yard number WM HAMILTON & CO LTD YARD NO 465.

Owners MINISTER OF WAR TRANSPORT. (JOSEPH ROBINSON & SONS MANAGERS)

APPROX.
Fee £ 18-0-0.

D.

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