

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

No. 18615

Ship's Name "EMPIRE JAMAICA"	Official Number 180079	Nationality and Port of Registry British. West Hartlepool	Gross Tonnage 5538	Date of Build Jan. 1945	Port of Survey West Hartlepool.
Moulded Dimensions: Length 312'0" Breadth 46'4" Depth 24'9" <i>20 cent. of mdder stock 312'7"</i>					Date of Survey Jan. 1945.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 6625 tons					Surveyor's Signature W. J. Craig
Coefficient of fineness for use with Tables .761					Particulars of Classification +100 A.1. with freeboard

Depth for Freeboard (D). .75	Depth correction.	Round of Beam correction.
Moulded depth ... 24'9"	(a) Where D is greater than Table depth (D - Table depth) R = $(24.80 - 20.84) \times 2.405 = +9.52$ 3.96	Moulded Breadth (B) 46'4"
Stringer plate .47 <i>upper dk</i> .05 <i>R.Q.D. dk</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = -	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{46.4 \times 12}{50} = 11.12$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures -	Ship's Round of Beam = 11
Depth for Freeboard (D) = 24.80		Difference .12
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.12}{4} \times .2807 = +.01$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height <i>Stud to stud</i>	Height Correction	Effective Length (E)
Poop enclosed <i>20 cent. of mdder stock</i> ...	80.58	80.58	7'6"	-	80.58
.. overhang ...					
R.Q.D. enclosed ...	117.0	117.00	4'10"	-	117.00
.. overhang ...					
Bridge enclosed ...					
.. overhang aft ...					
.. overhang forward ...					
F'cle enclosed ...	27.25	27.25	7'0"	-	27.25
.. overhang ...					
Trunk aft ...					
.. forward ...					
Tonnage opening aft ...					
.. forward ...					
Total ...	224.83	224.83			224.83

Standard Height of Superstructure	6.626
.. .. R.Q.D.	4.835
Deduction for complete superstructure	36.17
Percentage covered $\frac{S}{L} =$	71.93
.. .. $\frac{S_1}{L} =$	
.. .. $\frac{E}{L} =$	
Percentage from Table, Line A.	65.38
(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 = $36.17 \times 65.38 = -23.65$	

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate <i>inches</i>	Effective Ordinate	S M	Product
A.P. ...	41.26	1	41.26	9.0	9.00	1	9.00
$\frac{1}{2}$ L from A.P. ...	18.36	4	73.44	.75	.75	4	3.00
$\frac{2}{8}$ L ..	4.54	2	9.08	✓	✓	2	-
Amidships ...	-	4	-	✓	-	4	-
$\frac{3}{8}$ L from F.P. ...	9.08	2	18.16	6.25	9.08	2	18.16
$\frac{1}{2}$ L ..	36.72	4	146.88	40.00	36.72	4	146.88
F.P. ...	82.52	1	82.52	82.50	82.52	1	82.52
Total ...			371.34				259.56

Mean actual sheer aft = **< .5**
Mean standard sheer aft

Mean actual sheer forward = **same**
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = **1**
.. .. aft of .. = **sheer**
offset

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{111.78}{18} \left(.75 - \frac{3596}{3904} \right) = +2.42$
If limited on account of midship superstructure. ✓

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. ✓

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	46.54
Addition for Winter and Winter North Atlantic Freeboard.	Full Displacement in salt water at summer load water line 20'10"	Correction for coefficient $\frac{.761 + .68}{1.36} = \frac{1.441}{1.36}$	49.32
Depth to Freeboard Deck = 29.62 <i>R.Q.</i>	$\Delta = 65.47$	Depth Correction ... 9.52	
Summer freeboard = 8.92 <i>Full</i>	Tons per inch immersion at summer load water line 20'10"	Deduction for superstructures ... 23.65	
Moulded draught (d) = 20.70	T = 29.04	Sheer correction ... 2.42	
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{\Delta}{40 T}$ inches = 5.18 = 5 1/4"	Deduction = $\frac{\Delta}{40 T}$ inches = 5.64 = 5 3/4"	Round of Beam correction01	
Addition for Winter North Atlantic Freeboard (if required) = 7 1/4"	med. Draft at 20'10" = 6509 " T.P.1 " = 28.96	Correction for Thickness of Deck amidships ... 57.84	
		Other corrections, scantlings, + <i>Dronehead</i> ... 11.54	
		To a summer moulded draught of 20'10" ... 81.33	
		Summer Freeboard = 107.00	

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

Tropical Fresh Water Line above Centre of Disc ...	11"
Fresh Water Line ..	5 3/4"
Tropical Line ..	5 1/4"
Winter Line below ..	5 1/4"
Winter North Atlantic Line ..	7 1/4"

Tropical Fresh Water Freeboard ...	8'11"
Fresh Water ..	8'0"
Tropical ..	8'5 1/4"
Winter ..	8'5 3/4"
Winter North Atlantic ..	9'4 1/4"

"EMPIRE JAMAICA"

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.

Plans of Midship Section, Profile & decks, & stern frame & rudder attached, which please return with the freeboard assignment.

omit

2.12	82.02
1.0	0.70
0.0	24.72

omit

Trade of ship "ocean-going"

Names of sister ships "Empire Bermuda" & previous vessels.

Builder's name and yard number William Gray & Co Ltd. No 1174

Owners Ministry of War Transport

Fee £ 14-0-0

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