

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

No. 18644

Empire Bonanza, etc.
37900
CLOVELLY
PATTAWILYA

Ship's Name EMPIRE CAICOS	Official Number 180082 3707-KJ	Nationality and Port of Registry PANAMA British West Hartlepool	Gross Tonnage 3538	Date of Build May 1945	Port of Survey West Hartlepool.
Moulded Dimensions: Length 312'-0" Breadth 46'-4" Depth 24'-9" <i>20 centre of midstock 312'-7"</i>					Date of Survey April 1945
Moulded displacement at moulded draught = 85 per cent. of moulded depth 6625 tons					Surveyor's Signature W. J. Lang.
Coefficient of fineness for use with Tables .761					Particulars of Classification +100 A.1 with freeboard.

Depth for Freeboard (D).	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 plate05	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓	Standard Round of Beam = $\frac{B \times 12}{50} =$ 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 = $\frac{\text{Diff.}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.12}{4} \times 2807 = +0.1$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height <i>slab 6</i>	Height Correction	Effective Length (E)	
Poop enclosed <i>20 centre of midstock</i>	80.58	80.58	7'-6"	-	80.58	Standard Height of Superstructure 6.626
.. overhang ...						" " R.Q.D. 4.835
R.Q.D. enclosed	117'-0"	117.00	4'-10"	-	117.00	Deduction for complete superstructure 36.17
.. overhang ...						Percentage covered $\frac{S}{L} =$
Bridge enclosed...						" " $\frac{S_1}{L} =$ 71.93
.. overhang aft ...						" " $\frac{E}{L} =$
.. overhang forward						Percentage from Table, Line A. 65.38
F'cle enclosed ...	27.25	27.25	7'-0"	-	27.25	(corrected for absence of forecastle (if required))
.. overhang ...						Percentage from Table, Line B. -
Trunk aft ...						(corrected for absence of forecastle (if required)) -
.. forward ...						Interpolation for bridge less than .2L (if required)
Tonnage opening aft ...						Deduction = 36.17 x 65.38 = -23.65
" " forward						
Total ...	224.83	224.83			224.83	

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	Mean actual sheer aft = <.5
1/2 L from A.P. ...	18.36	4		73.44	.75	.75	4		3.00	Mean actual sheer forward = Even
2/3 L " ...	4.54	2		9.08	✓	-	2		-	Mean standard sheer forward
Amidships ...	-	4		-	✓	-	4		-	Length of enclosed superstructure forward of amidships =
2/3 L from F.P. ...	9.08	2		18.16	6.25	9.08	2		18.16	" " aft of " = Sheer Deficient
1/2 L " ...	36.72	4		146.88	40.00	36.72	4		146.88	
F.P. ...	82.52	1		82.52	82.50	82.50	1		82.50	
Total ...				371.34					259.56	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{111.78 (.75 - .3596)}{18} = +2.42$
If limited on account of midship superstructure. **✓** If limited to maximum allowance of 1 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	$\Delta =$ 6547	Depth Correction ... 9.52	-
Summer freeboard = 8.92	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 = $\frac{d}{4}$ 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	MLO DSP @ 20'-8 1/2" = 6509 " T.P.J. " = 28.95	Correction for Thickness of Deck amidships 57.84	-
		Other corrections, scantlings, etc. 11.54	-
		to a summer months draught of 20'-8 1/2"	81.33
		Summer Freeboard = 107.00	+57.68

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

Tropical Fresh Water Line above Centre of Disc ...	11"	Tropical Fresh Water Freeboard ...	8'-0"
Fresh Water Line " " ...	5 3/4"	Fresh Water " " ...	8'-5 1/4"
Tropical Line " " ...	5 1/4"	Tropical " " ...	8'-5 3/4"
Winter Line below " " ...	5 1/4"	Winter " " ...	9'-4 1/4"
Winter North Atlantic Line " " ...	7 1/4"	Winter North Atlantic " " ...	9'-6 1/4"

Clovelly "EMPIRE CAICOS"

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.

Plan of Stern frame & rudder enclosed for reference.

Plans of Midship Section, Profile & deck at Wokingham in connection with 1st Entry Report of previous vessel.

Please return all plans with the assignment.

[Large handwritten signature]

Trade of ship

ocean-going

Names of sister ships

Empire Barbados & previous vessels

Builder's name and yard number

William Gray & Co Ltd. No 1179

Owners

Ministry of War Transport

Fee £

14-0-0



© 2020

Lloyd's Register
Foundation