

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

- 2 APR 1953

Ship's Name "CERES"	Official Number	Nationality and Port of Registry Panamanian Panama	Gross Tonnage 10.854	Date of Build 1922.10	Port of Survey Sasebo
Moulded Dimensions: Length 500.0' Breadth 63.5' Depth 42.0'					Date of Survey 14.15 November 1952
Moulded displacement at moulded draught = 85 per cent. of moulded depth 25,550 tons (excluding bossing)					Surveyor's Signature <i>Peter Manson</i>
Coefficient of fineness for use with Tables .787 .789					Particulars of Classification + 100A1 Shelter Deck with Freeboard

DEPTH FOR FREEBOARD (D).				
Moulded depth	42.0
Stringer plate06
Sheathing on exposed deck	$T \left(\frac{L-S}{L} \right) =$			
Depth for Freeboard (D) =	42.06			

DEPTH CORRECTION.	
(a) Where D is greater than Table depth (D-Table depth) R = $(42.06 - 33.33) \times 3 = 26.19$	
(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)	63.5
Standard Round of Beam = $\frac{B \times 12}{50}$	15.24
Ship's Round of Beam	15.75
Difference	.51
Restricted to	
Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	$\frac{.51}{4} \times \frac{.855}{1.155} = .12$

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	30.875	30.875	7.5		30.875
" overhang aft					
" overhang forward					
Fore enclosed	42.25	42.25	7.5		42.25
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward	42.25	42.25			42.25
Total	43.125	43.125			75.125

Standard Height of Superstructure	7.50
" " R.Q.D.	
Deduction for complete superstructure	4.2
Percentage covered $\frac{S}{L} =$	
" $\frac{S_1}{L} =$	14.63
" $\frac{E}{L} =$	8.45
Percentage from Table, Line A.	4.23
(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 = $.0423 \times 42 = 1.78$	

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	60.0	1	60.0	60	60.0	1	60.0
1/4 L from A.P.	26.7	4	106.8	26	26.0	4	104.0
3/4 L "	6.6	2	13.2	6.4	6.4	2	12.8
Amidships		4		0	0	4	
3/4 L from F.P.	13.2	2	26.4	14.2	14.2	2	28.4
1/4 L "	53.4	4	213.6	57.7	57.7	4	230.8
F.P.	120.0	1	120.0	132	132.0	1	132.0
Total			540.0				568.0

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{28}{18} \left(\frac{.75 - .431}{2} \right) = .0423$
If limited on account of midship superstructure. YES. NIL.

Mean actual sheer aft	7.75
Mean standard sheer aft	
Mean actual sheer forward	EXCESS
Mean standard sheer forward	
Length of enclosed superstructure forward of amidships =	
" " aft of " =	NIL
If limited to maximum allowance of 11 ins. per 100 ft.	

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck	=	42.06
Summer freeboard	=	10.94
Moulded draught (d)	=	31.12
Keel allowance	=	
Extreme draught	=	
Deduction for Tropical freeboard and addition for		
Winter freeboard = $\frac{d}{4}$ inches	=	7.78
Addition for Winter North Atlantic Freeboard (if required)	=	

Deduction for Fresh Water.

Displacement in salt water at summer load water line	$\Delta = 22.200$
Tons per inch immersion at summer load water line	$T = 64.4$
Deduction = $\frac{\Delta}{40 T}$ inches	$= 8.54$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient	$\frac{.789 \times .68}{1.36} = \frac{1.469}{1.36}$
Depth Correction	+ 26.19
Deduction for superstructures	- 3.33
Sheer correction	- 1.78
Round of Beam correction	- .12
Correction for Thickness of Deck amidships	-
Other corrections, scantlings, etc.	-
Summer Freeboard	111.74

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

FREEBOARDS. ASSIGNED UNDER 1906 CONVENTION.	Tropical Fresh Water Line above Centre of Disc	400	Tropical Fresh Water Freeboard	2940
	Fresh Water Line	200	Fresh Water	3140
	Tropical Line	200	Tropical	3140
	Winter Line below	200	Winter	3540
	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.

Portular Fluid Deck Penalty.

$$\frac{500}{100} \times 1.5 \times \frac{1 - 0.845}{.1} = 1.16$$

Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____



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Foundation