

Amended computation

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index No.
(For London Office only.)

Ship's Name CHESHIRE	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length 482.0 Breadth 60.0 Depth 36.25					Date of Survey 26.7.49
Moulded displacement at moulded draught = 85 per cent. of moulded depth 19213 tons					Surveyor's Signature
Coefficient of fineness for use with Tables .754					Particulars of Classification +100A1

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 36.25	(a) Where D is greater than Table depth (D - Table depth) R = (36.30 - 32.13) 3 = +12.51"	Moulded Breadth (B) 60.0
Stringer plate04	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 4.17	Standard Round of Beam = $\frac{B \times 12}{50} = \mathbf{14.4}$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = \mathbf{.25 \times .1415 = .01}$	If restricted by superstructures	Ship's Round of Beam = 9.0
Depth for Freeboard (D) = 36.30		Difference = 5.4
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{5.4}{4} \times .1415 = \mathbf{+.06"}$

DEDUCTION FOR SUPERSTRUCTURES.					
	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	57.25	57.25	7.75	-	57.25
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
Fore enclosed	410.75	410.75	8.56	-	410.75
" overhang			7.75		
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	462	462.00			462.00

Standard Height of Superstructure	7.5'
" " R.Q.D.	42"
Deduction for complete superstructure	
Percentage covered $\frac{S}{L} =$.95.85
" " $\frac{S_1}{L} =$	
" " $\frac{E}{L} =$	
Percentage from Table, Line A.	94.89
(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 x .9489 = -39.85

SHEER CORRECTION.							
Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P.	58.20	1	58.2	61	61.0	1	61
$\frac{1}{2}L$ from A.P.	25.9	4	103.6	24.6	24.6	4	98.4
$\frac{3}{4}L$ "	6.4	2	12.8	2.5	2.5	2	5.0
Amidships	-	4	-	-	-	4	-
$\frac{1}{4}L$ from F.P.	12.8	2	25.6	23.7	23.7	2	47.4
$\frac{3}{4}L$ "	51.8	4	207.2	68.0	68	4	272.0
F.P.	116.40	1	116.4	120	120	1	120.0
Total			523.8				603.8

Mean actual sheer aft = **> .75**
Mean standard sheer aft = **> .75**

Mean actual sheer forward = **6.4**
Mean standard sheer forward = **6.4**

Length of enclosed superstructure forward of amidships = **> .1**
" " aft of " = **> .1**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{82(1.75 - .4792)}{18 \cdot 270.8} = \mathbf{-1.20"}$
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
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line $\Delta = \mathbf{15695}$	corrected for Flush Deck (if required)
Depth to Freeboard Deck = 36.48	Tons per inch immersion at summer load water line $T = \mathbf{60.8}$	Correction for coefficient $\frac{754 + .68}{1.38} = \mathbf{1.434/1.36}$
Summer freeboard = 10.73	Deduction = $\frac{\Delta}{40 T} = \mathbf{6\frac{1}{2}}$	Depth Correction 12.51
Moulded draught (d) = 25.75		Deduction for superstructures 39.85
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.43.62		Sheer correction 1.20
Addition for Winter North Atlantic Freeboard (if required) =		Round of Beam correction .06
		Correction for Thickness of Deck amidships ... 2.13
		Other corrections, scantlings, etc. ... 5.92
		Summer Freeboard = 128.75

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

Tropical Fresh Water Line above Centre of Disc	6 1/2"	Tropical Fresh Water Freeboard	10' - 8 3/4"
Fresh Water Line	6 1/2"	Fresh Water	10' - 2 1/4"
Tropical Line	NIL	Tropical	10' - 2 1/4"
Winter Line below	NIL	Winter	10' - 8 3/4"
Winter North Atlantic Line	Not original	Winter North Atlantic	Not original

003169-003771-0052

Cheshire.

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.

draught 25-10 $\frac{1}{2}$ full

27.	1654		
26.	15786		
	<u>770</u>	53.33	60.8
	12	26.67	30.4
		<u>80.00</u>	91.2
	15876		15786
	<u>15796</u>		<u>15695</u>

Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____



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