

Darbyan 35380

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name TEMPLE YARD	Official Number 164107	Nationality and Port of Registry British, Glasgow	Gross Tonnage 1937	Date of Build 1937	Port of Survey 6.6.41
Moulded Dimensions: Length 425' Breadth 56' Depth 36' - 1 3/4"				Surveyor's Signature	
Moulded displacement at moulded draught = 85 per cent. of moulded depth				Particulars of Classification +100M with fuel tank	
Coefficient of fineness for use with Tables .764 (estimated)					

Depth for Freeboard (D).		Depth correction.		Round of Beam correction.	
Moulded depth ...	36.23'	(a) Where D is greater than Table depth (D - Table depth) R =	.08	Moulded Breadth (B)	56'
Stringer plate92	$(36.31 - 28.33) \times 3 = + 23.94$		Standard Round of Beam = $\frac{B \times 12}{50} =$	13.44
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	✓	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	7.98	Ship's Round of Beam	14.00
Depth for Freeboard (D) =	36.31	If restricted by superstructures	✓	Difference	.56
				Restricted to	
				Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) =$.56 x .9329 = .52

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 ...					
Fore enclosed ...	18.50'	28.50	7.5'	-	28.50
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	28.50	28.50			28.50

Standard Height of Superstructure	7.5'
" " R.Q.D.	42"
Deduction for complete superstructure	
Percentage covered $\frac{S}{L} =$	6.71
" " $\frac{S_1}{L} =$	
" " $\frac{E}{L} =$	
Percentage from Table, Line A.	3.36
(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 .0336 = -1.41

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	52.50	1	52.50	51.00	51.00	1	51.00
$\frac{1}{2}$ L from A.P. ...	23.365	4	93.46	22.50	22.50	4	90.00
$\frac{3}{4}$ L " 	5.775	2	11.55	5.00	5.00	2	10.00
Amidships ...	-	4	-	-	-	4	-
$\frac{3}{4}$ L from F.P. ...	11.55	2	23.10	11.75	11.75	2	23.50
$\frac{1}{2}$ L " 	46.73	4	186.92	46.00	46.00	4	184.00
F.P. 	105.00	1	105.00	103.00	103.00	1	103.00
Total ...			472.53				461.50

Mean actual sheer aft =	} Deficient
Mean standard sheer aft =	
Mean actual sheer forward =	}
Mean standard sheer forward =	

Length of enclosed superstructure forward of amidships =	} 128
" " aft of " =	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{21} \right) = \frac{11.03}{18} \left(\frac{75-.0336}{21} \right) = +.44$

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 = **36.31'**

Summer freeboard = **10.69'**

Moulded draught (d) = **25.62'**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **6.41 - 6.2"**

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$

Tons per inch immersion at summer load water line

T =

Deduction = $\frac{\Delta}{40 T}$ inches

7"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{79.35 + 2.10}{1.36} = 1.44$

	+	-
Depth Correction ...	23.94	-
Deduction for superstructures44	-
Sheer correction13	-
Round of Beam correction ...	-	-
Correction for Thickness of Deck amidships ...	18.93	-
Other corrections, scantlings, etc. 25.7 1/4" (25.7 3/8" actual)	43.31	1.56
Summer Freeboard =	128.25	

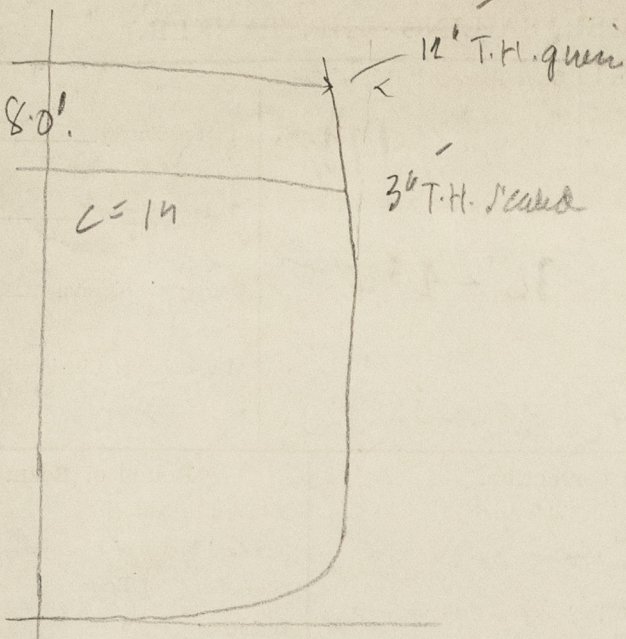
SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:

Tropical Fresh Water Line above Centre of Disc	13 1/4"
Fresh Water Line	7 1/2"
Tropical Line	6 1/2"
Winter Line below	6 1/2"
Winter North Atlantic Line	✓

Tropical Fresh Water Freeboard	10 5/8 1/4"
Fresh Water	9 1/2 3/4"
Tropical	10 1/4 1/4"
Winter	10 1/4 1/4"
Winter North Atlantic	11 1/2 3/4"

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.

Particulars 425 x 56 x 28.2
36-2.



$$\begin{array}{r} 28.0 \\ 1.0 \\ \hline 27.0 \end{array}$$

$$\begin{array}{r} 28.0 \\ .25 \\ \hline 27.75 \end{array}$$

$$14 \times \left(\frac{27}{28} \right)^2 = \begin{array}{r} 14.00 \\ 13.01 \\ \hline .99 \\ .25 \\ \hline .74 \end{array}$$

$$14 \times \left(\frac{27.75}{28} \right)^2 = \begin{array}{r} 14.00 \\ 13.75 \\ \hline .25 \end{array}$$

$$\begin{array}{r} 28'-2'' \\ 8'-0'' \\ \hline 36'-2'' \\ \hline 36'-2\frac{3}{4}'' \end{array}$$

Trade of ship.....

Names of sister ships.....

Builder's name and yard number.....

Owners.....

Fee £.....



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Foundation