

Broomfield 36093
 Broomfield 35886
 Broomfield 35522
 Broomfield 36104
 Temple Inn 36184

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name TEMPLE ARCH	Official Number 167384	Nationality and Port of Registry British, London	Gross Tonnage 36.81	Date of Build 1934	Port of Survey 30.5.41
Moulded Dimensions: Length 425 Breadth 56'0" Depth 36.81					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth tons					Particulars of Classification + 100A1 with freeboard.
Coefficient of fineness for use with Tables 772 estimated.					

Depth for Freeboard (D). Moulded depth ... 36.81 Stringer plate ... 80 ... 06 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ ✓ Depth for Freeboard (D) = 36.87	Depth correction. (a) Where D is greater than Table depth (D-Table depth) R = (36.87-28.33) x 3 = 25.62" (b) Where D is less than Table depth (if allowed) (Table depth-D) R = 8.54 If restricted by superstructures ✓	Round of Beam correction. Moulded Breadth (B) 56.00 Standard Round of Beam = $\frac{B \times 12}{50} =$ 13.44 Ship's Round of Beam = 14" Difference .56 Restricted to Correction = $\frac{\text{Diff}^a}{4} \times \left(1 - \frac{S_1}{L} \right) =$ $\frac{.56}{4} \times .9191 = .13$
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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 ...	34.4	34.4	7.5	✓	34.4
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	34.4	34.4			34.4

Standard Height of Superstructure **7.50**
 " " R.Q.D. **✓**
 Deduction for complete superstructure **42.00**
 Percentage covered $\frac{S}{L} =$ **8.09**
 " $\frac{S_1}{L} =$ **8.09**
 " $\frac{E}{L} =$ **8.09**
 Percentage from Table, Line A. **4.05**
 (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 = **42.00 x .0405 = 1.70"** **✓**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	52.50	1		52.50	54	54.00	1		54.00
1/4 L from A.P. ...	23.36	4		93.44	24	24.00	4		96.00
2/4 L " ...	5.78	2		11.56	6	6.00	2		12.00
Amidships ...	✓	4		✓	✓	-	4		-
3/4 L from F.P. ...	11.56	2		23.12	12	12.00	2		24.00
1/4 L " ...	46.72	4		186.88	48	48.00	4		192.00
F.P. ...	105.00	1		105.00	108	108.00	1		108.00
Total ...				472.50					486.00

Mean actual sheer aft = **Excess.**
 Mean standard sheer aft = **Excess.**

Mean actual sheer forward = **Excess.**
 Mean standard sheer forward = **Excess.**

Length of enclosed superstructure forward of amidships = **✓**
 " " aft of " = **✓**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{13.50}{18} (.75 - .0405) = -.53"$
 If limited on account of midship superstructure. **Yes, up allowance** **18** **.7095** **13.50** **(.75 - .0405) = -.53"**
 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 = **36.87**
 Summer freeboard = **11.17**
 Moulded draught (d) = **25.60**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **6.40 = 6 1/2"**

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

= **7"**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

79.75 + 1.22 = **80.97**
 772 + .68 = **772.68**
 1.36 / 1.36 = **1.00**
 80.97 x 1.00 = **80.97**

Depth Correction ... **25.62**

Deduction for superstructures ... **1.70**

Sheer correction ... **-**

Round of Beam correction ... **.13**

Correction for Thickness of Deck amidships ... **-**

Other corrections, scantlings, etc. **6.00**

with a summer moulded draught **51.06**

Summer Freeboard = **135.25**

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 1/4"**
 Tropical Line " " ... **6 1/2"**
 Winter Line below " " ... **6 1/2"**
 Winter North Atlantic Line " " ... **✓**

Tropical Fresh Water Freeboard ... **11'-3 1/4"**
 Fresh Water " " ... **10'-1 3/4"**
 Tropical " " ... **10'-8 1/4"**
 Winter " " ... **10'-8 3/4"**
 Winter North Atlantic " " ... **11'-9 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.

Portline flush deck penalty

$$\begin{array}{r} 425 \\ 2125 \\ \hline 1375 \end{array} \times \begin{array}{r} .1000 \\ .0809 \\ \hline .191 \end{array} = +1.22"$$

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £



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