

OCEAN VANGUARD
No. 36720

Lloyd's Register of Shipping.

Index No. 36720
(For London Office only).

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "OCEAN STRENGTH"	Official Number 169058	Nationality and Port of Registry BRITISH London <i>Manchester</i>	Gross Tonnage 7172.79	Date of Build 1942	Port of Survey So. Portland, Maine, U.S.A.
Moulded Dimensions: Length 417.35' Breadth 56.9 Depth 37.33 to upper deck. <i>To centre of rudder stock</i> 28.48 to 2nd deck.					Date of Survey July, 1942
Moulded displacement at moulded draught = 85 per cent. of moulded depth 16556 tons					Surveyor's Signature <i>A. Hunter</i> J.S. Omistow
Coefficient of fineness for use with Tables .769					Particulars of Classification 100A1 with Freeboard (contemplated).

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth 37.33	(a) Where D is greater than Table depth (D—Table depth) R= (37.38 - 27.82) 3 = +28.68	Moulded Breadth (B) 56.90
Stringer plate05	(b) Where D is less than Table depth (if allowed) (Table depth—D) R= 37.38 - 28.48 = 8.90	Standard Round of Beam = $\frac{B \times 12}{50} = 13.66$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = 14.00
Depth for Freeboard (D) = 37.38		Difference = .34
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.34}{4} = .09''$

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				
F'cle enclosed				
" overhang				
Trunk aft				
" forward				
Tonnage opening aft				
" " forward				
Total				

FLUSH DECK

Standard Height of Superstructure **7'6"**
" " R.Q.D. _____
Deduction for complete superstructure **42 inches.**
Percentage covered $\frac{S}{L} =$ _____
" " $\frac{S_1}{L} =$ _____
" " $\frac{E}{L} =$ _____
Percentage from Table, Line A.
(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 = **NIL**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	51.75³	1		51.75³	53.70	53.70	1		53.70
1/4L from A.P.	23.03²	4		92.12⁸	23.40	23.40	4		93.60
1/4L "	5.69	2		11.38	4.9	4.9	2		9.80
Amidships	X	4		X	X	X	4		X
1/4L from F.P.	11.39⁸	2		22.78⁶	11.60	11.60	2		23.20
1/4L "	46.06⁴	4		184.24¹⁶	47.40	47.40	4		189.60
F.P.	103.50⁴⁷	1		103.50⁴⁷	105.50	105.50	1		105.50
Total				465.77					475.40

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{9.68^{82}}{18} \times .75 = -.40'$
If limited on account of midship superstructure. **18** 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)	83.21
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient. .769 + .68 = 1.449 = 1.065	88.68⁶
Depth to Freeboard Deck = 37.38 Ft.	$\Delta = 13758$	1.36	
Summer freeboard = 10.54	Tons per inch immersion at summer load water line	Depth Correction	28.68
Moulded draught (d) = 26.84	T = 48.5	Deduction for superstructures	—
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6-3/4"	Deduction = $\frac{\Delta}{40T}$ inches = 7"	Sheer correction40
Addition for Winter North Atlantic Freeboard (if required) = X		Round of Beam correction09
		Correction for Thickness of Deck amidships	9.69
		Other corrections, scantlings, etc.	—
		corresponding with approved summer draught.	38.37⁴ + .58 = 37.88⁴
		Summer Freeboard = 126.50''	

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:— **10'6 1/2"**

Tropical Fresh Water Line above Centre of Disc	13-3/4	Tropical Fresh Water Freeboard	9.4-3/4
Fresh Water Line " "	7	Fresh Water " "	9.11 1/2
Tropical Line " "	6-3/4	Tropical " "	9.11-3/4
Winter Line below " "	6-3/4	Winter " "	11-1/4
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.

omit

Trade of ship..... Dry & Perishable Cargoes.

Names of sister ships..... "OCEAN VANGUARD", "OCEAN LIBERTY", Etc.

Builder's name and yard number..... Todd-Bath Iron Shipbuilding Corporation, Hull No.12

Owners..... British Ministry of War Transport.

Fee £..... See F. E. Hull Report.

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