

OCEAN VANGUARD

No. 36720

ETC.

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 manchester	Gross Tonnage 7152 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. 28.48 to 2nd deck. <i>To centre of rudder stock</i>					Date of Survey July, 1942
Moulded displacement at moulded draught = 85 per cent. of moulded depth 16556 tons					Surveyor's Signature J.S. Omistun
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=	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 ...					

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. ...	51.75 ³	1	51.75 ³	53.70	53.70	1	53.70
1/4L from A.P. ...	23.03 ²	4	92.12 ⁸	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. ...	11.39 ⁸	2	22.78 ⁶	11.60	11.60	2	23.20
1/4L " ...	46.06 ⁴	4	184.24 ⁶	47.40	47.40	4	189.60
F.P. ...	103.50 ⁴⁷	1	103.50 ⁴⁷	105.50	105.50	1	105.50
Total ...			465.77				475.40

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{9.63^{82}}{18} \times .75 = -.40'$

If limited on account of midship superstructure.

Mean actual sheer aft =	Mean standard sheer aft =
Mean actual sheer forward =	Mean standard sheer forward =
Length of enclosed superstructure forward of amidships =	
" " aft of " =	

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. $.769 + .68 = 1.449 = 1.065$	88.68 ⁶
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 ...	
		Other corrections, scantlings, etc. ...	
		corresponding with approved summer draught.	38.37 ⁴ .49 37.88 ⁴
		Summer Freeboard =	126.50"

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

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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