

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD. F16

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "OCEAN VOLUNTEER"	Official Number Not yet issued 168560	Nationality and Port of Registry BRITISH LONDON Manchester	Gross Tonnage 7174	Date of Build 1942	Port of Survey <u>RICHMOND, CALIFORNIA</u>
Moulded Dimensions: Length <u>417.35</u> ✓ Breadth <u>56.90</u> Depth <u>37.33</u> ✓ <i>To centre of keel stock.</i>					Date of Survey <u>APRIL 1942</u>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>16556</u> ✓ tons					Surveyor's Signature <u>J. Roberts & Rennie</u>
Coefficient of fineness for use with Tables <u>.769</u> ✓					Particulars of Classification <u>+ 100 A1</u> 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) x 3 = + 28.68 ✓	Moulded Breadth (B) 56.90
Stringer plate62"05	(b) Where D is less than Table depth (if allowed) (Table depth—D) R= 9.56 ✓	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) = <u>37.38</u> ✓		Difference .34
		Restricted to .34 ✓
		Correction = $\frac{\text{Diff}^o}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.34}{4} = -.09$ ✓

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	_____
" " R.Q.D.	_____
Deduction for complete superstructure	_____
Percentage covered $\frac{S}{L} =$)	()
" " $\frac{S_1}{L} =$)	(NIL) ✓
" " $\frac{E}{L} =$)	()
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. ...	51.73	1	51.73	53.00	53.00	1	53.00
1/4L from A.P. ...	23.02	4	92.08	23.12	23.12	4	92.48
1/2L " ...	5.69	2	11.38	5.12	5.12	2	10.24
Amidships ...	--	4	--	--	--	4	--
3/4L from F.P. ...	11.38	2	22.76	11.75	11.75	2	23.50
1/2L " ...	46.04	4	184.16	47.37	47.37	4	189.48
F.P. ...	103.47	1	103.47	104.75	104.75	1	104.75
Total ...			465.58				473.45

Mean actual sheer aft =)
Mean standard sheer aft = ()

Mean actual sheer forward = ()
Mean standard sheer forward = ()

Length of enclosed superstructure forward of amidships =)
L = (NIL) ✓

" " aft of " =)

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{7.87}{18} \times .75 = -.33$
If limited on account of midship superstructure. ✓

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. $\frac{.769 + .68}{1.36} = \frac{1.449}{1.36}$ ✓	88.66 ✓
Depth to Freeboard Deck = 37.38 Ft.	Δ = 13758	Depth Correction ... 28.68 --	52B. 29.7.42
Summer freeboard = 10.54	Tons per inch immersion at summer load water line	Deduction for superstructures ... --	
Moulded draught (d) = 26.84	T = 48.5	Sheer correction33	
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.71 = 6 3/4 ✓	Deduction = $\frac{\Delta}{40T}$ inches = 7.09	Round of Beam correction09	
Addition for Winter North Atlantic Freeboard (if required) = ✓	= 7" ✓	Correction for Thickness of Deck amidships ... --	
		Other corrections, scantlings, etc. correspond to a summer moulded draught of 26'10" (26'10 1/8" actual) ✓	9.58 --
		Summer Freeboard = 126.50 ✓	38.26 .42 + 37.84 ✓

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 1/4"
Winter-North Atlantic Line " " ...	✓	Winter-North Atlantic " " ...	✓

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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.

J. Rannie
Apr. 14th 1942.

Am 17

Trade of ship.....INTERNATIONAL.....

Names of sister ships.....This vessel is the 16th of thirty sister ships, Nos. 1 - 30, to be built by Todd-California Shipbuilding Division of The Permanente Metals Corporation.....

Builder's name and yard number.....Todd-California Shipbuilding Division of The Permanente Metals Corporation - No. 16.....

Owners.....H. M. GOVERNMENT IN THE UNITED KINGDOM.....

Fee £.....To be charged in London.....



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Foundation