

AMENDED

LLOYD'S REGISTER OF SHIPPING

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

For LONDON OFFICE ONLY

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Ship's Name TINA ONASSIS	Official Number 328	Nationality and Port of Registry Monrovia Liberia	Gross Tonnage 27853	Date of Build 1953	Port of Survey _____
Moulded Dimensions: Length 220.50 M. Breadth 29.00 M. Depth 15.735 M.					Date of Survey 9/3/59
Freeboard Length 220.50 M.					Surveyor's Signature _____
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) 68600 M³ — tons					Particulars of Classification 100 A1 oil Tanker (contemplated)
Coefficient of fineness for use with Tables .802					

DEPTH FOR FREEBOARD (D). M		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	15.735	(a) Where D is greater than Table depth (D - Table depth) R = 8.33 (15.771 - 14.70) 30 = +268 mm.		Moulded Breadth (B)	29.000 M.
Stringer plate	0.340	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 1.071		Standard Round of Beam = $\frac{B}{50}$	580
Wood Sheathing on exposed deck				Ship's Round of Beam <i>equiv.</i>	550
$T \left(\frac{L-S}{L} \right) =$				Difference	-30
Depth for Freeboard (D) =	15.771	If restricted by superstructures		Restricted to	
				Correction = $\frac{\text{Diff.}}{4} \times \left(1 - \frac{S}{L} \right)$	$\frac{30}{4} \times 0.6305 = +5 \text{ mm}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S _i)	Height	Height Correction	Effective Length (E)
Poop enclosed <i>equiv.</i>	49.130	49.130	2966	—	49.130
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
F'cle enclosed	32.344	32.344	3228		32.344
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	81.474	81.474			81.474

Standard Height of Superstructure	2290 mm.
" " R.Q.D.	✓
Deduction for complete superstructure	1067 mm
Percentage covered $\frac{S}{L} =$	
" " $\frac{S_i}{L} =$	36.95
" " $\frac{E}{L} =$	
Percentage from Table, Line A Tanker	27.95
(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 =	1067 x .2795 = 298

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	2091	1	2091	2091	1192	1868	1	1868	1868
1/2 L from A.P.	929	4	3716	238	270	1080	4	1080	1080
1/2 L	232	2	464	0	0	0	2	0	0
Amidships	0	4	0	0	0	0	4	0	0
1/2 L from F.P.	464	2	928	0	0	0	2	0	0
1/2 L	1858	4	7432	246	246	984	4	984	984
F.P.	4182	1	4182	1687	1687	1687	1	1687	1687
Total			18813			5619			5619

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{13194}{18} (.75 - .1848) = +414 \text{ mm.}$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100ft.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 51.74 Summer freeboard = 13.50 Moulded draught (d) = 38.24 Keel allowance = Extreme draught = Deduction for Tropical freeboard and addition for = Winter freeboard = $\frac{d}{4}$ inches = 9.55" = 9 1/2 Addition for Winter North Atlantic Freeboard (if required) = 9.55 + 7.23 = 16.78 = 16 3/4	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ 58632 Tons per inch immersion at summer load water line $T =$ 143.49 Deduction = $\frac{\Delta}{40 T}$ inches = 10.21" = 10 1/4"	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.68 + .802}{1.36} = \frac{1.482}{1.36}$ <table border="1"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction</td> <td>268</td> <td>-</td> </tr> <tr> <td>Deduction for superstructures</td> <td>-</td> <td>298</td> </tr> <tr> <td>Sheer correction</td> <td>414</td> <td>-</td> </tr> <tr> <td>Round of Beam correction</td> <td>5</td> <td>-</td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td></td> <td></td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td>147</td> <td>-</td> </tr> <tr> <td>a summer moulded draught of 38'-2 1/8"</td> <td>834</td> <td>298</td> </tr> <tr> <td></td> <td>+ 536 mm</td> <td></td> </tr> </table> Summer Freeboard = 4115 mm = 162"		+	-	Depth Correction	268	-	Deduction for superstructures	-	298	Sheer correction	414	-	Round of Beam correction	5	-	Correction for Thickness of Deck amidships			Other corrections, scantlings, etc.	147	-	a summer moulded draught of 38'-2 1/8"	834	298		+ 536 mm	
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~ Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc	19 3/4"	Tropical Fresh Water Freeboard	13' 6"
Fresh Water Line	10 1/4"	Fresh Water	11' 10 1/4"
Tropical Line	9 1/2"	Tropical	12' 7 3/4"
Winter Line below	9 1/2"	Winter	12' 8 1/2"
Winter North Atlantic Line	16 3/4"	Winter North Atlantic	14' 3 1/2"
			14' - 10 3/4"

17 MAR 1959