

LLOYD'S REGISTER OF SHIPPING

SURVEYS FOR FREEBOARD

(COMPUTATION FOR ~~STEAMER~~, ~~SAILING SHIP~~, TANKER)

For LONDON OFFICE ONLY

Received

Index No.

Govt. Copy

Owners C11

Ship's Name GEMMA	Official Number	Nationality and Port of Registry LIBERIAN British MONROVIA	Gross Tonnage	Date of Build 1949	Port of Survey
Moulded Dimensions: Length 384' Breadth 62.5' Depth 26.25'					Date of Survey 12/8/60
Freeboard Length 384' to C.T.S.					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth 12545 tons					Particulars of Classification +100 A1 Oil Tanker
Coefficient of fineness for use with Tables .820					

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 26.25	(a) Where D is greater than Table depth (D-Table depth) R = (26.30-25.60)2.94 = + 2.07	Moulded Breadth (B) 62.5'
Stringer plate05	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = .70	Standard Round of Beam = $\frac{B \times 12}{50} = 15''$
Wood Sheathing on exposed deck $r \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = 16''
Depth for Freeboard (D) = 26.30		Difference = 1
		Restricted to
		Correction = $\frac{\text{Diff}^c}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{1}{4} \times .7551 = -.19$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...						Standard Height of Superstructure 7.34
" overhang ...						" " R.Q.D.
R.Q.D. enclosed ...						Deduction for complete superstructure 40.93
" overhang ...						Percentage covered $\frac{S}{L} = 24.52$
Aft Bridge enclosed equivalent ... 63.87	63.87				63.87	$\frac{S_1}{L} = 24.49$
" overhang aft55	.41				.41	$\frac{E}{L} =$
" overhang forward ...						Percentage from Table, Line A. Tanker 17.14
F'cle enclosed ... 29.75	29.75				29.75	(corrected for absence of forecabin (if required))
" overhang ...						Percentage from Table, Line B.
Trunk aft ...						(corrected for absence of forecabin (if required))
" forward ...						Interpolation for bridge less than .2L (if required)
Tonnage opening aft ...						Deduction = 40.93 x .1714 = -7.02
" " forward ...						
Total ... 94.17	94.03				94.03	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	48.40	1		48.40	27.50	27.50	1		27.50
$\frac{1}{4}$ L from A.P. ...	21.54	4		86.16	2.99	2.99	4		11.96
$\frac{2}{4}$ L " ...	5.32	2		10.64	0	0	2		0
Amidships ...	0	4		0	0	0	4		0
$\frac{2}{4}$ L from F.P. ...	10.65	2		21.30	0	0	2		0
$\frac{1}{4}$ L " ...	43.08	4		172.32	1.50	1.50	4		6.00
F.P. ...	96.80	1		96.80	53.00	53.00	1		53.00
Total ...				435.62					98.46

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 " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{337.16}{18} (.75 - .1226) = + 11.75$
If limited on account of midship superstructure. **.6274** If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **26.30**

Summer freeboard = **8.29**

Moulded draught (d) = **18.01**

Keel allowance =

Extreme draught =

Deduction for Tropical freeboard and addition for =

Winter freeboard = $\frac{d}{4}$ inches = **4.50**

Addition for Winter North Atlantic Freeboard (if required) = **4.50 + 3.84 = 8.34 = 8 3/4**

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 = $\frac{\Delta}{40 T}$ inches = **4 1/2**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.68 \times .82}{1.36} = 1.50$	1.36	58.82
Depth Correction ...	2.07	64.88
Deduction for superstructures ...	7.02	
Sheer correction ...	11.75	
Round of Beam correction19	
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, 28.01		
41.83	7.21	+ 34.62
Summer Freeboard = 99.50		

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

Tropical Fresh Water Line above Centre of Disc ...	9 1/2	22 cm	Tropical Fresh Water Freeboard	7 1/2	231 cm
Fresh Water Line " " ...	4 1/2	11 cm	Fresh Water	7 1/2	242 cm
Tropical Line " " ...	4 1/2	11 cm	Tropical	7 1/2	242 cm
Winter Line below " " ...	4 1/2	11 cm	Winter	8 1/2	264 cm
Winter North Atlantic Line " " ...	8 1/4	21 cm	Winter North Atlantic	8 1/4	274 cm