

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
"PASS OF BRANDER." ex. "EMPRE TEGAMBIA"	180822.	BRITISH. LONDON.	1156.	1936.	Ayr.
Moulded Dimensions: Length 226.37' Breadth 34.44' Depth 13.77'					Date of Survey 1947.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 167 AVAILABLE. / tons " LEADING LIGHT " " @ 12' 9 1/2" DRAFT. = 1593. "					Surveyor's Signature J. J. J.
Coefficient of fineness for use with Tables. NOT AVAILABLE. 80 ASSUMED					Particulars of Classification 100.A.1 "CARRYING PETROLEUM IN BULK" (CONTEMPLATED)

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	13.74	(a) Where D is greater than Table depth		Moulded Breadth (B)	34'-5 1/2"
Stringer plate	13.92	(D-Table depth) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	8.26
Sheathing on exposed deck	(.39")	(b) Where D is less than Table depth (if allowed)		Ship's Round of Beam = $\frac{6}{50}$	4.50 EQUIV. IN.
T $\left(\frac{L-S}{L}\right) =$.03	(Table depth - D) R =		Difference (STRAIGHT)	3.76"
Depth for Freeboard (D) =	13.80	$(15.09 - 13.80) \times 1.741 = -2.25"$		Restricted to	
		If restricted by superstructures		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L}\right)$	$\frac{3.76}{4} \times .1707 = +.16$
		$2.25 \times 3.94 = -1.48"$			

DEDUCTION FOR SUPERSTRUCTURES.						Standard Height of Superstructure <u>6.00'</u>	
						R.Q.D. <u>✓</u>	
						Deduction for complete superstructure <u>2864"</u>	
Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	Percentage covered $\frac{S}{L} =$	<u>54.09</u>	
					$\frac{S_1}{L} =$	<u>82.93</u>	
					$\frac{E}{L} =$	<u>65.35</u>	
						Percentage from Table, Line A. & B <u>55.10</u>	
						(corrected for absence of forecastle (if required))	
						Percentage from Table, Line B. <u>✓</u>	
						(corrected for absence of forecastle (if required))	
						Interpolation for bridge less than .2L (if required) <u>✓</u>	
						Deduction = <u>28.64</u> × <u>.5510</u> = <u>15.78"</u>	

SHEER CORRECTION.							
Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	32.64	1	32.64	40.5	40.50	1	40.50
$\frac{1}{2}$ L from A.P. ...	14.525	4	58.10	15.0	15.00	4	60.00
$\frac{2}{5}$ L " ...	3.59	2	7.18	1.5	1.50	2	3.00
Amidships ...	-	4	-	0	-	4	-
$\frac{2}{5}$ L from F.P. ...	7.18	2	14.36	12.0	12.00	2	24.00
$\frac{1}{2}$ L " ...	29.05	4	116.20	36.75	36.75	4	147.00
F.P. ...	65.27	1	65.27	84.75	84.75	1	84.75
Total ...			293.75				359.25

Mean actual sheer aft
Mean standard sheer aft =

Mean actual sheer forward
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = $\frac{L}{2}$

" " aft of " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{65.50}{18} (.75 - .2705) = -1.74"$

If limited on account of midship superstructure. = $\frac{.1176}{.75} \times 1.74 = -1.02"$

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	27.81
Addition for Winter and Winter North Atlantic Freeboard.		Correction for coefficient $\frac{1.48}{1.36}$	30.26
Depth to Freeboard Deck = 13.30 Ft.	Displacement in salt water at summer load water line	Depth Correction - 1.48	-
Summer freeboard = 1.02	$\Delta = 107 \text{ Avail } 1914$	Deduction for superstructures - 15.78	-
Moulded draught (d) = 12.78	Tons per inch immersion at summer load water line	Sheer correction - 1.02	-
	T = 17.5	Round of Beam correction16 ✓ -	22
Deduction for Tropical freeboard and addition for " "	Deduction = $\frac{\Delta}{40 T}$ inches	Correction for Thickness of Deck amidships ... - -	
Winter freeboard = $\frac{d}{4}$ inches = $3.20 = 3\frac{1}{4}$ ✓	=	Other corrections, scantlings, etc. - -	
Addition for Winter North Atlantic Freeboard (if required) = $5\frac{1}{4}$ ✓	$3\frac{1}{4}$ ✓	.16 18.28 ✓	- 18.12
		Summer Freeboard = 12.14	

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, W Steel, Deck :—					
Tropical Fresh Water Line above Centre of Disc	...	6 1/2"	Tropical Fresh Water Freeboard	...	0' - 5 3/4"
Fresh Water Line	"	3 1/4"	Fresh Water	"	0' - 9"
Tropical Line	"	3 1/4"	Tropical	"	0' - 9"
Winter Line	below	3 1/4"	Winter	"	1' - 3 1/2"
Winter North Atlantic Line	"	5 1/4"	Winter North Atlantic	"	1' - 5 1/2"

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.

Trade of ship INTERNATIONAL.

Names of sister ships ✓

Builder's name and yard number LÜBECKER FLENDER.-WERKE A.G.

Owners BULK OIL STEAMSHIP CO L^{td}.

Fee £ .10 : - : -

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Foundation