

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

GRV. REPORT NO 20584

JUN 14 1938

Ship's Name <b>M.V. "DORCASIA"</b>	Official Number <b>166531</b> ✓	Nationality and Port of Registry <b>BRITISH. LONDON.</b>	Gross Tonnage <b>Approx 8000 8053.</b>	Date of Build <b>1938</b>	Port of Survey <b>GREENOCK</b>
Moulded Dimensions: Length <b>460'0"</b> ✓ Breadth <b>59'0"</b> ✓ Depth <b>34'0"</b> ✓					Date of Survey <b>WHILE BUILDING</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>17745</b> ✓ tons					Surveyor's Signature <i>Kenneth Inglis</i>
Coefficient of fineness for use with Tables <b>.992</b> ✓					Particulars of Classification <b>+100 A.1 (Cont) "CARRYING PETROLEUM IN BULK" LONGITUDINAL FRAMING AT BOTTOM AT DECK.</b>

Depth for Freeboard (D).		Depth correction.		Round of Beam correction.	
Moulded depth	34'0"	(a) Where D is greater than Table depth (D - Table depth) R = (34.09 - 30.64) 3 = +10.10"		Moulded Breadth (B)	59'0"
Stringer plate	.78"	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	14.16
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	NIL.	✓		Ship's Round of Beam	14.75.
Depth for Freeboard (D) =	34.09	If restricted by superstructures	✓	Difference Excess	.59
				Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right)$	$= \frac{.59}{4} \times .5984 = -.08"$

### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed <i>Equiv.</i>	92.94	92.94	7.5'	✓	92.94
" overhang ...					
R.Q.D. enclosed	44.63	44.63	7.5'	✓	44.63
" overhang					
Bridge enclosed <i>Equiv.</i>	44.63	44.63	7.5'	✓	44.63
" overhang aft					
" overhang forward					
F'cle enclosed <i>Equiv.</i>	56.00	56.00	7.5'	✓	56.00
" overhang ...					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	194.09	193.95			193.95

  

Standard Height of Superstructure	7.50' ✓
" " R.Q.D.	✓
Deduction for complete superstructure	42.00" ✓
Percentage covered $\frac{S}{L} =$	42.19 ✓
" " $\frac{S_1}{L} =$	42.16 ✓
" " $\frac{E}{L} =$	42.16 ✓
Percentage from Table, Line A. TANKER	33.16 ✓
(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 =	42.00" x .3316 = -13.93" ✓

### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	56.00	1		56.00	56.0	56.00	1		56.00
1/2 L from A.P.	24.92	4		99.68	25.25	25.25	4		101.00
1/4 L	6.16	2		12.32	6.70	6.70	2		13.40
Amidships	-	4		-	0	0	4		-
3/4 L from F.P.	12.32	2		24.64	13.0	13.00	2		26.00
1/2 L	44.84	4		179.36	49.75	49.75	4		199.00
F.P.	112.00	1		112.00	112.0	112.00	1		112.00
Total				504.00					507.40

  

Mean actual sheer aft = Excess.  
Mean standard sheer aft

Mean actual sheer forward = Excess.  
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = } Tanker.  
" " aft of " = }

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{3.40}{18} (.75 - .2110) = -.10"$   
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)	
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient	77.70
Depth to Freeboard Deck = 34.09	$\Delta = 28' - 17133$	$\frac{.992 + .68}{1.36} = \frac{1.472}{1.36}$	84.10
Summer freeboard = 6.69	Tons per inch immersion at summer load water line	Depth Correction	10.20
Moulded draught (d) = 27.38	$T = 28 - 56.42$	Deduction for superstructures	13.23
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40T}$ inches	Sheer correction	.10
Winter freeboard = $\frac{d}{4}$ inches = 6.85 = 6 3/4	$= 7.495 = 7 1/2"$	Round of Beam correction	.08
Addition for Winter North Atlantic Freeboard (if required) = 6.85 + 4.6 = 11.45 = 11 1/2		Correction for Thickness of Deck amidships	-
		Other corrections, scantlings, etc.	-
		Summer Freeboard =	80.19

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

Tropical Fresh Water Line above Centre of Disc	14 1/4"	Tropical Fresh Water Freeboard	51-5 1/4"
Fresh Water Line	7 1/2"	Fresh Water	61-0 3/4"
Tropical Line	6 3/4"	Tropical	61-1 1/2"
Winter Line below	6 3/4"	Winter	71-3 1/4"
Winter North Atlantic Line	11 1/2"	Winter North Atlantic	71-4 3/4"

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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.

Poop Equip Bhd.  $90.125 + \frac{2}{3}(4.21) = 92.935.$

Bridge " "  $42.08 + \frac{2}{3} \times 3.83 = 44.63.$

Forecastle " "  $\frac{29.91 \times 17.42}{54.50} = -9.50$   
 $\frac{65.50}{56.00 \text{ Equip.}}$

Trade of ship INTERNATIONAL.

Names of sister ships M.Y. DAYILA. GREENOCK FREEBOARD REPORT NO 20542.

Builder's name and yard number LITHGOWS LIMITED NO 908.

Owners ANGLO SAXON PETROLEUM CO. LTD.

APPROX Fee £ 19: 0: 0

TO BE RENDERED WITH FIRST ENTRY.



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