

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index No. 39214
(For London Office only).

25 AUG 1947

Ship's Name "BRIGIT MAERSK" Ex. "Comet"	Official Number	Nationality and Port of Registry Danish	Gross Tonnage 9154	Date of Build 1930 12	Port of Survey <u>Chester, Pa.</u> Date of Survey <u>June - July 1947.</u> Surveyor's Signature <u>[Signature]</u> Particulars of Classification <u>*100A1</u> Carrying petroleum in bulk.
Moulded Dimensions: Length <u>481.29</u> Breadth <u>65.75</u> Depth <u>37.00</u>					
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>22250</u> tons					
Coefficient of fineness for use with Tables <u>.783</u>					

Depth for Freeboard (D). Moulded depth ... 37.00 Stringer plate06 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ - Depth for Freeboard (D) = <u>37.06</u>	Depth correction. (a) Where D is greater than Table depth (D - Table depth) R = <u>(37.06 - 32.08) 3 = + 14.94"</u> (b) Where D is less than Table depth (if allowed) (Table depth - D) R = - If restricted by superstructures -	Round of Beam correction. Moulded Breadth (B) <u>65.75</u> Standard Round of Beam = $\frac{B \times 12}{50} =$ <u>15.78"</u> Ship's Round of Beam = <u>16.59"</u> Difference <u>.81"</u> Restricted to Correction = $\frac{\text{Diff}^o}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.81}{4} \times .693 =$ <u>.14"</u>
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
after bridge					
R.Q.D. enclosed	77.88	77.88	8.0'	-	77.88
" overhang aft	6.00	4.50	8.0'	-	4.50
R.Q.D. enclosed					
" overhang					
Bridge enclosed	34.00	34.00	8.0'	-	34.00
" overhang aft					
" overhang forward	3.00	1.50	8.0'	-	1.50
Forecastle open	48.00	29.75	7.5'	-	29.75
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	168.88	147.63			147.63

Standard Height of Superstructure	7.50
" " R.Q.D.	-
Deduction for complete superstructure	42.00
Percentage covered $\frac{S}{L} =$	35.10%
" " $\frac{S_1}{L} =$	30.66%
" " $\frac{E}{L} =$	30.66%
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	
Percentage from Table, XXXX Tanker	21.66%
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than .2L (if required)	
Deduction =	42.00 x .2166 = - 9.10"

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	58.13	1	58.13	76.25	76.25	1	76.25
%L from A.P. ...	25.86	4	103.44	14.56	14.56	4	58.24
%L " ...	6.39	2	12.78	-	-	2	-
Amidships ...	-	4	-	-	-	4	-
%L from F.P. ...	12.79	2	25.58	-	-	2	-
%L " ...	51.73	4	206.92	23.68	23.68	4	94.72
F.P. ...	116.26	1	116.26	121.00	121.00	1	121.00
Total			523.13				350.21

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{172.92}{18} \times .5745 =$ <u>5.52"</u>	Mean actual sheer aft = Deficient
If limited on account of midship superstructure.	Mean actual sheer forward = Deficient
	Length of enclosed superstructure forward of amidships =
	" " aft of " =

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 37.06 Summer freeboard = 8.38 Keel 2-3/4" Moulded draught (d) = 28.67 Extreme Summer Draught 28' 10-3/4" Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 7.17" Addition for Winter North Atlantic Freeboard (if required) = 7.17 + 4.81 = 11.98"	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 20200$ Tons per inch immersion at summer load water line $T = 64.3$ Deduction = $\frac{\Delta}{40T}$ inches = $\frac{20200}{40 \times 64.3} = 7.88$ $7.88 - 7.34 = .54$	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient. $\frac{.68}{1.36} = .783$ Depth Correction ... 14.94 Deduction for superstructures ... 5.52 Sheer correction ... 5.78 Round of Beam correction14 Correction for Thickness of Deck amidships ... Other corrections, scantlings, etc. ... Summer Freeboard = 100.73
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, XXXX Steel, Deck: <u>8' 1-3/4"</u>			
Tropical Fresh Water Line above Centre of Disc	382	15"	Tropical Fresh Water Freeboard ...
Fresh Water Line " "	200	7-3/4"	Fresh Water " "
Tropical Line " "	182	7-1/4"	Tropical " "
Winter Line below " "	182	7-1/4"	Winter " "
Winter North Atlantic Line " "	304	12"	Winter North Atlantic " "

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.....Ocean.....

Names of sister ships.....

Builder's name and yard number.....Sun Shipbuilding & Dry Dock Company, Yard No. 128.....

Owners

Fee £.....\$110.00.....



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Foundation