

MOBILE BRILLIANT
Rpt. 471 (Comp.)
4636
MOBILE RADIANT
45691

No. 6092

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD

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

For LONDON OFFICE ONLY
Received 12 OCT 1956
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Govt. Copy
Owners C11.....

Ship's Name "MOBIL COMET"	Official Number -	Nationality and Port of Registry PANAMANIAN PANAMA.	Gross Tonnage 17598	Date of Build 1950 - 1	Port of Survey PALERMO.
Moulded Dimensions: Length 600 Feet Breadth 82 ft 6 ins Depth 42 ft -6 ins.					Date of Survey 14th Aug, 1956 & subsequently.
Freeboard Length 600 ft 601.1 ft & 9 RS					Surveyor's Signature P.H.W. Evans.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 39590 tons					Particulars of Classification L.R. +100 A1
Coefficient of fineness for use with Tables .773					

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 42.5	(a) Where D is greater than Table depth (D-Table depth) R = (42.62 - 40.07) 3 = +7.65"	Moulded Breadth (B) 82.5
Stringer plate ... 0.12	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = 2.55	Standard Round of Beam = $\frac{B \times 12}{50} = \mathbf{19.8}$
Wood Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = 20.0
Depth for Freeboard (D) = 42.62		Difference 0.2
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S}{L}\right) = \frac{.20}{4} \times .5676 = \mathbf{-.03}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed EQUIV.	134.99	134.99	8.5' - 10.5'		134.99
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...	45.86	45.86	8.5'		45.86
Bridge enclosed EQUIV.	38.65	38.65	8.5'		38.65
" overhang aft ...	3.59				
" overhang forward ...	76.36				76.36
F'cle enclosed EQUIV.	73.01	76.36	8.5' - 14.08'		73.01
" overhang ...	5.39	2.70			5.39
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	262.60	259.91			259.91

Standard Height of Superstructure	7.50'
" " R.Q.D.	-
Deduction for complete superstructure	42.00"
Percentage covered $\frac{S}{L} =$	43.69
" " $\frac{S_1}{L} =$	43.24
Percentage from Table, Line A TANKER	34.24
(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 = $42.00 \times .3424 =$	- 14.38"

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	70.11	1	70.11	18.5	54.50	1	54.50		
$\frac{1}{2}$ L from A.P. ...	31.20	4	124.80	5.0	6.93	4	27.72		
$\frac{2}{3}$ L " ...	7.71	2	15.42	0.5	.50	2	1.00		
Amidships ...	0	4	0	0	0	4	0		
$\frac{2}{3}$ L from F.P. ...	13.42	2	30.84	0.5	.50	2	1.00		
$\frac{1}{2}$ L " ...	62.40	4	249.60	5.0	5.00	4	20.00		
F.P. ...	140.22	1	140.22	20.0	20.00	1	20.00		
Total ...			630.99				124.22		

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{506.77}{18} \left(.75 - \frac{.2185}{.5315} \right) = \mathbf{-14.96"$

If limited on account of midship superstructure. If limited to maximum allowance of 1 1/2 ins. per 100ft.

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 $\frac{68 + .773}{1.36} = \mathbf{1.453}$
Depth to Freeboard Deck = 42.62	$\Delta = \mathbf{35175}$	
Summer freeboard = 10.37	Tons per inch immersion at summer load water line	
Moulded draught (d) = 32.25	T = 98.25	
Keel allowance =	Deduction = $\frac{\Delta}{40 T}$ inches	
Extreme draught =	= 8.95	
Deduction for Tropical freeboard and addition for =	= 227%	
Winter freeboard = $\frac{d}{4}$ inches = 8.06		
Addition for Winter North Atlantic Freeboard (if required) = 8.06 + 6.01 = 14.07		

Depth Correction	7.65	
Deduction for superstructures	14.38	
Sheer correction	14.96	
Round of Beam correction	.03	
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
	2261	1441
		+ 8.20
		Summer Freeboard = 124.24

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

A. B. FREEBOARDS REASSIGNED.	Tropical Fresh Water Line above Centre of Disc ... 432%	Tropical Fresh Water Freeboard 2739
	Fresh Water Line " " ... 229	Fresh Water " " ... 2933
	Tropical Line " " ... 203	Tropical " " ... 2959
	Winter Line below " " ... 203	Winter " " ... 3365
	Winter North Atlantic Line " " ... 356	Winter North Atlantic " " ... 3518

3162% (3156%)
2020
Lloyd's Register
Foundation
011099 - 01109 - 0134

13 NOV 1956
5m, 6.55. T.

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

Length at side = 130.35

$$+ \frac{30+80}{2} \times 6.75 = \frac{4.64}{134.99}$$

Sheer aft.

Actual Ht of Poop. 8'-6"

Standard " " 7'-6" = 12"

$$\text{Sheer at } \frac{1}{2} \text{ of R.S.} = 18.5 + 12 + 24 = 54.5$$

$$\text{Sheer at } \frac{1}{6} \text{ from R.S.} = 5.0 + (12 + 24) \left(\frac{30.17}{130.35} \right)^2$$

$$= 5.0 + 1.93$$

$$= 6.93$$

Bridge

Length at side = 38.73

$$+ \frac{2}{3} \times 10.69 = \frac{7.13}{45.86}$$

Forecastle

Length enclosed at side = 73.00

$$+ \frac{24 \times 8.75}{62.5} = \frac{3.36}{76.36}$$

$$O/H. = 8.75 - 3.36 = 5.39$$

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950," paragraph 11.)



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