

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No. 36039  
(For London Office only).Amsterdam report  
15/6/39

JUN 21 1939

Ship's Name <b>M.S. "TIBIA"</b>	Official Number	Nationality and Port of Registry <b>S' Gravenhage Netherlands</b>	Gross Tonnage <b>10,356</b>	Date of Build <b>1939</b>	Port of Survey <b>Amsterdam</b>
Moulded Dimensions: Length <b>152.421</b> Breadth <b>19.583</b> Depth <b>11.244 m</b>					Date of Survey <b>while building</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>22720</b> tons					Surveyor's Signature <b>H. P. Jonker</b>
Coefficient of fineness for use with Tables <b>0.4845</b>					Particulars of Classification <b>+100 A1 carrying Petroleum in bulk</b>

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... <b>11.244 m</b>	(a) Where D is greater than Table depth (D - Table depth) R = <b>8.33 (11.300 - 10.181) 30 = + 280 m.</b>	Moulded Breadth (B) = <b>19.583</b>
Stringer plate <b>23 1/2 m</b> <i>in way of fore beam mark</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <b>1.119</b>	Standard Round of Beam = $\frac{B}{50} = \frac{19.583}{50} = \mathbf{392 \frac{m}{m}}$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures <input checked="" type="checkbox"/>	Ship's Round of Beam = <b>406 m</b>
Depth for Freeboard (D) = <b>11.300</b>		Difference <i>excess</i> = <b>14 m</b>
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{14^2}{4} \times \frac{5803}{11.300} = \mathbf{-2 \frac{m}{m}}$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed EQUIV...	32232	32232	2286	✓	32232
.. overhang ...			+ 64 m		
R.Q.D. enclosed			wood deck		
.. overhang					
Bridge enclosed EQUIV...	13404	13784	2286	2296/2290	13760
.. overhang aft	1050	788	"	"	787
.. overhang forward					
Fore enclosed	14294	14294	2286	2286/2290	14268
.. overhang					
Trunk aft					
.. forward					
Tonnage opening aft					
.. forward					
Total	64363	64101			64047

Standard Height of Superstructure **2290 m**

" " R.Q.D. ✓

Deduction for complete superstructure **1067 m**Percentage covered  $\frac{S}{L} = \mathbf{42.14\%}$ "  $\frac{S_1}{L} = \mathbf{41.97\%}$ "  $\frac{E}{L} = \mathbf{41.94\%}$ Percentage from Table, Line A. TANKER = **32.94%**  
(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 = **1067 x .3294 = 351 m**

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	1526 ✓	1		1526 ✓	1552	1552 ✓	1		1552 ✓
$\frac{1}{8}$ L from A.P. ...	678 ✓	4		2712 ✓	401	401 ✓	4		2804 ✓
$\frac{3}{8}$ L " ...	170 ✓	2		340 ✓	169	169 ✓	2		338 ✓
Amidships ...	-	4		-	0	-	4		-
$\frac{5}{8}$ L from F.P. ...	339 ✓	2		678 ✓	334	337 ✓	2		674 ✓
$\frac{7}{8}$ L " ...	1356 ✓	4		5424 ✓	1364	1367 ✓	4		5468 ✓
F.P. ...	3052 ✓	1		3052 ✓	3080	3080 ✓	1		3080 ✓
Total ...				13732 ✓					13916 ✓

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{184}{18} (.75 - .2107) = \mathbf{-6 \frac{m}{m}}$   
If limited on account of midship superstructure. ✓Mean actual sheer aft = *Excess*.Mean actual sheer forward = *Excess*.Length of enclosed superstructure forward of amidships = } Tanker.  
" " aft of " = }Deduction for Tropical Freeboard.  
Addition for Winter and Winter North Atlantic Freeboard.Depth to Freeboard Deck = **11306**  
Summer freeboard = **2330**  
Moulded draught (d) = **8946**Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{48} \text{ inches} = \mathbf{187 \frac{m}{m}}$   
Addition for Winter North Atlantic Freeboard *required* = **125 m + 187 m = 312 m**

Deduction for Fresh Water.

Displacement in salt water at summer load water line  
 $\Delta = \mathbf{21194 - 21247}$   
Tons per inch immersion at summer load water line  
 $T = \mathbf{66.24}$   
Deduction =  $\frac{\Delta}{40 T} \text{ inches} = \mathbf{204 \frac{m}{m}}$ 

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient  $\frac{.485 + .68}{1.36} = \mathbf{1.465}$ Depth Correction ... **280**  
Deduction for superstructures ... **351**  
Sheer correction ... **6**  
Round of Beam correction ... **2**  
Correction for Thickness of Deck amidships ... **6**  
Other corrections, scantlings, etc. ...2229 m  
2401 m  
286 359 - 43 m  
Summer Freeboard = **2328 m**SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Steel~~ Steel, Deck:

Tropical Fresh Water Line above Centre of Disc	39 m	Tropical Fresh Water Freeboard	194 m
Fresh Water Line	20 "	Fresh Water	213 "
Tropical Line	19 "	Tropical	214 "
Winter Line below	19 "	Winter	252 "
Winter North Atlantic Line	31 "	Winter North Atlantic	264 "

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M/s TIBIA.

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.

Displacement at a moulded draught of  $29-4\frac{3}{4} = 8960 \text{ }^m_m = 21197 \text{ tons}$   
Tons per inch at a moulded draught of  $29-4\frac{3}{4} = 8960 \text{ }^m_m = 66.27 \text{ tons}$

Poop Equivalent Length

$$31316 + (1373 \times \frac{2}{3}) = \underline{\underline{32232.}}$$

Bridge Equivalent Length

$$12884 + (1349 \times \frac{2}{3}) = \underline{\underline{13784}}$$

Trade of ship

Ocean Trade

Names of sister ships

Swan Hunter & Wigham Richardson Ltd.

Yard numbers 1561, 1563

Builder's name and yard number

N.V. Nederlandsche Scheepsbouw B.V.

Yard number 272

Owners

N.V. Petroleum Maatschappij "La Corona"

Fee

£ 240



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