

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

Ship's Name M/T "VENUS"	Official Number 9106	Nationality and Port of Registry Swedish Stockholm	Gross Tonnage About 10,200 <i>10512 Swedish 10606 British</i>	Date of Build 1949	Port of Survey Malmö
Moulded Dimensions: Length 500.82' Breadth 63.0' Depth 38.50'				Date of Survey Whilst building	
Moulded displacement at moulded draught = 85 per cent. of moulded depth 23010 tons				Surveyor's Signature Niklensburg	
Coefficient of fineness for use with Tables 780				Particulars of Classification 100A1 Carrying Petroleum in Bulk	

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 38.50'	(a) Where D is greater than Table depth (D - Table depth) R = (38.57 - 33.35) 3 = +15.54"	Moulded Breadth (B) 63.00'
Stringer plate80" = ... 0.07'	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 5.18	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{63 \times 12}{50} = 15.12$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures ✓	Ship's Round of Beam = 18.70"
Depth for Freeboard (D) = 38.57		Difference 3.58
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{3.58}{4} \times .5984 = .53"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed <i>Equip</i> ...	101.01'	101.01	7.56'	✓	101.01	Standard Height of Superstructure 7.50'
" overhang ...						" " R.Q.D. -
R.Q.D. enclosed ...						Deduction for complete superstructure 42.00"
" overhang ...						Percentage covered $\frac{S}{L} =$
Bridge enclosed <i>Equip</i> ...	45.45'	45.45	7.78'		45.45	" $\frac{S_1}{L} =$ 41.16
" overhang aft ...						" $\frac{E}{L} =$
" overhang forward ...						Percentage from Table, Line A TANKER 32.16
Fore enclosed ...	59.73'	59.73	7.55'		59.73	(corrected for absence of forecastle (if required)) ✓
" overhang ...						Percentage from Table, Line B. ✓
Trunk aft ...						(corrected for absence of forecastle (if required)) ✓
" forward ...						Interpolation for bridge less than .2L (if required) ✓
Tonnage opening aft ...						Deduction = 42.00 × .3216 = -13.50"
" " forward ...						
Total ...	206.19'	206.19			206.19	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	60.08	1		60.08	45.80"	45.80	1		45.80	Mean actual sheer aft =
$\frac{1}{2}$ L from A.P. ...	26.735	4		106.94	2.82"	2.82	4		11.28	Mean standard sheer aft =
$\frac{1}{4}$ L " ...	6.61	2		13.22	0.	-	2		-	Mean actual sheer forward =
Amidships ...	-	4		-	0.	-	4		-	Mean standard sheer forward =
$\frac{1}{4}$ L from F.P. ...	13.22	2		26.44	0.	-	2		-	Length of enclosed superstructure forward of amidships =
$\frac{1}{2}$ L " ...	53.47	4		213.88	20.60"	20.60	4		82.40	" " aft of " =
F.P. ...	120.16	1		120.16	95.50"	95.50	1		95.50	
Total ...				540.72					234.98	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{305.74 - 205.8}{18} = \frac{100}{18} = 5.542$ **+ 9.24"**
If limited on account of midship superstructure. **5.442** If limited to maximum allowance of 1½ ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **38.57**
Summer freeboard = **8.74**
Moulded draught (d) = **29.83**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **7.46"** **190/-**

Addition for Winter North Atlantic Freeboard (if required) = **7.46 + 5.01 = 12.47" = 317/-**

Deduction for Fresh Water.

Displacement in salt water at summer load water line **Δ = 20510**
Tons per inch immersion at summer load water line **T = 66.67**

Deduction = $\frac{\Delta}{40 T}$ inches = **7.69" = 195/-**

See over!

TABULAR FREEBOARD ~~corrected for Flush Deck (if required)~~

Correction for coefficient **78 + .68 = 1.46 / 1.36**

Depth Correction ... **15.54**
Deduction for superstructures ... **13.50**
Sheer correction ... **9.24**
Round of Beam correction ... **.53**
Correction for Thickness of Deck amidships ... **-**
Other corrections, scantlings, etc. ... **-**

	+	-	
	15.54	-	87.69
	-	13.50	94.13
	9.24	.53	72
	-	-	30.9.49
	24.78	14.03	+ 10.75
			Summer Freeboard = 104.88

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

Tropical Fresh Water Line above Centre of Disc	3.85 100/-	Tropical Fresh Water Freeboard	2665 100/-
Fresh Water Line " "	1.95 50/-	Fresh Water " "	2280 100/-
Tropical Line " "	1.90 50/-	Tropical " "	2470 100/-
Winter Line below " "	1.90 50/-	Winter " "	2855 100/-
Winter North Atlantic Line " "	3.17 100/-	Winter North Atlantic " "	2982 100/-

VENUS.

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.

Moulded depth.		Total displacement.	Tons/inch immersion.
70%	26.95'	18455 tons.	65.25
75%	28.875'	19480 "	66.20
80%	30.80'	21540 "	67.14
85%	32.725'	23100 "	68.05

Trade of ship ☒

Names of sister ships

Messrs. Hockerts Mek. Verkstads Yard No. 305 "Soga Maria".

Builder's name and yard number

Messrs. Hockerts Mek. Verkstads A.B., Yard No. 345.

Owners

Rederiaktiebolaget Nordstjernan, Stockholm.

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