

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

21 MAY 1951

*6 in. L₁
42849.*

Mette
ex

Ship's Name m/t "SVITHIOD"	Official Number 9251	Nationality and Port of Registry Swedish. Stockholm. <i>Norwegian</i>	Gross Tonnage About 10,500 10,555	Date of Build 1951	Port of Survey <u>M A L M Ö.</u>
Moulded Dimensions: Length 500.82' Breadth 63.0' Depth 38.5'					Date of Survey <u>Whilst building.</u>
Moulded displacement at moulded draught = 85 per cent. of moulded depth 23010 tons					Surveyor's Signature <i>James H. Young</i>
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 ... 38.5'	(a) Where D is greater than Table depth (D-Table depth) R = (38.57 - 33.39) 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 = $\frac{B \times 12}{50} = 15.12$
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 = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{3.58}{4} \times \frac{58.83}{63} = -0.53$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed <i>EQUIV.</i>	101.01' ✓	101.01	8'-0" ✓	-	101.01
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed <i>EQUIV.</i>	45.45' ✓	45.45	7'-9" ✓	-	45.45
" overhang aft ...					
" overhang forward ...					
Fore enclosed ...	59.73' ✓	59.73	7'-6" ✓	-	59.73
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	206.19	206.19			206.19

Standard Height of Superstructure **7.5**

" " R.Q.D. **-**

Deduction for complete superstructure **42.00**

Percentage covered $\frac{S}{L} =$

" " $\frac{S_1}{L} =$ **41.17**

" " $\frac{E}{L} =$

Percentage from Table, Line **TANKER 32.17**
(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 × 32.17 = -13.51**

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
$\frac{1}{4}$ L from A.P. ...	26.735	4		106.94	2.82" ✓	2.82	4		11.28
$\frac{1}{2}$ L " ...	6.61	2		13.22	0	-	2		-
Amidships ...	-	4		-	0	-	4		-
$\frac{1}{4}$ L from F.P. ...	13.22	2		26.44	0	-	2		-
$\frac{1}{2}$ L " ...	53.475	4		213.90	20.60" ✓	20.60	4		82.40
F.P. ...	120.16	1		120.16	95.50" ✓	95.50	1		95.50
Total ...				540.74					234.98

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{305.76 - 205.9}{18} = +9.24$

If limited on account of midship superstructure. **5.441** If limited to maximum allowance of $1\frac{1}{2}$ 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 $\Delta =$ **20754**

Tons per inch immersion at summer load water line $T =$ **66.66**

Deduction = $\frac{\Delta}{40 T}$ inches = **7.78**

= 198

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{7.8 + 6.8}{1.36} = \frac{1.46}{1.36}$

	+	-
Depth Correction ...	15.54	✓
Deduction for superstructures ...	13.51	✓
Sheer correction ...	9.24	✓
Round of Beam correction ...	✓	53
Correction for Thickness of Deck amidships ...	✓	✓
Other corrections, scantlings, etc. ...	✓	✓
	24.78	14.04

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	387	Tropical Fresh Water Freeboard	2664
Fresh Water Line " "	138	Fresh Water " "	2276
Tropical Line " "	130	Tropical " "	2466
Winter Line below " "	190	Winter " "	2474
Winter North Atlantic Line " "	317	Winter North Atlantic " "	2854
			2981

Swithiod.

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 DISPL.	TONS/INCH
%	Feet ✓	TONS. ✓	IMMERSION. ✓
70 ✓	26.95 ✓	18455 ✓	62.25 ✓
75 ✓	28.875 ✓	19980 ✓	66.20 ✓
80 ✓	30.80 ✓	21540 ✓	67.14 ✓
85 ✓	32.725 ✓	23100 ✓	68.05 ✓

POOP.

Length at side 35.10'
 $\frac{2}{3} \times 8.86$ 5.91
Equiv. 101.01

BRIDGE

Length at side 33.11'
 $\frac{2}{3} \times 2.95$ 1.97
 $\frac{2}{3} \times 6.56$ 4.37
Equiv. 45.45

Trade of ship All Seas.

Names of sister ships Messrs. Kockums Mek. Verkstads A.-B.'s Yard No. 331 "G I M L E" ✓

Builder's name and yard number Messrs. Kockums Mek. Verkstads A.-B.'s Yard No. 325.

Owners Stockholms Rederi A.-B. Svea, Stockholm.

Fee £



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