

19 AUG 1949

Index No. 41874
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name S.S. "SOLVIKEN"	Official Number	Nationality and Port of Registry Norwegian Bergen	Gross Tonnage alt. 3200	Date of Build 1949	Port of Survey Fredrikstad
Moulded Dimensions: Length 340' ✓ Breadth 52' ✓ Depth 20'-10" ✓					Date of Survey 2 1/2, 4/8, 12/8 & 13/8/49
Moulded displacement at moulded draught = 85 per cent. of moulded depth 6340 tons					Surveyor's Signature B. Tveit <i>Amde</i>
Coefficient of fineness for use with Tables 709					Particulars of Classification 100 FT

DEPTH FOR FREEBOARD (D).				
Moulded depth	20.83
Stringer plate	3.20
Sheathing on exposed deck	$T \left(\frac{L-S}{L} \right) =$			
Depth for Freeboard (D) =	20.86			

DEPTH CORRECTION.	
(a) Where D is greater than Table depth (D-Table depth) R =	
(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	(22.67-20.86) 2.615 = - 4.73'
If restricted by superstructures	✓

ROUND OF BEAM CORRECTION.	
Moulded Breadth (B)	52'
Standard Round of Beam = $\frac{B \times 12}{50}$	12.48
Ship's Round of Beam	320
Difference	12.48
Restricted to	
Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	= $\frac{12.48}{4} \times .006 = +.02$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S)	Height	Height Correction	Effective Length (E)
Poop enclosed	84.00	27.56	9.66	✓	27.56
" overhang	1.00	.17			.17
R.Q.D. enclosed	.33				
" overhang					
Bridge enclosed	308.17	308.17	9.66	✓	308.17
" overhang aft					
" overhang forward					
F'dle enclosed	9.50		22.00		
" overhang					
Trunk aft					
" forward	3.96	2.03			2.03
Tonnage opening aft	7350.100				
" " forward					
Total	340.00	337.03			337.93

Standard Height of Superstructure	6.90
" " R.Q.D.	✓
Deduction for complete superstructure	38.00"
Percentage covered $\frac{S}{L} =$	100
" " $\frac{S_1}{L} =$	99.40
" " $\frac{E}{L} =$	99.40
Percentage from Table, Line A.23	99.26
(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 = $38.00 \times .9926 =$	- 37.72"

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	44.00	1	44.00	1200.47.25	80.37	1	80.37
1/2 L from A.P.	19.58	4	78.32	52020.47	35.76	4	143.04
1/2 L " "	4.84	2	9.68	1455.71	9.84	2	17.68
Amidships	✓	4	✓	0	✓	4	✓
1/2 L from F.P.	9.68	2	19.36	30011.81	15.15	2	30.30
1/2 L " "	39.16	4	156.64	14043.75	61.31	4	245.24
F.P.	88.00	1	88.00	2658104.65	137.77	1	137.77
Total			396.00	+ 33.12			654.40

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{258.40}{18} \times .25 = - 3.59$

If limited on account of midship superstructure. ✓

Mean actual sheer aft	
Mean standard sheer aft	
Mean actual sheer forward	
Mean standard sheer forward	
Length of enclosed superstructure forward of amidships =	
" " aft of " =	

ACTUAL TWN DK HEIGHT. = 9.66.
STAN. " " = 6.90.
2.76/12.
= 33.12

LESS.

C.S.S.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **20.86** Ft.

Summer freeboard = **73**

Moulded draught (d) = **20.13**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **5.03 = 5"**

Addition for Winter North Atlantic Freeboard (if required) = ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line

△ =

Tons per inch immersion at summer load water line

T =

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

 $\frac{709 \times 1.48}{1.26} = 1.389$
 $\frac{1.36}{1.36} =$

53.70

54.85

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

Summer Freeboard = **48.83**

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

Tropical Fresh Water Line above Centre of Disc

Fresh Water Line

Tropical Line

Winter Line

Winter North Atlantic Line

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

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.

Tonnage Opening.

$$\frac{13.6 \text{ m} \times 7.55 \text{ m}}{13.6 \text{ m}} = \frac{6.25}{13.6} = .460. \checkmark$$

Trade of ship _____

Names of sister ships _____

Builder's name and yard number a/s Frederikstad Msk. Verksted yard N^o 326

Owners Wallum & Co., Bergen

JW Fee Nr. 480,- + exp. not yet charged



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Foundation