

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

81 DEC 1952

Ship's Name M.S. "ESKIMO" "ZERO"	Official Number ✓	Nationality and Port of Registry NORWEGIAN HAUGESUND.	Gross Tonnage ABOUT 550.	Date of Build 1943 LENGTHENED 1952.	Port of Survey HAUGESUND
Moulded Dimensions: Length 178'-3" Breadth 27'-6" Depth 15'-0"					Date of Survey 20/8-52 & subsequently.
Moulded displacement at moulded draught = 85 per cent. of moulded depth approx 923 tons					Surveyor's Signature S. A. Eide
Coefficient of fineness for use with Tables 68 (5.7 Actual)					RECOMMEND. RECLASS Particulars of Classification 100A1

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 15.00 ✓	(a) Where D is greater than Table depth (D - Table depth) R = (15.08 - 11.84) 1.371 = +4.37	Moulded Breadth (B) 27'-6"
Stringer plate ... 3	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 3.198	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{6.6 \times 12}{50} = 1.584$
Sheathing on exposed deck 2 1/2"	If restricted by superstructures ✓	Ship's Round of Beam = 7"
$T \left(\frac{L-S}{L} \right) = 21 + \frac{32.63}{178.25} = 21.18$		Difference Excess 4"
Depth for Freeboard (D) = 15.08		Restricted to 7"
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{4}{4} \times \left(1 - \frac{1.584}{27.5} \right) = 0.92$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	45'-8"	6'-0"	6'-0 1/2"		
" overhang ...	28'-1"				
R.Q.D. enclosed ...	120'-67"	120'-67"		4.9115	110'-09"
" overhang ...					
Bridge enclosed ...	75'-0"		8'-0 1/2"		
" overhang aft ...					
" overhang forward ...	4 1/2"	.19		4.96	.19
Fore enclosed ...	24'-5"	24'-42"	5'-0"	5.0/6.0	20'-25"
" overhang ...			-0.47		.19
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	145'-47"	145'-28"			130'-54"

Standard Height of Superstructure **6'-00"** ✓

" " R.Q.D. ✓

Deduction for complete superstructure **23'-83"** ✓

Percentage covered $\frac{S}{L} = \frac{81.68}{100} = 81.68\%$

" " $\frac{S_1}{L} = \frac{81.58}{100} = 81.58\%$

" " $\frac{E}{L} = \frac{73.28}{100} = 73.28\%$

Percentage from Table, Line A. **66.98%** ✓
(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 = **2383 × 66.98 = 1596**

VESSEL DESIGNED WITH A TRIM BY STERN OF 6 FT.
SHEERS MEASURED IN FLOATING DOCK FROM A LINE PARALLEL TO KEEL.

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ...	27.83	1	27.83	70'-36"	34	1	34
1/4 L from A.P. ...	12.38	4	49.52	39'-24"	15	4	60
1/2 L " ...	3.06	2	6.12	12'-12"	0	2	0
Amidships ...	✓	4	✓	0'-0"	0	4	0
3/4 L from F.P. ...	6.12	2	12.24	0'-12"	12	2	24
1/4 L " ...	24.77	4	99.08	6'-24"	30	4	120
F.P. ...	55.65	1	55.65	23'-36"	59	1	59
Total ...			250.44				297

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 " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{46.54 \times (.75 - .4086)}{18 \times 178.25} = -.88"$ ✓
If limited on account of midship superstructure.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **15'-03"**

Summer freeboard = **54"**

Moulded draught (d) = **14'-43"**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **3'-60" = 3 1/2**Addition for Winter North Atlantic Freeboard (if required) = **5 1/2"**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 1064$

Tons per inch immersion at summer load water line

T = **8.2**Deduction = $\frac{\Delta}{40 T}$ inches= **3 1/4"**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient **N.L.**

Depth Correction ... **4.37** ✓

Deduction for superstructures ... **15.94** ✓

Sheer correction ... **.88** ✓

Round of Beam correction ... **.02** ✓

Correction for Thickness of Deck amidships ... **.68** ✓

Other corrections, scantlings, etc. ... **4.37** ✓

+	-
4.37	
15.94	
.88	
.02	
.68	
4.37	
17.45	-12.97

Summer Freeboard **67'-45.57** **657'**

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

Tropical Fresh Water Line above Centre of Disc **6'-172"**

Fresh Water Line " **3 1/4" 83**

Tropical Line " **3 1/2" 84**

Winter Line below " **3 1/2" 89**

Winter North Atlantic Line " **5 1/2" 140**

Tropical Fresh Water Freeboard **MIN 0'-0 1/4" MINUS 7"**

Fresh Water " **0'-3 1/4" 82**

Tropical " **0'-3 1/2" 76**

Winter " **0'-10" 254**

Winter North Atlantic " **1'-0" 305**

ZERO. Esquimo.

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.

Peep allowance
 $\frac{120.83}{178.25} = 67.78$

68	91.0	
67	91.5	91.5
1	- .5	
	1.78 =	$\frac{.39}{91.11}$

Trade of ship UNRESTRICTED. REFRIGERATED CARGOES.

Names of sister ships ✓

Builder's name and yard number COOK, WELTON & GEMMELL LD. 1943. Yard No. 712.

Owners JOHANNES ØSTENSTØ & CO. A/S., Hangesund

Fee kr. 280.- Not charged yet.



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