

AMENDED.

LLOYD'S REGISTER OF SHIPPING SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, ~~SAILING SHIP~~, ~~TANKER~~)

For LONDON OFFICE ONLY

Received

Index No.

Govt. Copy

Owners C11

Ship's Name ESS 1 KARI ARTEPLOG	Official Number 9636	Nationality and Port of Registry NORWEGIAN Swedish Stockholm OSLO	Gross Tonnage 10805	Date of Build 1956/1	Port of Survey
Moulded Dimensions: Length 19.507 m Breadth 12.954 m Depth 12.954 m					Date of Survey 18.10.62
Freeboard Length 140.620 m to C.R.S.					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth 23940 m³ tons					Particulars of Classification 100 A1
Coefficient of fineness for use with Tables .793					"Or Carrier"

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	12.954	(a) Where D is greater than Table depth (D-Table depth) R =	8.33(12.973 - 9.375)30 = +899	Moulded Breadth (B)	19.507
Stringer plate	.019	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	390
Wood Sheathing on exposed deck				Ship's Round of Beam <i>equivalent</i>	404
$T \left(\frac{L-S}{L} \right) =$		If restricted by superstructures		Difference	14
Depth for Freeboard (D) =	12.973			Restricted to	
				Correction = $\frac{\text{Diff.}}{4} \times \left(1 - \frac{S_1}{L} \right)$	$\frac{14}{4} \times .7028 = -2$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed <i>equivalent</i>	29.300	29.300	2.530	-	29.300
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
Fore enclosed <i>equivalent</i>	12.494	12.494			12.494
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	41.990	41.990			41.990

Standard Height of Superstructure **2290 mm**

" " R.Q.D.

Deduction for complete superstructure **1067 mm**Percentage covered $\frac{S}{L} =$ " " $\frac{S_1}{L} =$ " " $\frac{E}{L} =$ Percentage from Table, Line A. **14.86**

(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 = $1067 \times .1486 = 159 \text{ mm}$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	1425	1		1425	240	240	1		240
1/2 L from A.P.	633	4		2532	23	23	4		92
1/2 L	156	2		316	0	0	2		0
Amidships	0	4		0	0	0	4		0
1/2 L from F.P.	317	2		634	0	0	2		0
1/2 L	1267	4		5068	10	10	4		40
F.P.	2851	1		2851	424	424	1		424
Total				12826					796

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{(12030 - 28)(.75 - .1488)}{18} = +388$

If limited on account of midship superstructure.

Height of poop at C.R.S. **2696**
Standard height **2290**
Sheer allowance $\frac{406 \times 29.300}{3 \times 140.62} = 28 \text{ mm}$

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 " =

.6014

If limited to maximum allowance of 1 1/2 ins. per 100ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Line 7 1/2 m below **12.058**
Depth to Freeboard Deck = **2.704**
Summer freeboard = **9.354**
Moulded draught (d) = **7 5/8**
Keel allowance =
Extreme draught =
Deduction for Tropical freeboard and addition for = **7 5/8**
Winter freeboard = $\frac{d}{48} \text{ inches} = 195 \text{ mm}$
Addition for Winter North Atlantic Freeboard (if required) = **NOT REQUIRED**

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 20234$
Tons per inch immersion at summer load water line
T = **61.72**
Deduction = $\frac{\Delta}{40 T} \text{ inches} = 8.19 = 8 1/4$
208 mm
210 mm

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.793 + .68}{1.36} = 1.473$

	+	-
Depth Correction	899	-
Deduction for superstructures	-	159
Sheer correction	388	-
Round of Beam correction	-	2
Correction for Thickness of Deck amidships	-	915
Other corrections, scantlings, etc.	-	-
	1287	1076

Summer Freeboard = **2704 mm**

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line.

Tropical Fresh Water Line above Centre of Disc	403 mm	15 3/8"	Tropical Fresh Water Freeboard	230 mm	8' 10 1/2"
Fresh Water Line	208 mm	8 1/4"	Fresh Water	2496	7' 6 5/8"
Tropical Line	195 mm	7 5/8"	Tropical	2509	8' 2 1/4"
Winter Line	195 mm	7 5/8"	Winter	2899	8' 2 7/8"
Winter North Atlantic Line			Winter North Atlantic	not required	9' 6 1/8"

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