

AMENDED (LENGTHENING)

For LONDON OFFICE ONLY

# LLOYD'S REGISTER OF SHIPPING

## SURVEYS FOR FREEBOARD

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

Received .....

Index No. ....

Govt. Copy .....

Owners C11 .....

Ship's Name <b>MARGIT GORTHON</b>	Official Number <b>9294</b>	Nationality and Port of Registry <b>Swedish Helsingborg</b>	Gross Tonnage <b>Amended tonnage not yet avail- able 113.17</b>	Date of Build <b>1951-11</b>	Port of Survey <b>Landskrona</b>
Moulded Dimensions: Length <b>156940</b> Breadth <b>20040</b> Depth <b>11225</b>					Date of Survey <b>February 1961</b>
Freeboard Length <b>157180 to CL Rudder stock</b>					Surveyor's Signature <i>S. MacLellan</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) <b>23960 M<sup>3</sup></b>					Particulars of Classification <b>+100A1 Ore carrier.</b>
Coefficient of fineness for use with Tables <b>.797</b>					<b>(contemplated)</b>

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... <b>11225</b>	(a) Where D is greater than Table depth (D-Table depth) R = <b>8.33(11277-10479)×30 = +199 m.m.</b>	Moulded Breadth (B) <b>20.040</b>
Stringer plate ... <b>DOUBLER 22 30</b>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{20.040 \times 12}{50} = 4.81$
Wood Sheathing on exposed deck	If restricted by superstructures	Ship's Round of Beam 400 mm. = <b>400</b>
$T \left( \frac{L-S}{L} \right) =$		Difference <b>1</b>
Depth for Freeboard (D) = <b>11277</b>		Restricted to
		Correction = $\frac{\text{Diff}^\circ}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{1}{4} \times 2756 = \text{NIL}$

## DEDUCTION FOR SUPERSTRUCTURES.

See Sketch.	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed <i>Equiv.</i>	32.295	32.295	2.360	-	32.295
" overhang <i>(not Allowed)</i>					
R.Q.D. enclosed					
" overhang					
Bridge enclosed <i>Equiv.</i>	11.194	11.194	2.360	× 0.9	10.074
" overhang aft <i>Equiv.</i>	1.096	.822		× 0.9	.740
" overhang forward					
F'cle enclosed	17628	17628	2285		17628
" overhang	850	425			425
Trunk aft		37.791	1.453	1.453/2290 × 9	21.580
" forward		13.700	1.453	1.453/2290	8.692
Tonnage opening aft					
" forward					
Total	63.063	113.855			91.434

Standard Height of Superstructure **2290**

" " R.Q.D. **1067**

Deduction for complete superstructure **1067**

Percentage covered  $\frac{S}{L} = 40.12$

" "  $\frac{S_1}{L} = 72.44$

" "  $\frac{E}{L} = 58.17$

Percentage from Table, **ORE CARRIER (TANKER) 249.99**  
(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 × .4999 = -533 m.m**

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	1563	1	1563	1044	1044	1	1044
1/4 L from A.P.	695	4	2780	157	157	4	628
1/2 L	174	2	348	0	0	2	0
Amidships	0	4	0	0	0	4	0
3/4 L from F.P.	347	2	694	0	0	2	0
1/4 L	1389	4	5556	547	547	4	2188
F.P.	3127	1	3127	2604	2604	1	2604
Total			14068				6464

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{(7604 - 9)}{18 \times 13} \left( .75 - \frac{2006}{2 \times 156940} \right) = +227$

If limited on account of midship superstructure. **5494**

Poop Actual sheer deck ht = 2360

Standard " " = 2290

Excess = 70 + 63 = 133

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 " =

**ORE CARRIER (TANKER FBDS)**

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

## Deduction for Fresh Water.

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

Depth to Freeboard Deck = **11.277**

Summer freeboard = **2.429**

Moulded draught (d) = **8.848**

Keel allowance =

Extreme draught =

Deduction for Tropical freeboard and addition for = **184 m.m**

Winter freeboard = **184 m.m**

Addition for Winter North Atlantic Freeboard (if required) = **184 + 131 = 315 m.m**

Displacement in salt water at summer load water line  $\Delta = 22170 \text{ m}^3$

Tons per inch immersion at summer load water line  $T = 28.32 \text{ m}^3/\text{cm}$

Deduction =  $\frac{\Delta}{40 T} \text{ inches} = \frac{22170}{40 \times 28.32} = 19.57 \text{ cms} = 196 \text{ m.m}$

Correction for coefficient  $\frac{.797 + .68}{1.36} = 1.471/36$

	+	-
Depth Correction	199	-
Deduction for superstructures	-	533
Sheer correction	227	-
Round of Beam correction	-	-
Correction for Thickness of Deck amidships	23	-
Other corrections, scantlings, etc. To correspond with a designed summer draught of 8.848M.	449	533 - 84
Summer Freeboard =	<b>2429 m.m</b>	

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

Tropical Fresh Water Line above Centre of Disc	380 m.m
Fresh Water Line	196 m.m
Tropical Line	184 m.m
Winter Line below	184 m.m
Winter North Atlantic Line	315 m.m

Tropical Fresh Water Freeboard	2049 m.m
Fresh Water	2233 m.m
Tropical	2245 m.m
Winter	2613 m.m
Winter North Atlantic	2744 m.m



Margit Gertson

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.

mm.	Draught	cub.met. moulded dis.	cub.met. max. dis.	cub.met./cm.
27.70 8419	75 %	20875	20960 21,200	28.07 724
31.38 9541	85 %	23960	24050 24,250	28.73 741
35.07 10664	95 %	27165	27265 27,550	29.34 757

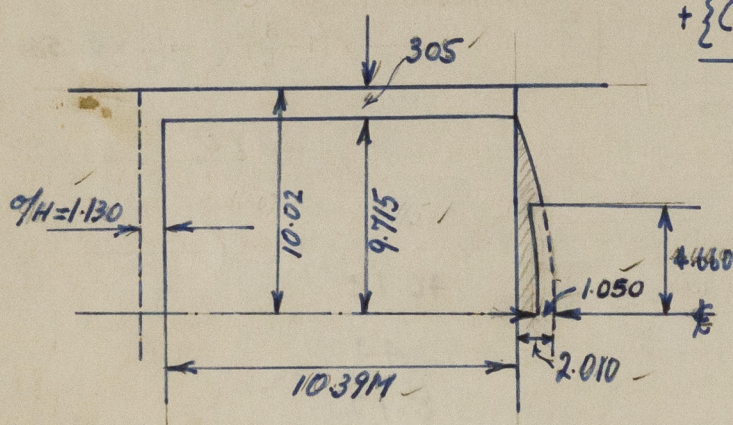
Poop: Length at Side = 31.135  
 $+ \frac{2}{3} \times 1.740 = 1.160$   
Equiv. = 32.295

Sheers:

Poop:

S. S Allowance =  $\frac{1}{3} \times 133 \times \frac{31.135}{157.180} = 9 \text{ mm}$

Bridge:

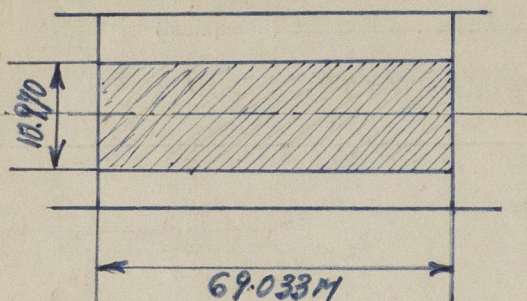


Length of Bridge = 10.390  
 $+ \left\{ \left( \frac{2}{3} \times 2.010 \times 9.715 \times 2.290 \right) - \left( 1.050 \times 4.460 \times 1.837 \right) \right\} = 25.718$   
 $\frac{25.718}{9.715 \times 2.290} = 1.156$   
 11.546

Equivalent length =  $11.546 \times \frac{9.715}{10.02} = 11.194$

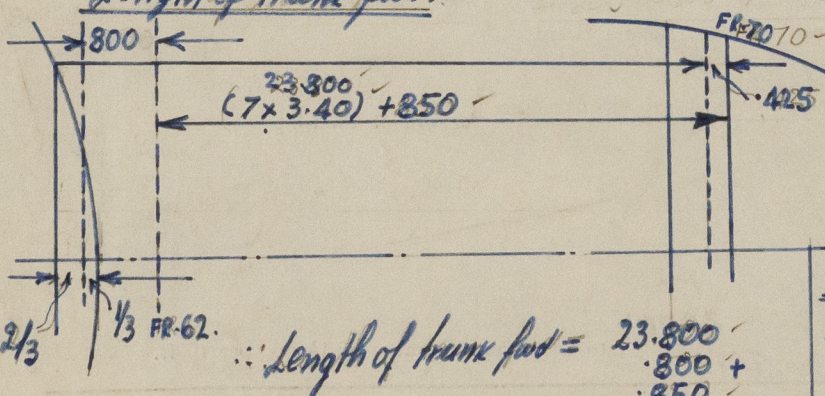
H aft =  $1.130 \times \frac{9.715}{10.02} = 1.096$

Length of trunk aft = 69.033M Allowing for Equiv. length at Poop & H of Bridge.



Equiv. length of trunk aft =  $69.033 \times \frac{5.485}{10.02} = 37.791 \text{ M}$

Length of trunk fwd:



Length of trunk fwd = 25.025M Allowing for Equiv. length at bridge & H of File.

Equiv. length =  $25.025 \times \frac{5.485}{10.02} = 13.700 \text{ M}$

Mean Effective ht. of trunk.

Reduction in Camber at Trunk Side =  $\frac{5.485^2}{10.02^2} \times 400 = 120 \text{ mm}$

Mean Camber =  $\frac{2}{3} \times 120 = 80 \text{ mm}$

Trunk height =  $1533 - 80 = 1453 \text{ mm}$

Trade of ship International. 25.450  
 Names of sister ships None 425  
 25.025

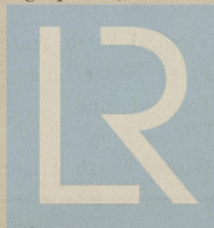
Builder's name and yard number Messrs. Öresundsvärvet AB, Landskrona, Yard No. 118

Owners Rederi AB Gylfe.

Fee £ :

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950," paragraph 11.)

Midship Section. ✓  
 Long Section and plans. ✓  
 WT hatches Nos. 2, 5, 6 and 7. ✓  
 WT hatches Nos. 1, 3 and 4. ✓



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