

AMENDED

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# LLOYD'S REGISTER OF SHIPPING

## SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

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Ship's Name <b>ROSPIGGEN.</b>	Official Number <b>10045</b>	Nationality and Port of Registry <b>SWEDISH GRISSEHAMN</b>	Gross Tonnage	Date of Build <b>7/1960</b>	Port of Survey <b>STOCKHOLM</b>
Moulded Dimensions: Length <b>37.1m</b> Breadth <b>8.7m</b> Depth <b>3.38m</b> Freeboard Length <b>37.1m (APPROX. 96% LENGTH ON L.W.L. FROM FORE SIDE OF STEM BAK)</b> Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>518 m<sup>3</sup></b> tons (excluding bossing) Coefficient of fineness for use with Tables <b>.68 (ACTUAL .559)</b>					Date of Survey <b>9<sup>th</sup> OCT + SUBSEQUENTLY.</b> Surveyor's Signature <b>F. REID</b> Particulars of Classification <b>#100 A1. CAR FERRY FOR SERVICE BETWEEN HARBOURS IN THE STOCKHOLM ARCHIPELAGO + THE ALAND ISLANDS.</b>

<b>DEPTH FOR FREEBOARD (D).</b> Moulded depth ... <b>3380</b> Stringer plate ... <b>10</b> (6mm. of bar keel under M.H. line + 80). Wood Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) = \text{None.}$ Depth for Freeboard (D) = <b>3390.</b>	<b>DEPTH CORRECTION.</b> (a) Where D is greater than Table depth (D—Table depth) R = <b>8.33(3.390-2.474) 9.37 = 71mm.</b> (b) Where D is less than Table depth (if allowed) (Table depth—D) R = If restricted by superstructures	<b>ROUND OF BEAM CORRECTION.</b> Moulded Breadth (B) <b>8700</b> Standard Round of Beam = $\frac{B \times 12}{50} = 174$ Ship's Round of Beam = <b>124</b> Difference <b>50mm</b> Restricted to Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{50^2}{4} (1 - .4534) = 777$ <b>5466</b>
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## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
along Bridge enclosed ...	<b>9.745</b>	<b>4.873</b>			<b>4.873</b>
" overhang aft ...					
" overhang forward ...					
F'cle enclosed equiv. ...	<b>11.197</b>	<b>11.197</b>	<b>2.200</b>		<b>11.197</b>
" overhang ...	<b>1.503</b>	<b>0.752</b>			<b>0.752</b>
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	<b>22.445</b>	<b>16.822</b>			<b>16.822</b>

Standard Height of Superstructure **1.830 mm**" " R.Q.D. **-**Deduction for complete superstructure **462 mm.**Percentage covered  $\frac{S}{L} = 60.50$ 
 $\frac{S_1}{L} = 45.34$   
 $\frac{E}{L} =$ 
Percentage from Table, Line A. **28.04**

(corrected for absence of forecastle (if required))

Percentage from Table, Line B. **32.04**

(corrected for absence of forecastle (if required))

Interpolation for bridge less than .2L (if required) **4 x 4.873 = 263 30.67**  
**7.42**Deduction = **462 + 3067 = 142 mm.**

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	<b>563</b>	1	<b>563</b>	0	0	1	
$\frac{1}{4}$ L from A.P. ...	<b>250</b>	4	<b>1000</b>	0	0	4	
$\frac{3}{8}$ L " ...	<b>63</b>	2	<b>126</b>	0	0	2	
Amidships ...	0	4	0	0	0	4	0
$\frac{3}{8}$ L from F.P. ...	<b>125</b>	2	<b>250</b>	0	0	2	
$\frac{1}{4}$ L " ...	<b>501</b>	4	<b>2004</b>	0	0	4	
F.P. ...	<b>1126</b>	1	<b>1126</b>	0	0	1	
Total ...			<b>5069</b>				<b>0</b>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{5069 (.75 - .3025)}{18} = 126 \text{ mm.}$   
 If limited on account of midship superstructure. **18 4475**

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 " =

## Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **3390**  
 Summer freeboard = **840**  
 Moulded draught (d) = **2550**  
 Keel allowance =  
 Extreme draught =  
 Deduction for Tropical freeboard and addition for =

Winter freeboard = **48** inches = **53 mm**

Addition for Winter North Atlantic Freeboard (if required) =

## Deduction for Fresh Water.

Displacement in salt water at summer load water line  
 $\Delta = 438 \text{ m}^3$   
 Tons per inch immersion at summer load water line  
 $T = 4.5$   
 Deduction =  $\frac{\Delta}{40 T}$  inches  
 = **62 mm**

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

Correction for coefficient **None.**Depth Correction ... **71**Deduction for superstructures ... **142**Sheer correction ... **126**Round of Beam correction ... **7**

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. to come ... **469**

to a summer draught of 2.550

+	-
71	-
-	142
126	-
7	-
-	-
469	-
673	142

Summer Freeboard = **840 mm.**

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

Tropical Fresh Water Line above Centre of Disc **Not assigned.**  
 Fresh Water Line " **62 mm**  
 Tropical Line " **Not assigned**  
 Winter Line below " **53 mm**  
 Winter North Atlantic Line " **Not assigned.**

Tropical Fresh Water Freeboard **Not assigned.**  
 Fresh Water " **778 mm**  
 Tropical " **Not assigned**  
 Winter " **893 mm**  
 Winter North Atlantic " **Not assigned.**

30 MAY 1961



Rasnygen

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.

<u>Fee.</u>	length at side.	10.845 m
+ 4600 x 600		352
<u>7850.</u>		<u>11.197 m</u>

Fee O/H. = 12.700 - 11.197 = 1.503 m

bridge. 9.695 m

Trade of ship .....

Names of sister ships .....

Builder's name and yard number .....

Owners .....

Fee £ : : .....

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



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