

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>"EMPIRE CONSEQUENCE"</b> <b>KAISANIE MI</b>	Official Number NOT YET ASSIGNED	Nationality and Port of Registry <b>FINNISH</b> <b>HELSINKI</b>	Gross Tonnage 1998	Date of Build	Port of Survey <b>NEWCASTLE-ON-TYNE</b>
Moulded Dimensions: Length <b>291.25'</b> Breadth <b>43.25'</b> Depth <b>17.75'</b>				Date of Survey <b>OCTOBER 1945</b>	
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons				Surveyor's Signature <b>H. Little</b>	
Coefficient of fineness for use with Tables <b>.711</b>				Particulars of Classification <b>GERM. Lloyd + 100A (E)</b> 4	

<b>DEPTH FOR FREEBOARD (D).</b> Moulded depth ... .. Stringer plate ... .. Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = _____	<b>DEPTH CORRECTION.</b> (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 = <b>-3.58</b> If restricted by superstructures _____	<b>ROUND OF BEAM CORRECTION.</b> Moulded Breadth (B) _____ Standard Round of Beam = $\frac{B \times 12}{50} =$ _____ Ship's Round of Beam = _____ Difference _____ Restricted to _____ Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) =$ <b>+0.05</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)	
Poep enclosed ... ..						Standard Height of Superstructure _____
" overhang ... ..						" " R.Q.D. _____
R.Q.D. enclosed ... ..						Deduction for complete superstructure <b>34.75</b>
" overhang ... ..						Percentage covered $\frac{S}{L} =$ _____
Bridge enclosed ... ..						" " $\frac{S_1}{L} =$ _____
" overhang aft ... ..						" " $\frac{E}{L} =$ <b>98.44</b>
" overhang forward ... ..						Percentage from Table, Line A <b>Timber</b> <b>99.02</b>
F'cle enclosed ... ..						(corrected for absence of forecastle (if required))
" overhang ... ..						Percentage from Table, Line B.
Trunk aft ... ..						(corrected for absence of forecastle (if required))
" forward ... ..						Interpolation for bridge less than .2L (if required)
Tonnage opening aft ... ..						Deduction = <b>34.75 x .9902 = 34.41</b>
" " forward ... ..						
Total ... ..						

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ... ..		1					1		
$\frac{1}{8}L$ from A.P. ... ..		4					4		
$\frac{2}{8}L$ " ... ..		2					2		
Amidships ... ..		4					4		
$\frac{2}{8}L$ from F.P. ... ..		2					2		
$\frac{1}{8}L$ " ... ..		4					4		
F.P. ... ..		1					1		
Total ... ..									

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) =$  **-1.82**  
 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 = \_\_\_\_\_  
 L

" " aft of " = \_\_\_\_\_

If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100 ft.

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **17.82** Ft.  
 Summer freeboard = **.21**  
 Moulded draught (d) = **17.61**

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = **4.40 = 4\frac{1}{2}**

Addition for Winter North Atlantic Freeboard (if required) =  $\frac{d}{3} = 5.87 = 5\frac{3}{4}$

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$  **46.38**

Tons per inch immersion at summer load water line

T = **25.9**

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

= **4.48 = 4\frac{1}{2}**

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

Correction for coefficient

Depth Correction ... .. **3.58**  
 Deduction for superstructures ... .. **34.41**  
 Sheer correction ... .. **1.82**  
 Round of Beam correction ... .. **.05**  
 Correction for Thickness of Deck amidships ... ..  
 Other corrections, scantlings, etc. ... ..

	+	-
Depth Correction	-	3.58
Deduction for superstructures	-	34.41
Sheer correction	-	1.82
Round of Beam correction	.05	-
Correction for Thickness of Deck amidships	-	-
Other corrections, scantlings, etc.	-	-
Summer Freeboard	<b>.05</b>	<b>39.76</b>

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

Tropical Fresh Water Line above Centre of Disc **13.94**  
 Fresh Water Line " " **12.7**  
 Tropical Line " " **2.5**  
 Winter Line below " " **13.3**  
 Winter North Atlantic Line " " **15.9**

Tropical Fresh Water Freeboard **0'-2\frac{1}{2}"**  
 Fresh Water " **0'-2\frac{1}{2}"**  
 Tropical " **0'-2\frac{1}{2}"**  
 Winter " **0'-2\frac{1}{2}"**  
 Winter North Atlantic " **0'-2\frac{1}{2}"**



