

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name **RANELLA** Official Number \_\_\_\_\_ Nationality and Port of Registry **Norwegian KRISTIANFJORD** Gross Tonnage \_\_\_\_\_ Date of Build \_\_\_\_\_

Port of Survey \_\_\_\_\_ Date of Survey **8.1.47** Surveyor's Signature \_\_\_\_\_

Moulded Dimensions: Length **416.85'** Breadth **56.88'** Depth **37.33'**  
 Moulded displacement at moulded draught = 85 per cent. of moulded depth **16690** tons  
 Coefficient of fineness for use with Tables **776**

Particulars of Classification **1100 A1 w. flod carrying petroleum in bulk**

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	37.33	(a) Where D is greater than Table depth (D - Table depth) R = $(37.33 - 27.79) 3.00 = +28.77"$		Moulded Breadth (B)	56.88'
Stringer plate	0.5	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = $9.59$		Standard Round of Beam = $\frac{B \times 12}{50}$	13.65"
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$		If restricted by superstructures		Ship's Round of Beam	14.80"
Depth for Freeboard (D) =	37.38			Difference	35"
				Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right)$	$\frac{35}{4} = 8.75$

## 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					
Bridge enclosed					
" overhang aft					
" overhang forward					
F'cle enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total					

*Flush Deck*

Standard Height of Superstructure **7.50'**

" " R.Q.D. \_\_\_\_\_

Deduction for complete superstructure **42.00'**

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

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

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

Percentage from Table, Line A.  
(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 = **Nil**

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	51.68	1		51.68	54.63	54.63	1		54.63
$\frac{1}{4}L$ from A.P.	23.20	4		92.80	22.38	22.38	4		89.52
$\frac{2}{4}L$ "	5.68	2		11.36	4.88	4.88	2		9.76
Amidships	-	4		-	-	-	4		-
$\frac{3}{4}L$ from F.P.	11.37	2		22.74	11.75	11.75	2		23.50
$\frac{4}{4}L$ "	46.20	4		184.80	47.13	47.13	4		188.52
F.P.	103.37	1		103.37	104.75	104.75	1		104.75
Total				465.15					470.68

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{.75 - \frac{S}{2L}}{.75} \right) = \frac{5.53 \times .75}{18} = -.23"$

If limited on account of midship superstructure. **No, flush deck.**

Mean actual sheer aft = **99.06%**  
 Mean standard sheer aft =

Mean actual sheer forward = **Excess**  
 Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = **Flush Deck**

Aft sheer  $\frac{51.68}{54.63} = .946$   
 $\frac{23.20}{22.38} = 1.037$   
 $\frac{5.68}{4.88} = 1.164$   
 $\frac{11.37}{11.75} = .968$   
 $\frac{46.20}{47.13} = .980$   
 $\frac{103.37}{104.75} = .986$

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 = **37.38**  
 Summer freeboard = **10.58**  
 Moulded draught (d) = **26.80**

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches =  $6.7 = 6\frac{3}{4}$

Addition for Winter North Atlantic Freeboard (if required) =

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$

Tons per inch immersion at summer load water line

T =

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

= **7 1/4"**

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

Correction for coefficient **1.36**

	+	-
Depth Correction	28.77	-
Deduction for superstructures	-	-
Sheer correction	-	23
Round of Beam correction	-	09
Correction for Thickness of Deck amidships	-	-
Other corrections, scantlings, etc. to correspond to a summer draught of 26'-11 1/4"	9.68	-
Summer Freeboard	127.20	

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

Tropical Fresh Water Line above Centre of Disc	14"
Fresh Water Line	7 1/4"
Tropical Line	6 3/4"
Winter Line below	6 3/4"
Winter North Atlantic Line	-

Tropical Fresh Water Freeboard	355 1/4"
Fresh Water	184 1/4"
Tropical	171 1/4"
Winter	171 1/4"
Winter North Atlantic	-