

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>"ISANDA"</b>	Official Number	Nationality and Port of Registry <b>FRENCH LE HAVRE</b>	Gross Tonnage	Date of Build <b>1955</b>	Port of Survey <b>SAINT-NAZAIRE (NANTES)</b>
Moulded Dimensions: Length <b>193' 870"</b> Breadth <b>25' 680"</b> Depth <b>14' 100"</b> (C <sup>o</sup> of RUDDER STOCK)					Date of Survey <b>WHILE BUILDING</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>48,085</b> METRIC tons					Surveyor's Signature <b>M. Bell</b>
Coefficient of fineness for use with Tables <b>.786</b>					Particulars of Classification <b>+100 A1 "CARRYING PETROLEUM IN BULK"</b>

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... .. <b>14' 100"</b>	(a) Where D is greater than Table depth (D-Table depth) R = <b>8-33(14.131-12.925)30 = +301 1/4"</b>	Moulded Breadth (B) <b>25.680</b>
Stringer plate ... .. <b>.031"</b>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <b>1.206</b>	Standard Round of Beam = $\frac{B \times 14}{50} =$ <b>514</b>
Sheathing on exposed deck <b>T</b> $\left(\frac{L-S}{L}\right) =$	If restricted by superstructures <b>✓</b>	Ship's Round of Beam = <b>.533</b>
Depth for Freeboard (D) = <b>14.131</b>		Difference <b>19</b>
		Restricted to
		Correction = $\frac{\text{Diff.}}{4} \times \left(1 - \frac{S}{L}\right) = \frac{19}{4} \times .6399 = -3 1/4"$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>i</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed <b>EQUIV.</b> <del>38.240</del> <b>39.707</b>	<b>39.707</b>	<b>39.707</b>	<b>2440</b>		<b>39.707</b>
" overhang <del>40.440</del>	<b>40.440</b>		<b>2440</b>		
R.Q.D. enclosed <b>✓</b>					
" overhang <b>✓</b>					
Bridge enclosed <b>EQUIV.</b> <b>13.820</b>	<b>13.820</b>	<b>2286</b>	<b>2286</b>		<b>13.795</b>
" overhang aft <b>3.284</b>	<b>2.287</b>	<b>2286</b>	<b>2286</b>		<b>2.283</b>
" overhang forward <b>3.050</b>					
File enclosed <b>(SEE OVER) EQUIV.</b> <b>13.610</b>	<b>13.610</b>	<b>2286</b>	<b>2286</b>		<b>13.586</b>
" overhang <b>4.766</b>	<b>383</b>				<b>382</b>
Trunk aft <b>✓</b>					
" forward <b>✓</b>					
Tonnage opening aft <b>✓</b>					
" " forward <b>✓</b>					
Total	<b>70.953</b>	<b>69.807</b>			<b>69.753</b>

Standard Height of Superstructure **2.290 m**" " R.Q.D. **✓**Deduction for complete superstructure **1067 1/4"**Percentage covered  $\frac{S}{L} =$  **36.60**"  $\frac{S_i}{L} =$  **36.01**"  $\frac{E}{L} =$  **35.98**Percentage from Table, ~~Line A~~ **TANKER** **26.98**  
(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 x .2698 = -288 1/4"**

## SHEER CORRECTION.

FULL 4 @ 10' 583 DRAFT = 42,240 METRIC TONS

T.P.C.M. " " " = **44.2**Mean actual sheer aft = **Deficient**Mean actual sheer forward = **Deficient 5.50**Length of enclosed superstructure forward of amidships = } **Tankers,**  
" " aft of " = } **Deficient sheers.**

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<b>1869</b>	<b>1</b>	<b>1869</b>	<b>1869</b>	<b>1869</b>	<b>873</b>	<b>1</b>	<b>873</b>	<b>873</b>
1/2 L from A.P. ...	<b>830</b>	<b>4</b>	<b>3320</b>	<b>63</b>	<b>63</b>	<b>63</b>	<b>4</b>	<b>252</b>	<b>252</b>
2/3 L " ...	<b>208</b>	<b>2</b>	<b>416</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>		
Amidships ...		<b>4</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>4</b>		
2/3 L from F.P. ...	<b>415</b>	<b>2</b>	<b>830</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>		
1/2 L " ...	<b>1661</b>	<b>4</b>	<b>6644</b>	<b>51</b>	<b>51</b>	<b>51</b>	<b>4</b>	<b>204</b>	<b>204</b>
F.P. ...	<b>3738</b>	<b>1</b>	<b>3738</b>	<b>1737</b>	<b>1737</b>	<b>1737</b>	<b>1</b>	<b>1737</b>	<b>1737</b>
Total			<b>16817</b>					<b>3066</b>	

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{13.75(-.1830)}{18} = +433 1/4"$ If limited on account of midship superstructure. **5670** If limited to maximum allowance of 1 1/2 ins. per 100 ft.

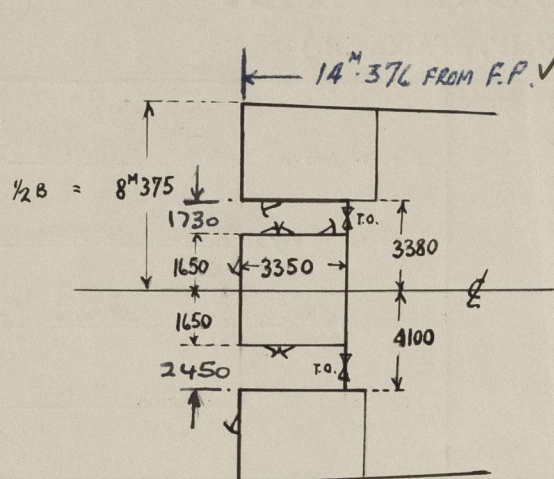
Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD	Correction for coefficient
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	<b>2923</b>	<b>3151</b>
Ft.	$\Delta = 42,240$		
Depth to Freeboard Deck = <b>14.131</b>	Tons per inch immersion at summer load water line		
Summer freeboard = <b>3.580</b>	T = <b>442</b>		
Moulded draught (d) = <b>10.551</b>	Deduction = $\frac{\Delta}{40 T}$ inches		
Deduction for Tropical Freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>220 1/4"</b>	= <b>239 1/4"</b>		
Addition for Winter North Atlantic Freeboard (if required) = <b>220 + 159 = 379 1/4"</b>			
		Depth Correction ... .. <b>301</b>	
		Deduction for superstructures ... .. <b>- 288</b>	
		Sheer correction ... .. <b>433</b>	
		Round of Beam correction ... .. <b>- 3</b>	
		Correction for Thickness of Deck amidships ... ..	
		Other corrections, scantlings, etc. ... ..	
		<b>734 291</b>	
		Summer Freeboard = <b>3594</b>	

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

Tropical Fresh Water Line above Centre of Disc	...	Tropical Fresh Water Freeboard	...
Fresh Water Line	...	Fresh Water	...
Tropical Line	...	Tropical	...
Winter Line below	...	Winter	...
Winter North Atlantic Line	...	Winter North Atlantic	...



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.



Focle BHD

Fore-castle

Length to end of passage = 11.026  
 $+ (16.750 - 2.450 + 1.730) = 33.50$  2.584  
 16.300 16.300  
 Equiv. length 13.610

O/H. =  $33.50 - 2.584 = .766$

Sheer forward.

Actual

Standard

1737	1	1737	3738	1	3738
51	3	153	2076	3	6228
		<u>1890</u>			<u>9966</u>

NOTE: POOP DK. PARALLEL TO UPPER DK. FROM FOR. BHD. TO FR. 14.  
 SHEER OF POOP DK FROM FR. 14 TO A.P. = 0° 45'.

The following plans are forwarded herewith (please return).

1. Midship Section
2. General Arrangement - Upper Deck & Hold.
3. " " Poop, Focle and Bridge Decks.
4. Profile and Decks (General Structure)

Poop

Length at side = 38.240  
 $+ 2\frac{1}{2} \times 2.200 = 1.467$   
 Equiv. length 39.707

Bridge

Length at side 12.796  
 $+ 2\frac{1}{2} \times 2.043 = 1.362$   
 $14.158 \times \frac{25.070}{25.680}$

Equiv. length = 13.820

O/H. =  $3.124 \times \frac{25.070}{25.680} = 3.050$

Trade of ship TANKER

Names of sister ships ✓

Builder's name and yard number SOCIÉTÉ DES CHANTIER ET ATELIERS DE SAINT-NAZAIRE (PENHOËT) N° K15.

Owners SOCIÉTÉ MARITIME SHELL

Fee £ (To be charged with F.E.)



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