

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name **CORUCHE.** Official Number \_\_\_\_\_ Nationality and Port of Registry **PORTUGUESE.**  
**Lisbon** Gross Tonnage \_\_\_\_\_ Date of Build **1948**  
 Port of Survey **QUEBEC.**  
 Date of Survey **WHILST BUILDING. 1948.**  
 Surveyor's Signature **R.D. CAMPBELL.**  
 Particulars of Classification **+100 A.1.**  
**with freeboard.**

Moulded Dimensions: Length **67.056 m** Breadth **10.668 m** Depth **5.486 m**.  
**to centre of Rudder stock.**  
 Moulded displacement at moulded draught = 85 per cent. of moulded depth **2330** tons  
 Coefficient of fineness for use with Tables **.692.**

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... .. <b>5.486</b>	(a) Where D is greater than Table depth (D—Table depth) R = <b>8.33(5.496 - 4.471) 16.933 = + 145 m/m</b>	Moulded Breadth (B) <b>10.668 m</b>
Stringer plate ... .. <b>10</b>	(b) Where D is less than Table depth (if allowed) (Table depth—D) R = <b>✓</b>	Standard Round of Beam = $\frac{B}{50} = \frac{10.668}{50} = 213 \text{ m/m}$
Sheathing on exposed deck <b>✓</b>	If restricted by superstructures <b>✓</b>	Ship's Round of Beam = <b>229 m/m</b>
$T \left( \frac{L-S}{L} \right) =$		Difference <b>16 m/m</b>
Depth for Freeboard (D) = <b>5.496</b>		Restricted to <b>✓</b>
		Correction = $\frac{\text{Diff}^*}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{16}{4} \times .5833 = 2.33 \text{ m/m}$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed <b>Equiv.</b> ...	<b>4.572</b>	<b>4.572</b>	<b>2.134</b>	<b>✓</b>	<b>4.572</b>
„ overhang ... ..	<b>.305</b>	<b>.152</b>			<b>.152</b>
R.Q.D. enclosed ... ..	<b>✓</b>				
„ overhang ... ..	<b>✓</b>				
Bridge enclosed <b>Equiv.</b> ...	<b>15.745</b>	<b>15.745</b>	<b>2.286</b>	<b>✓</b>	<b>15.745</b>
„ overhang aft ... ..	<b>.105</b>	<b>.079</b>			<b>.079</b>
„ overhang forward ...	<b>.152</b>	<b>.076</b>			<b>.076</b>
Fore enclosed ... ..	<b>7.010</b>	<b>7.010</b>	<b>2.134</b>	<b>✓</b>	<b>7.010</b>
„ overhang ... ..	<b>.610</b>	<b>.305</b>			<b>.305</b>
Trunk aft ... ..	<b>✓</b>				
„ forward ... ..	<b>✓</b>				
Tonnage opening aft ...	<b>✓</b>				
„ „ forward ...	<b>✓</b>				
Total ... ..	<b>28.499</b>	<b>27.939</b>			<b>27.939</b>

Standard Height of Superstructure <b>1.83 m</b>
„ „ R.Q.D. <b>✓</b>
Deduction for complete superstructure <b>712 m/m</b>
Percentage covered $\frac{S}{L} = \frac{27.939}{67.056} = 41.67$
Percentage from Table, Line A. <b>✓</b>
(corrected for absence of forecastle (if required)) <b>✓</b>
Percentage from Table, Line B. <b>28.92</b>
(corrected for absence of forecastle (if required)) <b>✓</b>
Interpolation for bridge less than .2L (if required) <b>✓</b>
Deduction = <b>712 × .2892 = -206 m/m</b>

## SHEER CORRECTION.

Station	Standard Ordinate m/m	S	M	Product	Actual Ordinate m/m	Effective Ordinate m/m	S	M	Product
A.P. ... ..	<b>813</b>	<b>1</b>	<b>✓</b>	<b>813</b>	<b>864</b>	<b>864</b>	<b>1</b>	<b>✓</b>	<b>864</b>
$\frac{1}{8}L$ from A.P. ...	<b>361</b>	<b>4</b>	<b>✓</b>	<b>1444</b>	<b>362</b>	<b>362</b>	<b>4</b>	<b>✓</b>	<b>1448</b>
$\frac{2}{8}L$ „ ... ..	<b>90</b>	<b>2</b>	<b>✓</b>	<b>180</b>	<b>90</b>	<b>90</b>	<b>2</b>	<b>✓</b>	<b>180</b>
Amidships ... ..	<b>✓</b>	<b>4</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>4</b>	<b>✓</b>	<b>✓</b>
$\frac{3}{8}L$ from F.P. ...	<b>181</b>	<b>2</b>	<b>✓</b>	<b>362</b>	<b>237</b>	<b>237</b>	<b>2</b>	<b>✓</b>	<b>474</b>
$\frac{4}{8}L$ „ ... ..	<b>722</b>	<b>4</b>	<b>✓</b>	<b>2888</b>	<b>862</b>	<b>862</b>	<b>4</b>	<b>✓</b>	<b>3448</b>
F.P. ... ..	<b>1625</b>	<b>1</b>	<b>✓</b>	<b>1625</b>	<b>1829</b>	<b>1829</b>	<b>1</b>	<b>✓</b>	<b>1829</b>
Total ... ..				<b>7312</b>					<b>8243</b>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{931(.75 - .2125)}{18 \times .5375} = -28 \text{ m/m}$   
 If limited on account of midship superstructure. **720 - 28 × 23/44 = -18 m/m**

Mean actual sheer aft = **EXCESS.**  
 Mean standard sheer aft = **EXCESS.**

Mean actual sheer forward = **EXCESS.**  
 Mean standard sheer forward = **EXCESS.**

Length of enclosed superstructure forward of amidships = **.0318**  
 „ „ aft of „ = **Greater than .1L.**

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **5.496**  
 Summer freeboard = **1.229**  
 Moulded draught (d) = **4.267**

## Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{48}$  inches = **89 m/m**

Addition for Winter North Atlantic Freeboard (if required) = **140 m/m**

## Deduction for Fresh Water.

Displacement in salt water at summer load water line  
 $\Delta = 2120 \text{ Tons.}$   
 Tons per inch immersion at summer load water line  
 $T = 14.30$   
 Deduction =  $\frac{\Delta}{40 T}$  inches = **3.72 "**  
**= 94 m/m.**

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

Correction for coefficient  $\frac{.692 + .68}{1.56} = 1.372 / 1.36$

Depth Correction ... .. **145** **✓**  
 Deduction for superstructures ... .. **206**  
 Sheer correction ... .. **18**  
 Round of Beam correction ... .. **2**  
 Correction for Thickness of Deck amidships ... .. **✓**  
 Other corrections, scantlings, etc. **628** **✓**  
**is a summer mld. draught of 14' 0".**

+	-
<b>676</b>	<b>682</b>
<b>1229</b>	<b>1229</b>
<b>1046</b>	<b>1046</b>
<b>1135</b>	<b>1135</b>
<b>1140</b>	<b>1140</b>
<b>1318</b>	<b>1318</b>
<b>1369</b>	<b>1369</b>
<b>773</b>	<b>226</b>
<b>1229</b>	<b>1229</b>

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

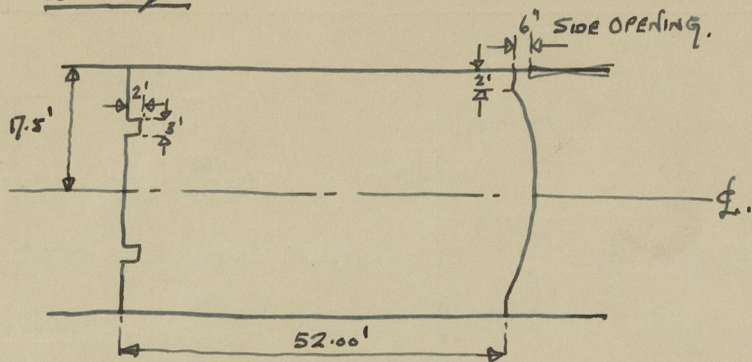
Tropical Fresh Water Line above Centre of Disc	<b>188 m.</b>	Tropical Fresh Water Freeboard	<b>1.229 m.</b>
Fresh Water Line	<b>094 m.</b>	Fresh Water	<b>1.135 m.</b>
Tropical Line	<b>089 m.</b>	Tropical	<b>1.140 m.</b>
Winter Line below	<b>089 m.</b>	Winter	<b>1.318 m.</b>
Winter North Atlantic Line	<b>140 m.</b>	Winter North Atlantic	<b>1.369 m.</b>



Coruche.

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.

Bridge! -



$$\text{Recess at aft end} = \frac{2 \times 3}{17.5} = .343'$$

$$\therefore \text{Equiv. end. Bridge} = 52' - .343' = 51.657' = 15.745 \text{ m.}$$

$$\text{Overhang aft} = .343' = 105 \text{ mm.}$$

$$\text{" for'd} = .5' = 152 \text{ mm.}$$

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Trade of ship \_\_\_\_\_

Names of sister ships \_\_\_\_\_

Builder's name and yard number \_\_\_\_\_

Owners \_\_\_\_\_

Fee £ \_\_\_\_\_



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