

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>CARD ALLAL</b> EX CHESHIRE COAST	Official Number 137790	Nationality and Port of Registry FRENCH MOROCCAN CASABLANCA	Gross Tonnage 1122	Date of Build 1915	Port of Survey CASABLANCA
Moulded Dimensions: Length <b>73.850</b> Breadth <b>10.700</b> Depth <b>5.240</b> <i>7.590m = 24'-6"</i> <i>5.240 = 17'-0" + 7'-6"</i>					Date of Survey 17 <sup>th</sup> to 19 <sup>th</sup> FEBRUARY 1947
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>2375 m<sup>3</sup></b> tons					Surveyor's Signature <i>John G. ...</i>
Coefficient of fineness for use with Tables <b>675</b> ✓					Particulars of Classification CONTEMPLATED

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth ...	<b>7.590</b> ✓	(a) Where D is greater than Table depth (D-Table depth) R =	<b>8.33(7.618 - 4.924) 18.65 = 4.19</b> ✓	Moulded Breadth (B)	<b>10.700</b> ✓
Stringer plate ...	<b>7</b>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	<b>2.694</b> ✓	Standard Round of Beam = $\frac{B \times 12}{50}$	<b>214</b> ✓
Sheathing on exposed deck		If restricted by superstructures	✓	Ship's Round of Beam	<b>FREEBOARD 50</b>
$T \left( \frac{L-S}{L} \right) = 75 \times \frac{21.000}{73.850}$	<b>21</b> ✓			Difference	<b>SHELTER 216</b> ✓
Depth for Freeboard (D) =	<b>7.618</b> ✓			Restricted to	<b>2</b> ✓
				Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L}\right)$	<b>2/4 = -1</b> ✓

DEDUCTION FOR SUPERSTRUCTURES.				
Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<b>23.900</b>	<b>2.350</b>	<b>7'-6"</b>	
" overhang ...	<b>2.70</b>	"	"	
R.Q.D. enclosed ...				
" overhang ...				
Bridge enclosed ...	<b>46.500</b>	<b>2.350</b>	<b>7'-6"</b>	
" overhang aft ...	<b>1.930</b>	"	"	
" overhang forward ...				
Fore enclosed ...				
" overhang ...				
Trunk aft ...				
" forward ...				
Tonnage opening aft ...				
" forward ...				
Total ...	<b>76.00</b>			

Standard Height of Superstructure **1.83** m  
R.Q.D. ✓  
Deduction for complete superstructure **7.68** m  
Percentage covered  $\frac{S}{L} =$  } **NIL**  
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	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ...	<b>869</b> ✓	1	<b>869</b>	<b>804</b>	<b>804</b>	1	<b>804</b>
1/4 L from A.P. ...	<b>386</b> ✓	4	<b>1544</b>	<b>314</b>	<b>314</b>	4	<b>1256</b>
3/4 L " ...	<b>97</b> ✓	2	<b>194</b>	<b>102</b>	<b>102</b>	2	<b>204</b>
Amidships ...	-	4	-	<b>0</b>	-	4	-
1/4 L from F.P. ...	<b>193</b> ✓	2	<b>386</b>	<b>158</b>	<b>158</b>	2	<b>316</b>
3/4 L " ...	<b>772</b> ✓	4	<b>3088</b>	<b>596</b>	<b>596</b>	4	<b>2384</b>
F.P. ...	<b>1738</b> ✓	1	<b>1738</b>	<b>2004</b>	<b>2004</b>	1	<b>2004</b>
Total ...			<b>7819</b> ✓				<b>6968</b>

Mean actual sheer aft =  
Mean standard sheer aft = } **DEFICIENT.**  
Mean actual sheer forward =  
Mean standard sheer forward = }  
Length of enclosed superstructure forward of amidships = } **NIL**  
" " aft of " = }  
Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{851}{18} \times .75 = +35$  m/m ✓  
If limited on account of midship superstructure. If limited to maximum allowance of 1 1/2 ins. per 100 ft. ✓

<p><b>Deduction for Tropical Freeboard.</b></p> <p><b>Addition for Winter and Winter North Atlantic Freeboard.</b></p> <p>Depth to Freeboard Deck = <b>7.597</b> ✓</p> <p>Summer freeboard = <b>2.401</b> ✓</p> <p>Moulded draught (d) = <b>5.196</b> ✓</p> <p>Deduction for Tropical freeboard and addition for Winter freeboard = <math>\frac{d}{45}</math> inches = <b>108</b> m/m ✓</p> <p>Addition for Winter North Atlantic Freeboard (if required) = <b>108 + 51 = 159</b> m/m ✓</p>	<p><b>Deduction for Fresh Water.</b></p> <p>Displacement in salt water at summer load water line</p> <p><math>\Delta =</math></p> <p>Tons per inch immersion at summer load water line</p> <p><math>T =</math></p> <p>Deduction = <math>\frac{\Delta}{40 T}</math> inches</p> <p><b>4/48 = 108</b> m/m ✓</p>	<p><b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) <b>875</b> ✓</p> <p>Correction for coefficient <b>NIL</b></p> <table border="1"> <tr> <td></td> <td>+</td> <td>-</td> </tr> <tr> <td>Depth Correction</td> <td><b>4.19</b></td> <td>-</td> </tr> <tr> <td>Deduction for superstructures</td> <td>-</td> <td>-</td> </tr> <tr> <td>Sheer correction</td> <td><b>35</b></td> <td>-</td> </tr> <tr> <td>Round of Beam correction</td> <td>-</td> <td><b>1</b></td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td>-</td> <td><b>21</b></td> </tr> <tr> <td>Other corrections, scantlings, etc. correspondingly to a summer moulded draught of 5.196m</td> <td><b>1094</b></td> <td>-</td> </tr> <tr> <td></td> <td><b>1548</b></td> <td><b>+1526</b></td> </tr> <tr> <td>Summer Freeboard =</td> <td><b>2401</b> ✓</td> <td></td> </tr> </table>		+	-	Depth Correction	<b>4.19</b>	-	Deduction for superstructures	-	-	Sheer correction	<b>35</b>	-	Round of Beam correction	-	<b>1</b>	Correction for Thickness of Deck amidships	-	<b>21</b>	Other corrections, scantlings, etc. correspondingly to a summer moulded draught of 5.196m	<b>1094</b>	-		<b>1548</b>	<b>+1526</b>	Summer Freeboard =	<b>2401</b> ✓	
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**SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-**

Tropical Fresh Water Line above Centre of Disc ...	<b>216</b> m/m ✓	Tropical Fresh Water Freeboard	<b>2185</b>
Fresh Water Line " " ...	<b>108</b> " ✓	Fresh Water " " ...	<b>2293</b>
Tropical Line " " ...	<b>108</b> " ✓	Tropical " " ...	<b>2401</b>
Winter Line below " " ...	<b>108</b> " ✓	Winter " " ...	<b>2509</b>
Winter North Atlantic Line " " ...	<b>159</b> " ✓	Winter North Atlantic " " ...	<b>2668</b>



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.

PRESENT FREEBOARD:-

	FROM DECK LINE	FROM CENTRE OF DISC
T	50 <sup>m</sup> / <sub>m</sub>	0
S	50 <sup>m</sup> / <sub>m</sub>	—
W	150 <sup>m</sup> / <sub>m</sub>	100 <sup>m</sup> / <sub>m</sub>
W.N.A.	200 <sup>m</sup> / <sub>m</sub>	150 <sup>m</sup> / <sub>m</sub>
FRESH WATER	112 <sup>m</sup> / <sub>m</sub>	

Trade of ship GENERAL CARGO

Names of sister ships —

Builder's name and yard number SIR RAYLTON DIXON & Co. LTD, MIDDLESBROUGH N° 591

Owners UNION D'ENTREPRISES MAROCAINES, CASABLANCA.

Fee £ —



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