

AMENDED.

# LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

## SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

For LONDON OFFICE ONLY

Received .....

Index No. 29067.

Govt. Copy .....

Owners C11 .....

Ship's Name <b>MODESTA</b>	Official Number	Nationality and Port of Registry <b>FINNISH</b>	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length <b>349'-0"</b> Breadth <b>49'-9"</b> Depth <b>26'-11"</b> Freeboard Length <b>ON WL. 349.00</b> Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>9163</b> tons Coefficient of fineness for use with Tables <b>.807</b>					Date of Survey <b>12/11/52</b> Surveyor's Signature <b>G. Buchanan</b> Particulars of Classification <b>*100A1</b>

<b>DEPTH FOR FREEBOARD (D).</b> Moulded depth ... <b>26.91</b> Stringer plate ... <b>.45</b> Wood Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <b>26.95</b>	<b>DEPTH CORRECTION.</b> (a) Where D is greater than Table depth (D-Table depth) R = <b>(26.95-23.27) 2.685 = +9.88"</b> (b) Where D is less than Table depth (if allowed) (Table depth-D) R = If restricted by superstructures	<b>ROUND OF BEAM CORRECTION.</b> Moulded Breadth (B) = <b>49.75</b> Standard Round of Beam = $\frac{B \times 12}{50} =$ <b>11.94</b> Ship's Round of Beam = <b>12.50</b> Difference = <b>.56</b> Restricted to Correction = $\frac{\text{Diff}^c}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.56}{4} \times .5225 =$ <b>.07"</b>
--	--	--

DEDUCTION FOR SUPERSTRUCTURES.					
	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed	32.41	32.41	8'-0"	—	32.41
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed	102.66	102.66	7'-0"	—	102.66
" overhang aft					
" overhang forward					
F'cle enclosed	31.58	31.58	7'-0"	—	31.58
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	166.65	166.65			166.65

Standard Height of Superstructure **6.99'**  
 " " R.Q.D. **—**  
 Deduction for complete superstructure **38.60"**  
 Percentage covered  $\frac{S}{L} =$  **47.75**  
 " "  $\frac{S_1}{L} =$   
 " "  $\frac{E}{L} =$   
 Percentage from Table, Line A. **—**  
 (corrected for absence of forecastle (if required))  
 Percentage from Table, Line B. **34.08**  
 (corrected for absence of forecastle (if required))  
 Interpolation for bridge less than .2L (if required)  
 Deduction = **38.60 x .3408 = -13.15"**

SHEER CORRECTION.							
Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	44.90	1	44.90	38.00	38.00	1	38.00
$\frac{1}{2}$ L from A.P.	19.98	4	79.92	1.65	1.65	4	6.60
$\frac{2}{3}$ L	4.94	2	9.88	—	—	2	—
Amidships	0	4	0	0	0	4	0
$\frac{2}{3}$ L from F.P.	9.88	2	19.76	—	—	2	—
$\frac{1}{2}$ L	39.96	4	159.84	8.25	8.25	4	33.00
F.P.	89.80	1	89.80	87.00	87.00	1	87.00
Total			404.60				164.60

Mean actual sheer aft =  
 Mean standard sheer aft =  
 Mean actual sheer forward =  
 Mean standard sheer forward =  
 Length of enclosed superstructure forward of amidships =  
 " " aft of " =  
 Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{.75 - \frac{S}{2L}}{.5113} \right) = \frac{239.50}{18} \left( \frac{.75 - .2387}{.5113} \right) = +6.80"$   
 If limited on account of midship superstructure.

<b>Deduction for Tropical Freeboard.</b> Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = <b>26.95</b> Summer freeboard = <b>5.42</b> Moulded draught (d) = <b>21.53</b> Keel allowance = Extreme draught = Deduction for Tropical freeboard and addition for = Winter freeboard = $\frac{d}{4}$ inches = Addition for Winter North Atlantic Freeboard (if required) =	<b>Deduction for Fresh Water.</b> 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 =	<b>TABULAR FREEBOARD</b> <del>corrected for Flush Deck (if required)</del> Correction for coefficient $\frac{.807 + .68}{1.36} = \frac{1.487}{1.36}$ <table border="1"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction</td> <td>9.88</td> <td>—</td> </tr> <tr> <td>Deduction for superstructures</td> <td>—</td> <td>13.15</td> </tr> <tr> <td>Sheer correction</td> <td>6.80</td> <td>—</td> </tr> <tr> <td>Round of Beam correction</td> <td>—</td> <td>.07</td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td>—</td> <td>—</td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td>—</td> <td>—</td> </tr> <tr> <td></td> <td>16.68</td> <td>13.22</td> </tr> </table> Summer Freeboard = <b>64.93 - 5.15 = 59.78</b>		+	-	Depth Correction	9.88	—	Deduction for superstructures	—	13.15	Sheer correction	6.80	—	Round of Beam correction	—	.07	Correction for Thickness of Deck amidships	—	—	Other corrections, scantlings, etc.	—	—		16.68	13.22
	+	-																								
Depth Correction	9.88	—																								
Deduction for superstructures	—	13.15																								
Sheer correction	6.80	—																								
Round of Beam correction	—	.07																								
Correction for Thickness of Deck amidships	—	—																								
Other corrections, scantlings, etc.	—	—																								
	16.68	13.22																								

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

Metric Equivalent	Tropical Fresh Water Line above Centre of Disc	266 $\frac{1}{4}$ "	Tropical Fresh Water Freeboard	137.9 $\frac{1}{4}$ "
	Fresh Water Line	152 $\frac{1}{4}$ "	Fresh Water	149.3 $\frac{1}{4}$ "
	Tropical Line	114 $\frac{1}{4}$ "	Tropical	153.1 $\frac{1}{4}$ "
	Winter Line below	127 $\frac{1}{4}$ "	Winter	177.2 $\frac{1}{4}$ "
	Winter North Atlantic Line	—	Winter North Atlantic	—

18.11.1952  
 of 1906 Freeboard  
 Re-assigned  
 being more favorable to the ship.

005429-005435-0079