

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>"MONTERREY"</b> (EX: "OTTAWA.")	Official Number	Nationality and Port of Registry PANAMANIAN. PANAMA CITY.	Gross Tonnage	Date of Build 1950-8.	Port of Survey GLASGOW
Moulded Dimensions: Length <u>535'-6"</u> Breadth <u>72'-0"</u> Depth <u>41'-0"</u> TO CENTRE OF RUDDER STOCK.					Date of Survey WHILE BUILDING.
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>29056</u> <u>34'-10"</u> tons <u>29076 @ 34'-85</u>					Surveyor's Signature <u>H. Thomas</u>
Coefficient of fineness for use with Tables <u>.757</u>					Particulars of Classification <u>+ 100 A.1.</u> <u>CARRYING PETROLEUM IN BULK</u>

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... .. <u>41'-0"</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>(41.08 - 35.70) 3 = +16.14</u>	Moulded Breadth (B) <u>72'-0"</u>
Stringer plate ... <u>.98</u> ... .. <u>.08</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <u>5.38</u>	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{72 \times 12}{50} = 17.28$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <u>18.00</u>
Depth for Freeboard (D) = <u>41.08</u>		Difference <u>+ .72</u>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.72}{4} \times .5683 = -.10$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed <u>Equiv.</u>	<u>124.83</u>	<u>124.83</u>	<u>8.75</u>	<u>✓</u>	<u>124.83</u>
" overhang ... ..					
R.Q.D. enclosed ... ..					
" overhang ... ..					
Bridge enclosed <u>Equiv.</u>	<u>44.72</u>	<u>44.72</u>	<u>7.5</u>	<u>✓</u>	<u>44.72</u>
" overhang aft ... ..					
" overhang forward ... ..					
F'cle enclosed ... ..	<u>61.58</u>	<u>61.58</u>	<u>7.5</u>	<u>✓</u>	<u>61.58</u>
" overhang ... ..					
Trunk aft ... ..					
" forward ... ..					
Tonnage opening aft ... ..					
" " forward ... ..					
Total ... ..	<u>231.13</u>	<u>231.13</u>			<u>231.13</u>

Standard Height of Superstructure	<u>7.5'</u>
" " R.Q.D.	<u>✓</u>
Deduction for complete superstructure	<u>42.00</u>
Percentage covered $\frac{S}{L} =$	
" " $\frac{S_1}{L} =$	<u>43.17</u>
" " $\frac{E}{L} =$	
Percentage from Table, Line A. TANKER	<u>34.17</u>
(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 = <u>42.00</u> <u>x</u> <u>.3417</u> = <u>14.35</u>	

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ... ..	<u>63.55</u>	<u>1</u>	<u>63.55</u>	<u>53 1/4</u>	<u>53.25</u>	<u>1</u>	<u>53.25</u>
1/2 L from A.P. ... ..	<u>28.28</u>	<u>4</u>	<u>113.12</u>	<u>17 1/4</u>	<u>17.06</u>	<u>4</u>	<u>68.24</u>
3/4 L " ... ..	<u>6.99</u>	<u>2</u>	<u>13.98</u>	<u>-</u>	<u>✓</u>	<u>2</u>	<u>✓</u>
Amidships ... ..	<u>✓</u>	<u>4</u>	<u>✓</u>	<u>-</u>	<u>✓</u>	<u>4</u>	<u>✓</u>
3/4 L from F.P. ... ..	<u>13.98</u>	<u>2</u>	<u>27.96</u>	<u>-</u>	<u>✓</u>	<u>2</u>	<u>✓</u>
1/2 L " ... ..	<u>56.56</u>	<u>4</u>	<u>226.24</u>	<u>3 3/4</u>	<u>3.56</u>	<u>4</u>	<u>14.24</u>
F.P. ... ..	<u>127.10</u>	<u>1</u>	<u>127.10</u>	<u>66 1/4</u>	<u>66.25</u>	<u>1</u>	<u>66.25</u>
Total ... ..			<u>571.95</u>				<u>201.98</u>

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 =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{369.97}{18} \left( .75 - \frac{21.58}{2 \times 535} \right) = +10.98$

If limited on account of midship superstructure.

.5342 If limited to maximum allowance of 1 1/2 ins. per 100 ft.

## Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 41.08 Ft.  
Summer freeboard = 9.47  
Moulded draught (d) = 31.61

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 7.9 = 201

Addition for Winter North Atlantic Freeboard (if required) = 7.9 + 5.36 = 13.26 = 337

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 26050$

Tons per inch immersion at summer load water line

T = 78.72

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

$= \frac{26050}{40 \times 78.72} = 210$

RAFT  $\Delta = 30189$  81.1

32.0 26328 78.9

28.0 22597 76.4

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

Correction for coefficient

.757 + .68

1.36

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

+

-

16.14

✓

14.35

✓

10.98

✓

.10

✓

27.12

14.45

+

12.67

✓

Summer Freeboard = 113.58

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

Tropical Fresh Water Line above Centre of Disc	<u>411</u>
Fresh Water Line	<u>210</u>
Tropical Line	<u>201</u>
Winter Line below	<u>201</u>
Winter North Atlantic Line	<u>337</u>

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

Winter North Atlantic

242

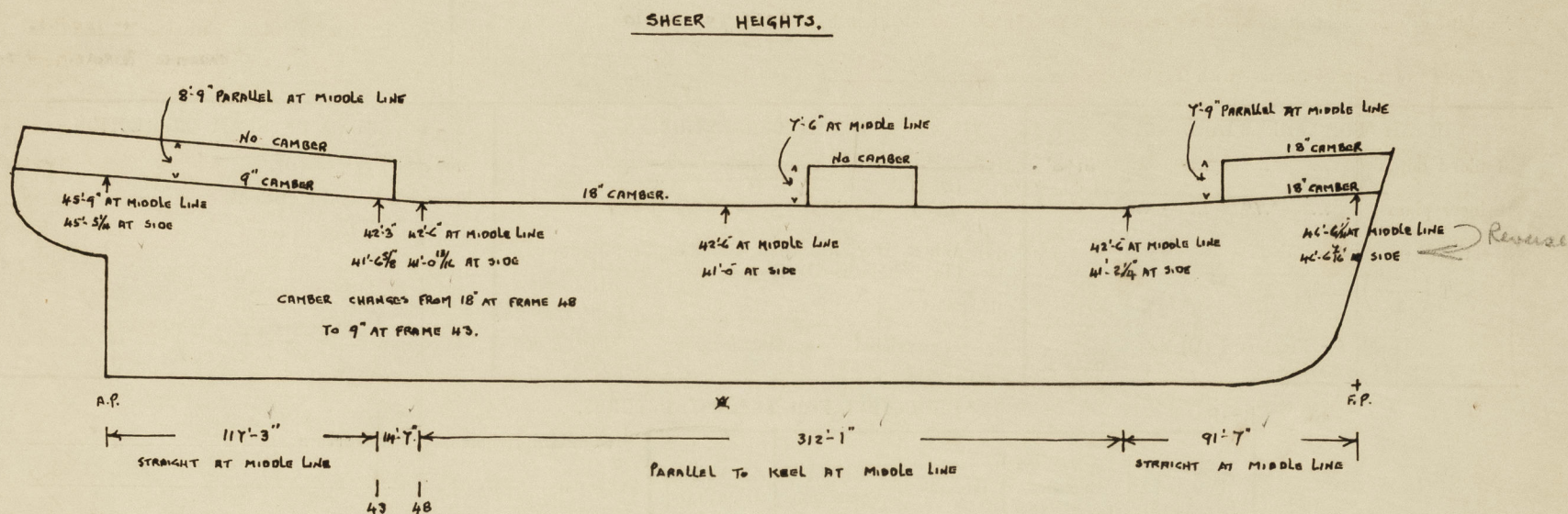
267.5

268.4

308.6

322.2

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.



This vessel has been built in conformity with the Society's Rules and Regulations and the Surveyor's letters. The scantlings and arrangements are in accordance with or equivalent to those shown on the approved plans.

Freeboard Survey Request Form is forwarded herewith

The approved plans of midship section, profile + deck plans + forward cargo hatch (3 plans) are enclosed for reference.

The butts of the keel plate are welded.

The docking plugs do not project below the bottom of the keel plates.

Trade of ship INTERNATIONAL.

Names of sister ships VIKLAND + VIKFOSS. BUILDERS N<sup>o</sup> 651 + 2.

Builder's name and yard number J. BROWN + CO. LTD. YARD N<sup>o</sup> 654.

Owners UNITAS INC.

Fee £ will be charged later



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Foundation