

Glasgow Reg 72288

Index No. 39354
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name MESA VERDE. <i>how VILLANDRY</i>	Official Number <i>NOT 181079 HAND.</i>	Nationality and Port of Registry BRITISH LONDON	Gross Tonnage 10640. <i>10718</i>	Date of Build 1944.	Port of Survey <i>Glasgow</i>
Moulded Dimensions: Length 503.00 Breadth 68.00 Depth 39.25					Date of Survey <i>October 1947.</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth 24300 tons					Surveyor's Signature <i>Garry Lullub.</i>
Coefficient of fineness for use with Tables 745					Particulars of Classification <i>Classification contemplated</i>

DEPTH FOR FREEBOARD (D).

Moulded depth ... **39.25**
 Stringer plate ... **.08**
 Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$
 Depth for Freeboard (D) = **39.33.**

DEPTH CORRECTION.

(a) Where D is greater than Table depth
 $(D - \text{Table depth}) R =$
 $(39.33 - 33.53) 3 = +17.40''$
 (b) Where D is less than Table depth (if allowed)
 $(\text{Table depth} - D) R =$
 If restricted by superstructures ☒

ROUND OF BEAM CORRECTION.

Moulded Breadth (B) **68.00**
 Standard Round of Beam = $\frac{B \times 12}{50} = 16.32$
 Ship's Round of Beam = **15.82**
 Difference **-.50**
 Restricted to
 Correction = $\frac{\text{Diff}^\circ}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.50}{4} \times 1.009 = +.08''$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed <i>AT SIDE</i>	106.00	108.67	8'-0"	✓	108.67
" overhang <i>AT CENTRE</i>	110.00				
R.Q.D. enclosed	38.67				
" overhang	36.00	38.67	8'-0"	✓	38.67
Bridge enclosed <i>AT SIDE</i>	40.00				
" overhang aft <i>AT CENTRE</i>					
" overhang forward					
F'cle enclosed	53.00	53.00	10'-0"	✓	53.00
" overhang	10"	.42			.42
Trunk aft	83				
" forward					
Tonnage opening aft					
" " forward					
Total	201.17	200.76			200.76

Standard Height of Superstructure **7.50**
 " " R.Q.D. **✓**
 Deduction for complete superstructure **42.00**
 Percentage covered $\frac{S}{L} = 39.99$
 " " $\frac{S_1}{L} = 39.91$
 " " $\frac{E}{L} = 39.91$
 Percentage from Table, Line A. Tanker. **30.91**
 (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 = $42.00 \times 30.91 = 12.98''$

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	60.30	1	60.30	24.0	24.00	1	24.00
$\frac{1}{2}$ L from A.P. ...	26.83	4	107.32	4.0	4.00	4	16.00
$\frac{3}{8}$ L " ...	6.63	2	13.26	—	—	2	—
Amidships ...		4		—	—	4	—
$\frac{3}{8}$ L from F.P. ...	13.27	2	26.54	—	—	2	—
$\frac{1}{2}$ L " ...	53.67	4	214.68	6.00	6.00	4	24.00
F.P. ...	120.60	1	120.60	18.00	18.00	1	18.00
Total ...			542.70				82.00

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{460.70}{18} (.75 - .1999) = +14.08''$
 If limited on account of midship superstructure.

Mean actual sheer aft = *Deficient*
 Mean standard sheer aft =

Mean actual sheer forward = *Deficient*
 Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = **✓**
 " " aft of " = **Tanker**

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **39.33**
 Summer freeboard = **9.23**
 Moulded draught (d) = **30.10**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **7.52" = 7½"**

Addition for Winter North Atlantic Freeboard (if required) = **7.52 + 5.03 = 12.55" = 12½"**

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 21890$
 Tons per inch immersion at summer load water line
 $T = 67.0$
 Deduction = $\frac{\Delta}{40 T}$ inches
 $= 8.17''$
 $= 8¼''$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

88.19
92.40
17.40
12.98
14.08
.08
31.56
12.98
+18.58
Summer Freeboard = 110.98

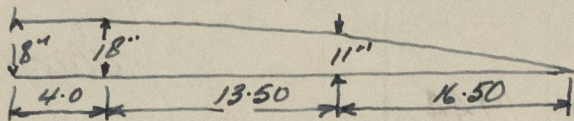
SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc ... **15¾"**
 Fresh Water Line " " ... **8¼"**
 Tropical Line " " ... **7½"**
 Winter Line below " " ... **7½"**
 Winter North Atlantic Line " " ... **12½"**

Tropical Fresh Water Freeboard ... **9' 2¾"**
 Fresh Water " " ... **7' 11"**
 Tropical " " ... **8' 6½"**
 Winter " " ... **8' 7½"**
 Winter North Atlantic " " ... **9' 10¼"**

Mesa Verde.

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.



$$\begin{aligned} \text{Camber} & - (8 \times 12) 18 = 1728 \\ & (27 \times 12) 14.50 = 4698 \\ & (16.50 \times 12) 11 = 2178 \\ & \hline & 8604 \end{aligned}$$

$$\begin{aligned} \frac{2}{3}h(68 \times 12) & = 8604 \\ h & = \frac{8604 \times 3}{(68 \times 12) 2} \\ & = 15.82" \end{aligned}$$

$$\begin{aligned} \text{Poop} & = 106.00 \\ \frac{2}{3} \times 4 & = \frac{2.67}{108.67} = \text{equivalent end length.} \end{aligned}$$

$$\begin{aligned} \text{Bridge} & = 36.00 \\ \frac{2}{3} \times 4 & = \frac{2.67}{38.67} = \text{equivalent end length.} \end{aligned}$$

Trade of ship

Names of sister ships

Builder's name and yard number

 Owners

Fee £.....



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Foundation