

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Index. No.  
(For London Office only.)

-3 SEP 1932

31654  
30183

Computation of Freeboard for ~~Steamer, Sailing Ship, Tanker~~  
having Poop, Trunk, Forecastle

(Type of Superstructures.)

Ship's Name T.S.S. "MARIANA" Nationality and Port of Registry Dutch Willemstad Official Number 3427 Gross Tonnage 2682 Date of Build 1925-4

Moulded Dimensions: Length 305.0 Breadth 50.20 Depth 15.08  
Moulded displacement at moulded draught = 85 per cent. of moulded depth 4580 tons  
Coefficient of fineness for use with Tables .825

Port of Survey Curacao, S.W.I.  
Date of Survey August 11-12, 1932  
Name of Surveyor E. S. Whittem  
Particulars of Classification +100. A1  
Carrying petroleum in bulk.  
S.S. Co NGL-BQ. Fitted for oil fuel 425° F.P. above 150° F.

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	15.08	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	50.20
Stringer plate	.04	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	12.04
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$		(20.33-15.04) 2.346 = 12.41		Ship's Round of Beam	12.5
Depth for Freeboard (D) =	15.7204	If restricted by superstructures	$12.41 \times \frac{6.29}{6.55} = 11.92$	Difference	.50
				Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right)$	$\frac{.50}{4} \times .1879 = -.02$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	88.257	88.27	6.29	6.29/6.55	84.77
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed...	74.0		22.5		
" overhang aft ...					
" overhang forward	4.0		7.5		
F'cle enclosed ...	28.5	33.35	7.5		33.35
" overhang ...	33.35				
Trunk aft <del>188.25</del>		126.05	6.29	6.29/6.55	121.05
" forward ...					
Tonnage opening aft	55.5		7.5		
" forward					
Total ...	121.62	247.67			239.17

Standard Height of Superstructure	6.55
" " R.Q.D.	
Deduction for complete superstructure	35.67
Percentage covered $\frac{S}{L} =$	39.87%
" " $\frac{S_1}{L} =$	81.21%
" " $\frac{E}{L} =$	78.42%
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	
Percentage from Table, Line B: Tanker 73.35%	
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction = $35.67 \times 73.35 =$	- 26.16

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	40.50	1		40.50	2.0	14.00	1		14.00
$\frac{1}{8}$ L from A.P. ...	18.02	4		72.08	0.0	0	4		
$\frac{2}{8}$ L " ...	4.46	2		8.92	0.0	0	2		
Amidships ...		4			0.0	0	4		
$\frac{2}{8}$ L from F.P. ...	8.92	2		17.84	0.0	0	2		
$\frac{1}{8}$ L " ...	36.04	4		144.16	5.0	1.12	4		4.48
F.P. ...	81.00	1		81.00	24.0	24.00	1		24.00
Total ...				364.50					42.48

Mean actual sheer aft = Deficient.  
Mean standard sheer aftMean actual sheer forward = Deficient.  
Mean standard sheer forwardLength of enclosed superstructure forward of amidships = } Tanker.  
" " aft of " = }

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{322.02}{18} (.75 - .1993) = + 9.85$

If limited on account of midship superstructure.

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 = 15.04 Ft.  
Summer freeboard = 1.53  
Moulded draught (d) = 13.51

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = 3.38" = 9 cm.

Addition for Winter North Atlantic Freeboard (if required) = 3.05 + 3.38 = 6.43" = 16 cm.

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 4.896$ 

Tons per inch immersion at summer load water line

T = 32

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

= 3.82" = 10 cm.

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

Correction for coefficient

	+	-
Depth Correction		11.92
Deduction for superstructures		26.16
Sheer correction	9.85	
Round of Beam correction		.02
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
	9.85	38.10

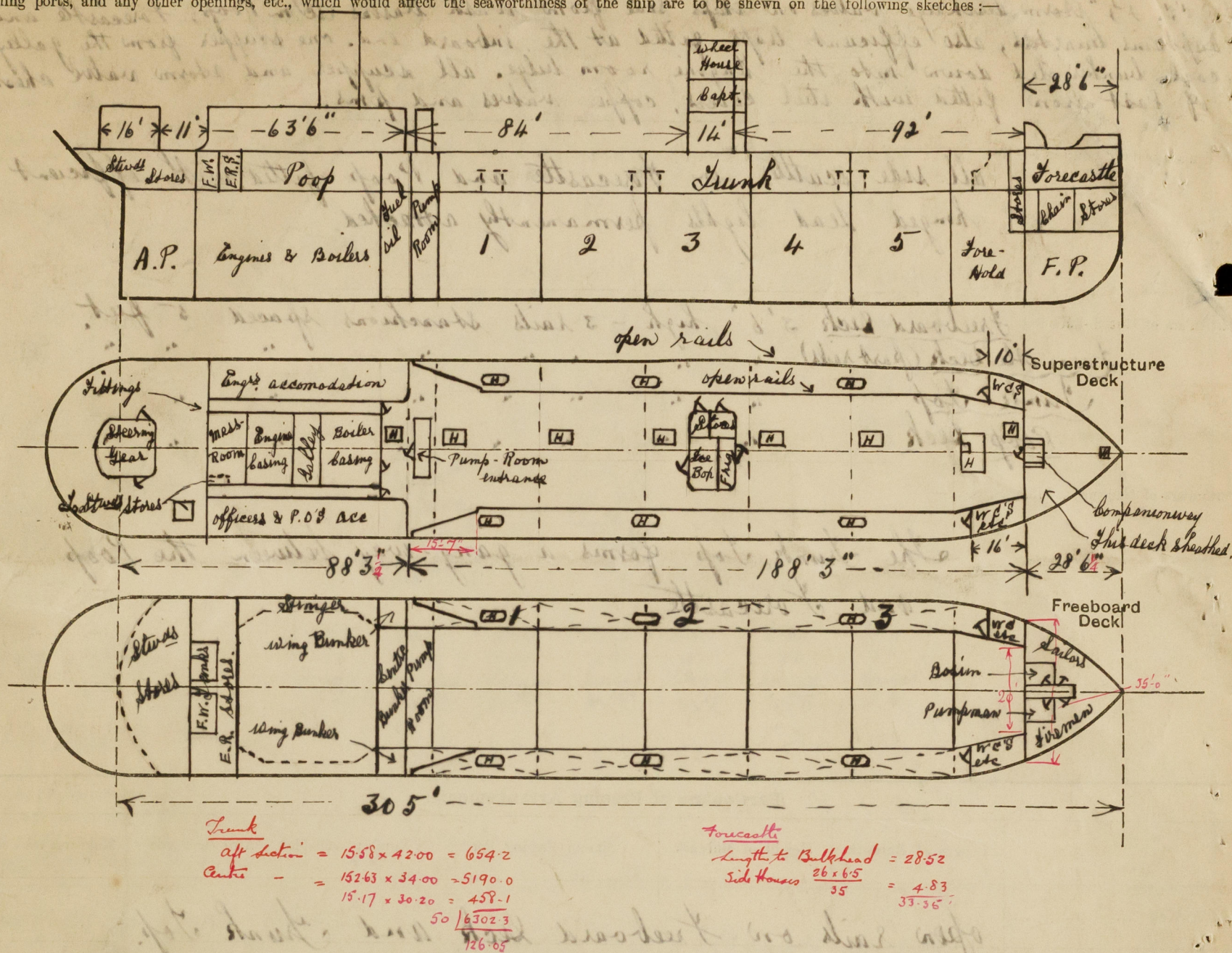
Summer Freeboard = 18.34" = 47 cm.

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

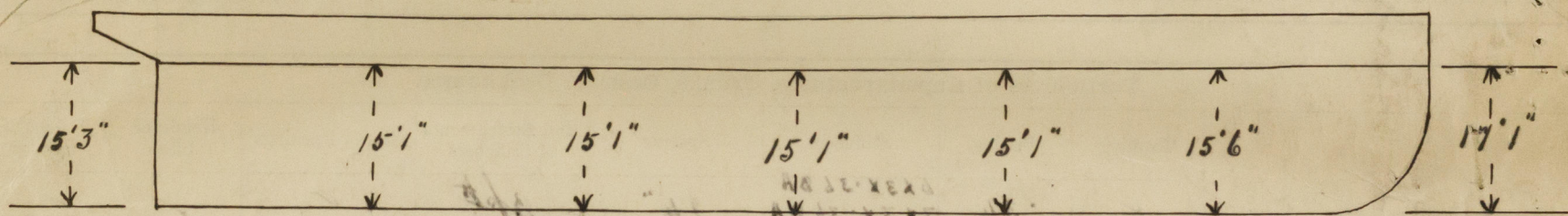
Tropical Fresh Water Line above Centre of Disc	19 cm.	Tropical Fresh Water Freeboard	28 cm.
Fresh Water Line	10 cm.	Fresh Water	37 cm.
Tropical Line	9 cm.	Tropical	38 cm.
Winter Line below	9 cm.	Winter	56 cm.
Winter North Atlantic Line	16 cm.	Winter North Atlantic	63 cm.



Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shown on the following sketches:—



State any special features in the construction of the ship:—



Builder's name and yard number. *Rotterdamse Droogdok Maatschappij. Hull No. 96.*

Names of sister ships. *"Martina"; "Maximina"; "Manuela"; "Marya"; "Marsella"; "Martica".*

Owners. *Curacaosche Scheepvaart Maatschappij*

Fee *150.00* Received by me