

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

1 DEC 1934 - 32755

32755

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having Coop. Drum. Forecastle

(Type of Superstructures.)

Ship's Name T.S.S. CARONI	Nationality and Port of Registry Maracaibo Venezuela	Official Number ✓	Gross Tonnage 3164	Date of Build 1928-5
-------------------------------------	--	-----------------------------	------------------------------	--------------------------------

Port of Survey Guayaquil N.W.I

Date of Survey Oct 31st 1931

Name of Surveyor George P. Richardson

Particulars of Classification - 100 A1
S.S. Co. No 1-32

Moulded Dimensions: Length 325'-0" Breadth 55'-2" Depth 16'-6"

Moulded displacement at moulded draught = 85 per cent. of moulded depth 6075 tons

Coefficient of fineness for use with Tables .848

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>16.50</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>✓</u>	Moulded Breadth (B) <u>55'</u>
Stringer plate <u>.04</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <u>(21.67 - 16.54) × 2.500 = -12.82</u>	Standard Round of Beam = $\frac{B \times 12}{50} = 13.20$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <u>13.75</u>
Depth for Freeboard (D) = <u>16.54</u>		Difference <u>.55</u>
		Restricted to <u>✓</u>
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.55}{4} \times .2998 = .04$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<u>75.70</u>	<u>75.70</u>	<u>8.0</u>	<u>✓</u>	<u>75.70</u>
" overhang	<u>✓</u>	<u>8.0</u>			
R.Q.D. enclosed					
" overhang					
Bridge enclosed <u>open</u> <u>22'-0"</u>	<u>17'-0"</u>				
" overhang aft					
" overhang forward					
F'cle enclosed	<u>39'-3"</u>	<u>39.30</u>	<u>8.0</u>	<u>✓</u>	<u>39.30</u>
" overhang					
Trunk aft ... <u>20.3</u>	<u>✓</u>	<u>112.59</u>	<u>8.0</u>	<u>✓</u>	<u>112.59</u>
" forward					
Tonnage opening aft					
" forward					
Total	<u>115.00</u>	<u>227.59</u>			<u>227.59</u>

Standard Height of Superstructure 6.75

" " R.Q.D. ✓

Deduction for complete superstructure 37"

Percentage covered $\frac{S}{L} = 35.39$

" " $\frac{S_1}{L} = 70.02$

" " $\frac{E}{L} = 70.02$

Percentage from Table, Line Tanker 63.02
(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 = 37 × .6302 = -23.32"

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	<u>42.50</u>	1	<u>42.50</u>	<u>30.0</u>	<u>30.0</u>	1	<u>30</u>
$\frac{1}{2}$ L from A.P.	<u>18.91</u>	4	<u>75.64</u>	<u>2.0</u>	<u>8.0</u>	4	<u>8</u>
$\frac{2}{3}$ L "	<u>4.675</u>	2	<u>9.35</u>	-	-	2	-
Amidships	-	4	-	-	-	4	-
$\frac{2}{3}$ L from F.P.	<u>9.35</u>	2	<u>18.70</u>	-	-	2	-
$\frac{1}{2}$ L "	<u>37.82</u>	4	<u>151.28</u>	<u>4.0</u>	<u>4.0</u>	4	<u>16</u>
F.P.	<u>85.00</u>	1	<u>85.00</u>	<u>54.0</u>	<u>54.0</u>	1	<u>54</u>
Total			<u>382.47</u>				<u>108</u>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(75 - \frac{S}{2L} \right) = \frac{274.47 - (.75 - .1769)}{18} = +8.74"$

If limited on account of midship superstructure.

Mean actual sheer aft = Deficient
Mean standard sheer aftMean actual sheer forward = Deficient
Mean standard sheer forwardLength of enclosed superstructure forward of amidships ✓
L " aft of " ✓

204684-004692-0043 1/2

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 16.54

Summer freeboard = 2.02

Moulded draught (d) = 14.52

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 3.63 = 3 3/4"

Addition for Winter North Atlantic Freeboard (if required) = 3 3/4 + 3 3/4 = 7"

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 6344$

Tons per inch immersion at summer load water line

T = 38.45

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

= 4.13

= 4 1/4"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	-	<u>12.82</u>
Deduction for superstructures	-	<u>23.32</u>
Sheer correction	<u>8.74</u>	-
Round of Beam correction	-	<u>.04</u>
Correction for Thickness of Deck amidships	-	-
Other corrections, scantlings, etc.	-	-
	<u>8.74</u>	<u>36.18</u>
Summer Freeboard =	<u>24.36</u>	

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

Tropical Fresh Water Line above Centre of Disc	<u>8"</u>
Fresh Water Line " "	<u>4 3/4"</u>
Tropical Line " "	<u>3 3/4"</u>
Winter Line below " "	<u>3 3/4"</u>
Winter North Atlantic Line " "	<u>7"</u>

Tropical Fresh Water Freeboard	<u>2'-0 1/4"</u>
Fresh Water " "	<u>1'-4 1/4"</u>
Tropical " "	<u>1'-8"</u>
Winter " "	<u>1'-8 1/2"</u>
Winter North Atlantic " "	<u>2'-7 1/4"</u>

CARONI

Particulars of fiddle, funnel and ventilator coamings:—

Entrance to fiddle P & S from prop. deck. through steel doors. half and hung.
18" silk. Bradley Dip fitted with steel hung storm covers and in efficient condition.
Bradley, funnel, ventilator and coamings in efficient condition.

None

Companionway P+S. fitted with steel lugged doors, 18" cell. leading from poop deck to crew quarters, on the upper deck. Steel doors fitted on inside of superstructure, equipped with 4. toggle capable of being manipulated from both sides.

8. steel ladders with efficient hand rails from forecabin deck and trunk up to the upper deck.

Forecastle deck - 1-8" dia 36" x 5/8" coaming to forecatal. Porto deck 2-9" 30" x 1/4 coaming to W.C. & Batt
Drumh. Top 2-18" " 36" 5/8 coaming to fore told. 1-12" 30" x 3/8" " - Over Quarter
1-6" 36" x 1/4" " - Am. Store
1-15" 30" x 3/8" " - Steering gear

*Efficient means of
closing jammed*

Forecastle deck 1" x 4" dia to fore peak tanks 15" above.
 Trunk Top 12" - 3" dia fitted with gauge wire to main cargo tanks 20" above deck
 8" - 3" - feed tanks 20" -
 Upper Deck 12" - 6" " to wing tanks .8 feet above and attached to decks, clipped to trunk side railing

нока

All side scuttles fitted with hinged doors and covers.
permanently attached ✓

Forecastle deck	3'-0"	2	chains spaced 4'-0" to 5'-0" feet
Drumk Top	3'-0"	1	
In way of storage P.S.	3'-0"	2	
Deck deck	3'-0"	2	
Upper deck	3'-0"	2	

portable chains

The Trunk Top forms a gangway between the ports and the forecastle decks.
Crew accommodated aft ✓

Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead <i>At end back tank</i>	✓	"40	$7\frac{1}{2} \times 3\frac{1}{2}$ B.A.	$30 \frac{1}{2} \times 45"$	Bth	✓	✓	✓
Raised Quarter Deck Bulkhead <i>upper deck</i>	$3 \times 3 \times 44$	"40	$8\frac{1}{2} \times 3$ B.A.	$24 - 27$	"	✓	✓	8'-0"
Bridge, After Bulkhead	✓	"30	<i>plating flange 3"</i>	$34 - 40"$	✓	$5' \cdot 3" \times 2'$	6	<i>an other 30" Bth 7'-3"</i>
Bridge, Forward Bulkhead	$3 \times 3 \times 34$	"	"	"	✓	"	✓	"
Forecastle Bulkhead	$3 \times 3 \times 34$	"30	$3\frac{1}{2} \times 2\frac{1}{2} \times 34$	$30"$	<i>Bth top only</i>	✓	✓	8'-0"
Trunk, Aft <i>in way of forecastle</i>	$3 \times 3 \times 34$	"40	9×3 B.A.	$35"$	Bth	$5' \times 3$	18"	8'-0"
Trunk, Forward	$3 \times 3 \times 44$	"44	$8\frac{1}{2} \times 3$ B.A.	$32"$	✓	✓	✓	8'-0"
Exposed Machinery Casings on Free-board or Raised Quarter Decks					✓	✓		
Exposed Machinery Casings on Super-structure Decks	$3 \times 3 \times 34$	"30	$3\frac{1}{2} \times 2\frac{1}{2} \times 34$	$30"$	✓	$4 \cdot 9" \times 1 \cdot 9"$	18"	$7' \cdot 5"$
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓	✓	✓	✓	✓	✓	✓	✓
Deckhouses on Flush Deck Ships	✓	✓	✓	✓	✓	✓	✓	✓

Poop Bulkhead	...	...	✓	No openings
Raised Quarter Deck Bulkhead	...	...
Bridge, After Bulkhead	...	...		An space open One wooden door to Exp^o and Officers Quarters capable of being manipulated with side
Bridge, Forward Bulkhead	...	...		No opening One wooden door on port side
Forecastle Bulkhead	...	...	✓	Opening 5'-0" x 3'-0" in long. Bulkheads P+S fitted with portable steel doors and took both
Exposed Machinery Casings on Free-board or Raised Quarter Decks	...	...
Exposed Machinery Casings on Super-structure Decks	...	...	✓	sidely etc
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...	...		Openings to sidely P+S sides fitted with steel half doors and linged capable of being manipulated on both sides. Steel linged doors. P+S fitted entrance of engine quarters
Deckhouses on Flush Deck Ships	...	...		all doors capable of being manipulated from both sides

Trunk (A) $\frac{13.00 \times 42.5}{55} = 10.05$

(B) $188 \times \frac{30}{55} = \frac{102.54}{112.59}$

Received by me