

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for ~~Steamer~~ *Coasting Ship* Tanker
having *Poop, Trunk, Forecastle*
(Type of Superstructures.)
Port of Survey *Curacao, S.W.I.*
Date of Survey *July 12-13th 1932.*
Name of Surveyor *E. S. Whitham*
Ship's Name *T.S.S. "MARTICA"*
Nationality and Port of Registry *Dutch Willemstad*
Official Number *3465*
Gross Tonnage *2679*
Date of Build *1925, 7.*
Moulded Dimensions: Length *305.0* Breadth *50.2* Depth *15.0*
Moulded displacement at moulded draught = 85 per cent. of moulded depth *4580* tons
Coefficient of fineness for use with Tables *.825*
Particulars of Classification *+100.A1*
Carrying petroleum in bulk
S.S. Co. No. 1-29

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <i>15.0</i>	(a) Where D is greater than Table depth (D-Table depth) R =	Moulded Breadth (B) <i>50.20</i>
Stringer plate <i>.04</i>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$ <i>12.07</i>
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ <i>✓</i>	<i>(20.33-15.04) 2.346 = 12.41.</i>	Ship's Round of Beam = <i>12.5</i>
Depth for Freeboard (D) = <i>15.04</i>	If restricted by superstructures $\frac{6.29}{6.55} \times 12.41 =$ <i>-11.92</i>	Difference <i>.50</i>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ $\frac{.50}{4} (1879) =$ <i>.02</i>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed	<i>88.27</i>	<i>88.27</i>	<i>6.29</i>	<i>6.29</i>	<i>84.77</i>	Standard Height of Superstructure <i>6.55</i>
" overhang						" " R.Q.D.
R.Q.D. enclosed						Deduction for complete superstructure <i>35.67</i>
" overhang						Percentage covered $\frac{S}{L} =$ <i>39.87</i>
Bridge enclosed... ..	<i>14.0</i>	<i>22.5</i>				" " $\frac{S_1}{L} =$ <i>81.21</i>
" overhang aft						" " $\frac{E}{L} =$ <i>78.42</i>
" overhang forward	<i>4.0</i>		<i>7.5</i>			Percentage from Table, Line A.
F'cle enclosed	<i>33.35</i>	<i>33.35</i>	<i>7.5</i>		<i>33.35</i>	(corrected for absence of forecastle (if required))
" overhang	<i>33.35</i>					Percentage from Table, Line B. <i>Tanker 73.35</i>
Trunk aft <i>✓ 88.27</i>		<i>126.05</i>	<i>6.29</i>	<i>6.29</i>	<i>121.05</i>	(corrected for absence of forecastle (if required))
" forward						Interpolation for bridge less than 2L (if required)
Tonnage opening aft	<i>65.5</i>		<i>7.5</i>			Deduction = <i>26.16</i>
" forward						
Total	<i>121.62</i>	<i>247.67</i>			<i>239.17</i>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P.	<i>40.50</i>	<i>1</i>		<i>40.50</i>	<i>2.0</i>	<i>14.00</i>	<i>1</i>		<i>14.00</i>	Mean actual sheer aft = <i>Deficient</i>
$\frac{1}{8}$ L from A.P.	<i>18.02</i>	<i>4</i>		<i>72.08</i>	<i>0.0</i>		<i>4</i>			Mean actual sheer forward = <i>Deficient</i>
$\frac{3}{8}$ L "	<i>4.46</i>	<i>2</i>		<i>8.92</i>	<i>0.0</i>		<i>2</i>			Mean standard sheer forward
Amidships	<i>✓</i>	<i>4</i>		<i>✓</i>	<i>0.0</i>		<i>4</i>			Length of enclosed superstructure forward of amidships = <i>Tanker</i>
$\frac{3}{8}$ L from F.P.	<i>8.92</i>	<i>2</i>		<i>17.84</i>	<i>1.0</i>		<i>2</i>			" " aft of " =
$\frac{1}{8}$ L "	<i>36.04</i>	<i>4</i>		<i>144.16</i>	<i>5.0</i>	<i>1.12</i>	<i>4</i>		<i>4.48</i>	
F.P.	<i>81.00</i>	<i>1</i>		<i>81.00</i>	<i>25.0</i>	<i>24.00</i>	<i>1</i>		<i>24.00</i>	
Total				<i>364.50</i>					<i>42.48</i>	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{222.02}{18} (.75 - .1993) = +9.85$

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = <i>15.04</i> Summer freeboard = <i>1.53</i> Moulded draught (d) = <i>13.51</i> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <i>3.38 = 9cm</i> Addition for Winter North Atlantic Freeboard (if required) = <i>3.38 + 3.05 = 6.43 = 16cm</i>	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ <i>4.896</i> Tons per inch immersion at summer load water line $T =$ <i>32</i> Deduction = $\frac{\Delta}{40T}$ inches <i>3.82 = 10cm</i>	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.825 + .65}{1.36} = \frac{1.505}{1.36}$ Depth Correction <i>11.92</i> Deduction for superstructures <i>26.16</i> Sheer correction <i>9.85</i> Round of Beam correction <i>.02</i> Correction for Thickness of Deck amidships Other corrections, scantlings, etc. Summer Freeboard = <i>18.34</i>	<i>42.1</i> <i>46.59.</i> <i>J.M.M.</i> <i>13-8-32.</i> <i>28.25</i> <i>18.34 = 47cm</i>
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~ Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc	<i>7.20</i>	<i>197m</i>	Tropical Fresh Water Freeboard	<i>28</i>
Fresh Water Line " "	<i>3.82</i>	<i>10</i>	Fresh Water " " " "	<i>37</i>
Tropical Line " "	<i>3.38</i>	<i>9</i>	Tropical " " " "	<i>38</i>
Winter Line below " "	<i>3.38</i>	<i>9</i>	Winter " " " "	<i>56</i>
Winter North Atlantic Line " "	<i>6.43</i>	<i>16</i>	Winter North Atlantic " " " "	<i>63</i>

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS							
Description of Hatchway	6.0 ft. hatch wings down upper deck	5.0 ft. H open space shunk top	1.0 ft. H steel bank shunk top	1. W.T.H. bare wood shunk top	1. W.T.H. Fair lead steel shunk top	1. W.T.H. staves to castle deck	1. W.T.H. steel shod poop deck
Dimensions of Hatchway	6'6" x 7'	6' x 4'	5' x 4'	10' x 6'	3' x 3'	2' x 2'	4' x 4'
COAMINGS	Height above Deck	9" BA.	9" BA.	9" BA.	9" BA.	9" BA.	9" BA.
	Thickness { Sides { Ends	1/4"	.50	.50	.50	.50	.50
	Stiffeners	one each side " " " "	✓	✓	✓	✓	✓
	Breaches Stays none	one horizontal 5 x 3 x .40	✓	✓	✓	✓	✓
HATCH BEAMS	Number	.50 top	.50 top	.50 top	.50 top	.50 top	.50 top
	Spacing	plate with 2 stiffeners	plate with 2 stiffeners	plate with 2 stiffeners	plate with 3 stiffeners	plate with with 10 toggles	plate with 2 stiffeners
	Scantling and Sketch	4 x 3 x .50 A with 16 toggles	4 x 3 x .50 A with 18 toggles	4 x 3 x .50 A with 16 toggles	4 x 3 x .50 with 26 toggles.	4 x 3 x .50 with 7 toggles	4 x 3 x .50 with 14 toggles
	Bearing Surface	toggles	toggles	toggles	access hatch	✓	✓
FORE AND AFTERS	Number	none	deck	deck	3' x 2' 1/2"	✓	✓
	Spacing	none	longitudinal	longitudinal	with coaming of 9" BA.	✓	✓
	Unsupported Lengths	none	passes through center of hatchway	passes through hatch way	.50 top plate with 8 toggles	✓	✓
	Scantling* and Sketch	none	passes through center of hatchway	passes through hatch way	.50 top plate with 8 toggles	✓	✓
HATCH COVERS	Bearing Surface	steel	steel	steel	steel	steel	steel
	Material	Steel	Steel	Steel	Steel	Steel	Steel
	Thickness	.50	.50	.50	.50	.50	.50
	How fitted Bearing Surface	hinged 0.4"	hinged 0.4"	hinged 0.4"	hinged W.P.	hinged W.P.	hinged W.P.
Spacing of Cleats	✓	✓	✓	✓	✓	✓	✓
Number of Tarpaulins	✓	✓	✓	✓	✓	✓	✓

*Are wood fore and afters steel shod at all bearing surfaces? ✓

Are battens and wedges efficient and in good condition? ✓

Are tarpaulins in good condition and in accordance with rule requirements? ✓

Are lashings provided in accordance with rule requirements? ✓

Engine and Fire-room Ventilators, also funnel and covers for fiddley openings in good condition.

None

Particulars of Companionways:— one (1) steel companionway on Forecastle Deck 3'0" x 3'9" x 5'6" leading to an enclosed Forecastle. Steel door 2'3" x 5'3" with 15" sill and capable of being manipulated from both sides.

one (1) steel companionway on Trunk Top 5'6" x 4'9" x 4'6" leading to Pump Room. door of steel 2'3" x 4'6" with 18" sill capable of being manipulated from both sides. —

Particulars of Ventilators in exposed positions on freeboard and superstructure decks :-

<u>Breaststck Deck</u>	7-8" dia. 15" coaming x $\frac{1}{2}$ (6 ft) to crew spaces & Store.	<u>Roof Deck</u>	2-18" dia. 9' 6" coaming to ER stores
<u>Trunk Top</u>	2-14" dia. 36" " x $\frac{3}{8}$ to Fore Hold and Store.		4-8" dia. 30" coaming x $\frac{1}{4}$ to stores Stores.
<u>Trunk Top aft</u>	2-18" dia. 36" " x $\frac{3}{8}$ to Pump Room.		

Forecastle Deck 1-1/4" dia. 24" above deck to Fore Peak Tank. Trunk Top 3-1/4" dia. 30" above deck to F.O. Tanks.
 5-3" dia. 6" " " " " W's. P & S. Coop Deck 1-1/4" dia. 24" " " " A.P. tanks.
Freelboard Deck 6-2 inch with gate valves from wing tank. 2-3 1/2" dia. 30" " " " F.O. tanks.
 patches to main air vent to mast-head.

None.

Particulars of Scuppers and Sanitary Discharge Pipes:— 4 inch and 6 inch storm discharge valves on ships side from W.C.
2½ inch storm discharge valves on ships side from wash basins etc in Poop, Captains Quarters and
Forecath, also effluent traps fitted at the inboard end. one scupper from Galley Coal Bunker on
Poop deck led down into the Engine Room Bilge. all scuppers and storm valve chests of last
year fitted with steel covers, copper valves and pans.

all side scuttles in Forecastle and Poop fitted with efficient hinged dead - lights permanently attached.

ils :- Treboard Deck 3'6" high - 3 rails - stanchions spaced from 5 to 6 ft
Forecastle Deck (partials) " " " " " "
Deck Top " " " " " "
Poop Deck " " " " " "

The Bulk Head forms a gangway between the Poop and
Forecastle

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	<i>open rails on Freeboard Deck and Bulk Top.</i>					
Forward Well						

State position of each freeing port } After-Well :—
 (F. and A. position and height above deck edge) } Forward Well :—
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :—
 Additional area where sheer is less than standard.

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	✓	3/4	6x3x36 BA 7x3x36 BA	24"	Bkt	✓	✓	✓
Raised Quarter Deck Bulkhead <i>Being dry dock house</i>	30	3/4	4x3x40	3' to 3' 2"	Bkt	2' x 5'	18"	7' 6"
Bridge, After Bulkhead	✓	✓	✓	✓	✓	✓	✓	✓
Bridge, Forward Bulkhead	40	30	3x2 1/2x30	24" to 36"	Bkt	2' 3" x 5' 0"	18"	7' 6"
Forecastle Bulkhead	34	34	4x3x30	24"	Bkt	none companionway	15"	7' 6"
Trunk, Aft	44	42	5 1/2 x 3 x 36 BA	24"	Bkt at top	✓	✓	6' 3"
Trunk, Forward	40	34	3 1/2 x 3 x 34 4 x 3 x 40 BA	24"	Bkt	✓	✓	6' 3"
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Super- structure Decks <i>Being dry dock</i>	40	34	4x3x40	24" to 36"	Bkt at top	2' 3" x 4' 6"	18"	7' 6"
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances	✓	✓	✓	✓	✓	✓	✓	✓
Deckhouses on Flush Deck Ships ...	✓	✓	✓	✓	✓	✓	✓	✓

Particulars of Closing Appliances (state if capable of being manipulated from both sides)

Poop Bulkhead	No openings
Raised Quarter Deck Bulkhead <i>Being dry dock house</i>	2 Steel doors capable of being manipulated from both sides.
Bridge, After Bulkhead	Steel insulated door
Bridge, Forward Bulkhead	Steel door capable of being manipulated from both sides
Forecastle Bulkhead	No openings. Steel door in companionway capable of being manipulated both sides
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	Steel doors to W.C.'s on freeboard deck capable
Exposed Machinery Casings on Super- structure Decks <i>Being dry dock</i>	Steel door capable of being manipulated from both sides.
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances	all doors within superstructure in good condition.
Deckhouses on Flush Deck Ships ...	✓

Hand-drawn plan view of the ship 'H.M.S. Fish Hawk' showing the main deck layout. The ship is 305'0" long and 28'6" wide. The main deck is divided into several sections: A.P. (Aft Port), Engines & Boilers, Oil Fuel Pump Room, Trunk (1, 2, 3, 4, 5), Fore-Hold, and F.P. (Fore Port). The superstructure deck includes the Captain's House, Forecastle, and various stores. The main deck also features a large open area with open rails, a pump room entrance, and various accommodations for the crew and officers. The ship is shown from a top-down perspective, with the bow at the top and the stern at the bottom.

Forecastle.
 Length to keelson 28.52
 Side Houses $\frac{26 \times 6.5}{35}$ $\frac{4.83}{33.35}$ equiv Bulwark

Hand-drawn cross-section of a ship's hull. The drawing shows the hull's profile with various structural details and dimensions. The top line represents the deck, and the bottom line represents the keel. The hull is divided into several sections by vertical lines. Dimensions are given in feet and inches. The following table summarizes the dimensions and structural details shown in the drawing:

Section	Height (ft. in.)	Width (ft. in.)	Structural Details
1	16'-2"	15'-2"	1" x 1" x 1"
2	15'-0"	15'-0"	1" x 1" x 1"
3	15'-0"	15'-0"	1" x 1" x 1"
4	15'-1"	15'-1"	1" x 1" x 1"
5	15'-5"	15'-5"	1" x 1" x 1"
6	14'-1"	14'-1"	1" x 1" x 1"

The drawing also includes various structural details such as "1" x 1" x 1" and "1" x 1" x 1" which likely refer to the thickness of the hull plating or the size of the structural members. The overall shape of the hull is shown, with a curved bottom and a flat top deck.

Builder's name and yard number *Rotterdamsche Droogdok Maatschappij N^o 102.*

Names of sister ships *Martina; Maximina; Manuela; Mariana; Mariya; Marsella.*

Owners Curacaosche Scheepvaart Maatschappij

Fee \$ 7 150 00

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