

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Index. No. 32200  
(For London Office only.)

5 OCT 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having a shelterdeck with fore castle

Port of Survey Amsterdam

Date of Survey 4 October 1932

Name of Surveyor H. P. Jonker

Particulars of Classification +100 A1  
S.S. Amst Not-30

(Type of Superstructures.)

Ship's Name S.S. SIMON BOLIVAR Nationality and Port of Registry Dutch Official Number 4906 Date of Build 1927  
3 mo

Moulded Dimensions: Length 128.01 Breadth 58.10 Depth 9.601

Moulded displacement at moulded draught = 85 per cent. of moulded depth 13603 16<sup>3</sup> tons

Coefficient of fineness for use with Tables .726

Depth for Freeboard (D)

Moulded depth ... 9.601

Stringer plate ... 10

Sheathing on exposed deck  
 $T \left( \frac{L-S}{L} \right) =$

Depth for Freeboard (D) = 9.611

Depth correction

(a) Where D is greater than Table depth  
(D-Table depth) R = 1.048  
8.33 (9.611 - 8.533) / 30 = 269

(b) Where D is less than Table depth (if allowed)  
(Table depth-D) R =

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B) 58.10 17.93

Standard Round of Beam =  $\frac{B \times 2}{50} =$  359

Ship's Round of Beam = 0 0

Difference deficient 359

Restricted to

Correction =  $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{359}{4} \times .0408 = +4$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...			<u>4.67</u>		
" overhang ...			<u>2305 + 63</u>		
R.Q.D. enclosed ...			<u>70</u>		
" overhang ...	<u>100.42</u>		<u>2438</u>		
Bridge enclosed...	<u>329.5 1/2</u>	<u>100.42</u>	<u>80</u>		<u>100.42</u>
" overhang aft ...					
" overhang forward	<u>22.38</u>		<u>2286 + 63</u>		
F'cle enclosed ...	<u>43.5</u>	<u>22.38</u>	<u>4.6</u>		<u>22.38</u>
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...	<u>14.1 1/2</u>		<u>8.48</u>		
" " forward					
Total ...	<u>122.80</u>	<u>122.80</u>			<u>122.80</u>

Standard Height of Superstructure 2290

" " R.Q.D. 4

Deduction for complete superstructure 1067

Percentage covered  $\frac{S}{L} =$  95.92

" "  $\frac{S_1}{L} =$  95.92

" "  $\frac{E}{L} =$  95.92

Percentage from Table, Line A. 94.98

(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 = .9498 x 1067 = 1013

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>1320</u>	1		<u>1320</u>	<u>1407</u>	<u>1320</u>	1		<u>1320</u>
1/2 L from A.P. ...	<u>587</u>	4		<u>2348</u>	<u>5578</u>	<u>587</u>	4		<u>2348</u>
3/4 L " ...	<u>144</u>	2		<u>294</u>	<u>486</u>	<u>144</u>	2		<u>294</u>
Amidships ...	-	4		-	0	-	4		-
3/4 L from F.P. ...	<u>293</u>	2		<u>586</u>	0	0	2		-
1/2 L " ...	<u>1173</u>	4		<u>4692</u>	<u>1119</u>	<u>1110</u>	4		<u>4440</u>
F.P. ...	<u>2641</u>	1		<u>2641</u>	<u>2286</u>	<u>2286</u>	1		<u>2286</u>
Total ...				<u>11881</u>					<u>10688</u>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{1193}{18} \left( .75 - \frac{.4796}{2} \right) = +18$

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 = 9611

Summer freeboard = 1320

Moulded draught (d) = 8291

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{48}$  inches = 14 c. M.

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line  
 $\Delta =$  14195 M<sup>3</sup>  
Tons per inch immersion at summer load water line  
T = 19.29

Deduction =  $\frac{\Delta}{40 T}$  inches  
= 18 c. M.

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient  $\frac{.726 + .68}{1.36} = \frac{1.406}{1.36}$

	+	-
Depth Correction ...	<u>269</u>	
Deduction for superstructures ...		<u>1013</u>
Sheer correction ...	<u>18</u>	
Round of Beam correction ...	<u>4</u>	
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc. ...		
	<u>291</u>	<u>1013</u>

Summer Freeboard = 1319

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, 132 c. M., Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc ... 35 c. M.

Fresh Water Line " " ... 18 c. M.

Tropical Line " " ... 14 c. M.

Winter Line below " " ... 14 c. M.

Tropical Fresh Water Freeboard ... 91

Fresh Water " ... 114

Tropical " ... 115

Winter " ... 149

8 OCT 1932

MARKING FORM

MARKING FORM

MARKING FORM

RECEIVED

RECEIVED

24 JUN 1933

RECEIVED

1933



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
HATCHWAYS ON SHELTER DECK					HATCHWAYS ON FREEBOARD DECK					
Description of Hatchway	N 1	N 2	N 3		N 4	N 1	N 2	N 3	N 4	
Dimensions of Hatchway	24-9" x 15-0"	24-4 x 18-0	24-4 x 18-0		24-4 x 18-0"	24-9" x 15-0"	24-4 x 18-0	24-4 x 18-0	24-4 x 18-0	
COAMINGS	Height above Deck	2-6	2-6	flush with deck	2-6	bracketed in from freeboard deck till 5' below				
	Thickness	.44	.44	see sketch below	.44	plating .36				
	Stiffeners	8 x 3 x .44	8 x 3 x .44	.44	8 x 3 x .44	stiffeners 3 x 1 1/2				
	Brackets, Stays	3	2	✓	2	spaced one frame space apart				
HATCH BEAMS	Number	3	3	2 and	3					
	Spacing	6-2 1/4	6-1	one division bulkhead	6-1					
	Scantling and Sketch	4 x 3 x .44	4 x 3 x .44	4 x 3 x .44	4 x 3 x .44	none	none	none	none	
	Top angles	18 x .36	16 x .32	14 x .32	16 x .32					
FORE AND AFTERS	Bottom angles	4 x 3 x .44	4 x 3 x .44	4 x 3 x .44	4 x 3 x .44					
	Bearing Surface	3	3	3	3					
	Number	12	30	2 1/2' leak						
	Spacing	30"	30"	same						
HATCH COVERS	Material	pine	pine	pine	pine	none	none	none	none	
	Thickness	2 1/2	2 1/2	2 1/2	2 1/2					
	How fitted	long	long	long	long					
	Bearing Surface	3	3	3	3					
Spacing of Cleats	24	24	24		24	none	none	none	none	
Number of Tarpaulins	two	two	two		2					

\*Are wood fore and afters steel shod at all bearing surfaces? *yes*  
Are battens and wedges efficient and in good condition? *yes*  
Are tarpaulins in good condition and in accordance with rule requirements? *yes*  
Are lashings provided in accordance with rule requirements? *yes*

Particulars of fiddley, funnel and ventilator coamings:— *Tiddley hatches on casing top are provided with steel covers permanently attached in their proper position*  
*Tiddley and funnel ventilators in efficient condition*  
*Engine room skylight of steel strongly constructed*

Particulars of Flush Bunker Scuttles:— *Hatchway on shelterdeck in fore castle space 44" x 44" steel coaming 18 x .36 cleats battens, wedges tarpaulins etc all fitted as required.*

Particulars of Companionways:— *Companion way on shelter deck: under fore castle deck to tween deck door 24 x 61 x 1 1/2 teak sill 16" steel deck house on forward deck 4-6 high plating .30 stiff. L 3 x 2 1/4 x .28 spaced 32 1/2 door 24 x 64 x 1 1/2 leak sill 11" above wood deck*  
*amidships steel deck 9-0 high plating .30 stiff. L 4 x 3 x .36 spaced 32 1/2 on S.B. & P.S. in side bulkhead W.T. steel door 40 x 70 sill 9" above wood deck*  
*in after bulkhead deck house one steel door 22 x 69 two steel doors 35 x 68 sill 10 1/2" two doors 27 x 76 sill 10" above wood deck*  
*On afterdeck steel deckhouse 8-0 high plating .30 stiff. L 3 x 2 1/4 x .28 spaced 32 1/2 doors 36 x 63 x 1 1/2 leak sill 11" above wood deck*  
*door 28 x 64 x 1 1/2 leak sill 11" "*  
*and one steel door 25 x 55 sill 21" to tunnel. All doors are capable of being operated from both sides*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— *On fore castle deck to store room above peak tank two ventilators 36 x 10" diam x .32 to hold 2 vent: 36 x 18" diam x .40 on shelterdeck 2 vent: 10-6 x 12" diam x .36 bracketed to fore further ventilators 32 x 12" diam x .36, 32 x 18" diam x .36. to hold 8 tween decks and goose neck ventilator 16 x 6 diam and 15 x 5" diam*  
*All ventilators are provided with wood hatches & canvas covers as required.*  
*Goose neck ventilators have means for closing the openings*

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:— *On shelterdeck one air pipe 36 x 4" diam to fore*  
*air pipes to tanks 27 x 3 1/2" diam and 26 x 6" diam. Air pipes to tanks on freeboard deck in forward well 34" above deck and 2 1/4 to 3 1/2" diam*  
*The air pipes have no means for closing the openings*

Particulars of Gangway Cargo and Coaling Ports:— *One W.T. Gangway door on P.S. between freeboard and shelterdeck 33 x 71" sill 12" above freeboard deck efficiently constructed*  
*Six W.T. coaling ports on P.S. and 5 W.T. coaling ports on S.B. sill 30 x .36" sill 12 1/2" below freeboard deck efficiently constructed*



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## Lloyd's Register of Shipping.

Ship's Name

SIMON BOLIVAR

(Batch)

Official No. ---

Memorandum of alterations reported since ship was surveyed for assignment of Load Lines  
in OCT., 1932.

The promenade deck aft has been extended and connected to the existing winch deck aft, and deck plating, beams, hatchway with shifting beams, hatches, etc., all as per approved plan. London letter M. 28.4.38.

The deck house on top of the promenade deck has been extended till the after end of the existing promenade deck, plating stiffeners, etc., all as per approved plan, London letter M 5.6.38.

The material used is of open hearth process and tested as required. The existing arrangement of covers, webs, etc., at No.3 hatchway at the deck below the promenade deck have been retained.

(Ams. Rpt. 8 No. 15323a dated 12.7.38)

*Goods not affected*

6 AUG 1938

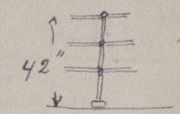
RETAIN



Particulars of Scuppers and Sanitary Discharge Pipes — *Shelter deck discharged through ship sides by scupper pipes installed below freeboard deck. Freeboard deck discharged through ship side in way of bridge space by scupper pipes installed 1-6" below freeboard deck. Storm valves fitted, in way of well by scupper pipes without storm valves. W.C. and wash places discharged through ship side below freeboard deck storm valves fitted.*

Particulars of Side Scuttles: *Side scuttles below freeboard are provided with efficient deadlight permanently attached in their proper position so that they can be effectively closed and secured. Side scuttles below superstructure decks are provided with portable deadlights waterlight, stowed adjacent to the side scuttles.*

Particulars of Guard Rails:— *Open rail on fore castle deck*



Particulars of Gangways, Lifelines, etc.:— *No gang way or life lines fitted.*

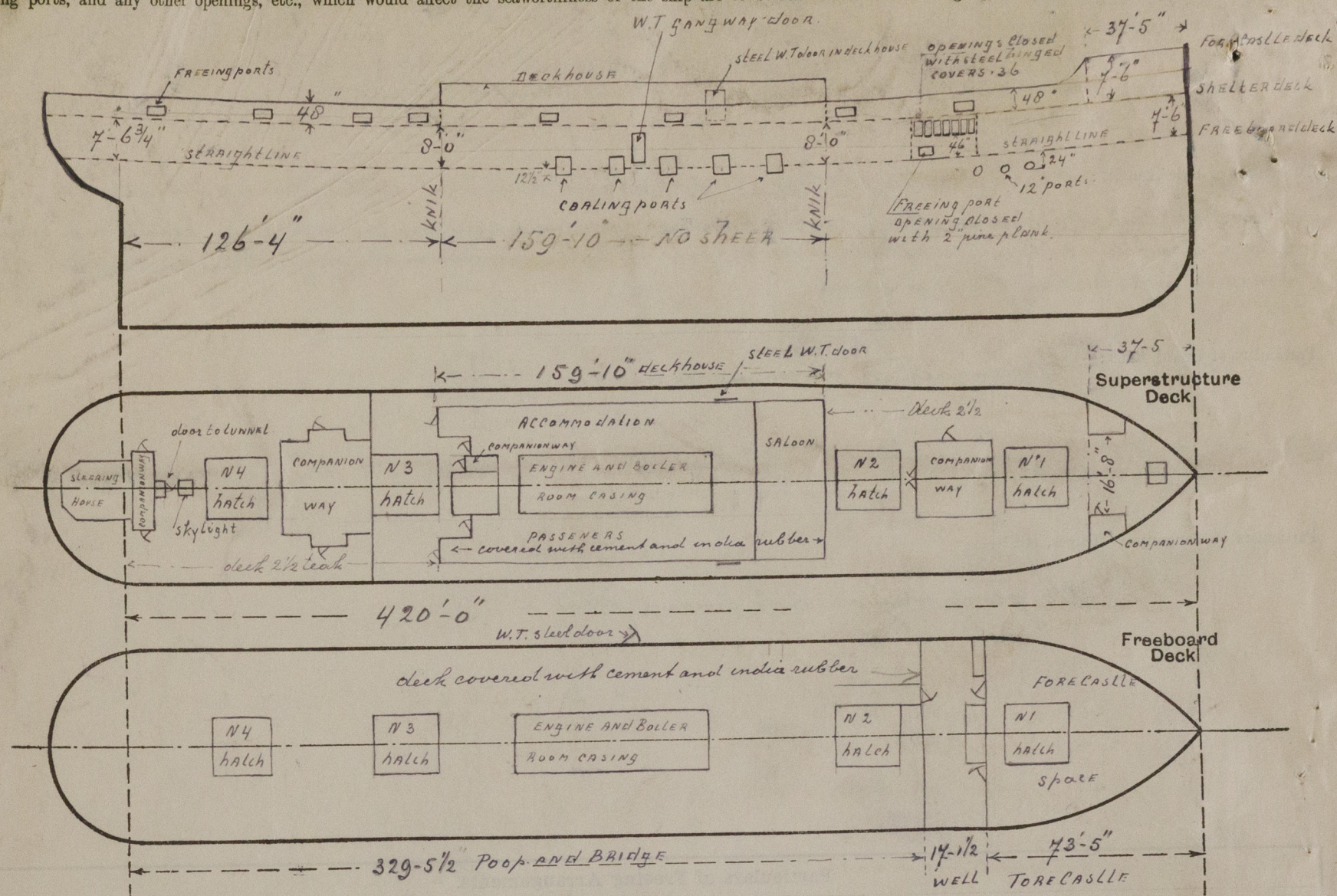
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Length Bulwark Forward	96'-5"	48"	3.25 x 1.6	Two	10.4 ft <sup>2</sup>	10 ft <sup>2</sup>
Length Bulwark Aft	126'-4"			four	20.8 ft <sup>2</sup>	13 ft <sup>2</sup>
ON SHELTER DECK						
Forward Well	17'-1 1/2"	7'-9"	3.5 x 1.75	one	6.1 ft <sup>2</sup>	8 1/4
State position of each freeing port ... { After Well:— height above shelter deck edge 11" to 19" (F. and A. position and height above deck edge) { Forward Well:— height above freeboard deck edge 5" State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— <i>Bars fitted spaced 7" apart.</i> 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
Fore castle								
Deep Bulkhead on Shelter deck	24	24	L3 x 2 1/2 x .32	2'-9"	none	16'-8" x 7'-6"	none	7'-6"
Raised Quarter Deck Bulkhead	✓							
Bridge, After Bulkhead	✓							
Bridge, Forward Bulkhead	26	26	L4 x 3 x .34	.30	none	30 x 60	13	7'-9"
Forecastle Bulkhead	26	28	L4 x 3 x .34	.30	none	34 x 70	4	7'-9"
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	✓							
Exposed Machinery Casings on Superstructure Decks								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships	30	30	L6 x 3 x .36	+25"	angle lugs top and bottom	none	✓	9'-0"
Throat Bulkhead								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Fore castle Bulkhead on Shelter deck	<i>no closing appliances</i>
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	<i>W.T. steel door capable of being manipulated from both sides</i>
Forecastle Bulkhead	<i>Wood doors 1 1/2 inch capable of being operated from both sides</i>
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships	<i>See Companionways: doors closed and operated from both sides</i>



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 shewn on the following sketches:—



The vessel has been examined afloat.

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

All airpipes and goose neck ventilators to be provided with efficient means for closing the openings.  
 Scupper pipes in freeboard deck not fitted with storm valve: to be provided with efficient means for closing the openings in the freeboard deck

Builder's name and yard number

Names of sister ships

Owners

Fee £ 103 : —

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