

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. 10 JUN 1932
(For London Office only.)

19049

Rpt. No. 1115

 Computation of Freeboard for Steamer, Sailing Ship, Tanker
 having *Poop, bridge and forecastle deck.*

Port of Survey

Mahmra

Date of Survey

3rd June, 1932.

Name of Surveyor

Admiral

Particulars of Classification

100 A1

Ship's Name

S/S "VIRGINIA"

(Type of Superstructures.)

*Industria
Jornstorp*

Official Number

5540

Gross Tonnage

2811

Date of Build

*1907-4mo.*Moulded Dimensions: Length *317.16'* Breadth *46.28'* Depth *23.30' 23.29'*
6932 tons

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

Coefficient of fineness for use with Tables

835

Depth for Freeboard (D)

*23.29*Moulded depth ... *23.30*Stringer plate ... *0.04*

Sheathing on exposed deck

 $T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) =

23.34

Depth correction

(a) Where D is greater than Table depth
(D - Table depth) R = $(23.34 - 21.14) 2.44 = +5.37$ (b) Where D is less than Table depth (if allowed)
(Table depth - D) R =*2.20*

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B) *46.28*Standard Round of Beam = $\frac{B \times 12}{50} = 11.10$ Ship's Round of Beam = *12"*Difference *Even 90*

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{9}{4} (51.07) = -11$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>30.5'</i>	<i>30.50</i>	<i>7'-0"</i>		<i>30.50</i>
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	<i>94.0'</i>	<i>94.00</i>	<i>7'-11 1/2"</i>		<i>94.00</i>
" overhang aft ...					
" overhang forward ...					
Fore enclosed ...	<i>30.66'</i>	<i>30.66</i>	<i>7'-11 1/2"</i>		<i>30.66</i>
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<i>155.16</i>	<i>155.16</i>			<i>155.16</i>

Standard Height of Superstructure

6.672

" " R.Q.D.

Deduction for complete superstructure

*36.48*Percentage covered $\frac{S}{L} = 46.93$ " " $\frac{S_1}{L} = 48.93$ " " $\frac{E}{L} = 48.93$

Percentage from Table, Line A.

(corrected for absence of forecastle (if required))

Percentage from Table, Line B.

35.098

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction =

-12.80

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>41.72</i>	1		<i>41.72</i>	<i>42"</i>	<i>42.0</i>	1		<i>42.00</i>
1/8 L from A.P. ...	<i>18.56</i>	4		<i>74.24</i>	<i>18.2"</i>	<i>18.17</i>	4		<i>72.68</i>
2/8 L " ...	<i>4.59</i>	2		<i>9.18</i>	<i>4.5"</i>	<i>4.54</i>	2		<i>9.08</i>
Amidships ...		4			<i>0</i>		4		
3/8 L from F.P. ...	<i>9.18</i>	2		<i>18.36</i>	<i>11"</i>	<i>11.06</i>	2		<i>22.12</i>
1/2 L " ...	<i>37.13</i>	4		<i>148.52</i>	<i>43.5"</i>	<i>44.24</i>	4		<i>176.96</i>
F.P. ...	<i>83.44</i>	1		<i>83.44</i>	<i>102"</i>	<i>102.0</i>	1		<i>102.00</i>
Total ...				<i>375.46</i>					<i>424.84</i>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(75 - \frac{S}{2L} \right) =$ $\frac{49.38}{18} \left(75 - \frac{2446}{2446} \right) = -1.39$

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 = *23.34*Summer freeboard = *3.64*Moulded draught (d) = *19.65*

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = *4.91*Addition for Winter North Atlantic Freeboard (if required) = *4.91 + 2 = 6.91*

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$

Tons per inch immersion at summer load water line

T =

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

=

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

*47.69**53.13* $\frac{835 + 68}{1.36} = \frac{1.515}{1.36}$ Depth Correction ... *5.37*Deduction for superstructures ... *12.80*Sheer correction ... *1.39*Round of Beam correction ... *11*

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

*5.37 14.30 8.93*Summer Freeboard = *44.20*

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

44.20" = 1123 mm

Tropical Fresh Water Line above Centre of Disc ...

Fresh Water Line " " ...

Tropical Line " " ...

Winter Line below " " ... *4.91"*Winter North Atlantic Line " " ... *6.91"*

Tropical Fresh Water Freeboard ...

Fresh Water " " ...

Tropical " " ...

Winter " " ...

Winter North Atlantic " " ...

*49.11"**51.11" = 1298 mm*

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway		Freeboard deck	Bridge deck	Bridge deck	Bridge deck	Bridge deck	Bridge deck	Bridge deck	Bridge deck
Dimensions of Hatchway		20' x 16'	24' x 16'	10' x 16'	10' x 16'	6' 4" x 2' 4"	8' x 10'	4' x 2'	
COAMINGS	Height above Deck	42"		12"	30"	18"	18"	18"	
	Thickness	.45		.44	.40	.32	.36	.32	
	Sides			.44	.40		.36		
	Stiffeners	7 1/2" x 3" x 40 L	8' x 3" x 48 L						
Brackets, Stays		2-7' x 40 BP							
HATCH BEAMS	Number	3	4	1	1		1		
	Spacing	5'	4.8'	5'	5'		4'		
	Scantling and Sketch	22-40 x 36 PL 6" x 3" x 46 L		19-24" x 35 PL 6" x 3" x 46 L			3" x 3" x 36" 9" x 56 BP		
	Bearing Surface	3"					3"		
FORE AND AFTERS	Number								
	Spacing								
	Unsupported Lengths								
	Scantling* and Sketch								
Bearing Surface									
HATCH COVERS	Material	Wood							
	Thickness	2 1/2"							
	How fitted	F 3 A							
	Bearing Surface	3"							
Spacing of Cleats		23-26"				18-26"	16-20"	15-20"	
Number of Tarpaulins		3				2	2	2	
*Are wood fore and afters steel shod at all bearing surfaces? <input checked="" type="checkbox"/> Are battens and wedges efficient and in good condition? <input checked="" type="checkbox"/> Are tarpaulins in good condition and in accordance with rule requirements? <input checked="" type="checkbox"/> Are lashings provided in accordance with rule requirements? 2 ring bolts each side of each hatchway.									

Particulars of fiddle, funnel and ventilator coamings: Fiddle opening fitted with hinged steel cover.
 Funnel plating 24"
 B-room vents - 2-24" Hgt. 12" Thicken. 20
 E - " " 2-18" " 7" " 24"

Particulars of Flush Bunker Scuttles: - None.

Particulars of Companionways: - None.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks: Deck deck - 2-9" Hgt. 12" Thicken. 16" 3-5 Hgt. 12" Thicken. 24".
 1 good vent. Hgt. 11"
 Well fwd. - 4-15" Hgt. 36" Thicken. 32" - 36".
 Bridge deck - 2-15" " 25" " 36"
 Well aft. - 4-15" " 36" " 36" - 40".
 Prop. deck - 2-9" " 36" " 30"
 All ordinary vents fitted with covers and canvas.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks: - Gooseneck 35" high on freeboard deck.
 12-18" superstructure decks
 No means of closing provided

Particulars of Gangway Cargo and Coaling Ports: - None.

Rpt. 9a.

Port of Mahor

Freeboard

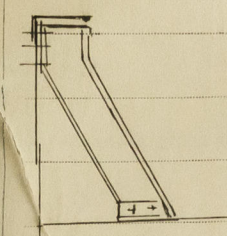
Continuation of Report No. 1115

dated 7th June, 1932

on the

1/8" Virginia of Jonstorp.

Remarks:-



Plating 28. Stays of 6' x 3" x 40 bull angles spaced 6' apart and connected to deck stringer plate by double lugs and to bulwark by 3 rivets.
 Stays in BA stays for lashings.
 No sockets are fitted for uprights and no special eye plates are fitted for lashings (see sketch).
 The steering wire is carried on support stanchions in line with prop. bridge deck.
 The stanchions are of 1 3/4" round iron and are spaced 10'-12" apart and stayed to deck respective to the horizontal BA stiffeners on the hatch side coamings.
 A hand steering gear is fitted on the prop. deck.
 The vessel moulded displacement at 85% of the moulded depth and the displacement in salt water at summer load water line cannot be given, but a loading scale is enclosed.

Asunder

Particulars of Scuppers and Sanitary Discharge Pipes:—

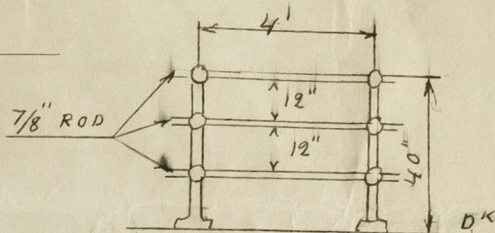
No scuppers below freeboard deck.
Sanitary discharge pipes led overboard above freeboard deck and fitted with storm valves.

Particulars of Side Scuttles:—

Side scuttles are fitted with permanently attached inside deadlights.

Particulars of Guard Rails:—

Open rails on superstructure decks.



Particulars of Gangways, Lifelines, etc.:—

None.

Lifelines fitted forward

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	82'	40"	36" x 19"	4	19 ϕ	16.4 ϕ
Forward Well	80'	40"	44" x 20" 36" x 20"	2 1	17.2 "	16 "
State position of each freeing port { After Well:—Bridge after bhd. 8' x 23' 24' x 20' 7' x 22' 20' x 20'						
(F. and A. position and height above deck edge) { Forward Well:— " fwd. " 7' x 22' 20' x 20'						
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Shutters and bars fitted. Hgt. above deck edge 12".						
Additional area where sheer is less than standard.						

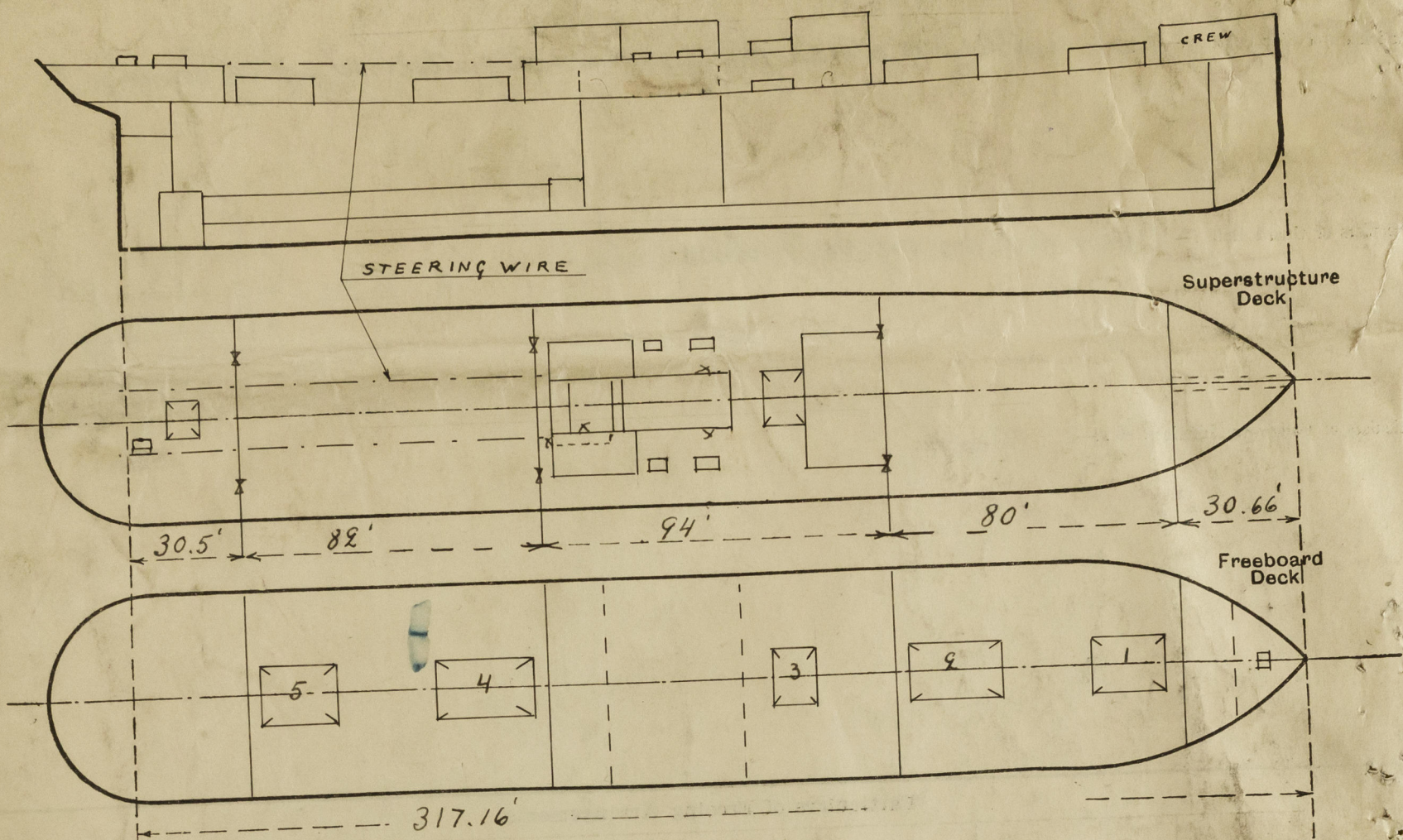
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	30" x 42	40	5" x 3 1/2" x 40 L	28" - 30"	None	7'-11" x 3'-2"	None	7'-11 1/2"
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead	30" x 42	40	5 1/2" x 3" x 40 L	30"	None	7'-11" x 3'-2"	None	7'-11 1/2"
Bridge, Forward Bulkhead	30" x 44	40	7" x 3" x 50 L	28" - 30"	Plates T & B.	4' x 3'	33"	7'-11 1/2"
Forecastle Bulkhead		28	3 1/2" x 3" x 36 L	35" - 40"	None	7' x 5'	None	7'
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...								
Exposed Machinery Casings on Superstructure Decks	18" x 40	28	3" x 3" x 36 L	22" - 46"	-	4' x 1'-10"	20"	7'
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	18" x 46	36-40	3 1/2" x 3" x 44	45" - 50"	-	4'-8" x 1'-10"	18"	7'-11 1/2"
Deckhouses on Flush Deck Ships ...								

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

Poop Bulkhead	Portable plates and hook bolts, 7/8" bolts, spaced 8"-10" apart.
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead	Same as poop bulkhead.
Bridge, Forward Bulkhead	Hinged steel doors with bolts through bhd and door plates 3/4" spaced 4 1/2"-5 1/2" apart.
Forecastle Bulkhead	No means of closing. Hinged steel door.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	
Exposed Machinery Casings on Superstructure Decks	Hinged steel doors capable of being manipulated from both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Hinged steel doors operated from the donkey boiler space.
Deckhouses on Flush Deck Ships ...	

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 above survey was held, whilst the vessel was afloat at Mahon.
Vessel recently examined in dry dock at Tyne.

State any special features in the construction of the ship:— (Continued on sheet II)

Builder's name and yard number *R. Stephenson & Co. Ltd., Newcastle.*

Names of sister ships

Owners *Rederiaktieselskabet, Virginia, Jernstorg.*

Fee £ *270:00*

Received by me



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