

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

 Index. No. 34167  
 (For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having forecastle, bridge + poop

Port of Survey Abo

(Type of Superstructures.)

Date of Survey 7/4 - 19/4 32

Name of Surveyor Olman Tybeck

Particulars of Classification \*100 A1

Ship's Name <u>"Bore VI"</u>	Nationality and Port of Registry <u>Finnish Abo</u>	Official Number <u>1056</u>	Gross Tonnage <u>1318</u>	Date of Build <u>1919-5</u>
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Moulded Dimensions: Length 71.31 Breadth 11.48 Depth 5.664

Moulded displacement at moulded draught = 85 per cent. of moulded depth 3090 tons

Coefficient of fineness for use with Tables .78

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <u>5.664</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>.833(5.676 - 4.752) = 1.60</u> <u>.7139</u>	Moulded Breadth (B) <u>11.48</u>
Stringer plate ... <u>12</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{11.48 \times 12}{50} = 2.7552$
Sheathing on exposed deck <u>none</u> $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <u>2.652</u>
Depth for Freeboard (D) = <u>5.676</u>		Difference = <u>37</u>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{37}{4} (.5546) = 5.14$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	5.43	5.73	2.15		5.73
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	17.15	17.15	2.15		17.15
" overhang aft ...	1.95	1.46			1.46
" overhang forward ...					
F'cle enclosed ...	7.43	7.43	2.15		7.43
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	32.26	31.77			31.77

Standard Height of Superstructure 1830

" " R.Q.D. -

Deduction for complete superstructure 747

Percentage covered  $\frac{S}{L} = \frac{31.77}{71.31} = .4454$

" "  $\frac{S_1}{L} = \frac{31.77}{71.31} = .4454$

" "  $\frac{E}{L} = \frac{31.77}{71.31} = .4454$

Percentage from Table, Line A. -  
(corrected for absence of forecastle (if required))

Percentage from Table, Line B. 31.36  
(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = 747 + 31.36 = 778.36

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	848	1		848	0.67	670	1		670
$\frac{1}{6}$ L from A.P. ...	377	4		1508	0.33	330	4		1320
$\frac{2}{6}$ L " ...	94	2		188	0.07	70	2		140
Amidships ...		4			0		4		
$\frac{3}{6}$ L from F.P. ...	189	2		376	0.19	190	2		380
$\frac{4}{6}$ L " ...	753	4		3012	0.63	630	4		2520
F.P. ...	1696	1		1696	1.55	1550	1		1550
Total ...				7630					6580

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{1050}{18} (.75 - .2261) = +30$

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 = 5.676  
Summer freeboard = 728  
Moulded draught (d) = 4.948

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{48}$  inches = 103

Addition for Winter North Atlantic Freeboard (if required) = 5

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

= 103

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$\frac{684.781}{136} = \frac{14.61}{136}$

Depth Correction ... 139  
Deduction for superstructures ... 234  
Sheer correction ... 30  
Round of Beam correction ... 5  
Correction for Thickness of Deck amidships ... -  
Other corrections, scantlings, etc. ... -

743  
798

169 239 70  
Summer Freeboard = 728

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

5 MAY 1932

Tropical Fresh Water Line above Centre of Disc ... 206  
Fresh Water Line " " ... 103  
Tropical Line " " ... 103  
Winter Line below " " ... 103  
Winter North Atlantic Line " " ... 154

Tropical Fresh Water Freeboard ... 522  
Fresh Water " " ... 625  
Tropical " " ... 625  
Winter " " ... 831  
Winter North Atlantic " " ... 882



# 36 PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	No. 1	No. 2	No. 3	No. 4	No. 5				
Dimensions of Hatchway	4.25 x 5.80	4.25 x 6.35	4.25 x 6.35	4.25 x 6.35	1.76 x 2.75				
COAMINGS									
Height above Deck	900 mm	900 mm	900 mm	900 mm	820 mm				
Thickness	11 1/2	11	11	11	10				
Stiffeners	180 x 80 x 10	180 x 80 x 10	180 x 80 x 10	180 x 80 x 10	none				
Brackets, Stays	1 stay	2 stays	2 stays	2 stays	none				
HATCH BEAMS									
Number	3	4	4	4	none				
Spacing	1.45	1.27	1.27	1.27	—				
Scantling and Sketch									
Bearing Surface	70	70	70	70	—				
FORE AND AFTERS									
Number	—	—	—	—	—				
Spacing	—	—	—	—	—				
Unsupported Lengths	—	—	—	—	—				
Scantling and Sketch	none								
Bearing Surface	—	—	—	—	—				
HATCH COVERS									
Material	—	—	wood	—	—				
Thickness	—	—	63 mm	—	—				
How fitted	—	—	fore and aft	—	—				
Bearing Surface	—	—	70 mm	—	—				
Spacing of Cleats	552	55	55	55	45				
Number of Tarpaulins	3	3	3	3	3				

Particulars of fiddle, funnel and ventilator coamings:— Covered by the deckhouse on bridge deck.  
Fidley steel covers permanently attached.

Particulars of Flush Bunker Scuttles:— none fitted.

Particulars of Companionways:— Door of steel in forecabin bulkhead 1490 mm x 550 mm, side 410 mm high and on forecabin deck a door 1165 x 650 mm with a side 320 mm high.  
Steel companionway on forecabin with door capable of being operated from both sides.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— Ventilator coamings 1100 mm high.  
Efficient means of closing provided.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:— 1100 mm high.  
Efficient means of closing provided.

Particulars of Gangway Cargo and Coaling Ports:— none fitted.

Particulars of Scuppers and Sanitary Discharge Pipes — W. C. in forecabin fitted with one common non-return valve.

Particulars of Side Scuttles:— Fitted with lids.

Particulars of Guard Rails:— Bulwark 1180 mm high.

Particulars of Gangways, Lifelines, etc.:— none fitted.  
Sufficient provision is made for rigging lifelines which are available for use in any part of the ship which might have been used by the crew in the regular working of the ship.

47 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	21.65	1.18	3' 1 1/2" x 4' 4"	3	13.10	14.2
Forward Well	19.30	1.18	3' 1 1/2" x 4' 4"	3	13.10	12.8

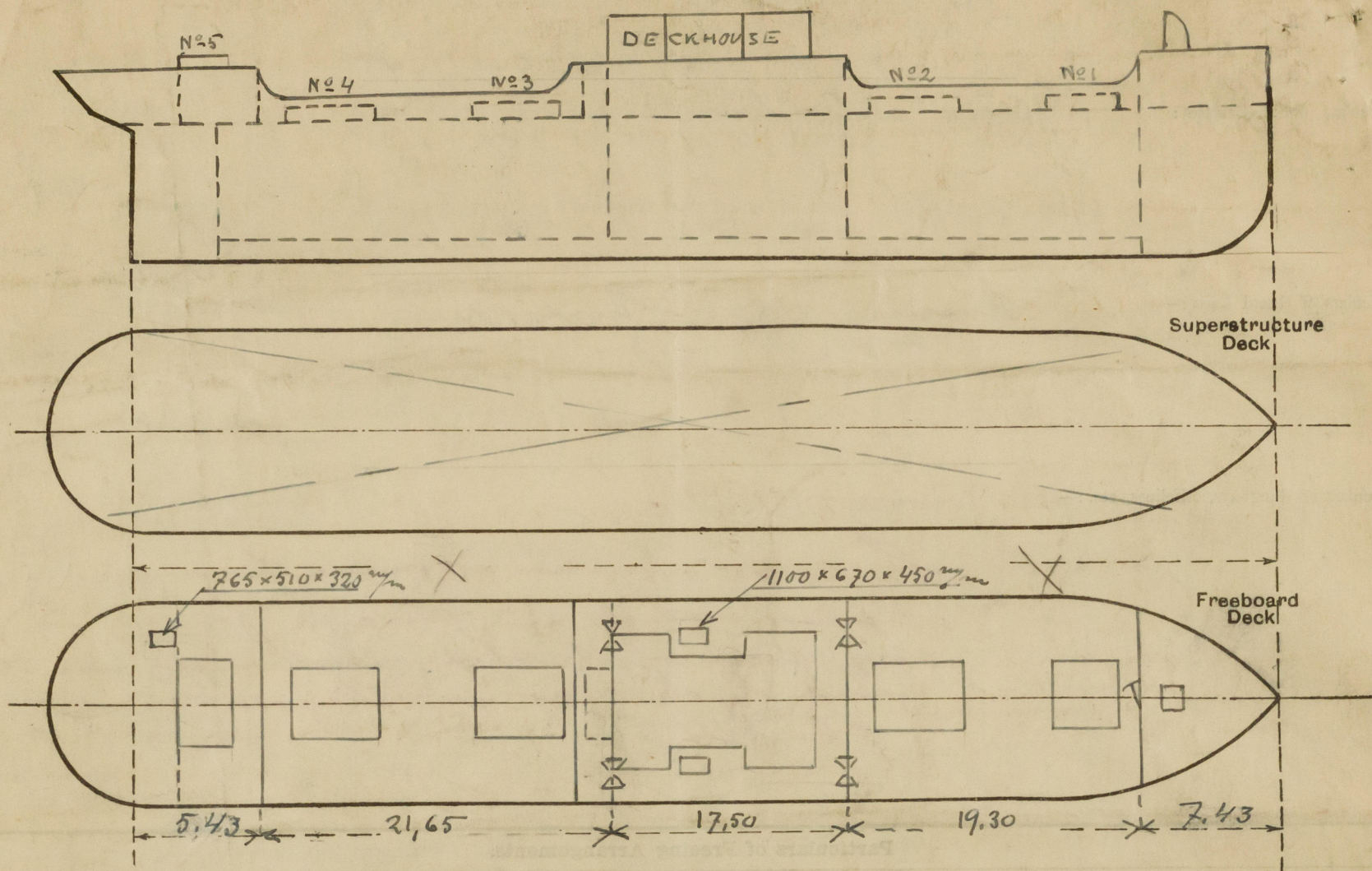
State position of each freeing port ... After Well:— 2 in fore part of 1/2 (F. and A. position and height above deck edge) Forward Well:— 2 in aft part of 1/2  
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:—  
Additional area where sheer is less than standard.

48 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	none	8.5	120 x 75 x 8	750	none	none	—	—
Raised Quarter Deck Bulkhead	—	—	—	—	—	—	—	—
Bridge, After Bulkhead	none	7	90 x 80 x 8	1100	anchors at fore and aft	2 x 1.80 x 910	150 mm	—
Bridge, Forward Bulkhead	380 x 10	8	2190 x 90 x 10	750	anchors at both ends	2 x 1.52 x 910	380 mm	—
Forecabin Bulkhead	none	8	90 x 75 x 8	705-790	none	steel door	410 mm	—
Trunk, Aft	—	—	—	—	—	—	—	—
Trunk, Forward	—	—	—	—	—	—	—	—
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	8	6.5	75 x 60 x 7.5	—	—	—	—	—
Exposed Machinery Casings on Superstructure Decks	8	6.5	75 x 60 x 7.5	—	—	—	—	—
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	—	6.5	75 x 60 x 7.5	—	—	—	—	—
Deckhouses on Flush Deck Ships	—	—	—	—	—	—	—	—

49 Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	Openings not fitted
Raised Quarter Deck Bulkhead	—
Bridge, After Bulkhead	steel doors with screw bolts to be manipulated from outside.
Bridge, Forward Bulkhead	bolts pass through bulkhead plating and are spaced 12" apart.
Forecabin Bulkhead	Ordinary steel door.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	—
Exposed Machinery Casings on Superstructure Decks	hinged steel doors capable of being operated from both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	No opening.
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:—



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

Builder's name and yard number *Rochums M. B. Ahlrichsberg - Oskarshamn*

Names of sister ships

Owners *Angfortygs Ahlrichsberg Bore - Alsa*

Fee £ <sup>2</sup> : : Received by me