

WRECK SECTION 10

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. 19288
(For London Office only.)

12 NOV 1932

Computation of Freeboard for Steamer, *Shellendek* **RETAIN**

having *Shellendek* (Type of Superstructures.)

Port of Survey *Helsingfors*

Date of Survey *29th Oct. 1932*

Name of Surveyor *Oliver Taylor*

Particulars of Classification *8100 A 1*
Shellendek with freeboard
S.S.L. No 3. 8. 20. - S.S. Dng. No 2. 28

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
"BORE VIII"	<i>Finnish</i> <i>Also</i>	<i>990</i>	<i>5602</i> <i>3437 net</i>	<i>1907-8</i>
Moulded Dimensions: Length	<i>119.05</i>	Breadth	<i>15.24</i>	Depth
Moulded displacement at moulded draught = 85 per cent. of moulded depth			<i>8.69</i>	<i>10503 m³ tons</i>
Coefficient of fineness for use with Tables	<i>.784</i>			

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <i>8687</i>	(a) Where D is greater than Table depth (D - Table depth) R =	Moulded Breadth (B) <i>15270</i>
Stringer plate ... <i>15</i>	<i>8.33(8.701 - 7.937) 30.00 = + 191%</i>	Standard Round of Beam = $\frac{B \times 12}{50} =$ <i>305%</i>
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ <i>14</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Ship's Round of Beam = <i>310 311%</i>
Depth for Freeboard (D) = <i>8.701</i>	If restricted by superstructures	Difference <i>6%</i>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{6}{4} \times 0.148 = 0.222$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	<i>10.01</i>	<i>9.80</i>	<i>2.42</i>	<i>2.438</i>	<i>9.80</i>	Standard Height of Superstructure <i>2260</i>
" overhang ...	<i>9.80</i>					" " R.Q.D.
R.Q.D. enclosed ...						Deduction for complete superstructure <i>1050</i>
" overhang ...						Percentage covered $\frac{S}{L} = 100\%$
Bridge enclosed ...						" " $\frac{S_1}{L} = 98.52\%$
" overhang aft ...						" " $\frac{E}{L} = 98.52\%$
" overhang forward						Percentage from Table, Line A. <i>98.17%</i>
Fore enclosed ...	<i>98.90</i>	<i>98.90</i>	<i>2.42</i>	<i>2.438</i>	<i>98.90</i>	(corrected for absence of forecastle (if required))
" overhang ...	<i>8.90</i>	<i>6.81</i>	<i>2.42</i>	<i>2.438</i>	<i>6.81</i>	Percentage from Table, Line B.
Trunk aft ...	<i>9.08</i>					(corrected for absence of forecastle (if required))
" forward ...						Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...	<i>1.28</i>	<i>1.77</i>			<i>1.77</i>	Deduction = <i>1050 × 98.17 = - 1031</i>
" " forward	<i>1.27</i>					
Total ...	<i>119.05</i>	<i>117.28</i>			<i>117.28</i>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>1246</i>	1		<i>1246</i>	<i>5.22</i>	<i>1219</i>	1		<i>1397</i>
$\frac{1}{2}$ L from A.P. ...	<i>553</i>	4		<i>2212</i>	<i>4.49</i>	<i>542</i>	4		<i>2488</i>
$\frac{2}{3}$ L " ...	<i>138</i>	2		<i>276</i>	<i>4.09</i>	<i>135</i>	2		<i>308</i>
Amidships ...	<i>✓</i>	4		<i>✓</i>	<i>3.90</i>	<i>✓</i>	4		<i>✓</i>
$\frac{2}{3}$ L from F.P. ...	<i>277</i>	2		<i>554</i>	<i>4.16</i>	<i>290</i>	2		<i>610</i>
$\frac{1}{2}$ L " ...	<i>1107</i>	4		<i>4428</i>	<i>4.97</i>	<i>1163</i>	4		<i>4928</i>
F.P. ...	<i>2491</i>	1		<i>2491</i>	<i>6.46</i>	<i>2591</i>	1		<i>2769</i>
Total ...				<i>11207</i>					<i>12500</i>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{1293}{18} \times .25 = - 18 \text{ in.}$

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 = *8.701*

Summer freeboard = *1.016*

Moulded draught (d) = *7.685*

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{48}$ inches = *160%*

Addition for Winter North Atlantic Freeboard (if required) =

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= *165%*

TABULAR FREEBOARD corrected for Plush Deck (if required)

Correction for coefficient

 $\frac{.68 + .784}{1.36} = \frac{1.464}{1.36}$

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

Summer Freeboard = *1016*

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

Tropical Fresh Water Line above Centre of Disc ...	<i>325%</i>	Tropical Fresh Water Freeboard ...	<i>691%</i>
Fresh Water Line " " ...	<i>165%</i>	Fresh Water " " ...	<i>851%</i>
Tropical Line " " ...	<i>160%</i>	Tropical " " ...	<i>856%</i>
Winter Line below " " ...	<i>160%</i>	Winter " " ...	<i>1176%</i>
Winter North Atlantic Line " " ...	<i>✓</i>	Winter North Atlantic " " ...	<i>✓</i>

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

Particulars of Scuppers and

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS													
Description of Hatchway	...	...	...	...	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...	...	...	...	...
COAMINGS	Height above Deck	...	...	...	...	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...	...	...	...	...
	Sides	...	...	...	...	...	...	...	...	...	...	...	...
	Ends	...	...	...	...	...	...	...	...	...	...	...	...
	Stiffeners	...	...	...	...	...	...	...	...	...	...	...	...
HATCH BEAMS	Number	...	...	...	...	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...	...	...	...	...

FORE AND AFTERS	Number	...	...	...	...	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...	...	...	...	...
	Unsupported Lengths	...	...	...	...	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...	...	...	...	...
HATCH COVERS	Material	...	...	...	...	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...	...	...	...	...
	How fitted	...	...	...	...	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...	...	...	...	...

Spacing of Cleats	...	...	...	...	...	...	...	...	...	...	...	...	...
Number of Tarpaulins	...	...	...	...	...	...	...	...	...	...	...	...	...

*Are wood fore and afters steel shod at all bearing surfaces? *The fore & afters only partly steel shod.*
 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 fiddle, funnel and ventilator coamings:— *Fiddle openings closed by steel covers with hinges. The funnel, and 9 ventilators placed on the top of engine casing, 2.28 met. high. The top of the boiler casing is not in order and is to be removed.*

Particulars of Flush Bunker Scuttles:— *2 flush bunker scuttles of cast iron fitted with bayonet joints.*

Particulars of Companionways:— *Access to the forecabin space through a casing of steel on shelter deck fitted with a hinged door of pine 1300x540x50Z operated from both sides, sill 300Z. Access to the tween deck in way of the after mast through a steel pipe $\phi=840Z$ fitted with a hinged steel door 1000x520x6Z, sill 570Z, operated from outside (*not in order*). Access from tween deck to the holds through 5 steel pipes $\phi=820Z$ fitted with shoot-doors operated from outside, sill 250Z.*

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

On shelter dk.:

1 ventilator	$\phi=280Z$	height = 650Z
2 "	$\phi=200 "$	" = 370 "
10 "	$\phi=600 "$	" = 800 "
3 "	$\phi=500 "$	" = 700 "
3 "	$\phi=250 "$	" = 500 "
5 "	$\phi=200 "$	" = 60 "

Closed by wood covers and tarpaulins.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

3 air pipes	$\phi=150Z$	height = 450Z
12 "	$\phi=50 "$	" = 770 "

Closed by wood plugs.

Particulars of Gangway Cargo and Coaling Ports:—

3 cargo ports 1.700x1000 on each side in the space below shelter deck fitted with hinges and being closed by 3 channel-bars and 6 bolts $\phi=1\frac{3}{4}$.

Tonnage opening After Well ...

Forward Well ...

State position of each f (F. and A. position and State whether the freeir

Additional area where s

Poop Bulkhead ...

Raised Quarter Deck Bu

Bridge, After Bulkhead

Bridge, Forward Bulkhe

Forecastle Bulkhead ...

Trunk, Aft ...

Trunk, Forward

Exposed Machinery Casing

board or Raised Quar

Exposed Machinery Casing

structure Decks ...

Machinery Casings withi

tures not fitted with C

Appliances ...

Deckhouses on Flush D

Poop Bulkhead ...

Raised Quarter Deck Bu

Bridge, After Bulkhead

Bridge, Forward Bulkhe

Forecastle Bulkhead ...

Exposed Machinery Casing

board or Raised Quar

Exposed Machinery Casing

structure Decks ...

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tures not fitted with C

Appliances ...

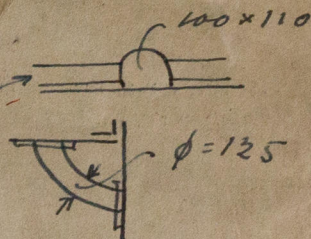
Deckhouses on Flush D



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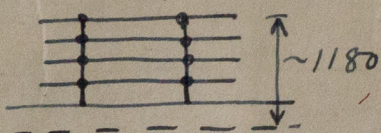
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Particulars of Scuppers and Sanitary Discharge Pipes:— On Shelter dk. 7 scuppers on each side
 In Tween deck below shelter deck 7 scuppers on each side
 12 sanitary discharge pipes, outlet below main deck
 fitted with non-return valves.



Particulars of Side Scuttles:— Side scuttles in the space below shelter deck
 not fitted with deadlights.

Particulars of Guard Rails:—



Particulars of Gangways, Lifelines, etc.:— None 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
Tonnage opening After Well	1.28	2.42	0.52 x 0.38	1	0.2 m ²	
Forward Well						
State position of each freeing port (F. and A. position and height above deck edge) } After Well:— 2.5 m from poop bulkhead. Height above deck 0.28 Forward Well:— State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— One hinged shutter Additional area where sheer is less than standard.						

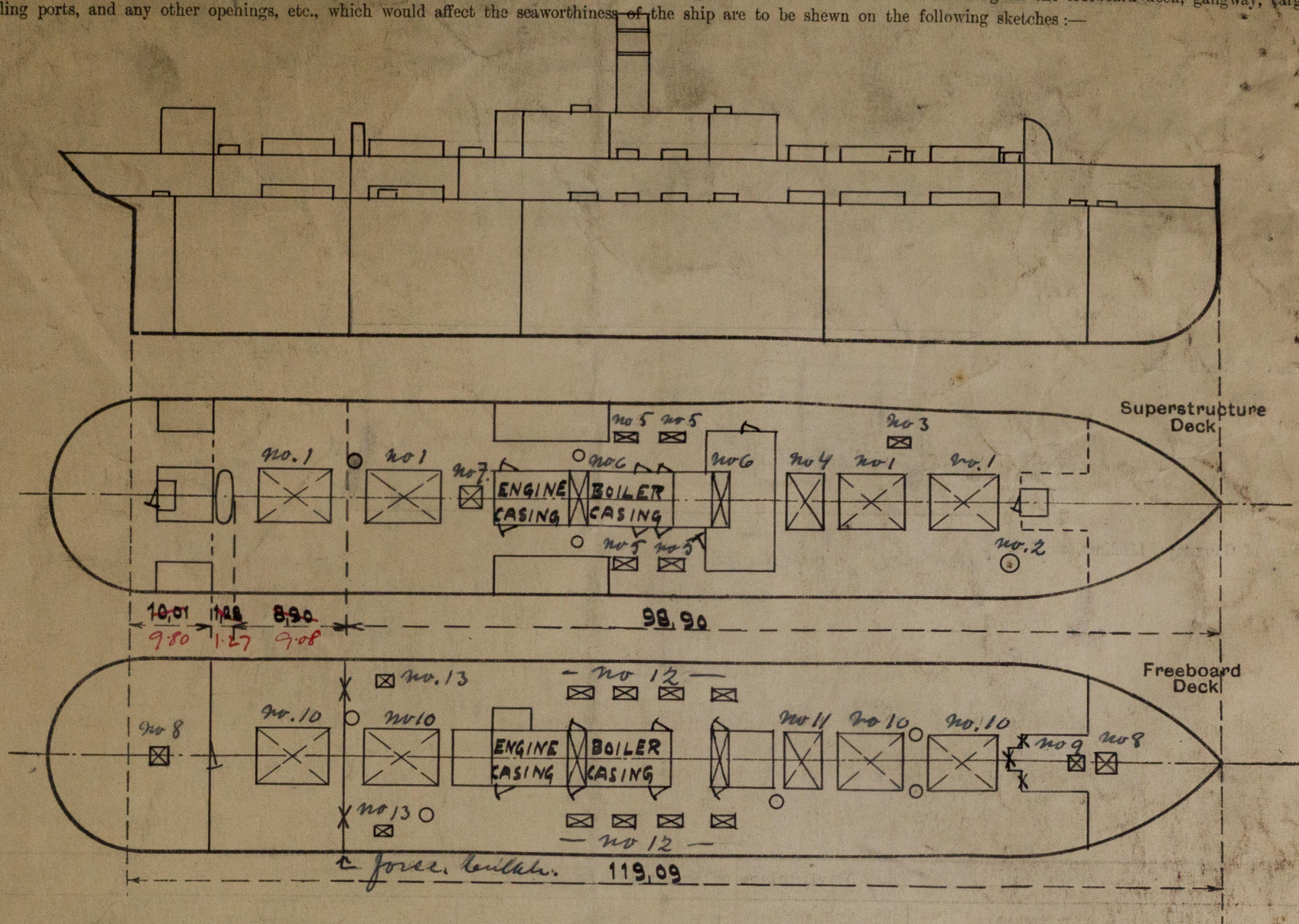
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	10	10	90x90x10	0.65	—	1.45 x 0.91	0.41	
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead	—	10	flanged 145	0.72	—	2 x 2.37 x 1.23	—	
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super-structure Decks	11	8	130 x 85 x 12	0.75	on top 470 x 470 x 10	2 x 1.59 x 0.65 4 x 1.43 x 0.61	0.40 0.49	2.28
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	—	9	130 x 85 x 12	0.75	—	4 x 1.47 x 1.07 3 x 1.27 x 0.6	0.45 0.43	—
Deckhouses on Flush Deck Ships ...	10	7.5	75 x 75 x 8	0.8	—	1.40 x 0.58	0.40	2.20

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

Poop Bulkhead	Closed by a hinged steel door fitted with 10 thorough-going 5/8" bolts.
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	
Forecastle Bulkhead	Closed by channel-bars and 65 mm wood planks (full height)
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Closed by 2 hinged teak-doors 40 mm thick, operated from both sides.
Exposed Machinery Casings on Super-structure Decks	" " 4 " " steel-doors 9 mm " , 3 operated from outside and one from inside.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	4 hinged steel doors to coal shoot, operated from outside. 3 " " " " " machinery space operated from outside.
Deckhouses on Flush Deck Ships ...	one hinged teak-door operated from both sides.

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:—

The sheer has been measured afloat, the draught being forward 4.98 and aft 4.78 met.

The Register Tonnage has been altered by the Finnish measuring authorities as follows: { Gross ton. = 5662
Net ton. = 3437

The Owners desires to have the freeboard computed in accordance with the Int. Load Line Conv. or to have the old freeboard retained, which of these is more favourable.

Builder's name and yard number

W. Breadmore & Co. Ltd, Glasgow

Names of sister ships

"Pelsamo"

Owners

Ångfartygs Aktiebolaget Bore

Fee £

13 : 12 : 0

Received by me

John Tyle



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