

DISCLOSED SECTION

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index No. 25053
(For London Office only.)

No 351

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having *Shellin deck with tonnage opening aft*

(Type of Superstructures.)

Ship's Name *S/S BESSA* Nationality and Port of Registry *Hungarian Japanese* Gross Tonnage *7815* Date of Build *1917/4*

Moulded Dimensions: Length *410.0* Breadth *56.0* Depth *32.0*

Moulded displacement at moulded draught = 85 per cent. of moulded depth *14053* tons

Coefficient of fineness for use with Tables *788*

Port of Survey *Oslo*

Date of Survey *24th + 28th Sept 1932*

Name of Surveyor

Particulars of Classification *+100 A1*
Shellin deck with freeboard

Depth for Freeboard (D)

Moulded depth ... *32.0*

Stringer plate ... *04*

Sheathing on exposed deck

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

Depth for Freeboard (D) = *32.04*

Depth correction

(a) Where D is greater than Table depth
(D-Table depth) R = *32.04 - 27.33 = +14.13*

(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) *56.0*

Standard Round of Beam = $\frac{B \times 12}{50} =$ *13.44*

Ship's Round of Beam = *14.00*

Difference *0.56 Excess*

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ *0.56/4 x 0.006 = Nil*

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	<i>35.00</i>	<i>35.00</i>	<i>9.0</i>		<i>35.00</i>	
" overhang ...						
R.Q.D. enclosed ...						
" overhang ...						
Bridge enclosed ...						
" overhang aft ...	<i>370.00</i>	<i>370.00</i>	<i>9.0</i>		<i>370.00</i>	
" overhang forward						
Trunk enclosed ...						
" overhang ...						
Trunk aft ...						
" forward ...						
Tonnage opening aft ...	<i>5.00</i>	<i>2.50</i>	<i>1/2 diff</i>		<i>2.50</i>	
" forward						
Total ...	<i>410.00</i>	<i>407.50</i>			<i>407.50</i>	

Standard Height of Superstructure *7.50*

" " R.Q.D.

Deduction for complete superstructure *42.0*

Percentage covered $\frac{S}{L} =$ *100%*

" $\frac{S_1}{L} =$ *99.40%*

" $\frac{E}{L} =$ *99.40%*

Percentage from Table, Line A. *99.26*

(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 = *42 x 99.26 = - 41.69*

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>51.00</i>	<i>1</i>	<i>✓</i>	<i>51.00</i>	<i>56.0</i>	<i>74.00</i>	<i>1</i>	<i>✓</i>	<i>74.00</i>
$\frac{1}{4}L$ from A.P. ...	<i>22.69</i>	<i>4</i>	<i>✓</i>	<i>90.76</i>	<i>23.70</i>	<i>32.93</i>	<i>4</i>	<i>✓</i>	<i>131.72</i>
$\frac{3}{8}L$ " ...	<i>5.61</i>	<i>2</i>	<i>✓</i>	<i>11.22</i>	<i>5.92</i>	<i>8.14</i>	<i>2</i>	<i>✓</i>	<i>16.28</i>
Amidships ...		<i>4</i>					<i>4</i>		
$\frac{3}{8}L$ from F.P. ...	<i>11.22</i>	<i>2</i>	<i>✓</i>	<i>22.44</i>	<i>11.06</i>	<i>13.86</i>	<i>2</i>	<i>✓</i>	<i>27.72</i>
$\frac{1}{4}L$ " ...	<i>45.39</i>	<i>4</i>	<i>✓</i>	<i>181.56</i>	<i>44.24</i>	<i>56.07</i>	<i>4</i>	<i>✓</i>	<i>224.28</i>
F.P. ...	<i>102.00</i>	<i>1</i>	<i>✓</i>	<i>102.00</i>	<i>108.00</i>	<i>126.00</i>	<i>1</i>	<i>✓</i>	<i>126.00</i>
Total ...				<i>458.98</i>	<i>+18"</i>				<i>600.00</i>

Mean actual sheer aft = *Excess*

Mean standard sheer aft

Mean actual sheer forward = *Excess*

Mean standard sheer forward

Length of enclosed superstructure forward of amidships =

" " aft of " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) =$ *458.98 / 18 (75 - 50) = -1.96*

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>32.04</i>
Summer freeboard =	<i>4.25</i>
Moulded draught (d) =	<i>27.79</i>

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = *6.95 = 7" = 178*

Addition for Winter North Atlantic Freeboard (if required)=

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$ *14436*

Tons per inch immersion at summer load water line

$T =$ *48.20*

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

$=$ *7.49 = 7 1/2*

$=$ *191*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{788+68}{1.36} = \frac{1468}{1.36}$

	+	-
Depth Correction ...	<i>14.13</i>	
Deduction for superstructures ...		<i>41.69</i>
Sheer correction ...		<i>1.96</i>
Round of Beam correction ...		
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc. ...		
	<i>14.13</i>	<i>43.65</i>

Summer Freeboard = *51.01*

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

Tropical Fresh Water Line above Centre of Disc	<i>14 1/2" = 369</i>	Tropical Fresh Water Freeboard ...	<i>3 - 0 1/2 = 926</i>
Fresh Water Line " "	<i>7 1/2" = 191</i>	Fresh Water " "	<i>3 - 7 1/2 = 1104</i>
Tropical Line " "	<i>7 " = 178</i>	Tropical " "	<i>3 - 8 " = 1117</i>
Winter Line below " "	<i>7 " = 178</i>	Winter " "	<i>4 - 10 " = 1473</i>
Winter North Atlantic Line " "		Winter North Atlantic " "	

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Description of Hatchway																				
Dimensions of Hatchway																				
COAMINGS	Height above Deck	...																		
	Thickness	...																		
	Sides	...																		
	Ends	...																		
	Stiffeners	...																		
HATCH BEAMS	Brackets, Stays	...																		
	Number	...																		
	Spacing	...																		
	Scantling and Sketch	...																		
FORE AND AFTERS	Bearing Surface	...																		
	Number	...																		
	Spacing	...																		
	Unsupported Lengths	...																		
HATCH COVERS	Scantling* and Sketch	...																		
	Bearing Surface	...																		
	Material	...																		
	Thickness	...																		
Spacing of Cleats	How fitted	...																		
	Bearing Surface	...																		
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?

Particulars of fiddley, funnel and ventilator coamings:—

27.2 mtd. 27.0 = 13910
 213
 14123
 70 mtd
 14053
 37 x 12 x 48 = 213

Particulars of Flush Bunker Scuttles:—

F.W.
 27.79
 17
 27.96
 28.0 = 14460
 24
 14436

Particulars of Companionways:—

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

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

Particulars of Gangway Cargo and Coaling Ports:—



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