

Lloyd's Register of Shipping.

Ship's Name S.S. BALTRÖVER.

Official No. 132 840

Memorandum of alterations reported since ship was surveyed for assignment of Load Lines in

Two new escape scuttles fitted on shell deck (aft of Bridge) in way of gunners & crew accommodation (P+S). Scuttles 20" dia coamings 30" high, $\frac{5}{16}$ " plating, fitted with hinged steel W.T. rubber jointed covers. Efficient closing arrangements operated from inside & outside.

11" vents in way removed & two new 9" dia vents fitted alongside, $\frac{5}{16}$ " plating, Coamings 4'-3 $\frac{1}{2}$ " high efficiently supported & stayed to side house plating. Wood plugs & canvas covers provided.



Noted
17 FEB 1944
H.P.S.

B. Jensen.

*For proposed amendments.
Geometric draught only.*

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SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name IONIA LX BALTHOVER	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length 349.4 Breadth 49.75 Depth 34.08	Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons				Date of Survey 12.6.47
Coefficient of fineness for use with Tables .734	Surveyor's Signature _____				Particulars of Classification +100 A1 Shellie deck with pbs.

DEPTH FOR FREEBOARD (D). Moulded depth ... 34.08 Stringer plate04 Sheathing on exposed deck $T \frac{(L-S)}{L} = \frac{2.5}{12} \times 334 = .07$ Depth for Freeboard (D) = 34.19	DEPTH CORRECTION. (a) Where D is greater than Table depth $(B - \text{Table depth}) R = (34.19 - 23.29) \times 2.688 = 29.30''$ (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) 49.75 Standard Round of Beam = $\frac{B \times 12}{50} = 11.94$ Ship's Round of Beam = 12.50 Difference .56 Restricted to _____ Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{.56}{4} \times 3380 = -.05$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
<i>Aft Image</i> Deck enclosed <i>equi</i> 66.13	66.13	66.13	7.5	-	66.13	Standard Height of Superstructure 6.99
" overhang ...						" " R.Q.D. 38.63
R.Q.D. enclosed ...						Deduction for complete superstructure 38.63
" overhang ...						Percentage covered $\frac{S}{L} = 66.56$
Bridge enclosed <i>equi</i> 126.80	126.80	126.80	8.0	-	126.80	" " $\frac{S_1}{L} = 66.20$
" overhang aft " .28	.21				.21	" " $\frac{E}{L} = 66.20$
" overhang forward ...						Percentage from Table, Line A. (corrected for absence of forecastle (if required))
Fore enclosed <i>equi</i> 37.06	37.06	37.06	7.5	-	37.06	Percentage from Table, Line B. (corrected for absence of forecastle (if required)) 56.54
" overhang " 2.28	1.14				1.14	Interpolation for bridge less than .2L (if required)
Trunk aft ...						Deduction = 38.63 - 56.54 = -21.84
" forward ...						
Tonnage opening aft ...						
" " forward ...						
Total ...	232.55	231.34			231.34	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	44.94	1		44.94	45.00	45.00	1		45.00
$\frac{1}{2}$ L from A.P. ...	20.00	4		80.00	19.75	19.75	4		79.00
$\frac{3}{4}$ L " ...	4.94	2		9.88	4.94	4.94	2		9.88
Amidships ...	-	4		-	-	-	4		-
$\frac{1}{2}$ L from F.P. ...	9.89	2		19.78	9.97	9.97	2		19.94
$\frac{1}{4}$ L " ...	39.99	4		159.96	39.90	39.90	4		159.60
F.P. ...	89.88	1		89.88	90.00	90.00	1		90.00
Total ...				404.44					403.42

Mean actual sheer aft **7.75**
 Mean standard sheer aft = **7.75**
 Mean actual sheer forward **7**
 Mean standard sheer forward = **7**
 Length of enclosed superstructure forward of amidships = **7.12**
 " " aft of " = **7.12**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{1.02}{18} \left(.75 - \frac{.328}{2 \times 349.4} \right) = +.02$
 If limited on account of midship superstructure. **4.72** 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 = **34.12**
 Summer freeboard = **5.65**
 Moulded draught (d) = **28.68**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches =

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	29.30	-
Deduction for superstructures	-	21.84
Sheer correction	.02	-
Round of Beam correction	-	.05
Correction for Thickness of Deck amidships	1.66	-
Other corrections, scantlings, etc.	31.98	21.89
Summer Freeboard	67.66	58.57

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

Tropical Fresh Water Line above Centre of Disc		Tropical Fresh Water Freeboard	
Fresh Water Line		Fresh Water	
Tropical Line		Tropical	
Winter Line below		Winter	
Winter North Atlantic Line		Winter North Atlantic	