

LLOYD'S REGISTER OF SHIPPING

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, ~~SAILING SHIP~~, TANKER)

Received
 Index No.
 Govt. Copy
 Owners C11

Ship's Name BERNA	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length Breadth Depth					Date of Survey 17-5-57
Freeboard Length 425.54					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) tons					Particulars of Classification 7100 AT
Coefficient of fineness for use with Tables .68					with freeboard

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth	(a) Where D is greater than Table depth (D-Table depth) R = 3	Moulded Breadth (B)
Stringer plate	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$
Wood Sheathing on exposed deck	If restricted by superstructures	Ship's Round of Beam = Standard
$T \left(\frac{L-S}{L} \right) =$		Difference
Depth for Freeboard (D) = 28.37		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) =$ nil.

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
Fore enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total					

Standard Height of Superstructure **7.5**

" " R.Q.D.

Deduction for complete superstructure **42.00**

Percentage covered $\frac{S}{L} =$

" " $\frac{S_1}{L} =$ } **100%**

" " $\frac{E}{L} =$

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

Percentage from Table, Line B.
(corrected for absence of fore-castle (if required))

Interpolation for bridge less than .2L (if required)

Deduction = **- 42.00**

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P.		1		+6"		1	
$\frac{1}{4}$ L from A.P.		4				4	
$\frac{2}{4}$ L "		2				2	
Amidships	0	4	0	0	0	4	0
$\frac{2}{4}$ L from F.P.		2				2	
$\frac{1}{4}$ L "		4				4	
F.P.		1		+6"		1	
Total							

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

If limited on account of midship superstructure.

Mean actual sheer aft =

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

" " aft of " =

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100ft.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 28.37 Summer freeboard = 3.08 Moulded draught (d) = 25.29 Keel allowance = Extreme draught = 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 nil <table border="1"> <thead> <tr> <th></th> <th>+</th> <th>-</th> </tr> </thead> <tbody> <tr><td>Depth Correction</td><td></td><td></td></tr> <tr><td>Deduction for superstructures</td><td></td><td>42.00</td></tr> <tr><td>Sheer correction</td><td></td><td>.50</td></tr> <tr><td>Round of Beam correction</td><td></td><td></td></tr> <tr><td>Correction for Thickness of Deck amidships</td><td></td><td></td></tr> <tr><td>Other corrections, scantlings, etc.</td><td></td><td></td></tr> <tr><td></td><td>- 42.50</td><td>- 42.50</td></tr> </tbody> </table> Summer Freeboard = 37.02		+	-	Depth Correction			Deduction for superstructures		42.00	Sheer correction		.50	Round of Beam correction			Correction for Thickness of Deck amidships			Other corrections, scantlings, etc.				- 42.50	- 42.50
	+	-																								
Depth Correction																										
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Sheer correction		.50																								
Round of Beam correction																										
Correction for Thickness of Deck amidships																										
Other corrections, scantlings, etc.																										
	- 42.50	- 42.50																								

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	"

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A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

$$\text{Standard draught} = 25.29$$

$$\text{Draught required} = \underline{25.61}$$

$$+ .32$$

$$\text{Increase in } D = .32 \times \frac{12}{12-3} = .43 \text{ ft.}$$

$$\text{Equivalent Depth} = 28.37 + .43 = 28.80 \text{ ft.}$$

$$\text{Actual Depth to Upper Deck} = 36.75'$$

$$\text{Second Deck} = \underline{28.80} + 7.5 = 27.75'$$

$$\text{Virtual Superstructure Deck} = 28.80 + 7.5 = \underline{36.30 \text{ ft.}}$$

\therefore Upper Deck may be treated as a Superstructure Deck

Trade of ship

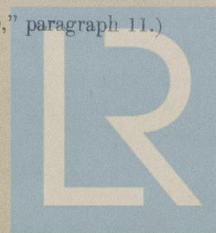
Names of sister ships

Builder's name and yard number

Owners

Fee £ : :

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950," paragraph 11.)



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