

Timber Computation

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

 Index. No. **6853**
 (For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

Living Ed. Dock. bridge forecastle

Port of Survey Sölvesborg

Date of Survey 31/5/34.

Name of Surveyor A. Smide

Particulars of Classification 7 (100 A)

Ship's Name TORSTEN (Type of Superstructures.)

Nationality and Port of Registry Sweden

Official Number 1234

Gross Tonnage 2575

Date of Build 1910

Moulded Dimensions: Length 224.5 Breadth 33.8 Depth 17.5

Moulded displacement at moulded draught = 85 per cent. of moulded depth 2575 tons

Coefficient of fineness for use with Tables .805

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>17.5</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>+4.44</u>	Moulded Breadth (B)
Stringer plate	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam =
Depth for Freeboard (D) =		Difference
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) =$ <u>+2.23</u>

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					
W.C. enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total					

Standard Height of Superstructure

" " R.Q.D.

Deduction for complete superstructure 28.45

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

" " $\frac{S_1}{L} =$

" " $\frac{E}{L} =$ 70.29

Percentage from Table, Line A. Timber 81.67
(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 = 28.45 × .8167 = -23.23

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.		1					1		
$\frac{1}{8}L$ from A.P.		4					4		
$\frac{2}{8}L$ "		2					2		
Amidships		4					4		
$\frac{3}{8}L$ from F.P.		2					2		
$\frac{1}{8}L$ "		4					4		
F.P.		1					1		
Total									

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 " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ +0.04

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.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)																											
Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = <u>17.53</u> Summer freeboard = <u>1.00</u> Moulded draught (d) = <u>16.53</u> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>4.13 = 105 in</u> Addition for Winter North Atlantic Freeboard (if required) = $\frac{d}{3} = 5.51 = 140 in$	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 $d/4 = 105 in$	Correction for coefficient <table border="1" style="width: 100%;"> <thead> <tr> <th></th> <th>+</th> <th>-</th> </tr> </thead> <tbody> <tr><td>Depth Correction</td><td>4.44</td><td>-</td></tr> <tr><td>Deduction for superstructures</td><td>-</td><td>23.23</td></tr> <tr><td>Sheer correction</td><td>0.04</td><td>-</td></tr> <tr><td>Round of Beam correction</td><td>0.23</td><td>-</td></tr> <tr><td>Correction for Thickness of Deck amidships</td><td>-</td><td>-</td></tr> <tr><td>Other corrections, scantlings, etc. for absence of hood or raised quarter deck.</td><td>0.52</td><td>-</td></tr> <tr><td>5.23</td><td>23.23</td><td>-18.00</td></tr> <tr><td colspan="3">Summer Freeboard = <u>11.97</u></td></tr> </tbody> </table>		+	-	Depth Correction	4.44	-	Deduction for superstructures	-	23.23	Sheer correction	0.04	-	Round of Beam correction	0.23	-	Correction for Thickness of Deck amidships	-	-	Other corrections, scantlings, etc. for absence of hood or raised quarter deck.	0.52	-	5.23	23.23	-18.00	Summer Freeboard = <u>11.97</u>		
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Timber SUMMER FREEBOARD amidships from ~~Centre of Disc~~ to top of Deck Line, ~~Wood~~, Steel, Deck: 304 in

	Timber	Steel	Deck
Tropical Fresh Water Line above Centre of Disc	<u>344.6</u>		
" Fresh Water Line	<u>239.5</u>		
" Tropical Line	<u>239.5</u>		
" Winter Line below	<u>6.0</u>		
" Winter North Atlantic Line	<u>138.0</u>		
Summer	<u>134.0</u>		

Tropical Fresh Water Freeboard 94

Fresh Water " 199

Tropical " 199

Winter " 444

Winter North Atlantic " 576

5 MAY 1934 RECEIVED MARKING FORM

28 JUN 1934

Lloyd's Register of Shipping