

# TIMBER

## Lloyd's Register of Shipping.

### SURVEYS FOR FREEBOARD.

WRECK BAY  
No. 174-3  
Index. No. 18661  
(For London Office only.)

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~  
having POOP Bridge & fore-castle

(Type of Superstructures.) Supplement 4/4/54

Ship's Name <b>SVARTON</b>	Nationality and Port of Registry <u>Swedish</u> <u>Stockholm</u>	Official Number <b>5333</b>	Gross Tonnage <b>2359</b> <u>2475</u>	Date of Build <b>1906/9</b>
-------------------------------	--	--------------------------------	---	--------------------------------

Moulded Dimensions: Length **299.0** Breadth **44.24** Depth **22.25**  
Moulded displacement at moulded draught = 85 per cent. of moulded depth **5740** tons  
Coefficient of fineness for use with Tables **.803**

Port of Survey \_\_\_\_\_  
Date of Survey **17<sup>th</sup> June 1932**  
Name of Surveyor \_\_\_\_\_  
Particulars of Classification **+100A1**

<b>Depth for Freeboard (D)</b> Moulded depth ... .. <b>22.25</b> Stringer plate ... .. <b>.04</b> Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <b>22.29</b>	<b>Depth correction</b> (a) Where D is greater than Table depth (D-Table depth) R = <b>+ 5.43</b> (b) Where D is less than Table depth (if allowed) (Table depth-D) R = _____ If restricted by superstructures _____	<b>Round of Beam correction</b> Moulded Breadth (B) _____ Standard Round of Beam = $\frac{B \times 12}{50} =$ <b>11</b> Ship's Round of Beam = _____ Difference _____ Restricted to _____ Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) =$ <b>- .05</b>
--	---	---

#### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	25.00	25.00	7.0		25.00	Standard Height of Superstructure 6.49
„ overhang ...						„ „ R.Q.D. _____
R.Q.D. enclosed ...						Deduction for complete superstructure 35.27
„ overhang ...						Percentage covered $\frac{S}{L} = 43.79$
Bridge enclosed ...	74.00	74.00	7.0		74.00	„ „ $\frac{S_1}{L} = 43.45$
„ overhang aft ...						„ „ $\frac{E}{L} = 43.45$
„ overhang forward ...						Percentage from Table, Line A. (corrected for absence of forecastle (if required))
Fore enclosed after ...	31.00	30.91	7.0		30.91	Percentage from Table, Line B. Timber 65.15 (corrected for absence of forecastle (if required))
„ overhang ...	.92					
Trunk aft ...						Deduction = 35.27 x 65.15 = 22.98
„ forward ...						
Tonnage opening aft ...						
„ „ forward ...						
Total ...	130.92	129.91			129.91	

#### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ... ..		1					1			Mean actual sheer aft =
$\frac{1}{8}$ L from A.P. ... ..		4					4			Mean actual sheer forward =
$\frac{3}{8}$ L " ... ..		2					2			Mean standard sheer forward =
Amidships ... ..		4					4			Length of enclosed superstructure forward of amidships =
$\frac{3}{8}$ L from F.P. ... ..		2					2			" " aft of " =
$\frac{1}{8}$ L " ... ..		4					4			
F.P. ... ..		1					1			
Total ... ..										

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75-S}{2L} \right) =$  **-1.99**  
If limited on account of midship superstructure.

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

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> Depth to Freeboard Deck = <b>22.29</b> Summer freeboard = <b>2.29</b> Moulded draught (d) = <b>20.00</b> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>5</b> = <b>127 mm</b> Addition for Winter North Atlantic Freeboard (if required) = $\frac{d}{3} = 6.67$ = <b>169 mm</b>	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta = 6156$ Tons per inch immersion at summer load water line $T = 28.00$ Deduction = $\frac{\Delta}{40 T}$ inches = <b>5.50</b> = <b>140 mm</b>	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) <b>43.16</b> Correction for coefficient $\frac{803+68}{1.36} = \frac{1.487}{1.36}$ <table border="1" style="width: 100%;"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction ... ..</td> <td>5.43</td> <td>-</td> </tr> <tr> <td>Deduction for superstructures ... ..</td> <td>-</td> <td>22.98</td> </tr> <tr> <td>Sheer correction ... ..</td> <td>-</td> <td>1.99</td> </tr> <tr> <td>Round of Beam correction ... ..</td> <td>-</td> <td>.05</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><b>5.43 25.02 -19.59</b></td> <td></td> <td></td> </tr> <tr> <td><b>Summer Freeboard = 27.47</b></td> <td></td> <td></td> </tr> </table>		+	-	Depth Correction ... ..	5.43	-	Deduction for superstructures ... ..	-	22.98	Sheer correction ... ..	-	1.99	Round of Beam correction ... ..	-	.05	Correction for Thickness of Deck amidships ... ..	-	-	Other corrections, scantlings, etc. ... ..	-	-	<b>5.43 25.02 -19.59</b>			<b>Summer Freeboard = 27.47</b>		
	+	-																											
Depth Correction ... ..	5.43	-																											
Deduction for superstructures ... ..	-	22.98																											
Sheer correction ... ..	-	1.99																											
Round of Beam correction ... ..	-	.05																											
Correction for Thickness of Deck amidships ... ..	-	-																											
Other corrections, scantlings, etc. ... ..	-	-																											
<b>5.43 25.02 -19.59</b>																													
<b>Summer Freeboard = 27.47</b>																													

<b>TIMBER SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—</b> <b>2'-3.47" = 698 mm.</b>			
<b>TIMBER</b> Tropical Fresh Water Line above Centre of Disc ... .. Fresh Water Line " " ... .. Tropical Line " " ... .. Winter Line " " ... .. Winter North Atlantic Line " " ... .. <b>SUMMER</b>	572 mm 445 " 432 " 136 " 177 " 305 "	<b>TIMBER</b> Tropical Fresh Water Freeboard ... .. Fresh Water " " ... .. Tropical " " ... .. Winter " " ... .. Winter North Atlantic " " ... ..	431 " 558 " 571 " 867 " 1180 "



Keel 2"  
Summer field det = 20'-0" - 20'-2" BK  
2nd A @ 20'-0" = 6100 TPI 29.00 2nd A @ 20'-2" = 6156



© 2020

Lloyd's Register  
Foundation