

Lloyd's Register of Shipping.  
SURVEYS FOR FREEBOARD.  
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name S.H.W. Co. No. 1708.	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
					Date of Survey 21.3.41
Moulded Dimensions: Length 410.67 Breadth 56.5 Depth 29.5					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Particulars of Classification
Coefficient of fineness for use with Tables 742					

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... .. 29.50	(a) Where D is greater than Table depth	Moulded Breadth (B)
Stringer plate ... .. .05	(D-Table depth) R = +6.51"	Standard Round of Beam = $\frac{B \times 12}{50} =$
Sheathing on exposed deck ✓	(b) Where D is less than Table depth (if allowed)	Ship's Round of Beam =
T $\left( \frac{L-S}{L} \right) =$	(Table depth-D) R = ✓	Difference
Depth for Freeboard (D) = 29.55	If restricted by superstructures ✓	Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.06}{4} \times .2176 = .0027$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
„ overhang ...					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...					
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed ...					
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total ...	299.91	321.31			296.04

Standard Height of Superstructure 1.5

„ „ R.Q.D. 42.00

Deduction for complete superstructure

Percentage covered  $\frac{S}{L} = 58.42$

„ „  $\frac{S_1}{L} = 78.24$

„ „  $\frac{E}{L} = 71.09$

Percentage from Table, Line A. 65.57

(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 =  $42 \times .6557 = -27.54$

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 " =

{

Nil

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{.39}{18} \times (.75 - .2421) = -.01$

If limited on account of midship superstructure, *Yes hp allowance*

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

<p><b>Deduction for Tropical Freeboard.</b></p> <p><b>Addition for Winter and Winter North Atlantic Freeboard.</b></p>	<p><b>Deduction for Fresh Water.</b></p> <p>Displacement in salt water at summer load water line</p>	<p><b>TABULAR FREEBOARD</b> <small>corrected for Flash Deck (if required)</small></p> <p>Correction for coefficient</p>																
<p>Depth to Freeboard Deck = <u>29.55</u></p> <p>Summer freeboard = <u>4.77</u></p> <p>Moulded draught (d) = <u>24.78</u></p>	<p><math>\Delta =</math></p> <p>Tons per inch immersion at summer load water line</p> <p><math>T =</math></p>	<p><u>1.422</u> / <u>1.36</u></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th style="width: 50%;">+</th> <th style="width: 50%;">-</th> </tr> <tr> <td>6.51</td> <td>27.54</td> </tr> <tr> <td>-</td> <td>-</td> </tr> <tr> <td>-</td> <td>-</td> </tr> <tr> <td>-</td> <td>-</td> </tr> <tr> <td>-</td> <td>-</td> </tr> <tr> <td>-</td> <td>-</td> </tr> <tr> <td>6.51</td> <td>27.54</td> </tr> </table>	+	-	6.51	27.54	-	-	-	-	-	-	-	-	-	-	6.51	27.54
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<p>Deduction for Tropical freeboard and addition for Winter freeboard = <math>\frac{d}{4}</math> inches =</p> <p>Addition for Winter North Atlantic Freeboard (if required) =</p>	<p>Deduction = <math>\frac{\Delta}{40T}</math> inches =</p>	<p>Depth Correction ... ..</p> <p>Deduction for superstructures ... ..</p> <p>Sheer correction ... ..</p> <p>Round of Beam correction ... ..</p> <p>Correction for Thickness of Deck amidships ... ..</p> <p>Other corrections, scantlings, etc. ... ..</p> <p style="text-align: right;">Summer Freeboard = <u>57.19</u></p>																

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

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

Tropical Fresh Water Freeboard	...	...
Fresh Water	"	...
Tropical	"	...
Winter	"	...
Winter North Atlantic	"	...