

Amended Preliminary.

Index. No. 36529
(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name S.H.W.R. No. 1708	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length 410.67 Breadth 56.5 Depth 29.58 <i>from centre of keel to deck</i>					Date of Survey 31-3-41
Moulded displacement at moulded draught = 85 per cent. of moulded depth 12363 tons					Surveyor's Signature
Coefficient of fineness for use with Tables .742					Particulars of Classification + (1000) <i>carrying petroleum in bulk (category 1)</i>

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... 29.58	(a) Where D is greater than Table depth (D - Table depth) R = (29.63 - 27.38) × 3 = 6.75 ✓	Moulded Breadth (B) 56.5
Stringer plate05	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 2.25	Standard Round of Beam = $\frac{B \times 12}{50} = \mathbf{13.56}$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ ✓	If restricted by superstructures	Ship's Round of Beam = 13.50
Depth for Freeboard (D) = 29.63		Difference .06
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.06}{4} \times \frac{24.59}{41} = \mathbf{.001}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed <i>including T.O.</i>	151.62 ✓	149.27	7.5	-	149.27
„ overhang					
R.Q.D. enclosed					
„ overhang					
Bridge enclosed					
„ overhang aft					
„ overhang forward					
Fore enclosed	48.79 ✓	48.79	7.5	-	48.79
„ overhang					
Trunk aft <i>210.26 × 30/58.5</i>		111.63	7.5	-	111.63
„ forward					
Tonnage opening aft					
„ forward					
Total	200.41	309.69			309.69

Standard Height of Superstructure	7.5 ✓
„ „ R.Q.D.	✓
Deduction for complete superstructure	42 ✓
Percentage covered $\frac{S}{L} =$	48.81 ✓
„ $\frac{S_1}{L} =$	75.41 ✓
„ $\frac{E}{L} =$	75.41 ✓
Percentage from Table, Line A. Tanker	69.65 ✓
(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 × 69.65 = -29.25 ✓

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	51.07	1		51.07	51.0	51.0	1		51.0
$\frac{1}{4}L$ from A.P.	22.725	4		90.90	22.5	22.5	4		90.0
$\frac{2}{4}L$	5.62	2		11.24	5.5	5.5	2		11.0
Amidships	-	4		-	-	-	4		-
$\frac{3}{4}L$ from F.P.	11.235	2		22.47	13.0	13.0	2		26.0
$\frac{1}{4}L$	45.45	4		181.80	45.0	45.0	4		180.0
F.P.	102.13	1		102.13	102.0	102.0	1		102.0
Total				459.61					460.0

Mean actual sheer aft = *define at > .25 standard* ✓
Mean standard sheer aft =

Mean actual sheer forward = *same* ✓
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = *Tanker* ✓
aft of „ =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{.39}{18} \left(.75 - \frac{.2440}{.5060} \right) = -.01$ ✓
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. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 29.63 Summer freeboard = 3.79 Moulded draught (d) = 25.84 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.46 = 6½ Addition for Winter North Atlantic Freeboard (if required) = 6.46 + 4.11 = 10.57 = 10½	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 = $\frac{\Delta}{40T}$ inches $d/4 = 6½$ ✓	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.742 + .68}{1.36} = \frac{1.422}{1.36}$ ✓ <table border="1"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction</td> <td>6.75</td> <td>-</td> </tr> <tr> <td>Deduction for superstructures</td> <td>-</td> <td>29.25 ✓</td> </tr> <tr> <td>Sheer correction</td> <td>-</td> <td>.01 ✓</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>6.75</td> <td>29.26</td> </tr> <tr> <td>Summer Freeboard</td> <td></td> <td>45.53 ✓</td> </tr> </table>		+	-	Depth Correction	6.75	-	Deduction for superstructures	-	29.25 ✓	Sheer correction	-	.01 ✓	Round of Beam correction	-	-	Correction for Thickness of Deck amidships	-	-	Other corrections, scantlings, etc.	-	-		6.75	29.26	Summer Freeboard		45.53 ✓
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck:

Tropical Fresh Water Line above Centre of Disc	13"	✓	Tropical Fresh Water Freeboard	3'-9½"	✓
Fresh Water Line	6½"	✓	Fresh Water	2'-8½"	✓
Tropical Line	6½"	✓	Tropical	3'-3"	✓
Winter Line below	6½"	✓	Winter	3'-3"	✓
Winter North Atlantic Line	10½"	✓	Winter North Atlantic	4'-4"	✓
				4'-8"	✓

No 1708

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.

Trunk.

Poof
File

$$\begin{array}{r} 151.62 \\ 48.79 \\ \hline 200.41 \\ 410.67 \\ \hline 210.26 \end{array}$$

*length
trunk between
poof & forecastle.*

*Poof
Tonnage weight*

$$\begin{array}{r} 151.62 \\ 5.25 \\ \hline 146.37 \end{array}$$

$146.37 \times 1 = 146.37$

$.75 \times .75 = .56$

$$\begin{array}{r} 146.37 \\ .56 \\ \hline 146.93 \\ 151.62 \\ \hline 214.69 \\ 2.34 \\ \hline 146.37.93 \\ \hline 149.27 \end{array}$$

effective.

Alternative Superstructure allowance (with open bridge).

	S	S.	Height	Height Correction	E
Poof	✓ 151.62	149.27	7.5	-	149.27 ✓
Bridge (open)	✓ 32.00	✓ 16.00	7.5	-	16.00 ✓
Forecastle	✓ 48.79	48.79	2.5	-	48.79 ✓
Trunk (210.26 - 16.00) × $\frac{30}{56.8}$ 194.26 ✓	-	103.13 ✓ 10.31	7.5	x .9	92.84 103.13 ✓
	232.41	317.19			306.90 ✓
%	56.58%	77.22%			74.22% ✓

Corresponding 2nd = 68.8 ✓

$42 \times .688 = 28.90$ ✓

∴ a better allowance is given by omitting bridge ✓

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £



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