

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

Index No. 42522
(For London Office only.)

Ship's Name AUTOCARRIER	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length <u>220.5</u> Breadth <u>35.5</u> Depth					Date of Survey <u>17-3-49</u>
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Surveyor's Signature <u>EJ</u>
Coefficient of fineness for use with Tables <u>.68 (assumed)</u>					Particulars of Classification

DEPTH FOR FREEBOARD (D).

Moulded depth	<u>13.81</u>
Stringer plate	<u>04</u>
Sheathing on exposed deck	$T \left(\frac{L-S}{L} \right) =$	
Depth for Freeboard (D)	=	<u>13.85</u>

DEPTH CORRECTION.

(a) Where D is greater than Table depth (D-Table depth) R =

(b) Where D is less than Table depth (if allowed) (Table depth-D) R =

(14.70 - 13.85) 1.626 = -1.44

If restricted by superstructures

ROUND OF BEAM CORRECTION.

Moulded Breadth (B)	
Standard Round of Beam = $\frac{B \times 12}{50}$	=
Ship's Round of Beam	=
Difference	
Restricted to	
Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	=

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					
F'cle enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total					

Standard Height of Superstructure _____

" " R.Q.D. _____

Deduction for complete superstructure _____

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

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

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

Percentage from Table, Line A. (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 = NIL

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	
$\frac{4}{8}L$ "		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 =
L

" " aft of " =

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

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

<p>Deduction for Tropical Freeboard.</p> <p>Addition for Winter and Winter North Atlantic Freeboard.</p> <p style="text-align: right;">Ft.</p> <p>Depth to Freeboard Deck = <u>13.85</u></p> <p>Summer freeboard = <u>2.10</u></p> <p>Moulded draught (d) = <u>11.75</u></p> <p>Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>2.94 = 3</u></p> <p>Addition for Winter North Atlantic Freeboard (if required) =</p>	<p>Deduction for Fresh Water.</p> <p>Displacement in salt water at summer load water line</p> <p>$\Delta =$</p> <p>Tons per inch immersion at summer load water line</p> <p>T =</p> <p>Deduction = $\frac{\Delta}{40 T}$ inches</p>	<p>TABULAR FREEBOARD <i>(scantling case)</i> corrected for Flush Deck (if required)</p> <p>Correction for coefficient</p> <table style="width: 100%;"> <tr><td>Depth Correction</td><td>... ..</td></tr> <tr><td>Deduction for superstructures</td><td>... ..</td></tr> <tr><td>Sheer correction</td><td>... ..</td></tr> <tr><td>Round of Beam correction</td><td>... ..</td></tr> <tr><td>Correction for Thickness of Deck amidships</td><td>... ..</td></tr> <tr><td>Other corrections, scantlings, etc.</td><td>... ..</td></tr> </table>	Depth Correction	Deduction for superstructures	Sheer correction	Round of Beam correction	Correction for Thickness of Deck amidships	Other corrections, scantlings, etc.	<p><u>26.69</u></p> <p><u>26.69</u></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;">+</td><td style="text-align: center;">-</td></tr> <tr><td></td><td style="text-align: center;">1.44</td></tr> <tr><td></td><td style="text-align: center;">- 1.44</td></tr> </table> <p>Summer Freeboard = <u>25.25</u></p>	+	-		1.44		- 1.44
Depth Correction																				
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+	-																				
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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	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.

$-(14.70 - D)$

$$D = 11.75 + \frac{26.69}{12} - \frac{(14.70 - D) 1.696}{12}$$

$$\begin{array}{r} 141.00 \\ 26.69 \\ \hline 24.93 \\ \hline 142.62 \end{array}$$

$$12D = 141 + 26.69 + 1.696D - 24.93$$

$$10.304D = 142.76$$

$$D = 13.85$$

Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____



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