

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, ^{(TUG).}~~SAILING SHIP, TANKER.~~)

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
"EMPIRE TITAN"	167132	BRITISH HULL.	242.33.	1942	HULL.
Moulded Dimensions: Length 105'-0" Breadth 26'-6" Depth 13'-6"					Date of Survey WHILE BUILDING.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 523. ✓ tons Coefficient of fineness for use with Tables .68 ✓ (573 ACTUAL) T.P.I. 5.35					Surveyor's Signature J. Macleod Particulars of Classification * 100 A.I. "FOR TOWING SERVICES". (CONTEMPLATED).

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth	(a) Where D is greater than Table depth	Moulded Breadth (B)
Stringer plate	(D - Table depth) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$
Sheathing on exposed deck	(13.53 - 7.00) 8.08 = +5.28 ✓	Ship's Round of Beam =
T $\left(\frac{L-S}{L} \right) =$	(b) Where D is less than Table depth (if allowed)	Difference
	(Table depth - D) R =	Restricted to
Depth for Freeboard (D) =	If restricted by superstructures ✓	Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) =$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
1. Poop enclosed ...					
" overhang ...					
2. R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...					
Forecastle enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...					

Flush deck.

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. ...	20.50	1	20.50	18"	18.00	1	18.00
$\frac{1}{2}$ L from A.P. ...	9.12	4	36.48	8"	8.00	4	32.00
$\frac{3}{8}$ L " ...	2.255	2	4.51	13L"	1.75	2	3.50
Amidships ...	-	4	-	0	-	4	-
$\frac{3}{8}$ L from F.P. ...	4.51	2	9.02	9 3/4"	9.75	2	19.50
$\frac{1}{2}$ L " ...	18.24	4	72.96	35 1/2"	35.50	4	142.00
F.P. ...	41.00	1	41.00	81 1/2"	81.50	1	81.50
Total ...			184.47				296.50

Mean actual sheer aft = DEFICIENT. > .75

Mean standard sheer aft

Mean actual sheer forward = EXCESS

Mean standard sheer forward

Length of enclosed superstructure forward of amidships =

L

aft of " =

} Nil.

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{211} \right) = \frac{112.03}{18} \times .75 = -4.67$$

If limited on account of midship superstructure. ✓

<p>Deduction for Tropical Freeboard.</p> <p>Addition for Winter and Winter North Atlantic Freeboard.</p> <p style="text-align: center;">Ft.</p> <p>Depth to Freeboard Deck = 13.53</p> <p>Summer freeboard = 1.29</p> <p>Moulded draught (d) = 12.24</p> <p>Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 3.06 = 3"</p> <p>Addition for Winter North Atlantic Freeboard (if required) = 5"</p>	<p>Deduction for Fresh Water.</p> <p>Displacement in salt water at summer load water line</p> <p>$\Delta = 585$</p> <p>Tons per inch immersion at summer load water line</p> <p>T = 5.47</p> <p>Deduction = $\frac{\Delta}{40T}$ inches = 2.67 = 2 3/4"</p> <p>MOL. WT. EXT. DISP. T.P.I.</p> <p>12' 6" 595 5.5</p> <p>11' 6" 529.4 5.35</p> <p>9' 6" 407 4.90</p>	<p>TABULAR FREEBOARD corrected for Flush Deck (if required)</p> <p style="text-align: right;">10.50 + 1.58</p> <p>Correction for coefficient NIL</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th style="text-align: center;">+</th> <th style="text-align: center;">-</th> </tr> <tr> <td>Depth Correction</td> <td style="text-align: center;">5' 28"</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Deduction for superstructures</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Sheer correction</td> <td style="text-align: center;">-</td> <td style="text-align: center;">1.58</td> </tr> <tr> <td>Round of Beam correction</td> <td style="text-align: center;">-</td> <td style="text-align: center;">28"</td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> </tr> <tr> <td></td> <td style="text-align: center;">5' 28"</td> <td style="text-align: center;">1' 86"</td> </tr> </table> <p style="text-align: right;">Summer Freeboard = 15.50</p>		+	-	Depth Correction	5' 28"	-	Deduction for superstructures	-	-	Sheer correction	-	1.58	Round of Beam correction	-	28"	Correction for Thickness of Deck amidships	-	-	Other corrections, scantlings, etc.	-	-		5' 28"	1' 86"
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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	...	5 3/4"
Fresh Water Line	" "	2 3/4"
Tropical Line	" "	3"
Winter Line	below	5"
Winter North Atlantic Line	" "	5"

✓	Tropical	Fresh Water	Freeboard	...	...	0-9 3/4"	✓
✓		Fresh Water	"	...	...	1-0 3/4"	✓
✓		Tropical	"	...	...	1-0 1/2"	✓
✓		Winter	"	...	...	1-6 1/2"	✓
✓		Winter North Atlantic	"	...	...	1-8 1/2"	✓

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.

Trade of ship "FOR TOWING SERVICES".

Names of sister ships "EMPIRE LINDEN".

Builder's name and yard number MESSRS HENRY SCARR LTD. YARD N° 423.

Owners MINISTRY OF WAR TRANSPORT.

Fee £ TO BE CHARGED WITH FIRST ENTRY REPORT.



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Foundation