

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER, (TUG))

Ship's Name <b>"ENTICER"</b>	Official Number <b>NONE</b>	Nationality and Port of Registry <b>BRITISH</b> <b>NONE</b>	Gross Tonnage <b>762.</b>	Date of Build <b>1944.</b>	Port of Survey <i>Hull.</i>
Moulded Dimensions: Length <b>160'-0"</b> Breadth <b>34'-6"</b> Depth <b>16'-6"</b>					Date of Survey <i>During construction</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>1240</b> tons <b>T = 10.2</b>					Surveyor's Signature <i>J. Macleod</i>
Coefficient of fineness for use with Tables <b>.68 (.56 ACTUAL.)</b>					Particulars of Classification <b>* 100 A-1.</b> <b>"FOR TOWING SERVICES".</b> <b>(CONTEMPLATED)</b>

<b>Depth for Freeboard (D).</b> Moulded depth ... .. <b>16.5'</b> Stringer plate <b>.36</b> ... .. <b>.03</b> Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) = \text{NONE}$ Depth for Freeboard (D) = <b>16.53</b>	<b>Depth correction.</b> (a) Where D is greater than Table depth (D - Table depth) R = $(16.53 - 10.67) \times 1.23 = +7.21$ $5.86$ (b) Where D is less than Table depth (if allowed) (Table depth - D) R = If restricted by superstructures <input checked="" type="checkbox"/>	<b>Round of Beam correction.</b> Moulded Breadth (B) <b>34.5'</b> Standard Round of Beam = $\frac{B \times 12}{50} = 8.28$ Ship's Round of Beam = <b>10"</b> Difference <b>1.72</b> Restricted to <input checked="" type="checkbox"/> Correction = $\frac{\text{Diff}^*}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{1.72}{4} (1 - .4271) = .25$ $.5729$
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## 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 ... ..	<i>no allowance made for Bridge</i>				
" overhang ... ..	<i>clear of sidehouses in view of scuttlings</i>				
Bridge enclosed ... ..					
" overhang aft ... ..					
" overhang forward ... ..					
F'cle enclosed ... ..	<b>68'-4"</b>	<b>68.33</b>	<b>7'-3"</b>	<input checked="" type="checkbox"/>	<b>68.33</b>
" overhang ... ..					
Trunk aft ... ..					
" forward ... ..					
Tonnage opening aft ... ..					
" " forward ... ..					
Total ... ..	<b>68.33</b>	<b>68.33</b>			<b>68.33</b>

Standard Height of Superstructure	<b>6.0</b>
" " R.Q.D.	<input checked="" type="checkbox"/>
Deduction for complete superstructure	<b>22.00</b>
Percentage covered $\frac{S}{L} =$	<b>42.71</b>
" " $\frac{S_1}{L} =$	<b>42.71</b>
" " $\frac{E}{L} =$	<b>42.71</b>
Percentage from Table, Line A.	<b>25.80</b>
(corrected for absence of forecastle (if required))	
Percentage from Table, Line B. <input checked="" type="checkbox"/>	
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required) <input checked="" type="checkbox"/>	
Deduction =	<b>22.00 x .2580 = -5.68</b>

*Sheers from line parallel to service w.l.*

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ... ..	<b>26.00</b>	<b>1</b>		<b>26.00</b>	<b>42.00</b>	<b>42.00</b>	<b>1</b>		<b>42.00</b>
$\frac{1}{2}$ L from A.P. ... ..	<b>11.57</b>	<b>4</b>		<b>46.28</b>	<b>20.00</b>	<b>20.00</b>	<b>4</b>		<b>80.00</b>
$\frac{2}{3}$ L " ... ..	<b>2.86</b>	<b>2</b>		<b>5.72</b>	<b>5.00</b>	<b>5.00</b>	<b>2</b>		<b>10.00</b>
Amidships ... ..	<b>-</b>	<b>4</b>		<b>-</b>	<b>ON PAGE 1.</b>	<b>-</b>	<b>4</b>		<b>-</b>
$\frac{2}{3}$ L from F.P. ... ..	<b>5.72</b>	<b>2</b>		<b>11.44</b>	<b>9.00</b>	<b>9.00</b>	<b>2</b>		<b>18.00</b>
$\frac{1}{2}$ L " ... ..	<b>23.14</b>	<b>4</b>		<b>92.56</b>	<b>34.00</b>	<b>34.00</b>	<b>4</b>		<b>136.00</b>
F.P. ... ..	<b>52.00</b>	<b>1</b>		<b>52.00</b>	<b>71.00</b>	<b>71.00</b>	<b>1</b>		<b>71.00</b>
Total ... ..				<b>234.00</b>					<b>357.00</b>

Mean actual sheer aft = *Excess.*  
Mean standard sheer aftMean actual sheer forward = *Excess.*  
Mean standard sheer forwardLength of enclosed superstructure forward of amidships = **.027**aft of " = *Nil.*Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75-S}{2L} \right) = \frac{123}{18} \left( \frac{75-2135}{5365} \right) = -3.67$   
If limited on account of midship superstructure.  $\frac{4.33}{32} \times 3.67 = -.50$ 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.Ft.  
Depth to Freeboard Deck = **16.53**  
Summer freeboard = **1.48**  
Moulded draught (d) = **15.05**Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = **3.76 = 3 $\frac{3}{4}$ "**Addition for Winter North Atlantic Freeboard (if required) = **3 $\frac{3}{4}$ " + 2" = 5 $\frac{3}{4}$ "**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 1381$ 

Tons per inch immersion at summer load water line

**T = 10.52**Deduction =  $\frac{\Delta}{40T}$  inches =  $\frac{1381}{40 \times 10.52} = 3.28 = 3\frac{1}{4}"$ 

MLD DRAFT	EXT. DISP.	T.P.I.
14'-4"	1293	10.3
13'-4"	1170	10.0
12'-4"	1052	9.7

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient *N/L.*

	+	-
Depth Correction ... ..	<b>7.21</b>	<b>-</b>
Deduction for superstructures ... ..	<b>-</b>	<b>5.68</b>
Sheer correction ... ..	<b>-</b>	<b>.50</b>
Round of Beam correction ... ..	<b>-</b>	<b>.25</b>
Correction for Thickness of Deck amidships ... ..	<b>-</b>	<b>-</b>
Other corrections, scantlings, etc. ... ..	<b>-</b>	<b>-</b>
	<b>7.21</b>	<b>6.43</b>

Summer Freeboard = **17.68**SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Weld~~ Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc ... ..	<b>7"</b>
Fresh Water Line " " ... ..	<b>3<math>\frac{1}{4}</math>"</b>
Tropical Line " " ... ..	<b>3<math>\frac{3}{4}</math>"</b>
Winter Line below " " ... ..	<b>3<math>\frac{3}{4}</math>"</b>
Winter North Atlantic Line " " ... ..	<b>5<math>\frac{3}{4}</math>"</b>

Tropical Fresh Water Freeboard ... ..	<b>1'-5<math>\frac{3}{4}</math>"</b>
Fresh Water " " ... ..	<b>0'-10<math>\frac{3}{4}</math>"</b>
Tropical " " ... ..	<b>1'-2<math>\frac{1}{2}</math>"</b>
Winter " " ... ..	<b>1'-2"</b>
Winter North Atlantic " " ... ..	<b>1'-9<math>\frac{1}{2}</math>"</b>



Fee £ TO BE CHARGED WITH FIRST ENTRY

<u>DATE</u>	<u>EST. TAG</u>	<u>TRANS. AMT</u>
6-01	CRD1	"M-21
0-01	0711	"M-21
0-0	0201	"M-21

Lloyd's Register  
Foundation