

AMENDED.

# LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

## SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

For LONDON OFFICE ONLY

Received .....

Index No. ....

Govt. Copy .....

Owners C11 .....

Ship's Name <b>SAUCY</b>	Official Number <b>1</b>	Nationality and Port of Registry <b>BRITISH</b>	Gross Tonnage <b>1010</b>	Date of Build <b>1943</b>	Port of Survey .....
Moulded Dimensions: Length <b>142'-6"</b> Breadth <b>33'-0"</b> Depth <b>16'-0"</b>					Date of Survey <b>16.1.55</b>
Freeboard Length .....					Surveyor's Signature .....
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) <b>1010</b> tons					Particulars of Classification <b>+ 100 DT.</b>
Coefficient of fineness for use with Tables <b>68 (ACTUAL 553)</b>					<b>FOR TONING PURPOSES.</b>

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... .. <b>16.00</b>	(a) Where D is greater than Table depth (D-Table depth) R = <b>(16.03 - 4.50) 1.096 = + 7.16</b>	Moulded Breadth (B) <b>33.00</b>
Stringer plate ... .. <b>03</b>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <b>6.53</b>	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{33 \times 12}{50} = 7.92$
Wood Sheathing on exposed deck	If restricted by superstructures	Ship's Round of Beam = <b>9.00</b>
$T \left( \frac{L-S}{L} \right) =$		Difference <b>1.08</b>
Depth for Freeboard (D) = <b>16.03</b>		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{1.08}{4} \times \left( 1 - \frac{4531}{4} \right) = 12.11$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ... ..						Standard Height of Superstructure <b>6.00</b>
" overhang ... ..						" " R.Q.D. <b>1</b>
R.Q.D. enclosed ... ..						Deduction for complete superstructure <b>20.25</b>
" overhang ... ..						Percentage covered $\frac{S}{L} = \frac{55.03}{100} = 55.03\%$
Bridge enclosed ... ..						" " $\frac{S_1}{L} = \frac{54.69}{100} = 54.69\%$
" overhang aft ... ..						Percentage from Table, Line A. <b>38.57</b>
" overhang forward ... ..						(corrected for absence of forecastle (if required))
F'cle enclosed ... ..	<b>77.42</b>	<b>77.42</b>	<b>7.00</b>	<b>✓</b>	<b>77.42</b>	Percentage from Table, Line B.
" overhang ... ..	<b>1.00</b>	<b>.50</b>	<b>"</b>	<b>✓</b>	<b>.50</b>	(corrected for absence of forecastle (if required))
Trunk aft ... ..						Interpolation for bridge less than .2L (if required)
" forward ... ..						Deduction = <b>20.25 x .3857 = 7.81</b>
Tonnage opening aft ... ..						
" " forward ... ..						
Total ... ..	<b>78.42</b>	<b>77.92</b>			<b>77.92</b>	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ... ..	<b>24.25</b>	<b>1</b>	<b>24.25</b>	<b>24.25</b>	<b>29.50</b>	<b>29.50</b>	<b>1</b>	<b>29.50</b>	<b>29.50</b>
$\frac{1}{4}$ L from A.P. ... ..	<b>10.79</b>	<b>4</b>	<b>43.16</b>	<b>12.33</b>	<b>12.33</b>	<b>12.33</b>	<b>4</b>	<b>49.32</b>	<b>49.32</b>
$\frac{2}{4}$ L " ... ..	<b>2.67</b>	<b>2</b>	<b>5.34</b>	<b>2.92</b>	<b>2.92</b>	<b>2.92</b>	<b>2</b>	<b>5.84</b>	<b>5.84</b>
Amidships ... ..	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>
$\frac{3}{4}$ L from F.P. ... ..	<b>5.34</b>	<b>2</b>	<b>10.68</b>	<b>8.08</b>	<b>8.08</b>	<b>8.08</b>	<b>2</b>	<b>16.16</b>	<b>16.16</b>
$\frac{1}{4}$ L " ... ..	<b>21.58</b>	<b>4</b>	<b>86.32</b>	<b>29.67</b>	<b>29.67</b>	<b>29.67</b>	<b>4</b>	<b>118.68</b>	<b>118.68</b>
F.P. ... ..	<b>48.50</b>	<b>1</b>	<b>48.50</b>	<b>73.75</b>	<b>73.75</b>	<b>73.75</b>	<b>1</b>	<b>73.75</b>	<b>73.75</b>
Total ... ..			<b>218.25</b>					<b>293.25</b>	

Mean actual sheer aft = **29.50**  
Mean standard sheer aft = **29.50**  
Mean actual sheer forward = **29.67**  
Mean standard sheer forward = **29.67**

Length of enclosed superstructure forward of amidships = **0.433**  
" " aft of " = **5.2**

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{.75 - S}{2L} \right) = \frac{75 - 2752}{18} = -1.98$   
If limited on account of midship superstructure.  $1.98 \times \frac{1433}{72} = -1.42$   
If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100ft. ✓

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> Depth to Freeboard Deck = <b>16.03</b> Summer freeboard = <b>1.87</b> Moulded draught (d) = <b>14.16</b> Keel allowance = <b>1.00</b> Extreme draught = <b>15.16</b> Deduction for Tropical freeboard and addition for = <b>3.54 - 3.52</b> Winter freeboard = $\frac{d}{4}$ inches = <b>3.54 - 3.52</b> Addition for Winter North Atlantic Freeboard (if required) = <b>2</b>	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta = 1078$ Tons per inch immersion at summer load water line $T = 8.69$ Deduction = $\frac{\Delta}{40 T}$ inches = <b>3.1 - 3</b>	<b>TABULAR FREEBOARD corrected for Flush Deck (if required)</b> Correction for coefficient <b>NIL</b> Depth Correction ... .. <b>7.16</b> Deduction for superstructures ... .. <b>7.81</b> Sheer correction ... .. <b>1.42</b> Round of Beam correction ... .. <b>1.2</b> Correction for Thickness of Deck amidships ... .. <b>10.16</b> Other corrections, scantlings, etc. <b>6</b> Summer Freeboard = <b>22.50</b>
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, **W**, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc ... .. <b>3</b>	Tropical Fresh Water Freeboard ... .. <b>1.10</b>
Fresh Water Line " " ... .. <b>3</b>	Fresh Water " " ... .. <b>1.10</b>
Tropical Line " " ... .. <b>NIL</b>	Tropical " " ... .. <b>1.10</b>
Winter Line below " " ... .. <b>NIL</b>	Winter " " ... .. <b>1.10</b>
Winter North Atlantic Line " " ... .. <b>2</b>	Winter North Atlantic " " ... .. <b>2.00</b>