

*Amended Provisional*

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No. **37610**  
(For London Office only).

Ship's Name <i>Mess. Fishers 88 Co.</i>	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Yard No. <i>388</i>					Date of Survey <i>29-7-44</i>
Moulded Dimensions: Length <i>535.75</i> ✓ Breadth <i>74.0</i> ✓ Depth <i>57.0</i> ✓ <i>measured from ruble stow</i>					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth					Particulars of Classification <i>+100 carrying petrol in bulk (containing 1)</i>
Coefficient of fineness for use with Tables <i>.855 (estimated)</i>					

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... <i>57.00</i> ✓	(a) Where D is greater than Table depth (D - Table depth) R = <i>(57.06 - 35.71) × 3 = + 64.05</i> ✓ <i>21.35</i>	Moulded Breadth (B) <i>74</i> ✓
Stringer plate ... <i>76</i> ... <i>.06</i> ✓	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{74 \times 12}{50} = 17.76$ ✓
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures ✓	Ship's Round of Beam = <i>6.69</i> Equival. ✓
Depth for Freeboard (D) = <i>57.06</i> ✓		Difference <i>11.07</i> ✓
		Restricted to <i>11.07</i> ✓
		Correction = $\frac{\text{Diff}^*}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{11.07}{4} \times \left( 1 - \frac{.8077}{.855} \right) = 2.24$ ✓

## 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 ...					
„ overhang ...					
Bridge enclosed ...					
„ overhang aft ...					
„ overhang forward					
F'cle enclosed ...	<i>97.00</i>	<i>97.00</i>	<i>8.0</i>	<i>-</i>	<i>97.00</i>
„ overhang ...	<i>12.00</i>	<i>6.00</i>	<i>-</i>	<i>-</i>	<i>6.00</i>
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward					
Total ...	<i>109.00</i>	<i>103.00</i>			<i>103.00</i>

Standard Height of Superstructure *7.5* ✓

„ „ R.Q.D. *42* ✓

Deduction for complete superstructure

Percentage covered  $\frac{S}{L} = \frac{103}{500} = 20.34$  ✓

„ „  $\frac{S_1}{L} = \frac{6}{500} = 1.2$  ✓

„ „  $\frac{E}{L} = \frac{97}{500} = 19.23$  ✓

Percentage from Table, Line A. *9.61* ✓

(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 × 0.0961 = -4.04* ✓

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>63.57</i> ✓	1		<i>63.57</i>	<i>3.62</i> ✓	<i>3.62</i> ✓	1		<i>3.62</i>
$\frac{1}{2}$ L from A.P. ...	<i>28.29</i> ✓	4		<i>113.16</i>	<i>-</i>	<i>-</i>	4		<i>-</i>
$\frac{2}{3}$ L „ ...	<i>6.995</i> ✓	2		<i>13.99</i>	<i>-</i>	<i>-</i>	2		<i>-</i>
Amidships ...	<i>-</i>	4		<i>-</i>	<i>-</i>	<i>-</i>	4		<i>-</i>
$\frac{2}{3}$ L from F.P. ...	<i>13.99</i> ✓	2		<i>27.98</i>	<i>-</i>	<i>-</i>	2		<i>-</i>
$\frac{1}{2}$ L „ ...	<i>56.58</i> ✓	4		<i>226.32</i>	<i>2.50</i> ✓	<i>2.50</i> ✓	4		<i>10.00</i>
F.P. ...	<i>127.15</i> ✓	1		<i>127.15</i>	<i>36.00</i> ✓	<i>36.00</i> ✓	1		<i>36.00</i>
Total ...				<i>572.17</i>					<i>49.62</i>

Mean actual sheer aft = *Deficient* ✓

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = *Nil* ✓

„ „ aft of „ =

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{.75 - \frac{S}{2L}}{.75 - \frac{.1017}{.6483}} \right) = \frac{522.55}{18} \left( \frac{.75 - .1017}{.6483} \right) = +18.82$  ✓

If limited on account of midship superstructure. ✓

If limited to maximum allowance of 1½ ins. per 100 ft. ✓

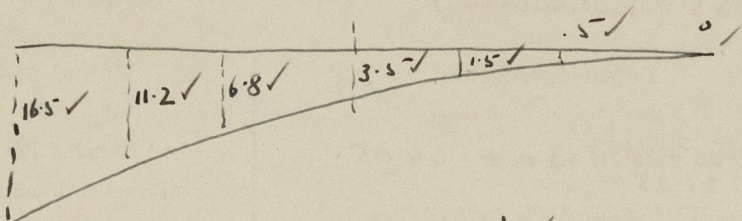
<p><b>Deduction for Tropical Freeboard.</b></p> <p><b>Addition for Winter and Winter North Atlantic Freeboard.</b></p> <p>Depth to Freeboard Deck = <i>57.06</i> ✓</p> <p>Summer freeboard = <i>22.73</i> ✓</p> <p>Moulded draught (d) = <i>34.33</i> ✓</p> <p>Deduction for Tropical freeboard and addition for Winter freeboard = <math>\frac{d}{4}</math> inches = <i>8.58 = 8.2</i> ✓</p> <p>Addition for Winter North Atlantic Freeboard (if required) =</p>	<p><b>Deduction for Fresh Water.</b></p> <p>Displacement in salt water at summer load water line</p> <p><math>\Delta = 322.50</math></p> <p>Tons per inch immersion at summer load water line</p> <p>T = <i>87</i> ✓</p> <p>Deduction = <math>\frac{\Delta}{40T}</math> inches = <i>9.27 = 9.4</i> ✓</p>	<p><b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required)</p> <p>Correction for coefficient <math>\frac{.855 - .68}{1.36} = \frac{.175}{1.36} = .128</math> ✓</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>+</th> <th>-</th> </tr> </thead> <tbody> <tr><td>Depth Correction ...</td><td><i>64.05</i></td><td><i>-</i></td></tr> <tr><td>Deduction for superstructures ...</td><td><i>-</i></td><td><i>4.04</i></td></tr> <tr><td>Sheer correction ...</td><td><i>18.82</i></td><td><i>-</i></td></tr> <tr><td>Round of Beam correction ...</td><td><i>2.24</i></td><td><i>-</i></td></tr> <tr><td>Correction for Thickness of Deck amidships ...</td><td><i>3.48</i></td><td><i>-</i></td></tr> <tr><td>Other corrections, scantlings, etc. ...</td><td><i>61.20</i></td><td><i>-</i></td></tr> <tr><td>Summer Freeboard =</td><td><i>272.75</i></td><td></td></tr> </tbody> </table>		+	-	Depth Correction ...	<i>64.05</i>	<i>-</i>	Deduction for superstructures ...	<i>-</i>	<i>4.04</i>	Sheer correction ...	<i>18.82</i>	<i>-</i>	Round of Beam correction ...	<i>2.24</i>	<i>-</i>	Correction for Thickness of Deck amidships ...	<i>3.48</i>	<i>-</i>	Other corrections, scantlings, etc. ...	<i>61.20</i>	<i>-</i>	Summer Freeboard =	<i>272.75</i>	
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004785-004788-0220



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.

Skidway.



length 104'

1	16.5	1	16.5
2	11.2	4	44.8
3	6.8	2	13.6
4	3.5	4	14.0
5	1.5	2	3.0
6	.5	4	2.0
7	-	1	-
			<hr/>
			93.9

$$\times \frac{1}{3} \times \frac{104}{6} = 542.5 \text{ sq ft.}$$

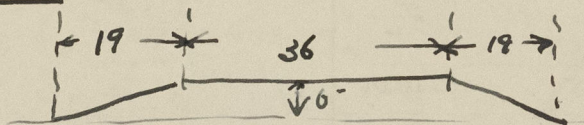
$$542.5 \times 18 = 9765 \text{ c.f.}$$

$$\text{Area of Deck } 535.75 \times 74 \times .85 = 33690 \text{ s.f.}$$

$$\therefore \text{ correction for loss of buoyancy} = \frac{9765}{33690} = .29$$

$$= 3.48$$

Camber



$$36 \times .5 + 19 \times .5 = .5(36 + 19) = .5 \times 55 = 27.5 \text{ s.f.}$$

$$\text{mean height} = \frac{27.5}{74} = .372 = 4.46$$

$$\therefore \text{equivalent camber} = 4.46 \times 1.5 = 6.69$$