

# LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

## SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

Received .....

Index No. ....

Govt. Copy .....

Owners C11 .....

Ship's Name <b>YUNG HUNG</b>	Official Number <b>8207</b>	Nationality and Port of Registry <b>CHINESE KAOHSIUNG.</b>	Gross Tonnage <b>1921</b>	Date of Build <b>5 MONTHS.</b>	Port of Survey <b>Baltimore Maryland</b>
Moulded Dimensions: Length <b>465.0'</b> Breadth <b>60.0'</b> Depth <b>36.25'</b>					Date of Survey <b>19-12-52</b>
Freeboard Length .....					Surveyor's Signature <b>J.G. Buchanan</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) .....					Particulars of Classification <b>+ 100A1 C.P.B.</b>
Coefficient of fineness for use with Tables <b>.809</b> (BLOCK USED BY A.B.)					<b>Shelter deck with freeboard</b>

<b>DEPTH FOR FREEBOARD (D).</b> Moulded depth ... .. <b>36.25</b> Stringer plate ... .. <b>.05</b> Wood Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <b>36.30</b>	<b>DEPTH CORRECTION.</b> (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(36.30 - 31.00) 3.00 = +15.90$ (b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$ If restricted by superstructures	<b>ROUND OF BEAM CORRECTION.</b> Moulded Breadth (B) <b>60.0</b> Standard Round of Beam = $\frac{B \times 12}{50} =$ <b>14.4</b> Ship's Round of Beam = <b>12.0</b> Difference <b>2.4</b> Restricted to Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{2.4}{4} = +.60$
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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 ... ..				
" overhang ... ..				
Bridge enclosed ... ..				
" overhang aft ... ..				
" overhang forward ... ..				
F'cle enclosed ... ..				
" overhang ... ..				
Trunk aft ... ..				
" forward ... ..				
Tonnage opening aft ... ..				
" " forward ... ..				
Total ... ..				

FLUSH DECK  
NO SUPERSTRUCTURES

Standard Height of Superstructure <b>7.5</b>
" " R.Q.D. <b>✓</b>
Deduction for complete superstructure <b>42.00</b>
Percentage covered $\frac{S}{L} =$
" " $\frac{S_1}{L} =$
" " $\frac{E}{L} =$
Percentage from Table, Line A. <b>✓</b>
(corrected for absence of forecastle (if required)) <b>✓</b>
Percentage from Table, Line B. <b>✓</b>
(corrected for absence of forecastle (if required)) <b>✓</b>
Interpolation for bridge less than .2L (if required) <b>✓</b>
Deduction = <b>✓</b>

SHEER CORRECTION.							
Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ... ..	<b>56.50</b>	<b>1</b>	<b>56.50</b>	<b>41.19</b>	<b>41.19</b>	<b>1</b>	<b>41.19</b>
$\frac{1}{8}L$ from A.P. ... ..	<b>25.14</b>	<b>4</b>	<b>100.56</b>	<b>18.75</b>	<b>18.75</b>	<b>4</b>	<b>75.00</b>
$\frac{2}{8}L$ " ... ..	<b>6.22</b>	<b>2</b>	<b>12.44</b>	<b>4.25</b>	<b>4.25</b>	<b>2</b>	<b>8.50</b>
Amidships ... ..	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>
$\frac{3}{8}L$ from F.P. ... ..	<b>12.44</b>	<b>2</b>	<b>24.88</b>	<b>10.50</b>	<b>10.50</b>	<b>2</b>	<b>21.00</b>
$\frac{4}{8}L$ " ... ..	<b>50.28</b>	<b>4</b>	<b>201.12</b>	<b>46.50</b>	<b>46.50</b>	<b>4</b>	<b>186.00</b>
F.P. ... ..	<b>113.00</b>	<b>1</b>	<b>113.00</b>	<b>107.63</b>	<b>107.63</b>	<b>1</b>	<b>107.63</b>
Total ... ..			<b>508.50</b>				<b>439.32</b>

Mean actual sheer aft =  
Mean standard sheer aft =

Mean actual sheer forward =  
Mean standard sheer forward =

SHEERS DEFICIENT.

Length of enclosed superstructure forward of amidships =  
" " aft of " =

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{69.18}{18} \times .75 = +2.88$   
 If limited on account of midship superstructure. If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100 ft. **✓**

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> Depth to Freeboard Deck = <b>36.30</b> Summer freeboard = <b>10.62</b> Moulded draught (d) = <b>25.68</b> Keel allowance = Extreme draught = Deduction for Tropical freeboard and addition for = Winter freeboard = $\frac{d}{4}$ inches = <b>6.42 = 6 1/2</b> Addition for Winter North Atlantic Freeboard (if required) = <b>✓</b>	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta =$ Tons per inch immersion at summer load water line $T =$ Deduction = $\frac{\Delta}{40 T}$ inches = <b>7 1/2"</b>	<b>TABULAR FREEBOARD corrected for Flush Deck (if required)</b> Correction for coefficient $\frac{.809 + .68}{1.36} = \frac{1.489}{1.36}$ <table style="width: 100%;"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction ... ..</td> <td><b>15.90</b></td> <td></td> </tr> <tr> <td>Deduction for superstructures ... ..</td> <td></td> <td></td> </tr> <tr> <td>Sheer correction ... ..</td> <td><b>2.88</b></td> <td></td> </tr> <tr> <td>Round of Beam correction ... ..</td> <td><b>.60</b></td> <td></td> </tr> <tr> <td>Correction for Thickness of Deck amidships ... ..</td> <td></td> <td></td> </tr> <tr> <td>Other corrections, scantlings, etc. ... ..</td> <td></td> <td></td> </tr> <tr> <td></td> <td><b>19.38</b></td> <td><b>+ 19.38</b></td> </tr> </table> Summer Freeboard = <b>127.48</b>		+	-	Depth Correction ... ..	<b>15.90</b>		Deduction for superstructures ... ..			Sheer correction ... ..	<b>2.88</b>		Round of Beam correction ... ..	<b>.60</b>		Correction for Thickness of Deck amidships ... ..			Other corrections, scantlings, etc. ... ..				<b>19.38</b>	<b>+ 19.38</b>
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Water~~ Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc ... <b>14"</b> Fresh Water Line " " ... <b>7 1/2"</b> Tropical Line " " ... <b>6 1/2"</b> Winter Line below " " ... <b>6 1/2"</b> Winter North Atlantic Line " " ... <b>11 1/4"</b>	Tropical Fresh Water Freeboard ... <b>9' - 9 3/4"</b> Fresh Water " " ... <b>9' - 2 1/4"</b> Tropical " " ... <b>9' - 3 1/4"</b> Winter " " ... <b>10' - 4 1/4"</b> Winter North Atlantic " " ... <b>10' - 9"</b>
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A.B.  
FREEBOARDS  
RE-ASSIGNED.  
30.12.1952.