

AMENDED

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(For London Office only.)

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

|  |                      |  |                       |                            |  |
|--|----------------------|--|-----------------------|----------------------------|--|
| Ship's Name<br><b>LUXOR<br/>NEGBAH</b>   | Official Number<br>✓ | Nationality and Port of Registry<br><b>ISRAELI<br/>HAIFA</b> | Gross Tonnage<br>5544 | Date of Build<br>1915<br>9 | Port of Survey <i>Amsterdam</i>              |
| Moulded Dimensions: Length <i>380'-0"</i> Breadth <i>48'-6"</i> Depth <i>35'-3"</i>        |                      |  |                       |                            | Surveyor's Signature _____                   |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth <i>12,000</i> tons |                      |  |                       |                            | Particulars of Classification <i>+100 A1</i> |
| Coefficient of fineness for use with Tables <i>.761</i>                                    |                      |  |                       |                            | <i>Running Deck with freeboard</i>           |

| DEPTH FOR FREEBOARD (D).  | DEPTH CORRECTION.   | ROUND OF BEAM CORRECTION.  |
|---|---|--|
| Moulded depth ... .. <i>35.25</i>                               | (a) Where D is greater than Table depth<br>(D-Table depth) R =<br><i>(35.29 - 25.33) 2.923 = +29.11</i> | Moulded Breadth (B) <i>48.5</i>  |
| Stringer plate ... .. <i>.04</i>                                | (b) Where D is less than Table depth (if allowed)<br>(Table depth-D) R =                                | Standard Round of Beam = $\frac{B \times 12}{50} = 11.64$  |
| Sheathing on exposed deck<br>$T \left( \frac{L-S}{L} \right) =$ | If restricted by superstructures  | Ship's Round of Beam = <i>9.00</i>   |
| Depth for Freeboard (D) = <i>35.29</i>                          |   | Difference <i>2.64</i>   |
|   |   | Restricted to  |
|   |   | Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{2.64}{4} \times .8868 = +0.59$ |

## 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>43.0</i>             | <i>43.0</i>                                  | <i>3.0</i> | <i>3.0/7.3</i>    | <i>17.67</i>         |
| " overhang ... ..          |                         |  |            |                   |                      |
| Trunk aft ... ..           |                         |  |            |                   |                      |
| " forward ... ..           |                         |  |            |                   |                      |
| Tonnage opening aft ... .. |                         |  |            |                   |                      |
| " " forward ... ..         |                         |  |            |                   |                      |
| Total ... ..               | <i>43.0</i>             | <i>43.0</i>                                  |            |                   | <i>17.67</i>         |

|  |
|--|
| Standard Height of Superstructure <i>7.30</i>        |
| " " R.Q.D. _____                                     |
| Deduction for complete superstructure <i>40.67</i>   |
| Percentage covered $\frac{S}{L} =$                   |
| " " $\frac{S_1}{L} =$ <i>11.32</i>                   |
| " " $\frac{E}{L} =$ <i>4.65</i>                      |
| Percentage from Table, Line A. <i>2.325</i>          |
| (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 = <i>40.67 × .02325 = -0.95</i>            |

## SHEER CORRECTION.

| Station                          | Standard Ordinate | S M | Product       | Actual Ordinate | Effective Ordinate | S M | Product      |
|----------------------------------|-------------------|-----|---------------|-----------------|--------------------|-----|--------------|
| A.P. ... ..                      | <i>48.00</i>      | 1   | <i>48.00</i>  | <i>40.00</i>    | <i>40.00</i>       | 1   | <i>40.0</i>  |
| $\frac{1}{4}$ L from A.P. ... .. | <i>21.36</i>      | 4   | <i>85.44</i>  | <i>17.00</i>    | <i>17.00</i>       | 4   | <i>68.0</i>  |
| $\frac{3}{8}$ L " ... ..         | <i>5.28</i>       | 2   | <i>10.56</i>  | <i>3.00</i>     | <i>3.00</i>        | 2   | <i>6.0</i>   |
| Amidships ... ..                 | -                 | 4   | -             | -               | -                  | 4   | -            |
| $\frac{3}{8}$ L from F.P. ... .. | <i>10.56</i>      | 2   | <i>21.12</i>  | <i>10.50</i>    | <i>10.50</i>       | 2   | <i>21.0</i>  |
| $\frac{1}{4}$ L " ... ..         | <i>42.72</i>      | 4   | <i>170.88</i> | <i>37.50</i>    | <i>37.50</i>       | 4   | <i>150.0</i> |
| F.P. ... ..                      | <i>96.00</i>      | 1   | <i>96.00</i>  | <i>90.00</i>    | <i>90.00</i>       | 1   | <i>90.0</i>  |
| Total ... ..                     |                   |     | <i>432.00</i> |                 |                    |     | <i>375.0</i> |

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{57}{18} (.75 - .0566) = +2.20$

If limited on account of midship superstructure. ✓

Mean actual sheer aft =  
Mean standard sheer aft = } *Deficient*

Mean actual sheer forward =  
Mean standard sheer forward = }

Length of enclosed superstructure forward of amidships =  
L

" " aft of " = } *nil*

|  |   |  |
|--|---|--|
| Deduction for Tropical Freeboard.                                    | Deduction for Fresh Water.  | TABULAR FREEBOARD corrected for Flush Deck (if required) <i>68.45</i>                          |
| Addition for Winter and Winter North Atlantic Freeboard.             | Displacement in salt water at summer load water line<br>$\Delta = 9760$ | Correction for coefficient $\frac{.761 + .68}{1.36} = \frac{1.441}{1.36}$                      |
| Depth to Freeboard Deck = <i>35.29</i>                               | Tons per inch immersion at summer load water line<br>$T = 36.7$         | Depth Correction ... .. <i>29.11</i>   |
| Summer freeboard = <i>10.54</i>                                      | Deduction = $\frac{\Delta}{40 T}$ inches<br>$= 6.65$                    | Deduction for superstructures ... .. <i>0.95</i>   |
| Moulded draught (d) = <i>24.75</i>                                   | $= 6.3\frac{1}{4}$  | Sheer correction ... .. <i>2.20</i>  |
| Deduction for Tropical freeboard and addition for                    |   | Round of Beam correction ... .. <i>0.59</i>  |
| Winter freeboard = $\frac{d}{4}$ inches = <i>6.19 = 6\frac{1}{4}</i> |   | Correction for Thickness of Deck amidships ... .. <i>23.02</i>                                 |
| Addition for Winter North Atlantic Freeboard (if required) =         |   | Other corrections, scantlings, etc. <i>to correspond to a summer moulded draught of 24'-9"</i> |
|  |   | Summer Freeboard = <i>126.50</i>   |

## SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

|  |   |
|--|---|
| Tropical Fresh Water Line above Centre of Disc ... .. <i>330 mms</i> | Tropical Fresh Water Freeboard ... .. <i>2883</i> |
| Fresh Water Line " " ... .. <i>171</i>                               | Fresh Water " " ... .. <i>3042</i>                |
| Tropical Line " " ... .. <i>159</i>                                  | Tropical " " ... .. <i>3054</i>                   |
| Winter Line below " " ... .. <i>159</i>                              | Winter " " ... .. <i>3372</i>                     |
| Winter North Atlantic Line " " ... .. ✓                              | Winter North Atlantic " " ... .. ✓                |