

t. C. 11 (Comp.).

Index. No. 33780
(For London Office only).

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

| | | | | | |
|--|----------------------------------|---|------------------------------|---------------------------------------|---|
| Ship's Name "SILVERWALNUT" | Official Number 161435 | Nationality and Port of Registry British London | Gross Tonnage 6770 | Date of Build 1930 Ymo. | Port of Survey |
| Moulded Dimensions: Length 455.0' Breadth 61.75' Depth 40.04' | | | | | Date of Survey 4th April 1941 |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth | | | | | Surveyor's Signature |
| Coefficient of fineness for use with Tables .74 assumed | | | | | Particulars of Classification |

| | | |
|--|---|---|
| <p>Depth for Freeboard (D).</p> <p>Moulded depth 40.04</p> <p>Stringer plate06</p> <p>Sheathing on exposed deck -</p> <p>$T \left(\frac{L-S}{L} \right) =$</p> <p>Depth for Freeboard (D) = 40.10</p> | <p>Depth correction.</p> <p>(a) Where D is greater than Table depth (D-Table depth) R = (40.10 - 30.33)3 = +29.31</p> <p>9.77</p> <p>(b) Where D is less than Table depth (if allowed) (Table depth-D) R = -</p> <p>If restricted by superstructures -</p> | <p>Round of Beam correction.</p> <p>Moulded Breadth (B) 61.75</p> <p>Standard Round of Beam = $\frac{B \times 12}{50} =$ 14.82</p> <p>Ship's Round of Beam = 15.50</p> <p>Difference .68</p> <p>Restricted to</p> <p>Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.68}{4} \times .8948 =$ -.15</p> |
|--|---|---|

DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S _i) | Height | Height Correction | Effective Length (E) |
|---------------------|-------------------------------|--|--------|----------------------|-------------------------|
| Poop enclosed ... | | | | | |
| „ overhang ... | | | | | |
| R.Q.D. enclosed | | | | | |
| „ overhang | | | | | |
| Bridge enclosed... | | | | | |
| „ overhang aft | | | | | |
| „ overhang forward | | | | | |
| File enclosed ... | 44.87 | 47.87 | 7.5 | - | 44.87 |
| „ overhang ... | | | | | |
| „ trunk aft | | | | | |
| „ forward | | | | | |
| Tonnage opening aft | | | | | |
| „ „ forward | | | | | |
| Total ... | 47.87 | 47.87 | | | 47.87 |

Standard Height of Superstructure..... 7.5

" " R.Q.D. -

Deduction for complete superstructure..... 42"

Percentage covered $\frac{S}{L} = 10.52$

" " $\frac{S_1}{L} = 10.52$

" " $\frac{E}{L} = 10.52$

Percentage from Table, Line A..... 5.26

(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 = $42" \times .0526 = - 2.21"$

SHEER CORRECTION.

| Station | Standard Ordinate | S M | Product | Actual Ordinate | Effective Ordinate | S M | Product |
|-------------------------------|-------------------|-----|---------|-----------------|--------------------|-----|---------|
| A.P. ... | 55.50 | 1 | 55.50 | 62.75 | 62.75 | 1 | 62.75 |
| $\frac{1}{2}$ L from A.P. ... | 24.70 | 4 | 98.80 | 28.00 | 28.00 | 4 | 112.00 |
| $\frac{3}{8}$ L " ... | 6.10 | 2 | 12.20 | 7.00 | 7.00 | 2 | 14.00 |
| Amidships ... | - | 4 | - | - | - | 4 | |
| $\frac{3}{8}$ L from F.P. ... | 12.20 | 2 | 24.40 | 12.00 | 12.00 | 2 | 24.00 |
| $\frac{1}{8}$ L " ... | 49.40 | 4 | 197.60 | 50.00 | 50.00 | 4 | 200.00 |
| F.P. ... | 111.00 | 1 | 111.00 | 113.50 | 113.50 | 1 | 113.50 |
| Total ... | | | 499.50 | | | | 526.25 |

$$\frac{\text{Mean actual sheer aft}}{\text{Mean standard sheer aft}}$$

| | |
|-----------------------------|-----|
| Mean actual shear forward | 1.0 |
| Mean standard shear forward | 1.0 |

Length of enclosed superstructure forward of amidships = } *nil*
 " " aft of " = }

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{26.75}{18} (.75 - .0526) = 1.04$
 If limited on account of midship superstructure. *Yes.* If limited to n
No allowance

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. —

| <p>Deduction for Tropical Freeboard.</p> <p>Addition for Winter and Winter North Atlantic Freeboard.</p> <p>Depth to Freeboard Deck = <u>Ft. 10</u> <u>40.68</u></p> <p>Summer freeboard = <u>12.54</u></p> <p>Moulded draught (d) = <u>27.56</u> ✓</p> <p>Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>6.89 = 7"</u></p> <p>Addition for Winter North Atlantic Freeboard (if required) = <u>—</u></p> | <p>Deduction for Fresh Water.</p> <p>Displacement in salt water at summer load water line</p> <p>$\Delta =$ <u>15570</u></p> <p>Tons per inch immersion at summer load water line</p> <p>$T =$ <u>56.5</u></p> <p>Deduction = $\frac{\Delta}{40T}$ inches</p> <p>= <u>6.88</u></p> <p>= <u>7"</u></p> | <p>TABULAR FREEBOARD corrected for Flush Deck (if required)</p> <p>Correction for coefficient $\frac{.74 + .68}{1.36} = \frac{1.42}{1.36}$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th></th> <th>+</th> <th>—</th> </tr> <tr> <td>Depth Correction</td> <td>29.31</td> <td>—</td> </tr> <tr> <td>Deduction for superstructures</td> <td>—</td> <td>2.21</td> </tr> <tr> <td>Sheer correction</td> <td>—</td> <td>—</td> </tr> <tr> <td>Round of Beam correction</td> <td>—</td> <td>.15</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>To a summer moulded draught of</td> <td>60.30</td> <td>2.36</td> </tr> <tr> <td>27-6$\frac{3}{4}$</td> <td>+ 54.94</td> <td></td> </tr> <tr> <td></td> <td>Summer Freeboard = 150.50</td> <td></td> </tr> </table> | | + | — | Depth Correction | 29.31 | — | Deduction for superstructures | — | 2.21 | Sheer correction | — | — | Round of Beam correction | — | .15 | Correction for Thickness of Deck amidships | — | — | Other corrections, scantlings, etc. | — | — | To a summer moulded draught of | 60.30 | 2.36 | 27-6$\frac{3}{4}$ | + 54.94 | | | Summer Freeboard = 150.50 | |
|---|--|--|--|---|---|-------------------------|-------|---|--------------------------------------|---|------|-------------------------|---|---|---------------------------------|---|-----|---|---|---|--|---|---|---------------------------------------|--------------|-------------|-------------------------------------|----------------|--|--|----------------------------------|--|
| | + | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Depth Correction | 29.31 | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Deduction for superstructures | — | 2.21 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sheer correction | — | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Round of Beam correction | — | .15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Correction for Thickness of Deck amidships | — | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Other corrections, scantlings, etc. | — | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| To a summer moulded draught of | 60.30 | 2.36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27-6$\frac{3}{4}$ | + 54.94 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Summer Freeboard = 150.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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

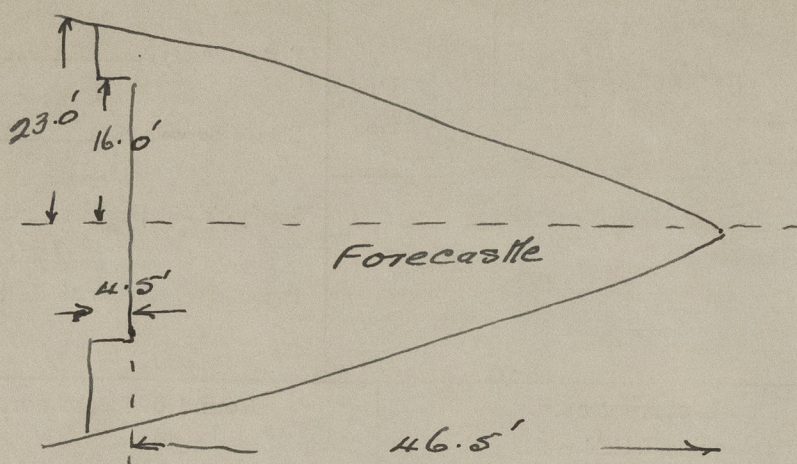
| | | | | | | | |
|--|-------|-----|--------|--------------------------------|-----|-----|-------------|
| Tropical Fresh Water Line above Centre of Disc | ... | ... | 14 1/4 | Tropical Fresh Water Ereeboard | ... | ... | 11 - 14 1/4 |
| Fresh Water Line | " | " | ... | Fresh Water | " | " | 11 - 11 1/4 |
| Tropical Line | " | " | ... | Tropical | " | " | 11 - 11 1/2 |
| Winter Line | below | " | ... | Winter | " | " | 13 - 14 1/2 |
| Winter North Atlantic Line | " | " | ... | Winter North Atlantic | " | " | ... |

10m 3.37. T.

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RECEIVED 5/12/61

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.



$$\frac{4.5 \times 16.0}{23.0} = 3.13$$

$$51.0 - 3.13 = 47.87' \text{ Equivalent L}$$

Trade of ship.....

Names of sister ships.....

Builder's name and yard number.....

Owners.....

Fee £.....



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