

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Gr. R. Rpt. No. 22446.

| | | | | | |
|---|----------------------------------|---|--|-------------------------------|---|
| Ship's Name "CLAN URQUHART" | Official Number 169404 | Nationality and Port of Registry British Glasgow. | Gross Tonnage 9726 9800. | Date of Build 1943. | Port of Survey Greenock |
| Moulded Dimensions: Length 472.8 Breadth 65.5 Depth 40.79 96.6WL. to centre of stock. | | | | | Date of Survey Whole Building |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth 21215 tons | | | | | Surveyor's Signature N. R. Swinton. |
| Coefficient of fineness for use with Tables .691 | | | | | Particulars of Classification 100A1. WITH FREEBOARD, CORR. TO A SUMMER DRAUGHT OF 29'-1" MOULDED. (CONTEMPLATED.) |

| | | |
|--|---|--|
| Depth for Freeboard (D). Moulded depth ... 40.79 Stringer plate .7606 Sheathing on exposed deck <input checked="" type="checkbox"/> $T \left(\frac{L-S}{L} \right) =$ <input checked="" type="checkbox"/> Depth for Freeboard (D) = 40.85 | Depth correction. (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(40.85 - 31.52) \times 3 = +27.99$ 9.33 (b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$ <input checked="" type="checkbox"/> If restricted by superstructures | Round of Beam correction. Moulded Breadth (B) 65.5 Standard Round of Beam $= \frac{B \times 12}{50} =$ 15.72 Ship's Round of Beam $15 \frac{3}{4} =$ 15.75 Difference .03 Restricted to <input checked="" type="checkbox"/> Correction $= \frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) =$ $\frac{.03 \times 3733}{4} =$.03 |
|--|---|--|

DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) |
|---------------------------------|-------------------------|--|-------------|-------------------|----------------------|
| Poop enclosed <i>Equival.</i> | 29.38 | 29.38 | 8.0" | - | 29.38 |
| „ overhang ... | .74 | .74 | | | .74 |
| R.Q.D. enclosed | | | | | |
| „ overhang | 80.33 | 80.33 | 8.0" | - | 80.33 |
| Bridge enclosed <i>Equival.</i> | 66.00 | 66.00 | 8.0" | - | 66.00 |
| „ overhang aft ... | .78 | .78 | | | .78 |
| „ overhang forward | .54 | .54 | | | .54 |
| F'cle enclosed ... | 66.00 | 66.00 | 8.0" | - | 66.00 |
| „ overhang ... | .78 | .78 | | | .78 |
| Trunk aft <i>Equival.</i> | 24.00 | 24.00 | 8.6" | - | 24.00 |
| „ forward | 28.00 | 28.00 | | | |
| Tonnage opening aft ... | | | | | |
| „ forward | 203. | 203. | | | |
| Total ... | 137.33 | 201.77 | | | 201.77 |

Standard Height of Superstructure **7.5**
 „ „ R.Q.D. **-**
 Deduction for complete superstructure **42**
 Percentage covered $\frac{S}{L} =$ **43.01**
 $\frac{S_1}{L} =$ **42.67**
 Percentage from Table, Line A. ☒
 (corrected for absence of forecastle (if required))
 Percentage from Table, Line B. **29.77**
 (corrected for absence of forecastle (if required))
 Interpolation for bridge less than .2L (if required) ☒
 Deduction = **42 × 29.77 = -12.50**

SHEER CORRECTION.

| Station | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product |
|-------------------------------|-------------------|----------|---------------|---------------|-----------------|--------------------|----------|--------------|--------------|
| A.P. ... | 57.28 | 1 | 57.28 | 57.28 | 62.8 | 62.8 | 1 | 62.8 | 62.8 |
| $\frac{1}{2}$ L from A.P. ... | 25.49 | 4 | 101.96 | 101.96 | 25.9 | 25.9 | 4 | 103.6 | 103.6 |
| $\frac{3}{8}$ L „ ... | 6.30 | 2 | 12.60 | 12.60 | 6.6 | 6.6 | 2 | 13.2 | 13.2 |
| Amidships ... | - | 4 | - | - | - | - | 4 | - | - |
| $\frac{3}{8}$ L from F.P. ... | 12.60 | 2 | 25.20 | 25.20 | 13.15 | 13.15 | 2 | 26.3 | 26.3 |
| $\frac{1}{2}$ L „ ... | 50.98 | 4 | 203.92 | 203.92 | 52.7 | 52.7 | 4 | 210.8 | 210.8 |
| F.P. ... | 114.56 | 1 | 114.56 | 114.56 | 120.0 | 120.0 | 1 | 120.0 | 120.0 |
| Total ... | | | 515.52 | 515.52 | | | | 536.7 | 536.7 |

Mean actual sheer aft = **62.8**
 Mean standard sheer aft = **62.8**
 Mean actual sheer forward = **25.9**
 Mean standard sheer forward = **25.9**
 Length of enclosed superstructure forward of amidships = **.05**
 „ „ aft of „ = **.1**
 Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{21.18}{18} \left(\frac{.75 - \frac{21.50}{536.7}}{2} \right) = -.63$
 If limited on account of midship superstructure. $\frac{1}{2} \times .63 = -.47$
 If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. ☒

| Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 40.85 Summer freeboard = 11.77 Moulded draught (d) = 29.08 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 7.27 = 7 1/4 Addition for Winter North Atlantic Freeboard (if required) = <input checked="" type="checkbox"/> | Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ 29.0 Tons per inch immersion at summer load water line $T =$ 59.0 Deduction = $\frac{\Delta}{40 T}$ inches = 7.39 $\frac{174.75}{40 \times 59.0} = 7.39$ $= 7 \frac{1}{2}$ | TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.691 + .68}{1.36} = \frac{1.371}{1.36}$ <table border="1"> <thead> <tr> <th></th> <th>+</th> <th>-</th> </tr> </thead> <tbody> <tr> <td>Depth Correction ...</td> <td>27.99</td> <td>-</td> </tr> <tr> <td>Deduction for superstructures ...</td> <td>-</td> <td>12.50</td> </tr> <tr> <td>Sheer correction ...</td> <td>-</td> <td>.47</td> </tr> <tr> <td>Round of Beam correction ...</td> <td>-</td> <td>-</td> </tr> <tr> <td>Correction for Thickness of Deck amidships ...</td> <td>-</td> <td>-</td> </tr> <tr> <td>Other corrections, scantlings, etc. <i>to summer moulded draught of 29'-1"</i></td> <td>31.33</td> <td>-</td> </tr> <tr> <td></td> <td>59.32</td> <td>12.97</td> </tr> </tbody> </table> Summer Freeboard = 141.25 | | + | - | Depth Correction ... | 27.99 | - | Deduction for superstructures ... | - | 12.50 | Sheer correction ... | - | .47 | Round of Beam correction ... | - | - | Correction for Thickness of Deck amidships ... | - | - | Other corrections, scantlings, etc. <i>to summer moulded draught of 29'-1"</i> | 31.33 | - | | 59.32 | 12.97 |
|---|--|---|--|---|---|----------------------|--------------|----------|-----------------------------------|----------|--------------|----------------------|----------|------------|------------------------------|----------|----------|--|----------|----------|--|--------------|----------|--|--------------|--------------|
| | + | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Depth Correction ... | 27.99 | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Deduction for superstructures ... | - | 12.50 | | | | | | | | | | | | | | | | | | | | | | | | |
| Sheer correction ... | - | .47 | | | | | | | | | | | | | | | | | | | | | | | | |
| Round of Beam correction ... | - | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Correction for Thickness of Deck amidships ... | - | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Other corrections, scantlings, etc. <i>to summer moulded draught of 29'-1"</i> | 31.33 | - | | | | | | | | | | | | | | | | | | | | | | | | |
| | 59.32 | 12.97 | | | | | | | | | | | | | | | | | | | | | | | | |

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

| | | | |
|--|---------------|------------------------------------|-------------------|
| Tropical Fresh Water Line above Centre of Disc ... | 14 3/4 | Tropical Fresh Water Freeboard ... | 11'-9 1/4" |
| Fresh Water Line „ „ ... | 7 1/2 | Fresh Water „ „ ... | 10'-6 1/2" |
| Tropical Line „ „ ... | 7 1/4 | Tropical „ „ ... | 11'-1 3/4" |
| Winter Line below „ „ ... | 7 1/4 | Winter „ „ ... | 11'-2" |
| Winter North Atlantic Line „ „ ... | 7 1/4 | Winter North Atlantic „ „ ... | 12'-4 1/2" |

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.

Trade of ship *International*

Names of sister ships *1*

Builder's name and yard number *The Greenock Dockyard Co. Ltd., W. 654.*

Owners *Alan Line Steamers, Ltd.*

Fee £ *20.*

ESTIMATED.



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Foundation