

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

38784
Index. No. FDD 2259
(For London Office only).

| | | | | | |
|--|----------------------------------|---|------------------------------|------------------------------|--|
| Ship's Name EMPIRE CEDRIC | Official Number 181506 | Nationality and Port of Registry British London | Gross Tonnage 4291 | Date of Build 1945 | Port of Survey London |
| Moulded Dimensions: Length 323.25 Breadth 54.0 Depth 27.0 | | | | | Date of Survey 28th October 1946 |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth | | | | | Surveyor's Signature C. Lloyd Roberts |
| Coefficient of fineness for use with Tables .91 (assumed) | | | | | Particulars of Classification +A- With full strength - 1st Service 4 ft + 6 in (excluding the last board of the deck) also 1/2 in in the keel & 1/2 in in the bottom |

| Depth for Freeboard (D). | Depth correction. | Round of Beam correction. |
|--|--|---|
| Moulded depth 27.00 | (a) Where D is greater than Table depth (D - Table depth) R = (27.03 - 21.55) 2.486 = +13.62" | Moulded Breadth (B) 54.00 |
| Stringer plate03 | (b) Where D is less than Table depth (if allowed) (Table depth - D) R = 5.48 | Standard Round of Beam = $\frac{B \times 12}{50} =$ 12.96 |
| Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ - | If restricted by superstructures - | Ship's Round of Beam = Nil |
| Depth for Freeboard (D) = 27.03 | | Difference -12.96 |
| | | Restricted to |
| | | Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{12.96^2}{4} \times 1 = +13.24"$ |

DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) |
|----------------------------|-------------------------|--|--------|-------------------|----------------------|
| Poop enclosed | | | | | |
| " overhang | | | | | |
| R.Q.D. enclosed | | | | | |
| " overhang | | | | | |
| Bridge enclosed | | | | | |
| " overhang aft | | | | | |
| " overhang forward | | | | | |
| Fore enclosed | | | | | |
| " overhang | | | | | |
| Trunk aft | | | | | |
| " forward | | | | | |
| Tonnage opening aft | | | | | |
| " " forward | | | | | |
| Total | | | | | |

Flush Deck

Standard Height of Superstructure

" " R.Q.D.

Deduction for complete superstructure

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

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

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

Percentage from Table, Line A.
(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 = **Nil**

SHEER CORRECTION.

| Station | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product |
|------------------------|-------------------|---|---|---------------|-----------------|--------------------|---|---|---------------|
| A.P. | 42.325 | 1 | | 42.32 | 27.32 | 27.32 | 1 | | 27.32 |
| 1/4 L from A.P. | 18.835 | 4 | | 75.34 | 13.25 | 13.25 | 4 | | 53.00 |
| 1/2 L " | 4.655 | 2 | | 9.31 | - | - | 2 | | - |
| Amidships | - | 4 | | - | - | - | 4 | | - |
| 3/4 L from F.P. | 9.31 | 2 | | 18.62 | - | - | 2 | | - |
| 1/4 L " | 37.67 | 4 | | 150.68 | - | - | 4 | | - |
| F.P. | 84.65 | 1 | | 84.65 | 35.40 | 35.40 | 1 | | 35.40 |
| Total | | | | 380.92 | | | | | 115.72 |

Mean actual sheer aft = **27.32**
Mean standard sheer aft = **27.32**

Mean actual sheer forward = **13.25**
Mean standard sheer forward = **13.25**

Length of enclosed superstructure forward of amidships = **115.72**
" " aft of " = **115.72**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{165.20}{18} \times 75 = +11.05"$
If limited on account of midship superstructure. **-**

If limited to maximum allowance of 1 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 = 27.03</p> <p>Summer freeboard = 15.02</p> <p>Moulded draught (d) = 12.01</p> <p>Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 3.00</p> <p>Addition for Winter North Atlantic Freeboard (if required) = Limited Service</p> | <p>Deduction for Fresh Water.</p> <p>Displacement in salt water at summer load water line $\Delta =$ at 12' = 4800</p> <p>Tons per inch immersion at summer load water line $T =$ at 11' = 4350</p> <p>Deduction = $\frac{\Delta}{40T}$ inches d = 3.20</p> | <p>TABULAR FREEBOARD corrected for Flush Deck (if required)</p> <p>Correction for coefficient $\frac{49.25 + 4.85}{1.36} = 1.59/1.36$</p> <p>Depth Correction 13.62</p> <p>Deduction for superstructures 11.04</p> <p>Sheer correction 3.24</p> <p>Round of Beam correction 89.09</p> <p>Correction for Thickness of Deck amidships 117.00</p> <p>Other corrections, scantlings, etc. to a further moulded draught of 12'-0" (12'-0 1/8" actual)</p> <p>Summer Freeboard = 180.25</p> |
|--|--|---|

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

| | |
|---|---|
| <p>Tropical Fresh Water Line above Centre of Disc Not assigned</p> <p>Fresh Water Line " Not assigned</p> <p>Tropical Line " Not assigned</p> <p>Winter Line below " Not assigned</p> <p>Winter North Atlantic Line " Not assigned</p> | <p>Tropical Fresh Water Freeboard 15'-10 1/4"</p> <p>Fresh Water " 14'-9 1/4"</p> <p>Tropical " Not assigned</p> <p>Winter " 15'-3 1/4"</p> <p>Winter North Atlantic " Not assigned</p> |
|---|---|

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.

SHIPPING REGISTER OF LLOYD'S REGISTER OF SHIPPERS SURVEYOR'S FOR FREEBOARD (COMPLIATION FOR STEAMER RATING SURVEYOR)

| | | | | | | | | |
|-------------------------------------|--|--|------------------------------------|--------------------------------|-------------------------------|----------------------------------|-------------------------------------|--|
| Ship's name <i>Empire Baltic</i> | Builder's name <i>Wm. D. & J. R. Ltd.</i> | Builder's address <i>10, Abchurch Lane, London E.C. 4</i> | Builder's telephone <i>27-0</i> | Builder's telex <i>27-0</i> | Builder's fax <i>27-0</i> | Builder's email <i>27-0</i> | Builder's website <i>27-0</i> | Builder's other contact details <i>27-0</i> |
| Ship's number <i>121206</i> | Builder's number <i>121206</i> | Builder's date <i>1942</i> | Builder's month <i>12</i> | Builder's day <i>1942</i> | Builder's year <i>1942</i> | Builder's century <i>1942</i> | Builder's millennium <i>1942</i> | Builder's epoch <i>1942</i> |

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|---------------------------------------|---|--|--|----------------------|
| Trade of ship <i>Empire Baltic</i> | Names of sister ships <i>Empire Baltic</i> | Builder's name and yard number <i>Wm. D. & J. R. Ltd.</i> | Owners <i>Wm. D. & J. R. Ltd.</i> | Fee £ <i>27-0</i> |
|---------------------------------------|---|--|--|----------------------|