

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

| | | | | | |
|---|----------------------------------|--|---|---|--|
| Ship's Name "EMPIRE SCOUT." (EX "EILBEK.") | Official Number 167395 | Nationality and Port of Registry BRITISH. LONDON | Gross Tonnage 2219 2225 B.T. 1.1.41 | Date of Build 1936. (5M.) | Port of Survey GLASGOW |
| Moulded Dimensions: Length 282'0" Breadth 44'0" Depth 19'0" TO UPPER DECK 23'2" TO RAISED QUARTER DECK | | | | | Date of Survey 25/1/40, + 26/1/40, + 30/1/40. |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth 4310 tons | | | | | Surveyor's Signature Geo. Cockburn |
| Coefficient of fineness for use with Tables .753 ✓ | | | | | Particulars of Classification +100A1. |

| | | |
|---|---|--|
| Depth for Freeboard (D). | Depth correction. | Round of Beam correction. |
| Moulded depth ... 19'0" | (a) Where D is greater than Table depth (D - Table depth) R = (19.06 - 18.80) × 2.170 = + .56 ✓ | Moulded Breadth (B) 44'0" ✓ |
| Stinger plate06 ✓ | (b) Where D is less than Table depth (if allowed) (Table depth - D) R = .26 ✓ | Standard Round of Beam = $\frac{B \times 12}{50} =$ 10.56 ✓ |
| Sheathing on exposed deck T $\left(\frac{L-S}{L}\right) =$ NIL. | If restricted by superstructures - ✓ | Ship's Round of Beam = 10.5 ✓ |
| Depth for Freeboard (D) = 19.06 | | Difference .06 ✓ |
| | | Restricted to - |
| | | Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right) =$ $\frac{.06}{4} \times 1.382 = .021$ ✓ |

DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) | |
|-------------------------|-------------------------|--|--------------|---|----------------------|--|
| Poop enclosed ... | 14.0 | 14.75 | 8.0' | - | 14.75 | Standard Height of Superstructure 6.32' ✓ |
| " overhang ... | .25 | .12 | - | - | .12 | " " R.Q.D. 4.427' ✓ |
| R.Q.D. enclosed ... | 80.5 | 80.41 | 4.167 | × $\frac{4.167}{4.427}$ | 75.69 | Deduction for complete superstructure 34.13 ✓ |
| " overhang ... | .22 | .13 | - | - | .13 | Percentage covered $\frac{S}{L} =$ 91.10 ✓ |
| Bridge enclosed ... | 26.0 | 26.00 | 8.0' | - | 26.00 | " " $\frac{S_1}{L} =$ 86.18 ✓ |
| " overhang aft ... | .25 | .19 | - | - | .19 | " " $\frac{E}{L} =$ 84.52 ✓ |
| " overhang forward ... | .25 | .12 | - | - | .12 | Percentage from Table, Line A. 80.90 ✓ |
| F'cle enclosed ... | 32.98 | 32.98 | 8.0' | - | 32.98 | (corrected for absence of forecastle (if required)) |
| " overhang ... | .25 | .11 | - | - | .11 | Percentage from Table, Line B. - ✓ |
| Trunk aft ... | 92.5 | - | 3.0 | - | - | (corrected for absence of forecastle (if required)) |
| " forward ... | - | - | - | - | - | Interpolation for bridge less than 2L (if required) - |
| Tonnage opening aft ... | - | - | - | - | - | Deduction = 34.13 × 80.9 = -27.61 ✓ |
| " forward ... | - | - | - | - | - | |
| Total ... | 256.91 | 243.08 | - | - | 238.36 | |

SHEER CORRECTION.

| Station | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product |
|---------------------|-------------------|---|---|---------|-----------------|--------------------|---|---|---------|
| A.P. ... | 38.20 | 1 | | 38.20 | 36" | 36 | 1 | | 36.0 |
| 1/4 L from A.P. ... | 17.00 | 4 | | 68.00 | 16" | 16 | 4 | | 64.0 |
| 1/2 L " ... | 4.20 | 2 | | 8.40 | 4" | 4 | 2 | | 8.0 |
| Amidships ... | - | 4 | | - | 0 | - | 4 | | - |
| 3/4 L from F.P. ... | 8.40 | 2 | | 16.80 | 10 3/4" | 10.75 | 2 | | 21.5 |
| 1/4 L " ... | 34.00 | 4 | | 136.00 | 42 3/4" | 42.75 | 4 | | 171.0 |
| F.P. ... | 76.40 | 1 | | 76.40 | 96" | 96 | 1 | | 96.0 |
| Total ... | | | | 343.80 | | | | | 396.5 |

Mean actual sheer aft = Definit (24.38 standard) ✓

Mean standard sheer aft

Mean actual sheer forward = Even ✓

Mean standard sheer forward

Length of enclosed superstructure forward of amidships = .285

Deduction for Tropical Freeboard.**Addition for Winter and Winter North Atlantic Freeboard.**

Depth to Freeboard Deck = **19.06** ✓
Summer freeboard = **1.10** ✓
Moulded draught (d) = **17.96** ✓

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **4.49** ✓

Addition for Winter North Atlantic Freeboard (if required) = **6 1/2** ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line **4834** ✓
 $\Delta =$ **4860 Tons.**
Tons per inch immersion at summer load water line **18.0** ✓
T = **25.35 Tons.**

Deduction = $\frac{\Delta}{40 T}$ inches
= **4.79** ✓
= **4 3/4** ✓

TABULAR FREEBOARD corrected for Flush Deck (if required).

Correction for coefficient **1.36** ✓

| | + | - |
|--|------------|--------------|
| Depth Correction ... | .56 | - |
| Deduction for superstructures ... | - | 27.61 |
| Sheer correction ... | - | .86 |
| Round of Beam correction ... | - | - |
| Correction for Thickness of Deck amidships ... | - | - |
| Other corrections, scantlings, etc. ... | - | - |
| | .56 | 28.47 |

Summer Freeboard = **13.35** ✓

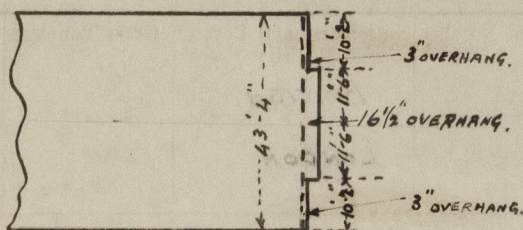
SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

| | | | |
|--|----------------|------------------------------------|------------------|
| Tropical Fresh Water Line above Centre of Disc ... | 9 1/4 ✓ | Tropical Fresh Water Freeboard ... | 0 1/4 ✓ |
| Fresh Water Line " " ... | 4 3/4 ✓ | Fresh Water " " ... | 0 8 1/2 ✓ |
| Tropical Line " " ... | 4 1/2 ✓ | Tropical " " ... | 0 8 3/4 ✓ |
| Winter Line below " " ... | 4 1/2 ✓ | Winter " " ... | 1 5 3/4 ✓ |
| Winter North Atlantic Line " " ... | 6 1/2 ✓ | Winter North Atlantic " " ... | 1 7 1/4 ✓ |

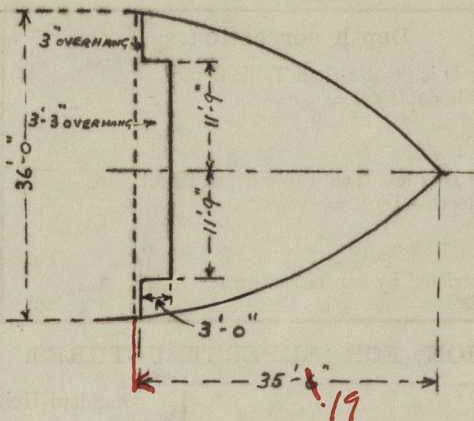
Empire Scout

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.

SKETCH SHEWING OVERHANG AT FORE END OF BRIDGE.



SKETCH OF FORECASTLE.



File. 35.19 ✓
 $- .25$ ✓
 $\hline 34.94$ ✓
 Run $\frac{3 \times 23.75}{36} = - 1.96$ ✓
 $\hline 32.98$ equivalent endow ✓

Combined length of after superstructures = 78.5% ✓

\therefore allow 90% of length of bridge having Class 2 ✓
 along appliances at forward end.

Trade of ship

Names of sister ships

"LASBEK", "SCHIFFBEK", "STEINBEK", (Same builders & as per Register Book.)

Builder's name and yard number

LÜBECKER MASCHINENBAU GESELLSCHAFT. YARD N° 347.

Owners

THE MINISTRY OF SHIPPING. LONDON.

Fee £



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Foundation