

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, ~~SAILING SHIP~~, ~~TANKER~~)

For LONDON OFFICE ONLY

Received

Index No.

Govt. Copy

Owners C11

| | | | | | |
|--|-----------------|---|------------------------------|--------------------------------|---|
| Ship's Name 'MARQUES DE URQUITO' | Official Number | Nationality and Port of Registry Spanish Bi/bao | Gross Tonnage 2567 | Date of Build 1894-1 | Port of Survey Bi/bao |
| Moulded Dimensions: Length 90.991 Breadth 12.149 Depth 7.675 <i>to Virtual Deck</i> | | | | | Date of Survey During reclassification |
| Freeboard Length | | | | | Surveyor's Signature |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) | | | | | Particulars of Classification +100A1 |
| Coefficient of fineness for use with Tables .88 | | | | | 'Port Awning Deck' "with freeboard" |

| | | |
|--|--|---|
| DEPTH FOR FREEBOARD (D). Moulded depth <i>to Virtual Deck</i> ... 7675 Stringer plate ... 13 Wood Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 7688 | DEPTH CORRECTION. (a) Where D is greater than Table depth $(D - \text{Table depth}) R = 8.33(7.688 - 6.066) = 22.98 = 310$ $\frac{1.622}{1.622}$ (b) Where D is less than Table depth (if allowed) (Table depth - D) R = If restricted by superstructures | ROUND OF BEAM CORRECTION. Moulded Breadth (B) 12149 Standard Round of Beam = $\frac{B \times 12}{50} = 243$ Ship's Round of Beam = 241 Difference 2 Restricted to Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{2}{4} \times 5016 = \text{NIL}$ |
|--|--|---|

DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) |
|-------------------------|-------------------------|--|--------|-------------------|----------------------|
| Poop enclosed ... | .110 | .110 | 2.133 | — | .110 |
| " overhang ... | | | | | |
| R.Q.D. enclosed ... | — | — | | | |
| " overhang ... | | | | | |
| Bridge enclosed ... | 36.600 | 36.600 | .940 | .940 | 17.383 |
| " overhang aft ... | | | | | |
| " overhang forward ... | | | | | |
| Fore enclosed ... | 8.641 | 8.641 | 1.981 | — | 8.641 |
| " overhang ... | | | | | |
| Trunk aft ... | | | | | |
| " forward ... | | | | | |
| Tonnage opening aft ... | | | | | |
| " " forward ... | | | | | |
| Total ... | 45.351 | 45.351 | | | 26.134 |

Standard Height of Superstructure **1979**

" " R.Q.D.

Deduction for complete superstructure **895**

Percentage covered $\frac{S}{L} =$ } **49.84**

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

" " $\frac{E}{L} = 28.72$

Percentage from Table, Line A.
(corrected for absence of forecastle (if required))

Percentage from Table, Line B. **18.19**
(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = **895 × 18.19 = 163**

SHEER CORRECTION.

| Station | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product |
|------------------------------|-------------------|---|------|---------|-----------------|--------------------|------|---|---------|
| A.P. ... | 1012 | 1 | 1012 | 940 | 940 | 1 | 940 | | |
| $\frac{1}{2}L$ from A.P. ... | 450 | 4 | 1800 | 387 | 387 | 4 | 1548 | | |
| $\frac{2}{3}L$ " ... | 111 | 2 | 222 | 54 | 54 | 2 | 108 | | |
| Amidships ... | 0 | 4 | 0 | 0 | 0 | 4 | 0 | | |
| $\frac{2}{3}L$ from F.P. ... | 223 | 2 | 446 | 254 | 254 | 2 | 508 | | |
| $\frac{1}{2}L$ " ... | 901 | 4 | 3604 | 845 | 845 | 4 | 3380 | | |
| F.P. ... | 2024 | 1 | 2024 | 1918 | 1918 | 1 | 1918 | | |
| Total ... | | | 9108 | | | | 8402 | | |

Mean actual sheer aft =

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

" " aft of " =

Less than height of R.Q.D.

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{706}{18} \left(\frac{.75 - .2492}{.5008} \right) = +20$

If limited on account of midship superstructure.

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

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **6494** *F.M.*

Summer freeboard = **397**

Moulded draught (d) = **6097**

Keel allowance =

Extreme draught =

Deduction for Tropical freeboard and addition for =

Winter freeboard = $\frac{d}{4}$ inches =

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$

Tons per inch immersion at summer load water line

T =

Deduction = $\frac{\Delta}{40 T}$ inches

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.88 + .68}{1.36} = 1.5/1.36$

| | + | - |
|--|------------|-------------|
| Depth Correction | 310 | — |
| Deduction for superstructures | — | 163 |
| Sheer correction | 20 | — |
| Round of Beam correction | — | — |
| Correction for thickness of Deck/amidships | — | 1194 |
| Other corrections, scantlings, etc. | | |
| Total | 330 | 1357 |

Summer Freeboard = **189**

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

Spanish freeboards reassigned.

| | | |
|--|--------|--------|
| Tropical Fresh Water Line above Centre of Disc | 255mm. | 10.04" |
| Fresh Water Line | 128 | 5.04" |
| Tropical Line | 127 | 5.00" |
| Winter Line below | 130 | 5.12" |
| Winter North Atlantic Line | 178 | 7.01" |

| | | |
|--------------------------------|-----|--------|
| Tropical Fresh Water Freeboard | 142 | 5.59" |
| Fresh Water | 269 | 10.59" |
| Tropical | 270 | 10.63" |
| Winter | 527 | 20.75" |
| Winter North Atlantic | 575 | 22.64" |