*Ta Tung
38783*

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

### (COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No. 38781
(For London Office only).

⊡ 2 NOV 1946

| Ship's Name | Official Number | Nationality and Port of Registry | Gross Tonnage | Date of Build |
|---|---|---|---|---|
| S.S. "TA SHUN" ex H.M.S. "BOWMANVILLE" | | Chinese Shanghai | (approx.) 970 | 1944 |

Port of Survey  QUEBEC, Que.

Date of Survey  1946

Surveyor's Signature  R. D. Campbell

Moulded Dimensions: Length 225.0' Breadth 36.5' Depth 17.77

Moulded displacement at moulded draught = 85 per cent. of moulded depth  (17'-6") ~~1855~~ 1898 tons  (14'-10½")  (T.P.I. 15.5)

Coefficient of fineness for use with Tables .68 (.536 actual)

✠ Particulars of Classification (Contemplated) A1 with freeboard - for service on Chinese Coast and Rivers. Previously ✠ A- for Government Service.

### Depth for Freeboard (D).

Moulded depth ... ... ... 17.77

Stringer plate 12 lbs. ... .03

Sheathing on exposed deck $T\left(\frac{L-S}{L}\right) =$

Depth for Freeboard (D) = 17.80

### Depth correction.

(a) Where D is greater than Table depth  (D—Table depth) R= $\frac{(17.80 - 15.00)\,1.731}{2.80} = +4.85''$

(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) | 36.5' |
| Standard Round of Beam = $\frac{B \times 12}{50}$ = | 8.76" |
| Ship's Round of Beam = | 6" |
| Difference | 2.76" |
| Restricted to | |
| Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L}\right)$ = | $\frac{2.76 \times .0622}{4} = +.04''$ |

### DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S₁) | Height | Height Correction | Effective Length (E) |
|---|---|---|---|---|---|
| Poop enclosed ... ... | | | | | |
| " overhang... ... | | | | | |
| R.Q.D. enclosed ... ... | | | | | |
| " overhang ... | | | | | |
| Bridge enclosed... ...⎫ | | | | | |
| " overhang aft ...⎬ | | | | | |
| " overhang forward⎭ | 211.0' | 211.0 | 7.25 | ✓ | 211.0 |
| F'cle enclosed ... ...⎫ | | | | | |
| " overhang ... ⎭ | | | | | |
| Trunk aft ... ... | | | | | |
| " forward ... ... | | | | | |
| Tonnage opening aft ... | | | | | |
| " " forward | | | | | |
| Total ... ... | 211.0 | 211.0 | | | 211.0 |

Standard Height of Superstructure  6.0'

" " R.Q.D.  ✓

Deduction for complete superstructure  28.5"

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

" " $\frac{S_1}{L}$ = ⎫
" " $\frac{E}{L}$ = ⎭ 93.78

Percentage form Table, Line A.  92.35
(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 = $28.5 \times .9235 = -26.32''$

### SHEER CORRECTION.

| Station | Standard Ordinate | S M | Product | Actual Ordinate ins. | Effective Ordinate | S M | Product |
|---|---|---|---|---|---|---|---|
| A.P. ... ... | 32.50 | 1 | 32.50 | 73.25 76.5 | 32.50 | 1 | 32.50 |
| ⅙L from A.P. ... | 14.46 | 4 | 57.84 | 42.75 46.0 | 14.46 | 4 | 57.84 |
| ⅔L " | 3.575 | 2 | 7.15 | 12.25 15.5 | 3.575 | 2 | 7.15 |
| Amidships ... | — | 4 | — | 0 3.25 | — | 4 | — |
| ⅔L from F.P. ... | 7.15 | 2 | 14.30 | .75 4.0 | 3.82 | 2 | 7.64 |
| ⅙L " | 28.92 | 4 | 115.68 | 9.75 13.0 | 15.46 | 4 | 61.84 |
| F.P. ... ... | 65.00 | 1 | 65.00 | 19.75 23.0 | 34.75 | 1 | 34.75 |
| Total ... | | | 292.47 | +15 | | | 201.72 |

Correction = $\frac{\text{Difference between sums of products}}{18}\left(.75 - \frac{S}{2L}\right)$ = $\frac{90.75}{18}\frac{(.75 - .4689)}{.2811} = +1.42''$

If limited on account of midship superstructure.

If limited to maximum allowance of 1½ ins. per 100 ft. ✓

Actual height of superstructure 7.25'
std " " " 6.00'
1.25
Excess = 15"

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

$\frac{\text{Mean actual sheer forward}}{\text{Mean standard sheer forward}}$ = Deficient

$\frac{\text{Length of enclosed superstructure}}{L}$ forward of amidships = ⎫
" " aft of " = ⎬ > .1

### Deduction for Tropical Freeboard.

### Addition for Winter and Winter North Atlantic Freeboard.

| | Ft. |
|---|---|
| Depth to Freeboard Deck = | 17.80 |
| Summer freeboard = | 6.79 |
| Moulded draught (d) = | 11.01 |

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 2.75 = 2¾

Addition for Winter North Atlantic Freeboard (if required)= not assigned

### Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\triangle$ = 1180

Tons per inch immersion at summer load water line

T = 13.5

Deduction = $\frac{\triangle}{40T}$ inches = 2.19

= 2¼"

### TABULAR FREEBOARD ~~corrected for Flush Deck (if required)~~  27.55

Correction for coefficient.  NIL  27.55

| | + | − | |
|---|---|---|---|
| Depth Correction ... ... | 4.85 | - | |
| Deduction for superstructures ... ... | - | 26.32 | |
| Sheer correction ... ... | 1.42 | - | |
| Round of Beam correction ... | .04 | - | |
| Correction for Thickness of Deck amidships | - | - | |
| Other corrections, scantlings, etc. corresponding to a summer moulded draught of 11'-0" (11'-0 1/16 actual) | 73.96 | - | |
| | 80.27 | 26.32 | + 53.95 |

Summer Freeboard = 81.50

### SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~ Steel, Deck.

| | | | | | |
|---|---|---|---|---|---|
| Tropical Fresh Water Line above Centre of Disc | ... | 5." | Tropical Fresh Water Freeboard ... | ... | 6'-9½" |
| Fresh Water Line " " | ... | 2¼" | Fresh Water ... | | 6'-4½" |
| Tropical Line " " | ... | 2¾" | Tropical ... | | 6'-7¼" |
| Winter Line below " | ... | 2¾" | Winter ... | | 6'-6¾" |
| Winter North Atlantic Line " " | | not assigned | Winter North Atlantic ... | | ✓ |
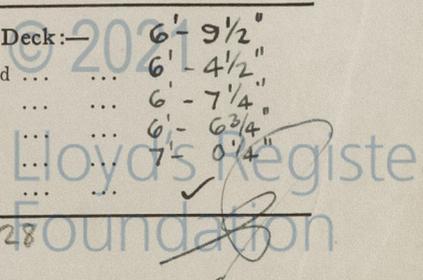
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Moulded Depth          - 17'-6" is at frame 48.
Moulded Depth at Amidship - 17'-9¼"   17.77 ft.
            (6" for'd of fr. 56)
Sheer heights are given above 17'-6" moulded depth.
Frame spacing 24" apart and numbered from fore end.

Note:-  The upper deck is not canted up at ship's side amidships.

Intermediate Displacements and Tons per Inch

12 ft. W.L. Displacement 1350 Tons  T.P.I. 14.0
13 ft. W.L. Displacement 1520 Tons  T.P.I. 14.5
14 ft. W.L. Displacement 1700 Tons  T.P.I. 15.1

Trade of ship..........For proceeding from Quebec, Que. to Shanghai and for service on Chinese Coast & Rivers.

Names of sister ships..........S.S. "TA TUNG" (ex "Orangeville") and S.S. "TA CHING" (ex "Bowmanville").

Builder's name and yard number..........Messrs. Pickersgill & Sons Ltd. - Yard No. 263.

Owners..........Chinese Government Supply Agency.

Fee £..........