

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No.
(For London Office only).2961330-9
6 DEC 1952

| | | | | | |
|--|----------------------|--|-----------------------|-------------------------|--|
| Ship's Name S. S. "YUNG HUNG" | Official Number - | Nationality and Port of Registry Chinese Kaohsiung | Gross Tonnage 8207 | Date of Build 1921-5 | Port of Survey Baltimore, Maryland |
| Moulded Dimensions: Length 465.0' Breadth 60.0' Depth 36.25' | | | | | Date of Survey 16 September, 1952 |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth: _____ tons | | | | | Surveyor's Signature <i>J. Buchanan</i> |
| Coefficient of fineness for use with Tables .809 (previously adopted by A.B.) | | | | | Particulars of Classification *100A1 C.P.B. |
| | | | | | Shelter deck with freeboard. |

| | | |
|---|---|--|
| Depth for Freeboard (D). | Depth correction. | Round of Beam correction. |
| Moulded depth ... 36.25 | (a) Where D is greater than Table depth (D-Table depth) R= | Moulded Breadth (B) 60.0 |
| Stringer plate05 | (36.30-31.00) 3.00 = +15.90" | Standard Round of Beam = $\frac{B \times 12}{50} = 14.40$ |
| Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ | (b) Where D is less than Table depth (if allowed) (Table depth-D) R= | Ship's Round of Beam = $\frac{12.00}{2.40}$ |
| Depth for Freeboard (D) = 36.30 | If restricted by superstructures | Difference 2.40 |
| | | Restricted to 4 |
| | | Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) = +.60"$ |

DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) | |
|-------------------------|-------------------------|--|--------|-------------------|----------------------|---|
| Poop enclosed ... | | | | | | Standard Height of Superstructure 7.50 |
| " overhang ... | | | | | | " " R.Q.D. ... |
| R.Q.D. enclosed ... | | | | | | Deduction for complete superstructure 42.00 |
| " overhang ... | | | | | | Percentage covered $\frac{S}{L} =$ |
| Bridge enclosed ... | | | | | | " " $\frac{S_1}{L} =$ |
| " overhang aft ... | | | | | | " " $\frac{E}{L} =$ |
| " overhang forward ... | | | | | | Percentage from Table, Line A. (corrected for absence of forecastle (if required)) |
| F'cle enclosed ... | | | | | | Percentage from Table, Line B. (corrected for absence of forecastle (if required)) |
| " overhang ... | | | | | | Interpolation for bridge less than 2L (if required) |
| Trunk aft ... | | | | | | Deduction = |
| " forward ... | | | | | | |
| Tonnage opening aft ... | | | | | | |
| " " forward ... | | | | | | |
| Total ... | | | | | | |

SHEER CORRECTION.

| Station | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product | |
|--------------------|-------------------|---|---|---------|-----------------|--------------------|---|---|---------|--|
| A.P. ... | 56.50 | 1 | | 56.50 | 41.19 | 41.19 | 1 | | 41.19 | Mean actual sheer aft = |
| 1/2L from A.P. ... | 25.14 | 4 | | 100.56 | 18.75 | 18.75 | 4 | | 75.00 | Mean standard sheer aft |
| 1/2L " ... | 6.22 | 2 | | 12.44 | 4.25 | 4.25 | 2 | | 8.50 | Mean actual sheer forward = |
| Amidships ... | - | 4 | | - | - | - | 4 | | - | Mean standard sheer forward |
| 1/2L from F.P. ... | 12.44 | 2 | | 24.88 | 10.50 | 10.50 | 2 | | 21.00 | Length of enclosed superstructure forward of amidships = |
| 1/2L " ... | 50.28 | 4 | | 201.12 | 46.50 | 46.50 | 4 | | 186.00 | " " aft of " = |
| F.P. ... | 113.00 | 1 | | 113.00 | 107.63 | 107.63 | 1 | | 107.63 | |
| Total ... | | | | 508.50 | | | | | 439.32 | |

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{69.18}{18} \times .75 = +2.88"$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

| | | |
|---|--|--|
| Deduction for Tropical Freeboard. | Deduction for Fresh Water. | TANKER |
| Addition for Winter and Winter North Atlantic Freeboard. | Displacement in salt water at summer load water line | TABULAR FREEBOARD corrected for Flush Deck (if required) |
| Depth to Freeboard Deck = 36.30 | $\Delta = 17230$ | Correction for coefficient. |
| Summer freeboard = 9.81 | Tons per inch immersion at summer load water line | |
| Moulded draught (d) = 26.49 | T = 58 | Depth Correction ... 15.90 |
| Deduction for Tropical freeboard and addition for | Deduction = $\frac{\Delta}{40T}$ inches | Deduction for superstructures ... |
| Winter freeboard = $\frac{d}{4}$ inches = 6.62 | = 7 1/2" | Sheer correction ... 2.88 |
| Addition for Winter North Atlantic Freeboard (if required) = 6.62 + 4.65 = 11.27 | | Round of Beam correction ... 1.60 |
| | | Correction for Thickness of Deck amidships ... |
| | | Other corrections, scantlings, etc. 12.00 |
| | | Summer Freeboard = 10.75 |

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

| | | | |
|--|-------|------------------------------------|-------|
| Tropical Fresh Water Line above Centre of Disc ... | 14.75 | Tropical Fresh Water Freeboard ... | 8.25 |
| Fresh Water Line " " ... | 7.25 | Fresh Water " " ... | 9.25 |
| Tropical Line " " ... | 6.25 | Tropical " " ... | 9.25 |
| Winter Line below " " ... | 6.25 | Winter " " ... | 10.25 |
| Winter North Atlantic Line " " ... | 11.25 | Winter North Atlantic " " ... | 10.25 |

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.....

Names of sister ships.....

Builder's name and yard number..... Northwest Bridge and Iron Company..... Portland, Oregon.....

Owners..... China Tanker Co. Ltd.....

Fee \$ ~~10.00~~ 24.....



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Foundation