

25 MAY 1946

Rpt. C.11 (Comp.).

Index No. **38434**
(For London Office only)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

| | | | | | |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------------------------------------|-------------------------------|------------------------------|-----------------------------------------------------------------------------------------------------------|
| Ship's Name "PATELLA" | Official Number 181531 | Nationality and Port of Registry BRITISH LONDON | Gross Tonnage 8277. | Date of Build 1946 | Port of Survey <i>Belfast</i> |
| Moulded Dimensions: Length <i>461.0'</i> Breadth <i>59.0'</i> Depth <i>34.0'</i> (to centre of Rudder stock) | | | | | Date of Survey <i>during construction</i> |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth 17731 tons | | | | | Surveyor's Signature <i>A. S. Fletcher.</i> |
| Coefficient of fineness for use with Tables .789 | | | | | Particulars of Classification 100 A1 <i>Carrying Petroleum in Bulk.</i> (class contemplated) |

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| DEPTH FOR FREEBOARD (D). Moulded depth ... 34.0 Stringer plate <i>.80"</i>07 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 34.07 | DEPTH CORRECTION. (a) Where D is greater than Table depth (D-Table depth) R = $(34.07 - 30.73) 3.0 = 10.02$ 3.34 (b) Where D is less than Table depth (if allowed) (Table depth-D) R = \checkmark If restricted by superstructures \checkmark | ROUND OF BEAM CORRECTION. Moulded Breadth (B) 59.0' Standard Round of Beam = $\frac{B \times 12}{50} = 14.16$ Ship's Round of Beam 14.75" = 14.75 Difference .59 Restricted to Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.59}{4} \times .5709 = -.08$ |
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DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) | |
|----------------------------------|-------------------------|----------------------------------------------|--------|-------------------|----------------------|--------------------------------------------------------|
| Poop enclosed <i>EQUIV</i> ... | 96.06 | 96.06 | 7'-6" | \checkmark | 96.06 | Standard Height of Superstructure 7.5 |
| " overhang ... | | | | | | " " R.Q.D. ... |
| R.Q.D. enclosed ... | | | | | | Deduction for complete superstructure 42.0 |
| " overhang ... | | | | | | Percentage covered $\frac{S}{L} = 43.34$ |
| Bridge enclosed <i>EQUIV</i> ... | 47.00 | 47.00 | 7-6 | \checkmark | 47.00 | " " $\frac{S_1}{L} =$ } 42.91 |
| " overhang aft ... | 8.00 | 6.00 | | | 6.00 | " " $\frac{E}{L} =$ |
| " overhang forward ... | | | | | | Percentage from Table, Line TANKER 33.91 |
| F'cle enclosed ... | 48.75 | 48.75 | 7-6 | \checkmark | 48.75 | (corrected for absence of fore-castle (if required)) |
| " overhang ... | | | | | | Percentage from Table, Line B. |
| Trunk aft ... | | | | | | (corrected for absence of fore-castle (if required)) |
| " forward ... | | | | | | Interpolation for bridge less than .2L (if required) |
| Tonnage opening aft ... | | | | | | Deduction = $42.0 \times .3391 = 14.24$ |
| " " forward ... | | | | | | |
| Total ... | 199.81 | 197.81 | | | 197.81 | |

SHEER CORRECTION.

| Station | Standard Ordinate | S M | Product | Actual Ordinate | Effective Ordinate | S M | Product | |
|-------------------------------|-------------------|-----|---------|-----------------|--------------------|-----|---------|----------------------------------------------------------|
| A.P. ... | 56.10 | 1 | 56.10 | 57.06 | 56.10 | 1 | 56.10 | Mean actual sheer aft = EXCESS |
| $\frac{1}{4}$ L from A.P. ... | 24.96 | 4 | 99.84 | 25.63 | 24.96 | 4 | 99.84 | Mean actual sheer forward = DEFICIENT |
| $\frac{2}{8}$ L " ... | 6.17 | 2 | 12.34 | 6.44 | 6.17 | 2 | 12.34 | Mean standard sheer forward |
| Amidships ... | - | 4 | - | 0 | - | 4 | - | Length of enclosed superstructure forward of amidships = |
| $\frac{2}{8}$ L from F.P. ... | 12.34 | 2 | 24.68 | 12.50 | 12.50 | 2 | 25.00 | " " aft of " = } TANKER |
| $\frac{1}{4}$ L " ... | 49.93 | 4 | 199.72 | 48.56 | 48.56 | 4 | 194.24 | |
| F.P. ... | 112.20 | 1 | 112.20 | 112.19 | 112.19 | 1 | 112.19 | |
| Total ... | | | 504.88 | | | | 431.71 | |

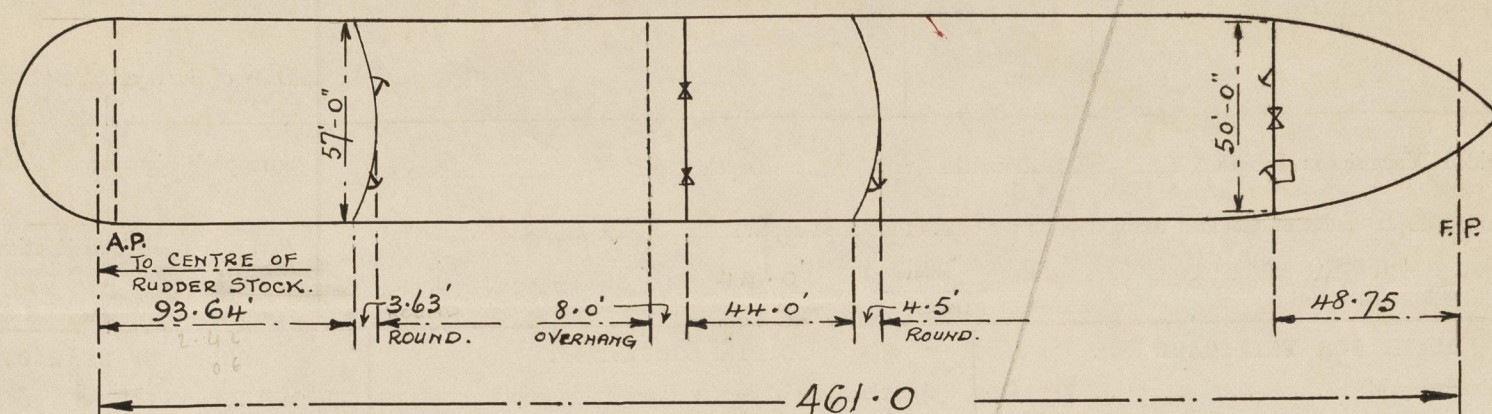
Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{53.17}{18} (.75 - .2167) = +.15$
 If limited on account of midship superstructure. \checkmark If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. \checkmark

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| Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 34.07 Summer freeboard = 6.74 Moulded draught (d) = 27.28 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = $\frac{6.85}{4} = 1.71$ Addition for Winter North Atlantic Freeboard (if required) = $6.82 + 4.61 = 11.43 = 11\frac{1}{2}$ 6.85 | Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 16,734$ 16,820 Tons per inch immersion at summer load water line $T = 36.336$ Deduction = $\frac{\Delta}{40 T}$ inches = $\frac{16,820}{40 \times 36.336} = 1.15$ 7.42 = 7 1/2" Full Draft. Full Δ . T.P.I. 28'-0" 17115 56.55 27'-0" 16439 56.16 | TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{68 + .789}{1.36} = 1.469$ Depth Correction ... 10.02 Deduction for superstructures ... 14.24 Sheer correction ... 1.58 Round of Beam correction08 Correction for Thickness of Deck amidships ... Other corrections, scantlings, etc. ... Summer Freeboard = 81.48 |
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

| | |
|-------------------------------------------------------------------|-----------------------------------------------------|
| Tropical Fresh Water Line above Centre of Disc ... 14 1/4" | Tropical Fresh Water Freeboard ... 5'-5 3/4" |
| Fresh Water Line " " ... 7 1/2" | Fresh Water " " ... 6'-0 1/2" |
| Tropical Line " " ... 6 3/4" | Tropical " " ... 6'-1 1/4" |
| Winter Line below " " ... 6 3/4" | Winter " " ... 7'-2 3/4" |
| Winter North Atlantic Line " " ... 11 1/2" | Winter North Atlantic " " ... 7'-7 1/2" |

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.



OPENINGS:-

Forecastle Bulkhead - Tonnage opening 5'-0" x 4'-0" x 12" sill, portable steel plate stiffened and secured by wide spaced hook bolts

One hinged steel watertight door 5'-0" x 24" x 18" sill, secured by toggles, operated both sides.

One hinged steel weatherlight door 5'-0" x 30" x 18" sill, " " " " " "

Bridge Front - One hinged steel watertight door 5'-0" x 30" x 18" sill, " " " " " "

Bridge After Bhd. - Two openings 5'-3" x 3'-0" x 18" sills, portable steel plates and secured by wide spaced hook bolts.

Poop Front - Two hinged steel watertight doors 5'-0" x 30" x 19 1/2" sills, secured by toggles, operated from both sides.

This report C11(comp) is forwarded for marking of Freeboards before vessel is launched about 25th June 1946.

Poop $\frac{2}{3} \times 3.63$
 $\frac{2}{3} \times 3.63$
 $\frac{2}{3} \times 3.63$
 $\frac{2}{3} \times 3.63$

Bridge $\frac{2}{3} \times 4.5$
 $\frac{2}{3} \times 4.5$
 $\frac{2}{3} \times 4.5$
 $\frac{2}{3} \times 4.5$

Trade of ship Ocean going tanker (Bitumen carrier).

Names of sister ships

Builder's name and yard number Messrs. Harland and Wolff Ltd; No 1316, Belfast.

Owners Messrs. Anglo-Saxon Petroleum Company Limited.

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Foundation