

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR ~~STEAMER~~ ~~SAILING SHIP~~ TANKER.)

| | | | | | |
|--|--------------------------------|---|--|---|---|
| Ship's Name ARABIAN QUEEN | Official Number 8882 | Nationality and Port of Registry Swedish Kungsbacka | Gross Tonnage 11,183 (Swedish) About 11000 | Date of Build 1947 10 | Port of Survey Gothenburg |
| Moulded Dimensions: Length 156.004 M. Breadth 20.116 M. Depth 11.963 Metres. | | | | | Date of Survey While building |
| Freeboard Length 156.414 Metres to Centre Line of Rudder Stock. | | | | | Surveyor's Signature <i>[Signature]</i> |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth 25.190 M³ 20000 | | | | | Particulars of Classification +100A1 Carrying Petroleum in bulk. |
| Coefficient of fineness for use with Tables .7873 | | | | | |

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| Depth for Freeboard (D). M. Moulded depth 11.963 Stringer plate 24.07 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 11.987 | Depth correction. (a) Where D is greater than Table depth $\frac{(D - \text{Table depth}) R}{1.559} = \frac{(11.987 - 10.428) 30}{1.559} = +390 \text{ mm}$ (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) 20.116 Standard Round of Beam = $\frac{B \times 12}{50} = 402$ Ship's Round of Beam = 420 mm. Difference Excess .018 M Restricted to Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{18.587}{4} = -3$ |
|--|--|--|

DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) |
|-------------------------------|-------------------------|--|--------|-------------------|----------------------|
| Poop enclosed <i>Excess</i> | 32637 | 32637 | 2440 | - | 32637 |
| » overhang | | | | | |
| R.Q.D. enclosed | | | | | |
| » overhang | | | | | |
| Bridge enclosed <i>Excess</i> | 13752 | 13752 | 2440 | - | 13752 |
| » overhang aft | | | | | |
| » overhang forward | | | | | |
| Fore enclosed | 18200 | 18200 | 2440 | - | 18200 |
| » overhang | | | | | |
| Trunk aft | | | | | |
| » forward | | | | | |
| Tonnage opening aft | | | | | |
| » forward | | | | | |
| Total | 64589 | 64589 | | | 64589 |

Standard Height of Superstructure **2290**
» » R.Q.D. **1067 mm**
Deduction for complete superstructure
Percentage covered $\frac{S}{L} = 41.30$
» » $\frac{S_1}{L} = 41.30$
» » $\frac{E}{L} = 41.30$
Percentage from Table, Line **Tanker** **32.30**
(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 = **1067 x 32.3 = - 345 mm.**

SHEER CORRECTION.

| Station | Standard Ordinate | S M | Product | Actual Ordinate | Effective Ordinate | S M | Product |
|-----------------|-------------------|-----|---------|-----------------|--------------------|-----|---------|
| A.P. | 1557 | 1 | 1557 | 1017 | 1017 | 1 | 1017 |
| 1/6 L from A.P. | 692 | 4 | 2768 | 113 | 113 | 4 | 452 |
| 2/6 L » | 173 | 2 | 346 | 0 | - | 2 | - |
| Amidships | - | 4 | - | 0 | - | 4 | - |
| 2/6 L from F.P. | 346 | 2 | 692 | 0 | - | 2 | - |
| 1/6 L » | 1383 | 4 | 5532 | 515 | 515 | 4 | 2060 |
| F.P. | 3114 | 1 | 3114 | 2032 | 2032 | 1 | 2032 |
| Total | | | 14009 | | | | 5561 |

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{8448}{18} \left(.75 - \frac{2065}{5435} \right) = +255 \text{ mm}$
If limited on account of midship superstructure.

Mean actual sheer aft = **< 1**
Mean standard sheer aft = **< 1**
Mean actual sheer forward = **< 1**
Mean standard sheer forward = **< 1**
Length of enclosed superstructure forward of amidships = **Tanker**
» » aft of » = **Tanker**

| | | |
|--|--|--|
| Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. M Depth to Freeboard Deck = 11.987 Summer freeboard = 2.777 Moulded draught (d) = 9.210 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{48} \text{ inches} = 192 \text{ mm}$ Addition for Winter North Atlantic Freeboard (if required) = 192 + 128 = 320 | Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 22844$ Tons per inch immersion at summer load water line T = 70.45 Deduction = $\frac{\Delta}{40 T} \text{ inches} = 8.11''$ = 206 mm | TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient .7873 + .68 1.86 Depth Correction 390 Deduction for superstructures 345 Sheer correction 255 Round of Beam correction 3 Correction for Thickness of Deck amidships Other corrections, scantlings, etc. 645 348 Summer Freeboard = 2777 mm |
|--|--|--|

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

| | |
|--|---|
| Tropical Fresh Water Line above Centre of Disc 398 mm | Tropical Fresh Water Freeboard 2777 mm |
| Fresh Water Line » 206 | Fresh Water » 2379 |
| Tropical Line » 192 | Tropical » 2571 |
| Winter Line below » 192 | Winter » 2763 |
| Winter North Atlantic Line » 320 | Winter North Atlantic » 2965 |

"ARABIAN QUEEN".

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.

| | <u>Displacement</u> | <u>Tons per inch.</u> |
|-------------------------|---------------------|-----------------------|
| At 75% of Moulded Depth | 22,180 | 70.11 |
| " 85% " " " | 25,520 | 71.83 |
| " 95% " " " | 28,940 | 73.24 |

Boat length m.
8.972
10.169 ✓
11.365 ✓

Equivalent lengths.
Deck 30940
 $2545 \times 2 = 1697$
 $\frac{3}{3}$
 $32637 = \text{equiv.}$

Bridge 11555
 $3295 \times 2 = 2197$
 $\frac{3}{3}$
 $13752 = \text{equiv.}$

At 9.210 m $\frac{238}{1.197} \times 3340 = 664$
 $\frac{22180}{22844}$

$\frac{238}{1.197} \times 1.72 = 34$
 $\frac{70.11}{70.45}$

Trade of ship General.

Names of ^{similar} ~~other~~ ships M.T. "Constance", Yard No. 581.

Builder's name and yard number A-B. Götaverken, Gothenburg, Yard No. 609.

Owners Rederi A-B. Kungsoil (Björn Lénberg, Mgr.), Kungsbacka.

Fee Kr.



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