Rpt. C.11 (Comp.).

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

| Ship's Name | Official Number | Nationality and Port of Registry | Gross Tonnage | Date of Build |
|---|---|---|---|---|
| Okis | | | | |

Port of Survey _____

Date of Survey ___ 24.10.50

Surveyor's Signature _____

Moulded Dimensions: Length 69.785   Breadth 9750   Depth 4.575

Moulded displacement at moulded draught = 85 per cent. of moulded depth   2069 M³ (Calculated) tons

Particulars of Classification _____

Coefficient of fineness for use with Tables   .782

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### DEPTH FOR FREEBOARD (D).

Moulded depth ... ... ... 4.575

Stringer plate ... ... ... 10

Sheathing on exposed deck

$T\left(\dfrac{L-S}{L}\right) =$

Depth for Freeboard (D) = 4.585

### DEPTH CORRECTION.

(a) Where D is greater than Table depth (D—Table depth) R =

(b) Where D is less than Table depth (if allowed) (Table depth—D) R =

$8.33(4.653 - 4.585)\,17622 = -10\,m/ms$
.068

If restricted by superstructures

### ROUND OF BEAM CORRECTION.

Moulded Breadth (B)   9.750

Standard Round of Beam = $\dfrac{B \times 12}{50}$ = 195

Ship's Round of Beam = 195

Difference   N.L

Restricted to

Correction = $\dfrac{Diff^e}{4} \times \left(1 - \dfrac{S_1}{L}\right)$ = N.L.

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### DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S₁) | Height | Height Correction | Effective Length (E) |
|---|---|---|---|---|---|
| Poop enclosed ... ... | 16.310 | 16.310 | | | 16.310 |
| „ overhang ... ... | | | | | |
| R.Q.D. enclosed ... ... | | | | | |
| „ overhang ... | | | | | |
| Bridge enclosed ... | | | | | |
| „ overhang aft ... | | | | | |
| „ overhang forward ... | | | | | |
| F'cle enclosed ... ... | 8.640 | 8.640 | | | 8.640 |
| „ overhang ... | | | | | |
| Trunk aft (Pump Rm) ... | | 1528 | | | 1528 |
| „ forward ... | | 23474 | | 1830 | 14.752 |
| Tonnage opening aft ... | | | | | |
| „ „ forward... | | | | | |
| Total ... ... | 24.950 | 49.952 | | | 41.230 |

2.64 × ... / ...
40.87 × ... / ...

Standard Height of Superstructure   1830 mms

„ „ R.Q.D.

Deduction for complete superstructure   735 mms.

Percentage covered $\dfrac{S}{L}$ = 35.75.

„ „ $\dfrac{S_1}{L}$ = 71.58.

„ „ $\dfrac{E}{L}$ = 59.08.

Percentage from Table, Line A.   44.71   Steamer
(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 = 735 × ·4471 = 329 mms.

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### SHEER CORRECTION.

| Station | Standard Ordinate | S M | Product | Actual Ordinate | Effective Ordinate | S M | Product |
|---|---|---|---|---|---|---|---|
| A.P. ... ... | 835 | 1 | 835 | 820 | 820 | 1 | 820 |
| ⅙L from A.P. ... | 371 | 4 | 1484 | 300 | 300 | 4 | 1200 |
| ²/₆L „ ... | 93 | 2 | 186 | 40 | 40 | 2 | 80 |
| Amidships ... ... | — | 4 | — | — | — | 4 | — |
| ²/₆L from F.P. ... | 186 | 2 | 372 | 85 | 85 | 2 | 170 |
| ⅙L „ ... | 742 | 4 | 2968 | 550 | 550 | 4 | 2200 |
| F.P. ... ... | 1671 | 1 | 1671 | 1600 | 1600 | 1 | 1600 |
| Total ... | | | 7516 | | | | 6070 |

$\left.\begin{array}{l}\text{Mean actual sheer aft =}\\ \text{Mean standard sheer aft}\end{array}\right\}$ Deficient

$\left.\begin{array}{l}\text{Mean actual sheer forward}\\ \text{Mean standard sheer forward}\end{array}=\right\}$ Deficient

$\dfrac{\text{Length of enclosed superstructure}}{L}$ forward of amidships =$\Big\}$ Deficient

„ „ aft of „ =$\Big\}$ Sheer.

Correction = $\dfrac{\text{Difference between sums of products}}{18} \left(\cdot75 - \dfrac{S}{2L}\right)$ = $\dfrac{1446}{18}(\cdot75 - \cdot1787)$ = +46 m/ms.

If limited on account of midship superstructure.   ·5713   If limited to maximum allowance of 1½ ins. per 100 ft.

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

Ft.

Depth to Freeboard Deck = 4.585

Summer freeboard = 479

Moulded draught (d) = 4.106

Deduction for Tropical freeboard and addition for

Winter freeboard = $\dfrac{d}{4}$ 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 = $\dfrac{\Delta}{40\,T}$ inches =

### TABULAR FREEBOARD corrected for Flush Deck (if required)   718

Correction for coefficient   $\dfrac{·782 × ·68}{1·36} = \dfrac{1·462}{1·36}$   772

| | + | − |
|---|---|---|
| Depth Correction ... | — | 10 |
| Deduction for superstructures ... | — | 329 |
| Sheer correction ... ... | 46 | — |
| Round of Beam correction ... | — | — |
| Correction for Thickness of Deck amidships ... | — | — |
| Other corrections, scantlings, etc. ... | — | — |
| | 46 | 339 | −293 |

AM
25/6·50

Summer Freeboard = 479
479

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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 ... ... ... | Tropical Fresh Water Freeboard | |
| Fresh Water Line „ „ „ ... ... | Fresh Water | „ |
| Tropical Line „ „ „ ... ... | Tropical | „ |
| Winter Line below „ „ ... ... | Winter | „ |
| Winter North Atlantic Line „ „ „ ... ... | Winter North Atlantic | „ |

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.
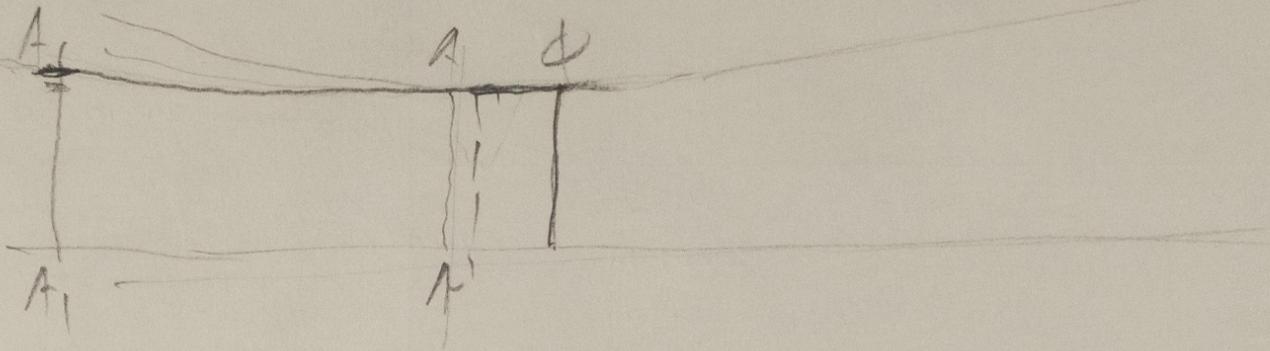


Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____ : _____ : _____