

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name **IMPERIAL**  
(Messrs. Nakskov Skibsværft.)  
Yard No. 84.

Official Number

Nationality and Port of Registry  
**Chilian**  
**Valparaiso**

Gross Tonnage

Date of Build  
**1938.**

Port of Survey **Copenhagen (Nakskov).**

Date of Survey **29<sup>th</sup> April 1938**

Surveyor's Signature **J. D. Andersen**

Particulars of Classification **2. 100. A. 1. with freeb.**  
(Class completed).

Moulded Dimensions: Length **410.0'** Breadth **58.0'** Depth **33.75'**

Moulded displacement at moulded draught = 85 per cent. of moulded depth **13742** tons

Coefficient of fineness for use with Tables **.705**

| Depth for Freeboard (D).                                |       | Depth correction.  |   | Round of Beam correction.   |                      |
|---|-------|--|---|---|----------------------|
| Moulded depth   | 33.75 | (a) Where D is greater than Table depth<br>(D - Table depth) R =           |   | Moulded Breadth (B)   | 58.0'                |
| Stringer plate .54                                      | .04   | (33.94 - 24.33) 3 = +19.83"  |   | Standard Round of Beam = $\frac{B \times 12}{50}$                           | 13.92                |
| Sheathing on exposed deck                               |       | (b) Where D is less than Table depth (if allowed)<br>(Table depth - D) R = |   | Ship's Round of Beam  | 6"                   |
| T $\left(\frac{L-S}{L}\right) = \frac{2.5}{12} (.7027)$ | .15   |  |   | Difference, deficient   | 7.92                 |
| Depth for Freeboard (D) =                               | 33.94 | If restricted by superstructures   | ✓ | Restricted to   |                      |
|   |       |  |   | Correction = $\frac{\text{Diff.}}{4} \times \left(1 - \frac{S_1}{L}\right)$ | 7.92 (7469) = +1.48" |

## DEDUCTION FOR SUPERSTRUCTURES.

|                          | Mean Covered Length (S) | Equivalent Enclosed Length (S <sub>1</sub> ) | Height | Height Correction | Effective Length (E) |
|--------------------------|-------------------------|--|--------|-------------------|----------------------|
| Poop enclosed ...        | 42.83'                  | 42.83  | 7.5'   | ✓                 | 42.83                |
| .. overhang ...          | None                    |  |        |                   |                      |
| R.Q.D. enclosed ...      | ✓                       |  |        |                   |                      |
| .. overhang ...          | ✓                       |  |        |                   |                      |
| Bridge enclosed open ... | 35.92                   | 17.96  | 8.0'   | ✓                 | 17.96                |
| .. overhang aft ...      | ✓                       |  |        |                   |                      |
| .. overhang forward ...  | ✓                       |  |        |                   |                      |
| Fore enclosed ...        | 42.83'                  | 42.83  | 8.0'   | ✓                 | 42.83                |
| .. overhang ...          | .33                     | .17  |        |                   | .17                  |
| Trunk aft ...            | ✓                       |  |        |                   |                      |
| .. forward ...           | ✓                       |  |        |                   |                      |
| Tonnage opening aft ...  | ✓                       |  |        |                   |                      |
| .. forward ...           | ✓                       |  |        |                   |                      |
| Total ...                | 121.91                  | 103.79                                       |        |                   | 103.79               |

Standard Height of Superstructure **7.50'**

.. .. R.Q.D. **✓**

Deduction for complete superstructure **42.00"**

Percentage covered  $\frac{S}{L} = 29.73$

.. ..  $\frac{S_1}{L} = 25.31$

.. ..  $\frac{E}{L} = 25.31$

Percentage from Table, Line A. **12.65**

(corrected for absence of forecastle (if required))

Percentage from Table, Line B. **16.04**

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required) **12.65 + (3.39 x 17.96) = 13.39%**

Deduction = **42.00 x 13.39% = 5.62"**

## SHEER CORRECTION.

| Station             | Standard Ordinate | S M | Product | Actual Ordinate | Effective Ordinate | S M | Product |
|---------------------|-------------------|-----|---------|-----------------|--------------------|-----|---------|
| A.P. ...            | 51.00             | 1   | 51.00   | 51"             | 51.00              | 1   | 51.00   |
| 1/4 L from A.P. ... | 22.695            | 4   | 90.78   | 22 3/4"         | 22.75              | 4   | 91.00   |
| 1/2 L ..            | 5.61              | 2   | 11.22   | 5 3/4"          | 5.75               | 2   | 11.50   |
| Amidships ...       | ✓                 | 4   | ✓       | 0               | ✓                  | 4   | ✓       |
| 3/4 L from F.P. ... | 11.22             | 2   | 22.44   | 11 1/2"         | 11.50              | 2   | 23.00   |
| 1/4 L ..            | 45.39             | 4   | 181.56  | 45 5/8"         | 45.625             | 4   | 182.50  |
| F.P. ...            | 102.00            | 1   | 102.00  | 102"            | 102.00             | 1   | 102.00  |
| Total ...           |                   |     | 459.00  |                 |                    |     | 461.00  |

Mean actual sheer aft = **Excess.**

Mean standard sheer aft

Mean actual sheer forward = **Excess.**

Mean standard sheer forward

Length of enclosed superstructure forward of amidships = **Nil**

.. .. aft of .. = **Nil**

Correction =  $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L}\right) = \frac{2.0}{18} (.75 - .1486) = -.05"$

If limited on account of midship superstructure. **Yes, no allowance.**

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

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

Depth to Freeboard Deck = **34.00**  
Summer freeboard = **11.08**  
Moulded draught (d) = **22.92**

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = **5.73 = 146 m/m**

Addition for Winter North Atlantic Freeboard (if required) = **✓**

Deduction for Fresh Water.

Displacement in salt water at summer load water line  
 $\Delta = 10700$  tons.  
Tons per inch immersion at summer load water line  
T = **44.20**

Deduction =  $\frac{\Delta}{40T}$  inches  
= **6.05"**  
= **154 m/m**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient  $\frac{.705 + .68}{1.36} = \frac{1.385}{1.36}$

Depth Correction ... **19.83**  
Deduction for superstructures ... **5.62**  
Sheer correction ... **-**  
Round of Beam correction ... **1.48**  
Correction for Thickness of Deck amidships ... **.72**  
Other corrections, scantlings, etc. and to correct to an approved Summer Moulded Draught of 22'-11"

Summer Freeboard = **133.00"**

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

|  |         |
|--|---------|
| Tropical Fresh Water Line above Centre of Disc ... | 300 m/m |
| Fresh Water Line ..                                | 154 "   |
| Tropical Line ..                                   | 146 "   |
| Winter Line below ..                               | 146 "   |
| Winter North Atlantic Line ..                      | ✓       |

|                                    |        |
|------------------------------------|--------|
| Tropical Fresh Water Freeboard ... | 3098 " |
| Fresh Water ..                     | 3224 " |
| Tropical ..                        | 3232 " |
| Winter ..                          | 3524 " |
| Winter North Atlantic ..           | ✓      |

26 MAY 1938



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

*Chile ~ Europe.*

Names of sister ships

*M/V Copiapó (Nks. Yard. N° 82), M/V Aconcagua (Nks. Yard. N° 83).*

Builder's name and yard number

*Messrs. Nakskov Skibsværft's Yard. N° 84.*

Owners

*Compañía Sud. Americana de Vapores, Valparaíso, Chile.*

Fee £

*To be charged with First Entry.*



© 2020

Lloyd's Register  
Foundation