

## LLOYD'S REGISTER OF SHIPPING

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## SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

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Ship's Name <b>ORANJEPOLDER</b>	Official Number	Nationality and Port of Registry <b>DUTCH ROTTERDAM</b>	Gross Tonnage <b>500</b>	Date of Build <b>1954</b>	Port of Survey <b>WATERHUIZEN</b>
Moulded Dimensions: Length <b>63.250</b> Breadth <b>9.900</b> Depth <b>3.700 m</b>					Date of Survey <b>JUNE, 1954</b>
Freeboard Length					Surveyor's Signature <i>[Signature]</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>1395 m<sup>3</sup></b>					Particulars of Classification <b>100A1</b>
Coefficient of fineness for use with Tables <b>.708</b>					<b>contemplated</b>

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	3700	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	9900
Stringer plate	6 1/2 = 7	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	190
Wood Sheathing on exposed deck				Ship's Round of Beam	NIL
$T \left( \frac{L-S}{L} \right) =$		8.33(4.217-3.707)15.972 = -68 mm.		Difference	-190
Depth for Freeboard (D) =	3707	If restricted by superstructures		Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right)$	$\frac{198}{4} \times 0.0127 = +1 \text{ mm}$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed	3850	3850			3850
" overhang	65	33			33
R.Q.D. enclosed					
" overhang					
Bridge enclosed	57750	57750	2150		57750
" overhang aft	355	266			266
" overhang forward					
F'cle enclosed					
" overhang					
Trunk aft					
" forward		405 Diff.			
Tonnage opening aft	1230	547			547
" " forward					
Total	63250	62446			62446

Standard Height of Superstructure **1.830 m**

" " R.Q.D. ....

Deduction for complete superstructure **680 mm**

Percentage covered  $\frac{S}{L} = 100$

" "  $\frac{S_1}{L} =$  } **98.73**

" "  $\frac{E}{L} =$

Percentage from Table, Line A. & B **98.44**

(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 = **680 × 98.44 = 669 mm.**

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	781	1		781	880	1208	1		1208
1/2 L from A.P.	347	4		1388	415	538	4		2152
1/2 L " "	87	2		174	105	133	2		266
Amidships	0	4		0	0	0	4		0
1/2 L from F.P.	173	2		346	173	208	2		416
1/2 L " "	694	4		2776	722	843	4		3372
F.P.	1562	1		1562	1574	1894	1		1894
Total				7027	+320				9308

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{2281}{18} \left( .75 - .50 \right) = -32$

If limited on account of midship superstructure.

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 =

" " aft of " = } **CSS/T.O.**

Actual Tween deck LR = 2150  
 Standard - " = 1830  
 Excess = 320

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **3707**

Summer freeboard = **50**

Moulded draught (d) = **3657**

Keel allowance =

Extreme draught =

Deduction for Tropical freeboard and addition for =

Winter freeboard =  $\frac{d \text{ mm}}{48} = 76 = 8 \text{ cm.}$

Addition for Winter North Atlantic Freeboard (if required) = **76 + 51 = 127 = 13 cm.**

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 1645 \text{ m}^3$

$\text{m}^3 \text{ per cm immersion at summer load water line}$

$T = 4.97 \text{ m}^3/\text{cm}$

Deduction =  $\frac{\Delta}{40 T}$  inches

= **8 cm**

## TABULAR FREEBOARD

corrected for Flush Deck (if required)

Correction for coefficient  $\frac{.708 + .68}{1.36} = 1.388$

**1.36**

Depth Correction ... **68**

Deduction for superstructures ... **669**

Sheer correction ... **32**

Round of Beam correction ... **1**

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

Summer Freeboard = **-136**

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

Tropical Fresh Water Line above Centre of Disc ... **8 cm**

Fresh Water Line " " ... **8 cm**

Tropical Line " " ... **NIL**

Winter Line below " " ... **8 cm**

Winter North Atlantic Line " " ... **13 cm**

Tropical Fresh Water Freeboard **5 cm (LIMITED)**

Fresh Water **-3 cm (NEGATIVE)**

Tropical **-3 cm (NEGATIVE)**

Winter **5 cm (LIMITED)**

Winter North Atlantic **13 cm**

Can't up freeboard deck

4 cm



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.

$$\frac{B_1 - b}{B_1} = \frac{8.400 - 5.000}{8.400}$$
$$= .405$$

Trade of ship Ocean Trade

Names of sister ships ✓

Builder's name and yard number Scheepswerf "Waterhuizen" J. Pottje, yardno 219

Owners Cornelder Schv Mij

Fee f 190 :

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950," paragraph 11.)

Midship Section  
Profile + Decks



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