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Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name C. van der Giessen & Zonen Yard No. 760	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
cr. of rudderstock Moulded Dimensions: Length 420'-0" Breadth 57'-3 1/2" Depth 28'-0.62" Moulded displacement at moulded draught = 85 per cent. of moulded depth Coefficient of fineness for use with Tables .731 (Builders)					Date of Survey Surveyor's Signature <i>[Signature]</i> Particulars of Classification 100 A 1

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 28.05	(a) Where D is greater than Table depth (D - Table depth) R =	Moulded Breadth (B) 57.29
Stringer plate03	(28.08 - 28) 3 = (+).24	Standard Round of Beam = $\frac{B \times 12}{50} = 13.75$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Ship's Round of Beam = 13.78
Depth for Freeboard (D) = 28.08	If restricted by superstructures	Difference (+) .03
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.03}{4} \times .0054 = .0004$ Nil

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	24.00	24.00			24.00
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward	390.00	390.00	9.00	-	390.00
Fore enclosed		1.50			
" overhang	2.00	1.00			1.50
Trunk aft					
" forward		1/2 Diff.			
Tonnage opening aft	4.00	2.50			2.25
" forward		2.25			
Total	420	417.50			417.50

Standard Height of Superstructure	7'-6"
" " R.Q.D.	
Deduction for complete superstructure	42"
Percentage covered $\frac{S}{L} =$	100.0
" " $\frac{S_1}{L} =$	99.406
" " $\frac{E}{L} =$	99.406
Percentage from Table, Line A. & B.	99.26
(corrected for absence of forecastle (if required))	99.33
Percentage from Table, Line B.	
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than .2L (if required)	.9933
Deduction =	.9926 x 42 = 41.71

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	52.00	1		52.00	54.02	72.02	1		72.02
1/2 L from A.P.	23.14	4		92.56	24.02	32.05	4		128.20
1/2 L "	5.72	2		11.44	5.98	7.92	2		15.84
Amidships	-	4		-	-	-	4		-
1/2 L from F.P.	11.44	2		22.88	11.97	13.87	2		27.74
1/2 L "	46.28	4		185.12	47.99	56.11	4		224.44
F.P.	104.00	1		104.00	108.08	126.08	1		126.08
Total				468.00	+18				594.32

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - \frac{S}{2L}}{2L} \right) = \frac{126.32}{18} \times .25 = (-)1.75"$

If limited on account of midship superstructure.

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

Actual 'Tweendeck Ht. 9'-0"
Stand. 7'-6"
(+) 1'-6"

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.
 Depth to Freeboard Deck = 28.08
 Summer freeboard = 3.12
 24'-11 1/2" Moulded draught (d) = 24.96
 Deduction for Tropical freeboard and addition for
 Winter freeboard = $\frac{d}{4}$ 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 = $\frac{\Delta}{40 T}$ inches

TABULAR FREEBOARD (corrected for Fresh Water (if required))
 Correction for coefficient $\frac{.731 + .68}{1.36} = \frac{1.411}{1.36}$
 Depth Correction24
 Deduction for superstructures ... 41.69
 Sheer correction ... 1.75
 Round of Beam correction ...
 Correction for Thickness of Deck amidships ...
 Other corrections, scantlings, etc. ...

Summer Freeboard = 37.52

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	"

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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 £ _____

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