Rpt. C.11.

Index. No. _____ (For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having CSS with Tonnage opening (Purpose No 2)

(Type of Superstructures.)

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
NIEUWKERK.				

Moulded Dimensions: Length 436·92 Breadth 59·25 Depth 31·00

Moulded displacement at moulded draught = 85 per cent. of moulded depth 13634 tons

Coefficient of fineness for use with Tables ·700

Port of Survey _____

Date of Survey _____

Name of Surveyor _____

Particulars of Classification _____

Depth for Freeboard (D)

Moulded depth ... ... 31·00

Stringer plate ... ... ·04

Sheathing on exposed deck $T\left(\frac{L-S}{L}\right) =$ ✓

Depth for Freeboard (D) = 31·04

Depth correction

(a) Where D is greater than Table depth (D—Table depth) R = (31·04 − 29·12) 3·00 = +5·76"

(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) 31·00

Standard Round of Beam $= \frac{B \times 12}{50} =$ 7·44"

Ship's Round of Beam = 1·00"

Difference 6·44" deficient

Restricted to

Correction $= \frac{\text{Diff}^e}{4} \times \left(1-\frac{S_1}{L}\right) = \frac{6.44}{4} \times .0098 = +.01"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S_1)	Height	Height Correction	Effective Length (E)
Poop enclosed	18·00	18·00			18·00
„ overhang	2·71	1·35			1·35
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed... ...	410·86	410·86			410·86
„ overhang aft ...					
„ overhang forward					
F'cle enclosed					
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft ...	5·35	3·35			3·35
„ „ forward					
Total	436·92	433·56			433·56

Standard Height of Superstructure 7'-6"

„ „ R.Q.D. ✓

Deduction for complete superstructure 42·00"

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

„ „ $\frac{S_1}{L} =$ 99·22 %

„ „ $\frac{E}{L} =$ 99·22 %

Percentage from Table, Line A. (~~corrected for absence of forecastle (if required)~~) 99·04 %

Percentage from Table, Line B. (corrected for absence of forecastle (if required))

Interpolation for bridge less than ·2L (if required)

Deduction = 42·00 × ·9904 = − 41·60

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	53·69	1		54·00	54·00	1	54·00
$\frac{1}{6}$L from A.P. ...		4		28·75	28·75	4	115·00
$\frac{2}{6}$L „ ...		2		3·12	3·12	2	6·24
Amidships ...		4		✓	✓	4	✓
$\frac{2}{6}$L from F.P. ...		2		24·38	24·38	2	48·76
$\frac{1}{6}$L „ ...		4		72·00	72·00	4	288·00
F.P.	107·38	1		119·50	119·50	1	119·50
Total ...			483·21				631·50

Mean actual sheer aft / Mean standard sheer aft = Excess

Mean actual sheer forward / Mean standard sheer forward = Excess

Length of enclosed superstructure / L forward of amidships = } CSS

„ „ aft of „ =

Correction $= \frac{\text{Difference between sums of products}}{18}\left(\cdot 75 - \frac{S}{2L}\right) = \frac{148.29}{18} \times .25 = -2.06$

If limited on account of midship superstructure. ✓

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. ✓

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Ft.

Depth to Freeboard Deck =

Summer freeboard = _____

Moulded draught (d) = _____

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

Δ =

Tons per inch immersion at summer load water line

T =

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

=

TABULAR FREEBOARD ~~corrected for Flush Deck (if required)~~

Correction for coefficient $\frac{1.36}{1.36}$

	+	−
Depth Correction	5·76	—
Deduction for superstructures	—	41·60
Sheer correction	—	2·06
Round of Beam correction	·01	—
Correction for Thickness of Deck amidships ...	—	—
Other corrections, scantlings, etc.	—	—
	5·77	43·66

83·05

84·27

− 37·89

Summer Freeboard = 46·38

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :— 46·38" = 118 m/m.

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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