Rpt. C.11.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. 34800
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having C.S.S with T.O aft.

(Type of Superstructures.)

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
Wm. Hamilton Yard No 425.				

Moulded Dimensions: Length 425 Breadth 56 Depth 28.17

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

Coefficient of fineness for use with Tables .75.

Port of Survey .....

Date ~~of Survey~~ 20.12.35

Name of Surveyor .....

Particulars of Classification +100 A1
Will freeboard (contemplated later)

Depth for Freeboard (D)

Moulded depth	28.17
Girder plate	~~.05~~ .04
Sheathing on exposed deck $T\left(\frac{L-S}{L}\right)$ =	✓
Depth for Freeboard (D) =	28.~~22~~ .21

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 = $(28.33 - 28.\overline{21}) 3.00$ ~~.42~~ .21

= — ~~.33~~ .36

If restricted by superstructures ✓

Round of Beam correction

Moulded Breadth (B) 56.00

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

Ship's Round of Beam = Assumed Standard

Difference

Restricted to

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

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S_1)	Height	Height Correction	Effective Length (E)
Poop enclosed	37.67	37.67	8'-0"	✓	37.67
„ overhang					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed... ...	382.75	382.75	8'-0"	✓	382.75
„ overhang aft ...					
„ overhang forward					
Pile enclosed					
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft ...	4.58	2.29	8'-0"	✓	2.29
„ „ forward					
Total	425.00	422.71			422.71

Standard Height of Superstructure 7'-6"

„ „ R.Q.D. ✓

Deduction for complete superstructure 42.00"

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

„ „ $\frac{S_1}{L}$ = 99.47~~1~~5%

„ „ $\frac{E}{L}$ = 99.47~~1~~5%

Percentage from Table, Line A. 99.~~34~~32%
(~~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 = 42.00 × .9932 = — 41.72".

SHEER CORRECTION.

Actual T.D height = 8.00
Standard = 7.50
Diff = 6"

Station	Standard Ordinate	S M	Product	Actual Ordinate +6"	Effective Ordinate	S M	Product
...	52.50	1	52.50	51.00	57.00	1	57.00
from A.P. ...	23.365	4	93.46	22.69	25.36	4	101.44
„ ...	5.775	2	11.55	5.61	6.27	2	12.54
...	✓	4	✓	✓	✓	4	✓
from F.P. ...	11.55	2	23.10	11.33	11.99	2	23.98
„ ...	46.73	4	186.92	45.83	48.50	4	194.00
...	105.00	1	105.00	103.00	109.00	1	109.00
Total ...			472.53	+6"			497.96

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 = } C.S.S
„ „ aft of „ = }

Correction = $\frac{\text{Difference between sums of products}}{18}\left(.75 - \frac{S}{2L}\right) = \frac{25.43}{18}(.75 - .50) = -.\overline{34}.35"$

If limited on account of midship superstructure. ✓

If limited to maximum allowance of 1½ ins. per 100 ft. ✓

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

	Ft.
Depth to Freeboard Deck =	28.22
Summer freeboard =	3.42
Moulded draught (d) =	24.~~80~~79

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.20 = 6 1/4" ✓

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

=

$d/4$ = 6 1/4". ✓

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

Correction for coefficient $\frac{.754 \cdot 68}{1.36} = \frac{143}{136}$

	+	—
Depth Correction	—	~~.36~~ .33
Deduction for superstructures	—	41.72
Sheer correction	—	~~.35~~ .34
Round of Beam correction	—	—
Correction for Thickness of Deck amidships ...	—	—
Other corrections, scantlings, etc.	—	—
	—	~~42.39~~ 42.34

79.35
83.47~~4~~

Summer Freeboard = 41.~~03~~02

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

Tropical Fresh Water Line above Centre of Disc ...	12½" ✓	Tropical Fresh Water Freeboard	3'-5" ✓
Fresh Water Line „ „	6 1/4" ✓	Fresh Water „	2'-4½" ✓
Tropical Line „ „	6 1/4" ✓	Tropical „	2'-10¾" ✓
Winter Line below „	6 1/4" ✓	Winter „	2'-10¾" ✓
~~Winter North Atlantic Line~~ „ „	✓	~~Winter North Atlantic~~ „	3'-11¼" ✓

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