Scantlings

Rpt. C.11 (Comp.).

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index No._____
(For London Office only.)

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build
Wᵐ. Gray. 1254/7				

Port of Survey _____

Date of Survey 3.5.51.

Surveyor's Signature _____

Moulded Dimensions : Length 432·29   Breadth 57·30   Depth 38·30
To C.ᴿ or 2.5.

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

Particulars of Classification +100A1 (Tent)

Coefficient of fineness for use with Tables ·762 estimated

DEPTH FOR FREEBOARD (D).

Moulded depth ... ... 38·30

Stringer plate ... ·08 ... ·08

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

Depth for Freeboard (D) = 38·38

DEPTH CORRECTION.

(a) Where D is greater than Table depth
(D—Table depth) R =
$\left(\dfrac{38·38 - 28·82|3}{9·56}\right) = -28·68$

(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) 57·50

Standard Round of Beam = $\dfrac{B\times12}{50}$ = 13·80

Ship's Round of Beam = 13·75

Difference = -·05

Restricted to

Correction = $\dfrac{Diff^c}{4}\times\left(1-\dfrac{S_1}{L}\right)$ = $\dfrac{·05}{4}\times·9185$ = + ·01″

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
„ overhang					
R.Q.D. enclosed					
„ overhang					
Bridge enclosed					
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed	35·25	35·25	7·0	7·0/7·5	32·90
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft ...					
„ „ forward...					
Total	35·25	35·25			32·90

Standard Height of Superstructure 7·50′

„ „ R.Q.D. -

Deduction for complete superstructure 42·00′

Percentage covered $\dfrac{S}{L}=$ 8·15

„ „ $\dfrac{S_1}{L}=$

„ „ $\dfrac{E}{L}=$ 7·61

Percentage from Table, Line A. 3·81
(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 × ·0381 = -1·60″

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	53·23	1		72·00	72·00	1	72·00
⅙L from A.P. ...		4		32·00	32·00	4	128·00
⅓L „ ...		2		8·00	8·00	2	16·00
Amidships ...		4		-	-	4	-
⅓L from F.P. ...		2		13·25	13·25	2	26·50
⅙L „ ...		4		53·50	53·50	4	214·00
F.P.	106·46	1		120·00	120·00	1	120·00
Total			479·07				576·50

Mean actual sheer aft
Mean standard sheer aft =   Excess

Mean actual sheer forward
Mean standard sheer forward =

$\dfrac{\text{Length of enclosed superstructure}}{L}$ forward of amidships =   Nil

„ „ aft of „ =

Correction = $\dfrac{\text{Difference between sums of products}}{18}\left(·75-\dfrac{S}{2L}\right)$ = $\dfrac{97·43}{18}(·75-·0408) = -3·84$

If limited on account of midship superstructure. Yes Nil.   ·7092   If limited to maximum allowance of 1½ ins. per 100 ft.

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

Depth to Freeboard Deck = 38·38   Ft.

Summer freeboard = 9·60

Moulded draught (d) = 28·78

Deduction for Tropical freeboard and addition for

Winter freeboard = $\dfrac{d}{4}$ inches =

Addition for Winter North Atlantic Freeboard (if required)=

Deduction for Fresh Water.

Displacement in salt water at summer load water line △ =

Tons per inch immersion at summer load water line T =

Deduction = $\dfrac{△}{40\ T}$ inches =

TABULAR FREEBOARD corrected for Flush Deck (if required) 81·61 + 1·55   83·16

Correction for coefficient $\dfrac{·68 - ·762}{1·36} = \dfrac{1·22}{1·36}$ 1·36   88·18

	+	-
Depth Correction ...	28·68	
Deduction for superstructures		1·60
Sheer correction		
Round of Beam correction ...	·01	
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc. ...		
	28·69	1·60

+ 27·09

Summer Freeboard = 115·27

9 - 7¼

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 „	

2m.9.49. T.

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.

C^R of 2.5 — A.P = $6\frac{1}{2}''$

A.P — Frame 1 = $9''$

1 - 13 = 12 × 2·0 = 24'-0"

141 - 13 = 128 × 2·5 = 320 - 0"

169 - 141 = 28 × 2·25' = 63 - 0"

181 - 169 = 12 × 2·0 = 24 - 0"

————————

432 - 3½ ✓

$= c_b =$

169 - 164 = 5 × 2·25 = 11·25

181 - 169 = 12 × 2·0 = 24·00

————————

35·25 ✓

Full addition for flush deck = 4·323 × 1·5 = 6·485

Partial " " " " = $\dfrac{32·90}{43·23}$ × 6·485 = 4·935

————————

1·550 ✓ = addition to freeboard

Change of $c_b = \left[·85 - ·85 \left(\dfrac{30·30}{38·30} \right) \right] ·12 ;$

$= (·85 - ·672) ·12 = ·178 × 12$

$= ·021$ ✓

$\therefore c_b = ·741$ ✓

·021 ✓

————

·762 ✓

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £