SCANTLINGS

Rpt. C.11 (Comp.)

LLOYD'S REGISTER OF SHIPPING
UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD
(COMPUTATION FOR ~~STEAMER~~, SAILING SHIP, ~~TANKER~~)

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build
CHEOY LEE Yard No 669				

Port of Survey ....

Date ~~of Survey~~ 9.4.56.

Surveyor's Signature ....

Particulars of Classification ....

Moulded Dimensions : Length .... Breadth 29.5 Depth 12.00

Freeboard Length 137

Moulded displacement at moulded draught = 85 per cent. of moulded depth 867 tons
(excluding bossing)

Coefficient of fineness for use with Tables .72 (Actual .736)

DEPTH FOR FREEBOARD (D).

Moulded depth 12.00

Stringer plate Bay 34 ... .03

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

Depth for Freeboard (D) = 12.03

DEPTH CORRECTION.

4/12

(a) Where D is greater than Table depth
(D—Table depth) R =
$\dfrac{(12.03 - 11.42)}{0.61} \, 1.548 = .94$

(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) — 29.5

Standard Round of Beam = $\dfrac{B \times 12}{50} = $ 7.08

Ship's Round of Beam = 10

Difference — 2.92

Restricted to

Correction = $\dfrac{\text{Diff}}{4} \times \left(1 - \dfrac{S_1}{L}\right) = \dfrac{2.92}{4} \times .3242 = -.24$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	46.25		> Standard		
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft					
" overhang forward					
F'cle enclosed ...	21.33		> Standard		
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward...					
Total ...	67.58	67.58			67.58

Standard Height of Superstructure — 6.00

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

Deduction for complete superstructure — 8.7

Percentage covered $\dfrac{S}{L} = $

" " $\dfrac{S_1}{L} = $ 67.58

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

Percentage from Table, Line A. — 64.56
(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 = $8.7 \times .6456 = 5.62$

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate +54	Effective Ordinate	S M	Product
A.P.	23.7	1		23.7	77.7	1	77.7
⅙L from A.P. ...	10.55	4			13.80	4	55.20
⅔L " ...	2.61	2			2.61	2	5.22
Amidships ...	0	4	0	0	0	4	0
⅔L from F.P. ...	5.21	2	10.42			2	142.20
⅙L " ...	21.09	4	84.36			4	162.20
F.P.	47.40	1	47.40			1	
Total			213.3				280.32

H. of T.O.K. — Ship 10'-6"
Act. 6-0
4'-6" = 54"
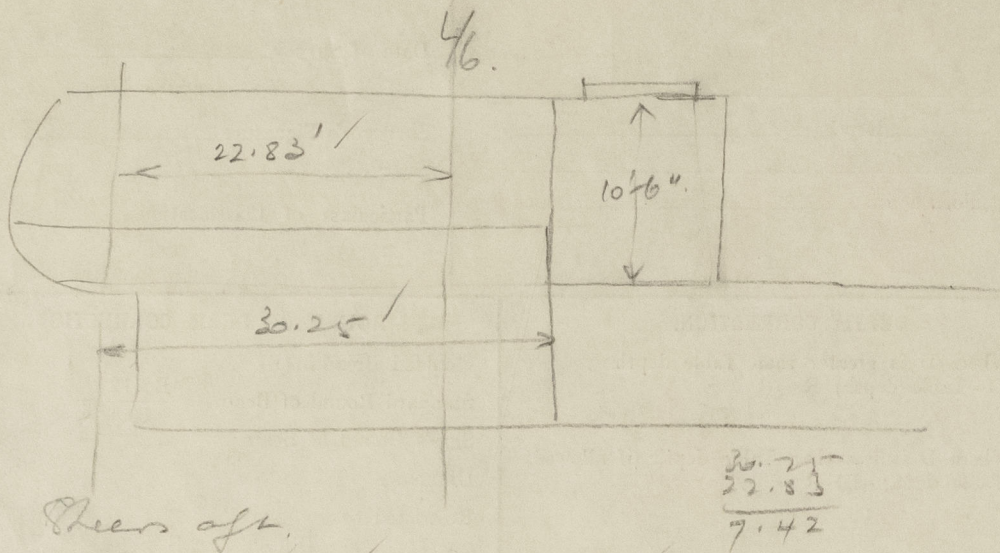
Mean actual sheer aft =
Mean standard sheer aft

Mean actual sheer forward =
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = L

" " aft of " "

Standard sheers ford. draft.

Correction = $\dfrac{\text{Difference between sums of products}}{18}\left(.75 - \dfrac{S}{2L}\right) = \dfrac{67.02}{18}(.75 - .3379) = 1.53$
.4121

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

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

Ft.

Depth to Freeboard Deck = 12.03

Summer freeboard = 1.46

Moulded draught (d) = 10.57

Keel allowance =

Extreme draught =

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
Δ =

Tons per inch immersion at summer load water line
T =

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

TABULAR FREEBOARD corrected for Flush Deck (if required) — 20.64

Correction for coefficient $\dfrac{.72 + .62}{1.24}$ — 1.34 / 1.24 — 27.30

	+	−
Depth Correction	.94	
Deduction for superstructures ...		5.62
Sheer correction		−
Round of Beam correction ...		.24
Correction for Thickness of Deck amidships ...	−	
Other corrections, scantlings, etc. ...	−	−
	.94	5.86 → −4.92

Summer Freeboard = 17.38

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,7.54. T.

Scantlings draught of 10'-6" required

004230-004237-0081

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.

$\dfrac{137}{6} = 22.83$

Sheers aft,

AP = 23.7 + 54 = 77.70

1/6L aft = 10.55 + 54$\left(\dfrac{7.42}{30.25}\right)^2$ 3.25

= 13.80
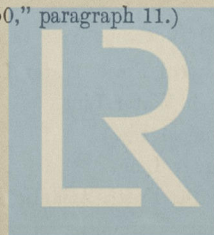
Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £   :   :

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