Rpt. C.11 (Comp.).

AMENDED — ALTERATION TO FO'C'SLE

Index No. 32998
(For London Office only.)

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

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build
PORT WAIKATO	160675	BRITISH AUCKLAND N.Z	675	1929

Port of Survey

Date of Survey   20·11·46

Surveyor's Signature

Moulded Dimensions : Length 180·0   Breadth 28·75   Depth 13·25

Moulded displacement at moulded draught = 85 per cent. of moulded depth   1182 (ESTIMATED) tons

Particulars of Classification + 100 A1

Coefficient of fineness for use with Tables   ·71

DEPTH FOR FREEBOARD (D).

Moulded depth	13·25
Stringer plate	·04
Sheathing on exposed deck $T\left(\frac{L-S}{L}\right) =$	✓
Depth for Freeboard (D) =	13·29

DEPTH CORRECTION.

(a) Where D is greater than Table depth (D—Table depth) R =
$(13\cdot29 - 12\cdot00)\,1\cdot385 = + 1\cdot79$ ✓

(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)	28·75
Standard Round of Beam = $\frac{B \times 12}{50}$ =	6·90
Ship's Round of Beam =	7·50
Difference	·60
Restricted to	
Correction = $\frac{\text{Diff}^\circ}{4} \times \left(1 - \frac{S_1}{L}\right)$ =	$\frac{·60}{4} \times ·2038 = -·03$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
„ overhang					
R.Q.D. enclosed	105·00	105·00	4·00	✓	105·00
„ overhang ...					
Bridge enclosed	11·00	11·00	7·00	✓	11·00
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed EQUIV ...	27·31	27·31	7·00	✓	27·31
„ overhang ...					
Trunk aft					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total	143·31	143·31			143·31

Standard Height of Superstructure   6·0
„ „ R.Q.D.   3·533

Deduction for complete superstructure   24·00

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

„ „ $\frac{S_1}{L}$ = } 79·62

„ „ $\frac{E}{L}$ =

Percentage from Table, Line A.   74·83
(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 = 24·00 × ·7483 = 17·96 ✓

SHEER CORRECTION.

ACTUAL HT OF R.Q.D = 4·000
STANDARD " " = 3·533
   ·467' = 5·60"

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	28·00	1	28·00	+5·60 42·50	48·10	1	48·10
⅙L from A.P. ...	12·46	4	49·84	18·56	21·40	4	85·60
⅔L „	3·08	2	6·16	4·64	5·29	2	10·58
Amidships ...	–	4	–	–	–	4	–
⅔L from F.P. ...	6·16	2	12·32	7·31	7·31	2	14·62
⅙L „	24·92	4	99·68	29·22	29·22	4	116·88
F.P.	56·00	1	56·00	66·00	66·00	1	66·00
Total ...			252·00				341·78

$\dfrac{\text{Mean actual sheer aft}}{\text{Mean standard sheer aft}} =$ } EXCESS

$\dfrac{\text{Mean actual sheer forward}}{\text{Mean standard sheer forward}} =$

$\dfrac{\text{Length of enclosed superstructure}}{L}$ forward of amidships = ⊅ ·1L

„ „ aft of „ = ⊅ ·1L

Correction = $\dfrac{\text{Difference between sums of products}}{18} \left(·75 - \dfrac{S}{2L}\right) = \dfrac{89\cdot78}{18}(·75 - ·3981) = -1·76$ ✓   If limited to maximum allowance of 1½ ins. per 100 ft.

·3519

If limited on account of midship superstructure. ✓

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

	Ft.
RAISED QUARTER Depth to ~~Freeboard~~ Deck =	17·29
Summer freeboard =	4·19
Moulded draught (d) =	13·10

Deduction for Tropical freeboard and addition for

Winter freeboard = $\dfrac{d}{4}$ inches = 3·27 = 3¼"

Addition for Winter North Atlantic Freeboard (if required) = 5¼"

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

=

$\dfrac{d}{4}$ = 3¼"

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

		19·80
Correction for coefficient $\dfrac{71 + 68}{1\cdot36}$ = $\dfrac{1\cdot39}{1\cdot36}$		20·24

	+	−
Depth Correction ...	1·79	−
Deduction for superstructures ...	−	17·96
Sheer correction	−	1·76
Round of Beam correction ...	−	·03
Correction for HEIGHT OF RAISED QUARTER ~~Thickness of Deck amidships~~ ...	48·00	−
Other corrections, scantlings, etc. ...	−	−
	49·79	19·75

+ 30·04

Summer Freeboard = 50·28

6·0. 21·11·46

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

				RAISED QUARTER
Tropical Fresh Water Line above Centre of Disc	... ...	3½"	Tropical Fresh Water Freeboard	4'-2¼"
Fresh Water Line „ „ „	... ...	3¼"	Fresh Water	3'-10¾"
Tropical Line „ „ „	... ...	¼"	Tropical	3'-11"
Winter Line below „ „	... ...	3¼"	Winter	4'-2" (LIMITED)
Winter North Atlantic Line „ „ „	... ...	5¼"	Winter North Atlantic	4'-5½" 4'-7¼"

5m T 11/41. McC.

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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.
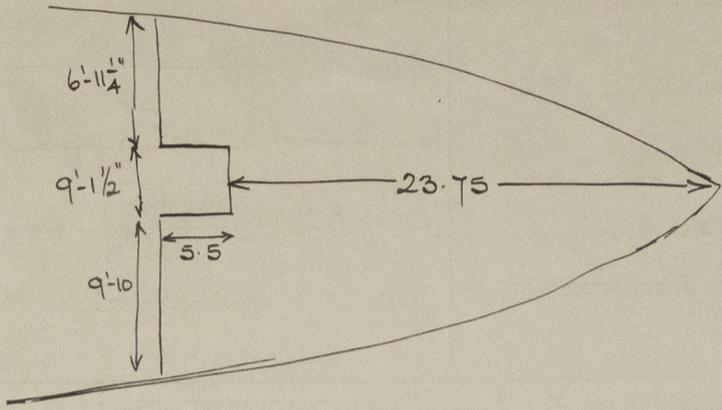
Forecastle :-   23.75
                      5.5
                     ───────
                     29.25

Recess :-
5.5 × 9.13 ✓   —   1.94
──────────   ─────────
25.90   27.31 ✓ Equiv.

Trade of ship ....

Names of sister ships ....

Builder's name and yard number ....

Owners ....

Fee £ .... : .... :