Amended Preliminary

Rpt. C.11 (Comp.).

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
Caledon's 468&472				

Port of Survey _____

Date of Survey   4.12.47

Surveyor's Signature _____

Particulars of Classification +100A1 *contemplated.*

Moulded Dimensions: Length 300·625' Breadth 46·0' Depth 23.25
to centre of rudder clock

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

Coefficient of fineness for use with Tables ·724

DEPTH FOR FREEBOARD (D).	**DEPTH CORRECTION.**	**ROUND OF BEAM CORRECTION.**
Moulded depth 23.25	(a) Where D is greater than Table depth $(D-\text{Table depth})\ R =$ $\left(\dfrac{23.28 - 20.04}{3.24}\right)2.313 = +7.49"$	Moulded Breadth (B) 46
Stringer plate ... ·34 ... ·03#		Standard Round of Beam $= \dfrac{B \times 12}{50} = 11.04$
Sheathing on exposed deck		Ship's Round of Beam $= 9.00$
$T\left(\dfrac{L-S}{L}\right) =$	(b) Where D is less than Table depth (if allowed) (Table depth—D) $R =$	Difference 2.04
		Restricted to
Depth for Freeboard (D) = 23·18	If restricted by superstructures	Correction $= \dfrac{\text{Diff}^e}{4} \times \left(1 - \dfrac{S_1}{L}\right) = \dfrac{2.04}{4} \times ·5778 = +·29$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S₁)	Height	Height Correction	Effective Length (E)
Poop enclosed *Equiv.*	15.35	15.35	7.5	—	15.35
„ overhang ... *"*	5.27	2.63			2.63
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...	82.00	82.00	8.0	—	82.00
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed *open*	27.00	26.95	7.5	—	26.95
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward...					
Total ...	129.62	126.93			126.93

Standard Height of Superstructure 6.51

„ „ R.Q.D. 35.37

Deduction for complete superstructure 35.37

Percentage covered $\dfrac{S}{L} = 43·12$

„ „ $\dfrac{S_1}{L} = 42·22$

„ „ $\dfrac{E}{L} = 42·22$

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

Percentage from Table, Line B. 29.39
(corrected for absence of forecastle (if required))

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

Deduction $= 35·37 \times ·2939 = -10·39"$

SHEER CORRECTION.

Station	Standard Ordinate	SM	Product	Actual Ordinate	Effective Ordinate	SM	Product
A.P. ...	40·06	1	40·06	40	40	1	40·80
⅙L from A.P. ...	17·825	4	71·30	12·80	12·80	4	71·20
⅔L „	4·405	2	8·81		4·40	2	8·80
Amidships ...	—	4			—	4	
⅔L from F.P. ...	8·815	2	17·63	8·80	8·80	2	17·60
⅙L „	35·655	4	142·62	35·60	35·60	4	142·40
F.P. ...	80·13	1	80·13	80	80	1	80·00
Total			360·55				360·00

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

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

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

„ „ aft of „ $= \{$ *sheer*

Correction $= \dfrac{\text{Difference between sums of products}}{18}\left(·75 - \dfrac{S}{2L}\right) = \dfrac{·55}{18}(·75 - ·2156) = +·02"$ If limited to maximum allowance of 1½ ins. per 100 ft.
$\dfrac{}{·5344}$

If limited on account of midship superstructure.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required) 43·56

Ft.

Depth to Freeboard Deck = 23·28

Summer freeboard = 3·54

Moulded draught (d) = 19·74

Deduction for Tropical freeboard and addition for

Winter freeboard $= \dfrac{d}{4}$ inches = 4·93 = 5"

Addition for Winter North Atlantic Freeboard (if ~~required~~)= 7"

Displacement in salt water at summer load water line
$\triangle$

Tons per inch immersion at summer load water line
T

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

$\dfrac{d}{4}$ $d = 5"$

Correction for coefficient $\dfrac{·724 + ·68}{1·36} = \dfrac{1·404}{1·36}$ 44·97

	+	–
Depth Correction	7·49	
Deduction for superstructures ...		10·39
Sheer correction ...	·02	
Round of Beam correction ...	·29	
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc. ...		
	7·80	10·39

8·58

5.12.47

−2·59

Summer Freeboard = 42·38

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

Tropical Fresh Water Line above Centre of Disc	...	10"	Tropical Fresh Water Freeboard	3'-6½"
Fresh Water Line „ „	...	5"	Fresh Water „	3'-8½"
Tropical Line „ „	...	5"	Tropical „	3'-1½"
Winter Line below „	...	5"	Winter „	3'-11½"
Winter North Atlantic Line „ „	...	7"	Winter North Atlantic „	4'-1½"

5m T 11/41. McC.

011079-011088-0040

468+472.

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.

Poop
Enclosed at £ = 10·625 X
bridge houses 2×6×11·5   4·75
          29·2   15·355 = equivalent.
                  20·625
Ohang equivalent   5·27 .

Forward sheer.
Standard.   Actual
  0   1   0   0   1   0
8·815   3   26·445   8·8   3   26·4
35·655 3   106·965   35·6   3   106·8
80·13   1   80·13   80·0   1   80·0
            213·540   213·2
                                  213·54 = ·9984 X