

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

E 6 OCT 1948

CRONULLA

ex "ADMIRAL FRASER"

Ship's Name: ADMIRAL FRASER  
Official Number: 182879  
Nationality and Port of Registry: British Hong Kong London  
Gross Tonnage: 2275.59  
Date of Build:   
Port of Survey: Sunderland  
Date of Survey: When building  
Surveyor's Signature: Jas Rennie  
Particulars of Classification: + 100 A1 with freeboard (contemplated)

Moulded Dimensions: Length 310' Breadth 45' Depth 20'  
Moulded displacement at moulded draught = 85 per cent. of moulded depth 4910 tons  
Coefficient of fineness for use with Tables: .725

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	20.0	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	45.0
Stringer plate	.34			Standard Round of Beam = $\frac{B \times 12}{50}$	10.80"
Sheathing on exposed deck		(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Ship's Round of Beam	11"
$T \left( \frac{L-S}{L} \right) =$				Difference	.20"
Depth for Freeboard (D) =	20.03	(20.67 - 20.03) = .64		Restricted to	
		If restricted by superstructures		Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left( 1 - \frac{S_1}{L} \right)$	$\frac{.20 \times .0072}{4} = .0036$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed	23.5	23.50	1.5		23.50
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed	242.0	282.00	9.0		282.00
" overhang aft					
" overhang forward					
F'cle enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft	4.5	2.25			2.25
" forward					
Total	310.0	307.75			307.75

Standard Height of Superstructure 6.60'

" " R.Q.D. ✓

Deduction for complete superstructure 36.00"

Percentage covered  $\frac{S}{L} = 100.00$

" "  $\frac{S_1}{L} = 99.28$

" "  $\frac{E}{L} = 99.11$

Percentage from Table, Line A. +6 99.11

(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 = 36.00 x .9911 = 35.68"

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	41.00	1		41.00	30.00	58.80	1		58.80
$\frac{1}{8}L$ from A.P.	18.245	4		72.98	13.12	26.17	4		104.68
$\frac{2}{8}L$ "	4.51	2		9.02	3.37	6.47	2		12.94
Amidships		4					4		
$\frac{2}{8}L$ from F.P.	9.02	2		18.04	6.62	9.77	2		19.54
$\frac{1}{8}L$ "	36.49	4		145.96	26.37	29.52	4		158.08
F.P.	82.00	1		82.00	60.00	88.80	1		88.80
Total				369.00	228.80				442.84

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{73.84 \times .25}{18} = -1.03"$

If limited on account of midship superstructure. ✓

Actual timber deck height = 9.00'

Standard " " = 6.60'

Excess = 2.40' = 28.80"

Mean actual sheer aft = Excess.

Mean standard sheer aft = Excess.

Mean actual sheer forward = Excess.

Mean standard sheer forward = Excess.

Length of enclosed superstructure forward of amidships = 6.55

" " aft of " = 6.55

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 20.03

Summer freeboard = .77

Moulded draught (d) = 19.26

## Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 4.82" = 4 1/4"

Addition for Winter North Atlantic Freeboard (if required) = 6 3/4"

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 5620$  @ 19'-6"

Tons per inch immersion at summer load water line

T = 27.43

Deduction =  $\frac{\Delta}{40 T}$  inches = 5.11"

= 5"

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

Correction for coefficient  $\frac{.725 \times .68}{1.36} = 1.405/1.36$

Depth Correction ... ✓ 1.53

Deduction for superstructures ... ✓ 35.68

Sheer correction ... ✓ 1.03

Round of Beam correction ... ✓

Correction for Thickness of Deck amidships ... ✓

Other corrections, scantlings, etc. ... ✓

Summer Freeboard = 9.18"

## SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc ... 9 3/4"

Fresh Water Line " " ... 5"

Tropical Line " " ... 4 3/4"

Winter Line below " " ... 4 3/4"

Winter North Atlantic Line " " ... 6 3/4"

Tropical Fresh Water Freeboard ... 0'-9 1/4"

Fresh Water " " ... 0'-4 1/4"

Tropical " " ... 0'-4 1/4"

Winter " " ... 1'-2"

Winter North Atlantic " " ... 1'-4"



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.

Trade of ship .....

Names of sister ships .....

Builder's name and yard number .....

Owners .....

Fee £ .....

will be charged on\*

*[Signature]*



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Foundation