

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD-STEAMERS.

Ship's Name.	Port of Registry and Nationality.	Official Number.	Gross Tonnage.	Date of Build.	Particulars of Classification.
PORT WAIKATO.	British	160678	✓	1929	100 A1.
Number in Register Book					

Moulded dimensions 180.0 x 28.45 x 13.25
Moulded displacement at a moulded draught of 85 per cent. of moulded depth not yet received.
Coefficient of fineness for use with tables

DEPTH FOR FREEBOARD.

Moulded depth	13.25
Stringer plate	0.04
Sheathing in wells $T \left(\frac{L-S}{L} \right) =$	
Depth D =	13.29

CORRECTION FOR LENGTH.

(a) When D is greater than $\frac{L}{15}$
 $\left(D - \frac{L}{15} \right) \times R = (13.29 - 12.00) \times 1.385 = +1.49.$
(b) When D is less than $\frac{L}{15}$ (if allowed).
 $\left(\frac{L}{15} - D \right) \times R = \dots$
If restricted by height of superstructures

SUPERSTRUCTURES.

	Mean Covered Length S.	Equivalent Enclosed Length S ₁ .	Height.	Correction for Height.	Effective Length.
Poop enclosed					
" overhang					
R.Q.D. enclosed	105.00	105.00	4.0	✓	105.00
" overhang	11.00	11.00	7.0	✓	11.00
Bridge enclosed					
" overhang aft					
" overhang forward					
F'cle enclosed...	29.25	29.93	7.0	✓	29.93
" overhang					
Trunks forward					
" aft					
Tonnage opening					

TOTAL = $\frac{145.25}{180.0} = \frac{145.93}{180.0} = 79.96.$

Length of ship (L) = 180.0
% Covered ... = 80.40

Corresponding %, corrected for absence of forecastle if required } A =
B = 75.25
Allowance ... = 24.00 x 75.25 = -18.06

Correction for Bridge less than 2L if required } 645.

SHEER.

Station.	Actual Sheer.	Standard Sheer.	Allowed Sheer.	S. M.	Products.
A.P. 1	42.5	28.0	42.50	1	42.50
2			18.56	4	74.24
3			4.64	2	9.28
4			7.31	2	14.62
5			29.23	4	116.92
6			66.00	1	66.00
F.P. 7	66.0	56.0	66.00	1	66.00

If excess sheer forward and deficient sheer aft :-

Actual sheer aft = Excess
Standard sheer aft
Actual sheer forward = Excess
Standard sheer forward

Length of enclosed superstructure L

Forward of amidships = 145 L
Aft of amidships = 50 L

Mean effective sheer ... = 14.94
Standard sheer .05L + 5 = 14.00
Difference (Df) = 3.94
Allowance = $Df \times \left(.75 - \frac{S}{2L} \right) = 3.94 \times (.75 - .4035) = -1.38$
If limited on account of amidship superstructure =
If limited on account of excess sheer (1 1/2 in. per 100 ft.) =

ROUND OF BEAM.

Standard ... 6.90
Ship ... 4.50
Difference60
Restricted to ...
Allowance = $\frac{\text{Difference}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.60}{4} \times .2004 = -.03$

TABULAR FREEBOARD (corrected for flush deck if required) = 19.80

Corrected for Coefficient $\frac{+ .68}{1.36} =$

Correction for Length ...
Superstructures ...
Sheer ...
Round of beam ...
Thickness of deck ...
Scantlings, etc. ...
Statutory deck line ...

+	-
1.49	18.06
	1.38
	.03
✓	
✓	
1.49	19.44

Summer Freeboard =

FREEBOARD recommended amidships from centre of Disc to top of Statutory Deck Line, Wood (Steel) Deck :-

Fresh Water Line above centre of Disc
Indian Summer Line " " "
Winter Line below " "
Winter North Atlantic Line " " "