Rpt. C.11 (Comp.)

Fort St. James. etc
36801.

B.T. OOFE

Index. No. 37172
(For London Office only).

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

11 FEB 1943

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build
"FORT DREW"	164415 / 168415	British London	7133.91	1942

Port of Survey **North Vancouver, B.C.**

Date of Survey **December, 1942.**

Surveyor's Signature

Moulded Dimensions: Length **416.50'** Breadth **56.90'** Depth **(37.33' to Upper Deck / (28.58' to 2nd Deck**
417.35 to centre of rudder stock.

Moulded displacement at moulded draught = 85 per cent. of moulded depth **16,600** tons

Particulars of Classification **100 A1 with Freeboard (Contemplated)**

Coefficient of fineness for use with Tables .... **.771**

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... ... **37.33'**	(a) Where D is greater than Table depth (D—Table depth) R= $\frac{(37.38 - 27.82) \times 3}{9.56} = +28.68$	Moulded Breadth (B) **56.9'**
Stringer plate ... ... **.05'**		Standard Round of Beam = $\frac{B \times 12}{50}$ = **13.66**
Sheathing on exposed deck $T\left(\frac{L-S}{L}\right)$ =	(b) Where D is less than Table depth (if allowed) (Table depth—D) R=	Ship's Round of Beam = **14"**
		Difference **.34**
		Restricted to
Depth for Freeboard (D) = **37.38**	If restricted by superstructures	Correction = $\frac{Diff^e}{4} \times \left(1 - \frac{S_1}{L}\right)$ = $\frac{.34}{4}$ = **-.09**

DEDUCTION FOR SUPERSTRUCTURES.

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

Standard Height of Superstructure ....

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

Deduction for complete superstructure ....

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

" " $\frac{S_1}{L}$ = } Nil.

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

Percentage form Table, Line A. (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 = **Nil.**

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate Ins.	Effective Ordinate	S M	Product
A.P.	51.73	1	51.73	55.00	55.00	1	55.00
⅙L from A.P. ...	23.02	4	92.08	23.25	23.25	4	93.00
⅔L " ...	5.69	2	11.38	6.50	6.50	2	13.00
Amidships ...	—	4	—	—	—	4	—
⅔L from F.P. ...	11.38	2	22.76	11.63	11.63	2	23.26
⅙L " ...	46.04	4	184.16	46.75	46.75	4	187.00
F.P. ...	103.47	1	103.47	105.00	105.00	1	105.00
Total ...			465.58				476.26

Correction = $\frac{\text{Difference between sums of products}}{18}\left(.75 - \frac{S}{2L}\right)$ = $\frac{10.68}{18} \times .75$ = **-.45**

If limited on account of midship superstructure. **No. Flush deck.**

If limited to maximum allowance of 1½ ins. per 100 ft.

Mean actual sheer aft / Mean standard sheer aft = } Excess.

Mean actual sheer forward / Mean standard sheer forward = }

Length of enclosed superstructure forward of amidships = } Nil. Flush deck.

" " aft of " = }

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)			
		Correction for coefficient. $\frac{.771 + .68}{1.36}$ = 1.45 /1.36	76.95 + 6.26		83.21
					88.78
	Displacement in salt water at summer load water line		+	—	
Depth to Freeboard Deck **37.38**	△ = **13770**	Depth Correction	28.68	—	
Summer freeboard **10.54**	Tons per inch immersion at summer load water line	Deduction for superstructures	—	.45	ST.B.
Moulded draught (d) **26.84**	T = **48.21**	Sheer correction	—	.45	12-2-43
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.71 = 6¾"	Deduction = $\frac{△}{40T}$ inches = **7.14** = 7¼"	Round of Beam correction	—	.09	
Addition for Winter North Atlantic Freeboard (if required)=		Correction for Thickness of Deck amidships	9.58		+37.72
	On summer moulded draught of 26'-10" (26'-10⅛" actual)	Other corrections, scantlings, etc.	38.26	.54	
					Summer Freeboard = **126.50**

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:— 10'-6½"

Tropical Fresh Water Line above Centre of Disc	14"	Tropical Fresh Water Freeboard	9'-4½"
Fresh Water Line " "	7¼"	Fresh Water	9'-11¼"
Tropical Line " "	6¾"	Tropical	9'-11¾"
Winter Line below "	6¾"	Winter	11'-1¼"
Winter North Atlantic Line		Winter North Atlantic	

16 FEB 1943

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PRINTED IN U.S.A.

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..."FORT ALEXANDRIA" - North Van Ship Repairs Ltd., North Vancouver, B. C.(Yard No.101)

Builder's name and yard number.North Van Ship Repairs Ltd., North Vancouver, B. C. (Yard No.115)

Owners ...Minister of Munitions & Supply of Canada.

Fee $100.00