

Beaverlake
38530

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

GRK. REPORT NO. 23374.

Ship's Name BEAVERLAKE	Official Number 180954	Nationality and Port of Registry BRITISH, LONDON	Gross Tonnage 9824 APPROX 9900	Date of Build 1946	Port of Survey GREENOCK
Moulded Dimensions: Length 465'-0" Breadth 64' Depth 42'-8" T. UPPER DK 32'-1 1/2" 2ND DK				Date of Survey WHILE BUILDING 1945-6	
Moulded displacement at moulded draught = 85 per cent. of moulded depth 21879 tons				Surveyor's Signature <i>[Signature]</i>	
Coefficient of fineness for use with Tables .708				Particulars of Classification +100A1 WITH FREEBOARD.	

DEPTH FOR FREEBOARD (D). Moulded depth ... 42'-6 1/2" Stringer plate ... 72" UPPER DK. .06' Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 42.73	DEPTH CORRECTION. (a) Where D is greater than Table depth (D-Table depth) R = (42.73-31.07) 3 = +34.98" (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) 64'-0" Standard Round of Beam = $\frac{B \times 12}{50} =$ 15.36 Ship's Round of Beam = 16" Difference + .64 Restricted to Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.64}{4} \times .8581 =$.14"
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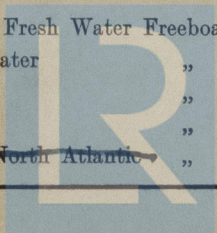
DEDUCTION FOR SUPERSTRUCTURES.						Standard Height of Superstructure 7.5'	
	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	R.Q.D. ✓	
Poop enclosed ...	33'-0"	33.96	7'-6"	✓	33.96	Deduction for complete superstructure 42'-00"	
" overhang ...	✓					Percentage covered $\frac{S}{L} =$ 14.37	
R.Q.D. enclosed ...						" $\frac{S_1}{L} =$ 14.19	
" overhang ...						" $\frac{E}{L} =$ 13.72	
Bridge enclosed ...						Percentage from Table, Line A. 6.86	
" overhang aft ...						(corrected for absence of forecastle (if required))	
" overhang forward ...						Percentage from Table, Line B.	
F'cle enclosed SEE SKETCH	28.12	28.12	7'-0"	7.09	7.50	(corrected for absence of forecastle (if required))	
" overhang ...	4.88	4.02			3.75	Interpolation for bridge less than .2L (if required)	
Trunk aft ...						Deduction = 42 x .0686 = -2.83"	
" forward ...							
Tonnage opening aft ...							
" forward ...							
Total ...	66.96	66.10			63.95		

SEE OVER FOR SKETCH OF SHEER.								SHEER CORRECTION.	
Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product		
A.P. ...	56.60	1	56.60	52 3/8	52.37	1	52.37	Mean actual sheer aft =	
1/4 L from A.P. ...	25.19	4	100.76	9 3/8	9.37	4	37.48	Mean standard sheer aft =	
2/8 L " ...	6.23	2	12.46	0	-	2	-	} <i>deficient.</i>	
Amidships ...	-	4	-	0	-	4	-	Mean actual sheer forward =	
2/8 L from F.P. ...	12.45	2	24.90	5 1/2	5.50	2	11.00	Mean standard sheer forward =	
1/4 L " ...	50.37	4	201.48	41.	41.00	4	164.00	Length of enclosed superstructure forward of amidships =	
F.P. ...	113.20	1	113.20	109.	109.00	1	109.00	L nil	
Total ...			509.40				373.85	Sheer forward: - <i>std</i> <i>actual</i> <i>std</i> <i>actual</i>	
Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{135.55}{18} \left(.75 - .0718 \right) = +5.11"$								aft of <i>std</i> <i>actual</i>	
If limited on account of midship superstructure. ✓								If limited to maximum allowance of 1 1/2 ins. per 100 ft. ✓	

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 42.73 Summer freeboard = 13.12 Moulded draught (d) = 29.61 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 7.40 = 7 1/2" Addition for Winter North Atlantic Freeboard (if required) = ✓	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 29' - 16617$ 17182 Tons per inch immersion at summer load water line $T = 29' - 57.25$ 57.82 Deduction = $\frac{\Delta}{40 T}$ inches = 7.43 = 7 1/2"	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.708 + .68}{1.36} = \frac{1.388}{1.36}$ Depth Correction ... 34.98 Deduction for superstructures ... 2.88 Sheer correction ... 5.11 Round of Beam correction14 Correction for Thickness of Deck amidships ... - Other corrections, scantlings, etc. 26.48 with a summer moulded draught of 29'-7 1/4" Summer Freeboard = 157.50	92.05 93.95 82.8 11.9.46
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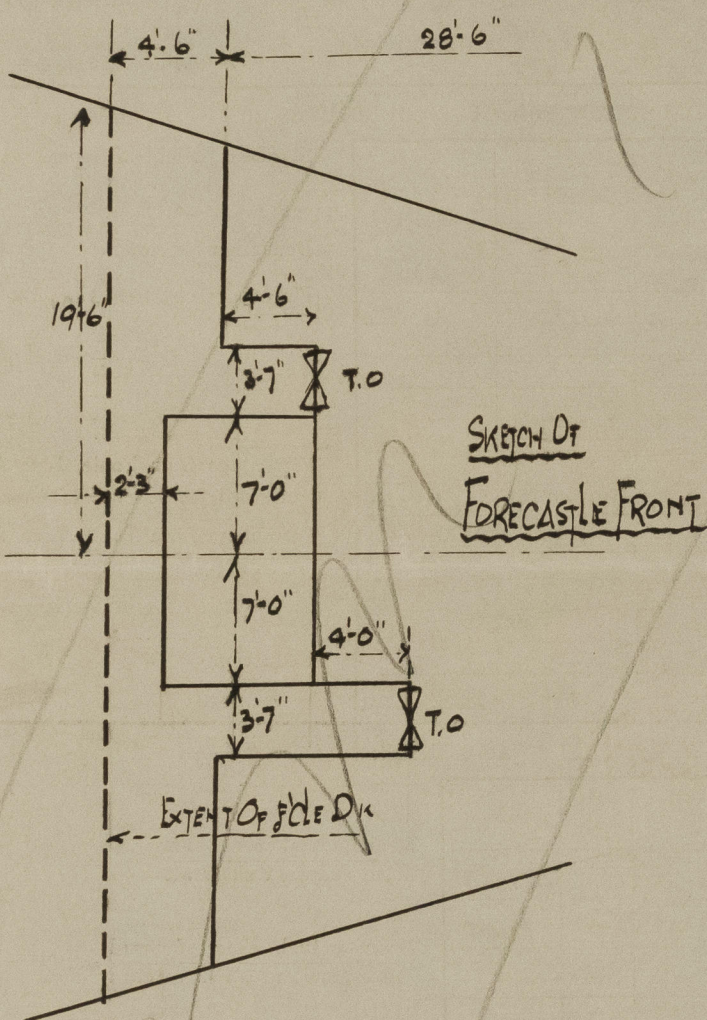
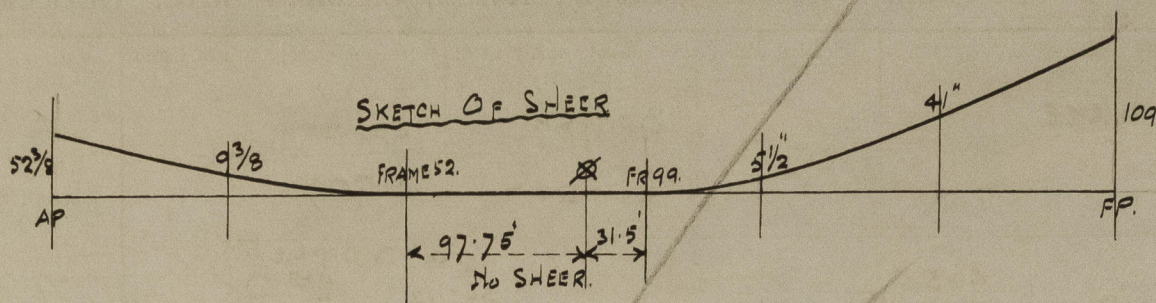
SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc	...	15"	Tropical Fresh Water Freeboard	11' 10 1/2"
Fresh Water Line	"	7 1/2"	Fresh Water	12' 6"
Tropical Line	"	7 1/2"	Tropical	12' 6"
Winter Line below	"	7 1/2"	Winter	13' 3"
Winter North Atlantic Line	"	...	Winter North Atlantic	...



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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.



Equivalent forecastle:-

Forecastle 28.50

less $\frac{(4.5 + 8.5) 3.58}{19.5 \times 2} = - 1.13$

add $\frac{14.0 \times 2.25}{19.5 \times 2} = + .81$

28.12

O'hang $33.00 - 28.12 = 4.88'$

Trade of ship INTERNATIONAL

Names of sister ships BEAVERGLEN LITHGOWS NO 1002 REPORT NO 23304

Builder's name and yard number LITHGOWS LTD YARD NO 1003

Owners CANADIAN PACIFIC RAILWAY CO. LTD

APPROV Fee £ 20 . 0 . 0



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