

15 NOV 1944

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(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

ORLAND

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name S. S. "LISCOMB PARK" SAINT MALO	Official Number 175590	Nationality and Port of Registry Canadian Montreal BERGEN	Gross Tonnage 2877	Date of Build 1944	Port of Survey Pictou, N. S.
Moulded Dimensions: Length 310.44 ft. Breadth 46.33 ft. Depth 25.16 ft. <i>To centre of rudder stock.</i>					Date of Survey During Construction
Moulded displacement at moulded draught = 85 per cent. of moulded depth (21.39 ft) 6690 tons					Surveyor's Signature <i>J. H. Nairn</i>
Coefficient of fineness for use with Tables .761					Particulars of Classification + 100 A1 (Contemplated)

Depth for Freeboard (D).
Moulded depth ... 25.16 ✓
Stringer plate **.40**03 ✓
Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$
Depth for Freeboard (D) = **25.19**

Depth correction.
(a) Where D is greater than Table depth
(D-Table depth) R=
(25.19-20.70) 2.388 = + 10.72" ✓
4.49
(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) **46.33 ft.** ✓
Standard Round of Beam = $\frac{B \times 12}{50} =$ **11.12 ins.** ✓
Ship's Round of Beam = **11** " ✓
Difference **.12 ins.** ✓
Restricted to
Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.12^2}{4} \times .5379 =$ **.02"** ✓

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	31.21	31.21	7.75	✓	31.21
" overhang ...	2.00	1.00			1.00
R.Q.D. enclosed ...					
" overhang ...	76.0	76.0	9.0	✓	76.0
Bridge enclosed ...	4.0	3.0			3.0
" overhang aft ...	2.0	1.0			1.0
" overhang forward ...	31.23	31.23	7.0	✓	31.23
F'cle enclosed ...	None				
" overhang ...	-				
Trunk aft ...	-				
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	146.44	143.44			143.44

Standard Height of Superstructure **6.604** ✓
" " R.Q.D. ✓
Deduction for complete superstructure **36.03** ✓
Percentage covered $\frac{S}{L} =$ **47.17** ✓
" " $\frac{S_1}{L} =$ **46.21** ✓
" " $\frac{E}{L} =$ **46.21** ✓
Percentage from Table, Line A.
(corrected for absence of forecastle (if required))
Percentage from Table, Line B. **32.78** ✓
(corrected for absence of forecastle (if required))
Interpolation for bridge less than .2L (if required)
Deduction = **36.03 x .3278 = 11.81 ins.** ✓

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	41.04 ✓	1	41.04	18.5	18.50	1	18.50
1/4 L from A.P. ...	18.26 ✓	4	73.04	1.6	1.60	4	6.40
1/4 L " ...	4.51 ✓	2	9.02	--	-	2	-
Amidships ...		4		--	-	4	-
1/4 L from F.P. ...	9.03 ✓	2	18.06	--	-	2	-
1/4 L " ...	36.53 ✓	4	146.12	14.8	14.80	4	59.20
F.P. ...	82.08 ✓	1	82.08	66.0	66.00	1	66.00
Total ...			369.36				150.10

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{219.26}{18} \times .5142 =$ **+ 6.26 ins.** ✓
If limited on account of midship superstructure.

Mean actual sheer aft = **< 1.00** ✓
Mean standard sheer aft
Mean actual sheer forward = **< 1.00** ✓
Mean standard sheer forward
Length of enclosed superstructure forward of amidships = **> .10** ✓
" " aft of " = **> .10** ✓

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **25.19** ✓
Summer freeboard = **4.50** ✓
Moulded draught (d) = **20.69** ✓

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **5 1/4"** ✓

Addition for Winter North Atlantic Freeboard (if required) = **5 1/4 + 2 = 7 1/4"** ✓

Deduction for Fresh Extreme Water.

Displacement in salt water at summer load water lines
20 ft. - 62.33 tons
21 ft. - 66.05 "
22 ft. - 69.50 "
Displacement in fresh water at summer load water lines
20 ft. - 28.45 tons
21 ft. - 29.0 "
22 ft. - 29.25 "
Deduction = $\frac{40T}{66.05 - 28.45} =$ **5.7 = 5 3/4"** ✓
28.92

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

Correction for coefficient. $\frac{.68 + .761}{1.36} = \frac{1.441}{1.36} =$ **1.06** ✓
Depth Correction ... **10.72** ✓
Deduction for superstructures ... **11.81** ✓
Sheer correction ... **6.26** ✓
Round of Beam correction ... **.02** ✓
Correction for Thickness of Deck amidships ...
Other corrections, scantlings, etc. ...

17.00 11.81 + 5.19
Summer Freeboard **53.94**

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~ Steel, Deck: **4' 6"** ✓ **1372 1/2**
Tropical Fresh Water Line above Centre of Disc **279 11"** ✓
Fresh Water Line " **146 5-3/4"** ✓
Tropical Line " **133 5-1/4"** ✓
Winter Line below " **133 5-1/4"** ✓
Winter North Atlantic Line " **184 7-1/4"** ✓
Tropical Fresh Water Freeboard ... **3 1/2"** ✓ **1093**
Fresh Water " ... **4 1/2 - 1/4"** ✓ **1226**
Tropical " ... **4 1/2 - 3/4"** ✓ **1239**
Winter " ... **4 1/2 - 1/4"** ✓ **1505**
Winter North Atlantic " ... **5 1/2 - 1/4"** ✓ **1556**

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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.

Trade of ship.....OCEAN GOING.....

Names of sister ships....."VICTORIA PARK" ETC.....

Builder's name and yard number.....FOUNDATION MARITIME LTD., No. 17.....

Owners.....CANADIAN GOVERNMENT.....

Fee £.....



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