

LLOYD'S REGISTER OF SHIPPING

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

LAKE
COMPUTATION
FULL GRID ASSIGNED

Ship's Name "COALFAX"	Official Number 147793	Nationality and Port of Registry CANADIAN MONTREAL	Gross Tonnage 2502	Date of Build 9/1927	Port of Survey MONTREAL OFFICE
Moulded Dimensions: Length 253'-0" Breadth 43'-2" Depth 25'-0"					Date of Survey 9/4/62
Freeboard Length					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing)					Particulars of Classification 100A1 GREAT LAKES AND RIVER ST LAWRENCE SERVICE.
Coefficient of fineness for use with Tables .78					

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth	(a) Where D is greater than Table depth (D-Table depth) R =	Moulded Breadth (B)
Stringer plate	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50}$ =
Wood Sheathing on exposed deck	If restricted by superstructures	Ship's Round of Beam =
$T \left(\frac{L-S}{L} \right) =$		Difference
Depth for Freeboard (D) =		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S}{L} \right) =$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S)	Height	Height Correction	Effective Length (E)	
Poep enclosed						Standard Height of Superstructure
" overhang						" " R.Q.D.
R.Q.D. enclosed						Deduction for complete superstructure
" overhang						Percentage covered $\frac{S}{L} =$
Bridge enclosed						" " $\frac{S_1}{L} =$
" overhang aft						" " $\frac{E}{L} =$
" overhang forward						Percentage from Table, Line A.
Fore enclosed						(corrected for absence of forecastle (if required))
" overhang						Percentage from Table, Line B.
Trunk aft						(corrected for absence of forecastle (if required))
" forward						Interpolation for bridge less than .2L (if required)
Tonnage opening aft						Deduction =
" forward						
Total						

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.		1					1		
$\frac{1}{3}L$ from A.P.		4					4		
$\frac{2}{3}L$ "		2					2		
Amidships	0	4	0	0	0	0	4	0	0
$\frac{2}{3}L$ from F.P.		2					2		
$\frac{1}{3}L$ "		4					4		
F.P.		1					1		
Total									

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

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck =	25.04
Summer freeboard =	7.79
Moulded draught (d) =	17.25
Keel allowance =	.09
Extreme draught =	17.34

Deduction for Tropical Freeboard and addition for

INTERMEDIATE Winter freeboard = $\frac{d}{4}$ inches = **4.3125 = 4 1/4**

Addition for Winter North Atlantic Freeboard (if required) = $\frac{1}{2} = 8.625 = 8 1/2$

ADDITION FOR SALT WATER.

Displacement in salt water at summer load water line	
$\Delta =$	
Tons per inch immersion at summer load water line	
$T =$	
Deduction = $\frac{\Delta}{T}$ inches	4 1/4

MIDSUMMER $d \div 3 = 5.75 = 5 3/4$

LAKE

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{1.46}{1.36}$

	+	-
Depth Correction	15.90	
Deduction for superstructures		6.08
Sheer correction	9.78	
Round of Beam correction02
Correction for Thickness of Deck amidships		
Other corrections, soundings, etc. for Winter	41.21	

ALL SEASONS DRAUGHT OF 16.54'

Summer Freeboard = **93.50**

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

Tropical Fresh Water Line above Centre of Disc

Fresh Water Line

MIDSUMMER Line

INTERMEDIATE Line

Winter North Atlantic Line

ABOVE CENTRE OF D.A.

below

Tropical Fresh Water Freeboard

Fresh Water

MIDSUMMER

INTERMEDIATE

Winter North Atlantic

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.

SALT WATER.

MIDSUMMER LINE, ABOVE CENTRE OF DIAMOND.	1"	MIDSUMMER FREEBOARD	7'-8 1/2"
SUMMER LINE BELOW " " "	4 1/4"	SUMMER FREEBOARD.	8'-1 3/4"
INTERMEDIATE LINE " " "	8 1/2"	INTERMEDIATE FREEBOARD	8'-6"
WINTER LINE " " "	12 3/4"	WINTER FREEBOARD.	8'-10 1/4"

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £ : :

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950", paragraph 11.)



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