

Rpt. C.11 (Comp.).
REDRIVER. 35986.
REDCLOUD. 35397.
REDWOOD. 33884.

Record COPY WRITTEN

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No. 35396.
(For London Office only).

Ship's Name REDFERN.	Official Number 154910.	Nationality and Port of Registry BRITISH. MONTREAL.	Gross Tonnage 1769.	Date of Build 1930.	Port of Survey CORNWALL. P.O.
Moulded Dimensions: Length 248.00' Breadth 43.50' Depth 19.89'					Date of Survey 30 TH. MARCH. 1937.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 4403 tons F.W.					Surveyor's Signature (sgd) Geo. Allan.
Coefficient of fineness for use with Tables .903.					Particulars of Classification

Depth for Freeboard (D). Moulded depth (VIRTUAL) ... 19.09' Stringer plate $\frac{3}{8}'' + \frac{1}{4}''$ DOUBLING. .10' Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ NONE. Depth for Freeboard (D) = 19.19'	Depth correction. (a) Where D is greater than Table depth (D - Table depth) R = $(19.19 - 16.53) 1.908 = + 5.08'$ 2.66 (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) Standard Round of Beam = $\frac{B \times 12}{50} =$ Ship's Round of Beam = 12.00' Difference ASSUMED STANDARD IN Restricted to ASCERTAINING VIRTUAL Correction = $\frac{\text{Diff.}}{4} \times \left(1 - \frac{S_1}{L} \right)$ MOULDED DEPTH. = NIL.
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
„ overhang ...					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...					
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed ...					
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total ...					

FLUSH DECK.

Standard Height of Superstructure	✓
„ „ R.Q.D.	✓
Deduction for complete superstructure	✓
Percentage covered $\frac{S}{L} =$	✓
„ „ $\frac{S_1}{L} =$	✓
„ „ $\frac{E}{L} =$	✓
Percentage from 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 =	✓

SHEER CORRECTION.

VIRTUAL.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	34.80	1		34.80	13.80	13.80	1		13.80
$\frac{1}{4}$ L from A.P. ...	15.485	4		61.94	✓	✓	4		✓
$\frac{1}{2}$ L „ ...	3.83	2		7.66	✓	✓	2		✓
Amidships ...	✓	4		✓	✓	✓	4		✓
$\frac{1}{2}$ L from F.P. ...	7.66	2		15.32	✓	✓	2		✓
$\frac{1}{4}$ L „ ...	30.97	4		123.88	✓	✓	4		✓
F.P. ...	69.60	1		69.60	16.92	16.92	1		16.92
Total ...				313.20					30.72

Mean actual sheer aft = DEFICIENT.
Mean standard sheer aft

Mean actual sheer forward = DEFICIENT.
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = } NIL
L
„ „ aft of „ = }

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{282.48}{18} \times .75 = +11.77''$
If limited on account of midship superstructure.

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

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

Depth to Freeboard Deck = **19.99** Ft.
Summer freeboard = **5.67**
Moulded draught (d) = **14.32**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **3.58 = 3½''**
Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta =$
Tons per inch immersion at summer load water line
 $T =$
Deduction = $\frac{\Delta}{40 T}$ inches
 $\frac{1}{4}'' = 3½''$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{903 + 68}{1.36} = \frac{1.583}{1.36}$

Depth Correction ... **5.08**
Deduction for superstructures ... **-**
Sheer correction ... **11.77**
Round of Beam correction ... **-**
Correction for Thickness of Deck amidships ... **9.60**
Other corrections, scantlings, etc. ... **-**

$\frac{1}{8}''$ DOUBLING ON

31.90 + 3.72

35.62''

41.46''

87.13.39

13.6.39

26.45

+ 26.45''

Summer Freeboard = 67.91''

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~WATER~~ Steel, Deck: -

Tropical Fresh Water Line above Centre of Disc ... **✓**
Fresh Water Line „ „ ... **3½''**
Tropical Line „ „ ... **3½''**
Winter Line below „ „ ... **3½''**
Winter North Atlantic Line „ „ ... **✓**

Tropical Fresh Water Freeboard ... **5'-8''**
Fresh Water „ „ ... **5'-4½''**
Tropical „ „ ... **5'-4½''**
Winter „ „ ... **5'-11½''**
Winter North Atlantic „ „ ... **✓**

16 JUN 1939