

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name CALEDON S/B & E. CO. NO. 4682472	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length 300.5 Breadth 46.0 Depth 23.0 <i>(annexed to C of rules etc)</i>					Date of Survey 8-9-47
Moulded displacement at moulded draught = 85 per cent. of moulded depth					Surveyor's Signature EJ
Coefficient of fineness for use with Tables .713					Particulars of Classification 100 A1 contemplated

DEPTH FOR FREEBOARD (D). Moulded depth ... 23.00 Stringer plate3408 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ NONE Depth for Freeboard (D) = 23.08	DEPTH CORRECTION. (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(23.08 - 20.03) 2.311 = +6.98$ (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) 46.0' Standard Round of Beam = $\frac{B \times 12}{50} =$ 11.04" Ship's Round of Beam = 11.00 Difference -.04 Restricted to Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ $\frac{.04}{4} \times .5877 =$ +.01"
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	15.40	15.40	7.5	✓	15.40
" overhang ...	5.10	2.55			2.55
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	82.00	82.00	8.0	✓	82.00
" overhang aft ...					
" overhang forward ...					
F'cle enclosed overhang ...	24.00	23.97	7.5	✓	23.97
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	126.50	123.92			123.92

Standard Height of Superstructure **6.51**

" " R.Q.D. **✓**

Deduction for complete superstructure **35.37**

Percentage covered $\frac{S}{L} =$ **42.10**

" " $\frac{S_1}{L} =$ **41.23**

" " $\frac{E}{L} =$ **41.23**

Percentage from Table, Line A.
(corrected for absence of forecastle (if required))

Percentage from Table, Line B. **28.54**
(corrected for absence of forecastle (if required))

Interpolation for bridge less than .2L (if required)

Deduction = **35.37 × .2852 = -10.09"**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	40.05	1		40.05	40	40.00	1		40.00
$\frac{1}{2}$ L from A.P. ...	17.82	4		71.28		17.80	4		71.20
$\frac{3}{8}$ L " ...	4.405	2		8.81		4.40	2		8.80
Amidships ...	-	4		-		-	4		-
$\frac{5}{8}$ L from F.P. ...	8.81	2		17.62		8.80	2		17.60
$\frac{3}{4}$ L " ...	35.65	4		142.60		35.60	4		142.40
F.P. ...	80.10	1		80.10	80	80.00	1		80.00
Total ...				360.46					360.00

Mean actual sheer aft =
Mean standard sheer aft =

Mean actual sheer forward =
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =
" " aft of " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{.46}{18} (.75 - .2105) = +.01"$
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 = **23.03**
Summer freeboard = **3.44**
Moulded draught (d) = **19.59**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **4.90 = 5"**Addition for Winter North Atlantic Freeboard (if required) = **7"**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

△ =

Tons per inch immersion at summer load water line

T =

Deduction = $\frac{\Delta}{40 T}$ inches $\frac{d}{4} =$ **5"**

TABULAR FREEBOARD corrected for Flash Deck (if required)

Correction for coefficient

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

43.52**44.58****1.36****1.36****6.98****10.09****.01****.01****2.24****6.95****7.00****10.33****3.14****3.33****41.25**

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

Tropical Fresh Water Line above Centre of Disc	10"
Fresh Water Line	5"
Tropical Line	5"
Winter Line below	5"
Winter North Atlantic Line	7"

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

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 poop :-

Enclosed at £ = 10.50'

$\frac{2 \times 6 \times 14.5}{35.5} = 4.90$

15.40 "

O'hang 20.5 - 15.40 = 5.10 "

Sheer forward :-

Std	Actual		Std	Actual	
0	0	1	0	0	$\frac{213.2}{213.48} = .9987$
8.81	8.8	3	26.43	26.40	
35.65	35.6	3	106.95	106.80	
80.10	80.0	1	80.10	80.00	
			213.48	213.20	

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £



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Foundation