

**Lloyd's Register of Shipping.**  
**SURVEYS FOR FREEBOARD.**  
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

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Ship's Name  "C.625"	Official Number  169,831	Nationality and Port of Registry  BRITISH. London.	Gross Tonnage  351.	Date of Build  1944.	Port of Survey Northwich (Liverpool)
Moulded Dimensions: Length 123'-6" Breadth 24'-6" Depth 10'-9" 123.84 to centre of ground stake					Date of Survey Whilst Building
Moulded displacement at moulded draught = 85 per cent. of moulded depth (9'-2") 580 tons					Surveyor's Signature J. W. Boylan.
Coefficient of fineness for use with Tables .732					Particulars of Classification + 100 A.I. for Coastal Service, class contemplated.
Depth for Freeboard (D).		Depth correction.		Round of Beam correction.	
Moulded depth	... 10.75	(a) Where D is greater than Table depth (D - Table depth) R = (10.78 - 8.26) .953 = + 2.40 2.52		Moulded Breadth (B) 24.5'	
Stringer plate	... .375 .03	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = ✓		Standard Round of Beam = $\frac{B \times 12}{50} = 5.88$	
Sheathing on exposed deck T $\left( \frac{L-S}{L} \right) =$ ✓		If restricted by superstructures ✓		Ship's Round of Beam = 6.5'	
Depth for Freeboard (D) = 10.78				Difference .62	
				Restricted to	
				Correction = $\frac{\text{Diff}^*}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.62}{4} \times .4428 = -.07$	

### DEDUCTION FOR SUPERSTRUCTURES.

*\* 1" sheathing on poop omitted as was measure.*

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed <i>Equivalent</i>	<del>49.13</del> <i>50.30</i>	<i>50.30</i>	<i>6.83</i>	<i>-</i>	<i>50.30</i>
" overhang ...	<i>nil.</i>				
R.Q.D. enclosed ...	<i>/</i>				
" overhang ...					
Bridge enclosed ...	<i>/</i>				
" overhang aft ...					
" overhang forward					
F'cle enclosed ...	<i>18.71</i>	<i>18.71</i>	<i>6.5</i>	<i>-</i>	<i>18.71</i>
" overhang ...	<i>nil</i>				
Trunk aft ...	<i>/</i>				
" forward ...					
Tonnage opening aft ...	<i>/</i>				
" " forward					
Total ...	<i>69.01</i>	<i>69.01</i>			<i>69.01</i>

Standard Height of Superstructure *6.0*

" " R.Q.D. *✓*

Deduction for complete superstructure *18.38*

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

" "  $\frac{S_1}{L} =$  } *55.72*

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

Percentage from Table, Line A. *40.01*

(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 = *18.38 × .4001 = -7.35*

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	22.38	1	22.38	<del>30.48</del> <del>2.54</del> 13.80	30.48	1	30.48
$\frac{1}{8}$ L from A.P. ...	9.96	4	39.84	<del>1.15</del> 3.60	13.80	4	55.20
$\frac{3}{8}$ L ..	2.46	2	4.92	<del>0.3</del>	3.60	2	7.20
Amidships ...	-	4	-	✓	-	4	-
$\frac{3}{8}$ L from F.P. ...	4.92	2	9.84	<del>5.52</del> <del>0.46</del> 20.88	5.52	2	11.04
$\frac{1}{8}$ L ..	19.92	4	79.68	<del>1.74</del> 46.80	20.88	4	83.52
F.P. ...	44.77	1	44.77	<del>3.9</del>	46.80	1	46.80
Total ...			201.43				234.24

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{.75 - S}{2L} \right) = \frac{32.81}{18} \left( \frac{.75 - .2786}{.4714} \right) = -.86$

If limited on account of midship superstructure.  $\frac{1}{4} - .03.$

Mean actual sheer aft =  
Mean standard sheer aft = } *inches*

Mean actual sheer forward =  
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = *N.Y.*  
L

.. .. aft of .. = *1006.*

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

**Deduction for Tropical Freeboard.**

**Addition for Winter and Winter North Atlantic Freeboard.**

Ft.

Depth to Freeboard Deck = 10.78

Summer freeboard = 6.64

Moulded draught (d) = 10.14

**Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = 2.53 = 2 1/2**

**Addition for Winter North Atlantic Freeboard (if required) =**

**Deduction for Fresh Water.**

Displacement in salt water at summer load water line

$\Delta = 660$

Tons per inch immersion at summer load water line

T = 6.26

**Deduction =  $\frac{\Delta}{40 T}$  inches = 2.64 = 2 3/4**

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

$\frac{.732 + .68}{1.36} = 1.42 / .36$

Correction for coefficient

	+	-
Depth Correction ...	2.40	-
Deduction for superstructures ...	-	7.35
Sheer correction ...	-	.03
Round of Beam correction ...	-	.07
Correction for Thickness of Deck amidships ...	-	-
Other corrections, scantlings, etc. ...	-	-
	2.40	7.45

**Summer Freeboard = 7.80**

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, <del>Steel</del> , Steel, Deck:			
Tropical Fresh Water Line above Centre of Disc	...	...	2 3/4"
Fresh Water Line	...	...	0'-5"
Tropical Line	...	...	0'-10 1/4"
Winter Line	...	...	0'-10 1/4"
Winter North Atlantic Line	...	...	0'-10 1/4"



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

Steam Coasting Vessel.

Names of sister ships

"C.614."

Builder's name and yard number

W.J. Yanwoods & Sons (1938) Ltd. Yard No 726.

Owners

Naval Stores Department.

Free £

6.



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