

16 AUG 1932

Index. No. 32243  
(For London Office only.)

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

No 31007

Computation of Freeboard for ~~Steam~~ Sailing Ship, Tanker

having

Poop, Bridge, & Forecastle  
(Type of Superstructures.)

Port of Survey

Switzerland

Date of Survey

15<sup>th</sup> August 1932

Name of Surveyor

D. J. Paton

Ship's Name

BRITISH ENDEAVOUR

Nationality and Port of Official Number

British  
London

149914

Gross Tonnage

4580

Date of Build

1927

10 Mo.

Moulded Dimensions: Length 380.5' Breadth 50.0' Depth 27.6'

Moulded displacement at moulded draught = 85 per cent. of moulded depth 9989 tons

Coefficient of fineness for use with Tables 716

Particulars of Classification +100 A.I.

Carrying Petroleum in bulk.  
Subd. for oil fuel 10.27. F.P. at 100 F.

## Depth for Freeboard (D)

Moulded depth ... 27.5'

Stringer plate 75' (62' x) ... .05

Sheathing on exposed deck

 $T \left( \frac{L-S}{L} \right) =$ 

Depth for Freeboard (D) = 27.55'

## Depth correction

(a) Where D is greater than Table depth

(D-Table depth) R =

(27.55 - 25.36) 2.19 + 6.41' ✓

(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) 50.00'

Standard Round of Beam =  $\frac{B \times 12}{50} = 12''$ 

Ship's Round of Beam 1.04' = 12.48"

Difference .48"

Restricted to

Correction =  $\frac{\text{Diff}''}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.48}{4} \times .552 = -.07''$ 

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	92.77'	92.77'	8.0'		92.77'
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	30.0'	30.00'	8.0'		30.00'
" overhang aft ...	4.25'	3.19'			3.19'
" overhang forward ...	4.25'	2.12'			2.12'
F'cle enclosed ...	54.97'	37.33'	8.0'		37.33'
" overhang ...	37.33'	5.03'			5.03'
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	178.66'	170.44'			170.44'

Standard Height of Superstructure 7.305

" " R.Q.D. 1

Deduction for complete superstructure 40.70

Percentage covered  $\frac{S}{L} = 46.95\%$ " "  $\frac{S_1}{L} = 44.80\%$ " "  $\frac{E}{L} = 44.80\%$ 

Percentage from Table, Line A.

(corrected for absence of forecastle (if required))

Percentage from Table, Line B. 35.80%

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = 40.70 x .358 = -14.57'

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	48.05	1		48.05	57.5	57.50	1		57.50
1/4 L from A.P. ...	21.39	4		85.56	25.67	25.67	4		102.68
1/2 L " ...	5.28	2		10.56	6.40	6.40	2		12.80
Amidships ...		4			0		4		
3/4 L from F.P. ...	10.57	2		21.14	11.62	11.62	2		23.24
1/4 L " ...	42.77	4		171.08	46.61	46.61	4		186.44
F.P. ...	96.10	1		96.10	105.0	105.00	1		105.00
Total ...				432.49					487.66

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75-S}{2L} \right) = \frac{55.17}{18} \left( \frac{75-2347}{18} \right) = -1.58''$ 

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 27.55'

Summer freeboard = 4.40'

Moulded draught (d) = 23.15'

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 5.79 - 5 1/4

Addition for Winter North Atlantic Freeboard (if required) = 3 3/4

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 9933$ 

Tons per inch immersion at summer load water line

T = 38.46

Deduction =  $\frac{\Delta}{40T}$  inches

= 6.47 = 6 1/2

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

Correction for coefficient

786 + 68 = 854

1.36 = 1.36

Depth Correction ... 6.41'

Deduction for superstructures ... 14.57'

Sheer correction ... 1.58'

Round of Beam correction ... .07'

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

6.41 16.22 - 9.81

Summer Freeboard = 52.73

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

Tropical Fresh Water Line above Centre of Disc ... 12 1/4"

Fresh Water Line " " ... 6 1/2"

Tropical Line " " ... 5 3/4"

Winter Line below " " ... 5 3/4"

Winter North Atlantic Line " " ... 9 1/2"

Tropical Fresh Water Freeboard ... 3' 4 1/2"

Fresh Water " " ... 3' 10 1/4"

Tropical " " ... 5' 11"

Winter " " ... 4' 10 1/2"

Winter North Atlantic " " ... 5' 2 1/4"

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12 MAR 1936  
RECEIVEDMARKING FORM  
18 AUG 1932  
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