

Rpt. C.11 (Comp.).

Index. No. 37590
(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER, (TUG))

Ship's Name "EMPIRE BETSY" N.N. SOERIO	Official Number 180248	Nationality and Port of Registry BRITISH HULL.	Gross Tonnage 274.35	Date of Build 1944	Port of Survey HULL.
Moulded Dimensions: Length 105'0" Breadth 26'6" Depth 13'0"					Date of Survey DURING CONSTRUCTION.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 504 tons					Surveyor's Signature J. Macleod
Coefficient of fineness for use with Tables .68 (.574 actual) 5.2 T.					Particulars of Classification *100 A.1. "FOR TOWING SERVICES" (CONTEMPLATED)

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... 13'0"	(a) Where D is greater than Table depth (D - Table depth) R = (13.03 - 7.00) x .808 = +4.87	Moulded Breadth (B) 26'5"
Stringer plate029	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = ✓	Standard Round of Beam = $\frac{B \times 12}{50} =$ 6.36
Sheathing on exposed deck ✓ $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures ✓	Ship's Round of Beam = 7 1/2
Depth for Freeboard (D) = 13.029		Difference 1.14
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{1.14}{4} = -.29$

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 ...					

Standard Height of Superstructure _____

" " R.Q.D. _____

Deduction for complete superstructure _____

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

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

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

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 = **Nil**

SHEERS MEASURED FROM TOP OF KEEL
TO DECK AT SIDE

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	20.50	1		20.50	36.00	36.00	1		36.00
1/2 L from A.P. ...	9.12	4		36.48	17.50	17.50	4		70.00
3/8 L " ...	2.25	2		4.51	6.00	6.00	2		12.00
Amidships ...	-	4		-	12.00	-	4		-
3/8 L from F.P. ...	4.51	2		9.02	4.25	4.25	2		8.50
1/2 L " ...	18.25	4		73.00	24.00	24.00	4		96.00
F.P. ...	41.00	1		41.00	60.00	60.00	1		60.00
Total ...				184.51					282.50

Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{97.99}{18} \times .75 = -4.08$

If limited on account of midship superstructure. **No. Flush Deck**

If limited to maximum allowance of 1 1/2 ins. per 100 ft. **4.08 - 1.58**Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **13.03**

Summer freeboard = **1.25**

Moulded draught (d) = **11.78**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **2.94 = 3**Addition for Winter North Atlantic Freeboard (if required) = **5**

Deduction for Fresh Water.

Displacement in salt water at summer load water line.

 $\Delta =$ **555**

Tons per inch immersion at summer load water line

 $T =$ **5.29**Deduction = $\frac{\Delta}{40T}$ inches $= \frac{555}{40 \times 5.29} = 2.62 = 2 1/2$

MEAN DRAUGHT	EXT. DISP.	T.
12'0"	532	5.22
11'0"	468	5.03
10'0"	408	4.84

TABULAR FREEBOARD corrected for Flush 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.

10.50 + 1.57**12.07****12.07****4.87****-****-****-****1.58****2.29****-****-****4.87****1.87****+3.00****Summer Freeboard = 15.07**SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, **Wood, Steel, Deck**:

Tropical Fresh Water Line above Centre of Disc ...	5 1/2 = 14
Fresh Water Line " " ...	2 1/2 = 6
Tropical Line " " ...	3 = 8
Winter Line below " " ...	3 = 8
Winter North Atlantic Line " " ...	5 = 13

Tropical Fresh Water Freeboard ...	1'3" = 38 cms.
Fresh Water " " ...	0'9 1/2" = 24
Tropical " " ...	1'0 1/2" = 32
Winter " " ...	1'0" = 30
Winter North Atlantic " " ...	1'8" = 46

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.

(207)

HULL
DURING CONSTRUCTION

WATER

BRITISH

EMPIRE GELBY

HULL

100000

100000

100000

100000

FOR TOWING SERVICES
(CONTINUED)

100000

100000

100000

Trade of ship FOR TOWING SERVICES.

Names of sister ships "EMPIRE SILAS" - "EMPIRE HUMPHREY"

Builder's name and yard number COCHRANE & SONS LD. YARD NO 1280.

Owners THE MINISTRY OF WAR TRANSPORT.

Fee £ TO BE CHARGED WITH FIRST ENTRY.

T. 100000

100000

100000



© 2019

Lloyd's Register
Foundation