

Empire Sheila
38093

A.T. COPE

Feb. 24/46.

6 - FEB 1946

Index No. **38 394**
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

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

Ship's Name "EMPIRE NINA"	Official Number 180474	Nationality and Port of Registry BRITISH HULL.	Gross Tonnage 296	Date of Build 1946	Port of Survey <i>Hull.</i>
Moulded Dimensions: Length 115'-0" Breadth 27'-6" Depth 13'-6"					Date of Survey <i>During construction</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth 580 tons					Surveyor's Signature <i>J. Macleod</i>
Coefficient of fineness for use with Tables .68 (Actual .559) $T = 5.96$					Particulars of Classification *100 A1. FOR TOWING SERVICES. (CONTEMPLATED)

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	13'-5"	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	27'-5"
Stringer plate	35	$(13.53 - 7.67) \cdot 835 = + 5.19$		Standard Round of Beam = $\frac{B \times 12}{50} =$	6.6
Sheathing on exposed deck		(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Ship's Round of Beam =	8"
$T \left(\frac{L-S}{L} \right) =$	✓			Difference	1.4
Depth for Freeboard (D) =	13.53	If restricted by superstructures	✓	Restricted to	
				Correction = $\frac{\text{Diff}^\circ}{4} \times \left(1 - \frac{S_1}{L} \right) =$	$\frac{1.4}{4} \times 1 = -0.35$

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** ✓
 " " $\frac{S_1}{L} =$ }
 " " $\frac{E}{L} =$ }
 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 = **NIL**

SHEER HEIGHTS TAKEN FROM TOP OF KEEL TO UPPER DECK AT SIDE.

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	21.50	1	1	21.50	16'-5 3/4"	35.75	1	1	35.75
1/4 L from A.P.	9.565	4	4	38.26	15'-2 1/2"	20.25	4	4	81.00
2/4 L "	2.365	2	2	4.73	14'-2"	8.00	2	2	16.00
Amidships	-	4	4	-	13'-6"	-	4	4	-
2/4 L from F.P.	4.73	2	2	9.46	13'-9"	3.00	2	2	6.00
1/4 L "	19.13	4	4	76.52	15'-1 1/2"	19.50	4	4	78.00
F.P.	43.00	1	1	43.00	17'-1 1/2"	53.50	1	1	53.50
Total				193.47					270.25

Mean actual sheer aft =
 Mean standard sheer aft = } **EXCESS**
 Mean actual sheer forward =
 Mean standard sheer forward = }

Length of enclosed superstructure forward of amidships = } **NIL**
 " " aft of " = }

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{76.78}{18} \times .75 = -3.20$
 If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft. -1.73 ✓

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

Depth to Freeboard Deck = **13.53** Ft. ✓
 Summer freeboard = **1.35** ✓
 Moulded draught (d) = **12.18** ✓

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **3.05 = 3"** ✓
 Addition for Winter North Atlantic Freeboard (if required) = **5"** ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 634$ ✓
 Tons per inch immersion at summer load water line
 $T = 6.18$ ✓

Deduction = $\frac{\Delta}{40 T}$ inches = **2 1/2"**

DRAGHTS.	EXT. DISP.	T
11'-5 3/4"	586	6.02
10'-6"	517	5.79
9'-6"	449	5.54

TABULAR FREEBOARD corrected for Flush Deck (if required) **13.23** ✓

Correction for coefficient **NIL**

Depth Correction **5.19** ✓
 Deduction for superstructures ✓
 Sheer correction **1.73** ✓
 Round of Beam correction **.35** ✓
 Correction for Thickness of Deck amidships ✓
 Other corrections, scantlings, etc. ✓

	+	-	
5.19	✓		
-		✓	
-			1.73
-			.35
-			
-			
5.19		2.08	+ 3.11

Summer Freeboard = **16.34** ✓

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" ✓	Tropical Fresh Water Freeboard	0'-10 3/4" ✓
Fresh Water Line " "	2 1/2" ✓	Fresh Water " "	1'-13 3/4" ✓
Tropical Line " "	3 ✓	Tropical " "	1'-1 1/4" ✓
Winter Line below " "	3 ✓	Winter " "	1'-7 1/4" ✓
Winter North Atlantic Line " "	5 ✓	Winter North Atlantic " "	1'-2 1/4" ✓

7.7.46.
 Lloyd's Register Foundation
 8/3/46

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.

Trade of ship FOR TOWING SERVICES.

Names of sister ships "EMPIRE GRETA" "EMPIRE VERA"

Builder's name and yard number COCHRANE & SONS LTD., SELBY. YARD NO 1304.

Owners MINISTRY OF WAR TRANSPORT.

Fee £4. TO BE CHARGED WITH FIRST ENTRY.



© 2020

Lloyd's Register
Foundation