

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

Feb 5934.

Ship's Name EMPIRE TAGALAM EX. PAUL HARNEIT (M.V.)	Official Number 180587	Nationality and Port of Registry BRITISH London	Gross Tonnage 10401	Date of Build 1936-1	Port of Survey LIVERPOOL
Moulded Dimensions: Length 485' 0" Breadth 69' 9" Depth 37' 0"					Date of Survey JUNE-JULY 1945
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Surveyor's Signature S.B. Lumsden
Coefficient of fineness for use with Tables assumed .77					Particulars of Classification + CARRYING PETROLEUM IN BULK. RECLASSIFICATION CONTEMPLATED.

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 37' 00"	(a) Where D is greater than Table depth (D-Table depth) R = (37.07-32.33) x 3 = + 14.22	Moulded Breadth (B) 69.75
Stringer plate ... 0.07	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = 4.74	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{836.4}{50} = 16.74$
Sheathing on exposed deck ... -	If restricted by superstructures -	Ship's Round of Beam = 14.74
$T \left(\frac{L-S}{L} \right) =$		Difference = 2.6
Depth for Freeboard (D) = 37.07		Restricted to
		Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{2.6}{4} \times \frac{62.63}{69.75} = - .04$

DEDUCTION FOR SUPERSTRUCTURES.						Standard Height of Superstructure 7.5	
	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	R.Q.D. -	
Poop enclosed ...	106' 6"	106' 50"	8' 0"	-	106' 50"	Deduction for complete superstructure 42	
" overhang ...	-					Percentage covered $\frac{S}{L} =$	
R.Q.D. enclosed ...	-					$\frac{S_1}{L} = \left. \begin{matrix} 37.37 \\ E \\ L \end{matrix} \right\}$	
" overhang ...	-					Percentage from Table, Line A. Tanker 28.37	
Bridge enclosed ...	39' 5"	39' 42"	7' 11 1/2"	-	39' 42"	(corrected for absence of forecastle (if required))	
" overhang aft ...	-					Percentage from Table, Line B. -	
" overhang forward ...	35' 4"	35' 33"	7' 6"	-	35' 33"	(corrected for absence of forecastle (if required))	
F'cle enclosed ...	36' 4"					Interpolation for bridge less than .2L (if required)	
" overhang ...	-					Deduction = 42 x 28.37 = - 11.92	
Trunk aft ...	-						
" forward ...	-						
Tonnage opening aft ...	-						
" " forward ...	-						
Total ...	181' 25"	181' 25"			181' 25"		

SHEER CORRECTION.								Mean actual sheer aft =	
Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	58' 50"	1		58' 50"	6' 5"	78' 0"	1		78' 0"
1/8 L from A.P. ...	26' 035"	4		104' 14"	3' 25"	39' 0"	4		156' 0"
2/8 L " ...	6' 435"	2		12' 87"	1' 00"	12' 0"	2		24' 0"
Amidships ...	-	4		-	-	-	4		-
2/8 L from F.P. ...	12' 87"	2		25' 74"	2' 85"	16' 0"	2		32' 0"
1/8 L " ...	52' 07"	4		208' 28"	5' 00"	60' 0"	4		240' 0"
F.P. ...	117' 00"	1		117' 00"	10' 1"	121' 2"	1		121' 2"
Total ...	5			526' 53"					651' 2"
Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{124.67 \times (.75 - \frac{1869}{5631})}{18} = - 3.90$									
If limited on account of midship superstructure. ✓									
If limited to maximum allowance of 1 1/2 ins. per 100 ft. ✓									

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	83.90
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.77 + .68}{1.36} = \frac{1.45}{1.36}$	89.64
Depth to Freeboard Deck = 37' 07"	$\Delta = 2.2000$	Depth Correction ... 14.22	
Summer freeboard = 7.33	Tons per inch immersion at summer load water line	Deduction for superstructures ... 11.92	
Moulded draught (d) = 29.74	T = 69.45	Sheer correction ... 3.90	
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40 T}$ inches	Round of Beam correction04	
Winter freeboard = $\frac{d}{4}$ inches = 7.43 = 7 1/2	= 7.89 = 8	Correction for Thickness of Deck amidships ... -	
Addition for Winter North Atlantic Freeboard (if required) = 7.43 + 4.85 = 12.28 = 12 1/4		Other corrections, scantlings, etc. ... -	
		14.22 15.86	1.64
		Summer Freeboard = 88.00	

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood Steel, Deck :-			
Tropical Fresh Water Line above Centre of Disc ...	15 1/2"	Tropical Fresh Water Freeboard ...	6' 0 1/2"
Fresh Water Line " " ...	8"	Fresh Water " " ...	6' 8"
Tropical Line " " ...	7 1/2"	Tropical " " ...	6' 8 1/2"
Winter Line below " " ...	7 1/2"	Winter " " ...	7' 11 1/2"
Winter North Atlantic Line " " ...	12 1/2"	Winter North Atlantic " " ...	8' 4 1/2"

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 ☒ *✓*

Names of sister ships ☒ *✓*

Builder's name and yard number *F. SCHICHAU G.M.B.H.*

Owners *MINISTRY OF WAR TRANSPORT*

Fee £ *20* : *0* : *0*



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