

Lloyd's Register of Shipping.  
SURVEYS FOR FREEBOARD.

MDR. 17801.

(COMPUTATION FOR ~~STEAMER~~, ~~SAILING SHIP~~ TANKER.)

Ship's Name FURNESS YARD N: 363 S/S. "WAVE REGENT"	Official Number 180564	Nationality and Port of Registry BRITISH	Gross Tonnage 8184 8196 (APPROX)	Date of Build 1945	Port of Survey MIDDLESBROUGH
Moulded Dimensions: Length 465'-8" Breadth 64'-0" Depth 35'-6" MLO. DISPLACEMENT AT 28'-3/4" = 16336 TONS. T.P.I. = 56.5 TO CENTRE OF RUDDER STOCK. Moulded displacement at moulded draught = 85 per cent. of moulded depth 30.175' = 17635 tons DEPTH OF KEEL BELOW BASE LINE = 1.79'. Coefficient of fineness for use with Tables .686				Date of Survey WHILE BUILDING	
Surveyor's Signature Hcyong				Particulars of Classification 100 A.1. CARRYING PETROLEUM IN BULK. LONGITUDINAL FRAMING AT BOTTOM IN CENTRE TANKS & AT DECK. CLASS CONTEMPLATED.	

<b>DEPTH FOR FREEBOARD (D).</b> Moulded depth ... 35.50' Stringer plate ... 80" ... 0.67 Sheathing on exposed deck NIL. $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 35.56'	<b>DEPTH CORRECTION.</b> (a) Where D is greater than Table depth (D-Table depth) R = (35.57 - 31.07) 3 = +13.50 4.50 (b) Where D is less than Table depth (if allowed) (Table depth-D) R = If restricted by superstructures	<b>ROUND OF BEAM CORRECTION.</b> Moulded Breadth (B) 64' → 22'-0" ← Standard Round of Beam = $\frac{B \times 12}{50}$ 15.36' → 16" ← Ship's Round of Beam EQUIN 16.13' ← 64'-0" → Difference UPPER DECK AT CENTRE IS HORIZONTAL Restricted to FROM AFT PERP TO 123'-4" FROM FORE PERP. Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left( 1 - \frac{S_1}{L} \right)$ = $\frac{77}{4} \times 5/32 = -1.0$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed EQUIN.	125.79	125.79	7'-6"	✓	125.79
" overhang	NIL				
K.Q.D. enclosed	✓				
" overhang	47.00				
Bridge enclosed EQUIN.	47.00	47.00	7'-6"	✓	47.00
" overhang aft	2'-6"	1.87			1.87
" overhang forward	NIL				
F'cle enclosed	52.19	52.19	7'-6"	✓	52.19
" overhang	2'-3" IN CENTRE.				
Trunk aft	52.19				
" forward	✓				
Tonnage opening aft	✓				
" forward	✓				
Total	227.48	226.85			226.85

Standard Height of Superstructure 7.5'  
" " R.Q.D. ✓  
Deduction for complete superstructure 42  
Percentage covered  $\frac{S}{L} = 48.82$   
" "  $\frac{S_1}{L} =$   
" "  $\frac{E}{L} =$  } 48.68  
Percentage from Table, Line A. TANKER 39.68  
(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 = 42 × .3968 = -16.67

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	56.60	1		56.60	13"	13.00	1		13.00
1/8 L from A.P.	25.185	4		100.74	2.25"	2.25	4		9.00
3/8 L	6.225	2		12.45	.25"	.25	2		.50
Amidships	-	4		-	0	-	4		-
3/8 L from F.P.	12.45	2		24.90	0	-	2		-
1/8 L	50.37	4		201.48	11.25"	11.25	4		45.00
F.P.	113.19	1		113.19	84"	84.00	1		84.00
Total				509.36					151.50

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{357.86}{18} \left( .75 - \frac{2441}{5059} \right) = +10.06$   
If limited on account of midship superstructure. ✓  
If limited to maximum allowance of 1 1/2 ins. per 100 ft. ✓

Mean actual sheer aft =  
Mean standard sheer aft = } DEFICIENT.  
Mean actual sheer forward =  
Mean standard sheer forward = }  
Length of enclosed superstructure forward of amidships =  
" " aft of " = } DEFICIENT TYPE.

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> Ft. Depth to Freeboard Deck = 35.57. Summer freeboard = 7.19 Moulded draught (d) = 28.38 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 7.09 = 7" Addition for Winter North Atlantic Freeboard (if required) = 7.09 + 4.66 = 11.75 = 11 3/4"	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta = 16488$ Tons per inch immersion at summer load water line T = 56.5. Deduction = $\frac{\Delta}{40 T}$ inches = 7.29 = 7 1/4"	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) Correction for coefficient $\frac{.686 + .68}{1.36} \cdot \frac{1.366}{1.36}$ Depth Correction ... 13.50 Deduction for superstructures ... 16.67 Sheer correction ... 10.06 Round of Beam correction ... 1.10 Correction for Thickness of Deck amidships ... Other corrections, scantlings, etc. ... 23.56 16.77 + 6.79 Summer Freeboard = 86.33	79.19 79.54 23.2.45 + 6.79 86.33
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc	14 1/4"	Tropical Fresh Water Freeboard	6'-2 1/4"
Fresh Water Line	7 1/4"	Fresh Water	6'-2 1/4"
Tropical Line	7"	Tropical	6'-7 1/4"
Winter Line below	7"	Winter	7'-9 1/4"
Winter North Atlantic Line	11 3/4"	Winter North Atlantic	8'-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.

Poop deck.

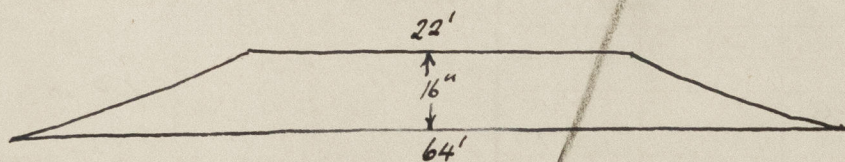
$$\begin{array}{r} 126.25 \\ 122.00 \\ \hline 4.25 \times \frac{2}{3} = 2.83 \\ 122.00 \\ 124.83 \\ + .96 \text{ for cr. of deck.} \\ \hline 125.79 \end{array}$$

Bridge deck.

$$\begin{array}{r} 48.50 \\ 44.00 \\ \hline 4.50 \times \frac{2}{3} = 3.00 \\ 44.00 \\ \hline 47.00 \end{array}$$

Forecastle deck.

$$\begin{array}{r} \text{Recess} \quad \frac{18 \times 26}{46.5} = \frac{62.25}{52.19} \end{array}$$



$$\text{Area} = \frac{16}{12} \times 22 = 29.33$$

$$+ \frac{16}{12} \times \frac{42}{2} = 28.00$$

$$57.33 \div .64 = .896$$

$$.896 \times \frac{3}{2} = 1.344 = \underline{\underline{16.13}}$$

Trade of ship TANKER.

Names of sister ships ☒ *Empire Acorn (356) Emp. Law (357) Emp. Melner (358) Emp. Paladin (359)*  
*Emp. Protector (360) Wave Emperor (361) Wave Governor (362)*

Builder's name and yard number FURNESS S.B. & LTD YARD N° 363.

Owners ADMIRALTY (R.F.A.)

Fee £ WILL BE CHARGED ON FIRST ENTRY REPORT.



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Foundation