

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

MOB. 17791.

(COMPUTATION FOR TANKER.)

Ship's Name FURNESS YARD N° 362 5/8 "WAVE GOVERNOR"	Official Number 180489	Nationality and Port of Registry BRITISH London.	Gross Tonnage 8196 (Approx.) 8195.62	Date of Build 1945.	Port of Survey MIDDLESBROUGH
Moulded Dimensions: Length 465'-0" Breadth 64'-0" Depth 35'-6" TO CENTRE OF RUDDER MOULDED DRAFT = 28-3/4' = 16300 TONS STOCK T.P.I. = 57 Moulded displacement at moulded draught = 85 per cent. of moulded depth 30.175 = 17605 tons DEPTH OF KEEL = 1.79' BELOW BASE LINE. Coefficient of fineness for use with Tables .685					Date of Survey WHILE BUILDING
Surveyor's Signature H. C. Young					Particulars of Classification 100A.1 CARRYING PETROLEUM IN BULK. LONGITUDINAL FRAMING AT BOTTOM AND AT DECK. CLASS CONTEMPLATED.

DEPTH FOR FREEBOARD (D). Moulded depth ... 35.50 Stringer plate ... 80'06 Sheathing on exposed deck NIL. $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 35.56	DEPTH CORRECTION. (a) Where D is greater than Table depth (D-Table depth) R = (35.57-31.07) 3 = +13.50 (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) 64' Standard Round of Beam = $\frac{B \times 12}{50} = 15.36$ Ship's Round of Beam EQUIV. 16.13 Difference UPPER DECK AT CENTRE IS HORIZONTAL FROM AFT PERP. TO 126'-1" FROM F.P. Restricted to DIFF = .77 Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.77}{4} \times .5132 = -.10$
---	--	--

DEDUCTION FOR SUPERSTRUCTURES.					
	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed EQUIV.	125.79	125.79	7'-6"	✓	125.79
" overhang	NIL				
R.Q.D. enclosed	✓				
" overhang	47.00				
Bridge enclosed EQUIV.	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	227.48				
Total	228.77	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
" " $\frac{S_1}{L} =$	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 =	42.0 x .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	0	-	2	-
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	11.625"	11.625	4	46.50
F.P.	113.19	1	113.19	84"	84.00	1	84.00
Total			509.36				152.50

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{356.86}{18} \left(.75 - \frac{.2441}{.5059} \right) = +10.03$
If limited on account of midship superstructure. ✓
If limited to maximum allowance of 1 1/2 ins. per 100 ft. ✓

Mean actual sheer aft	} deficient.
Mean standard sheer aft	
Mean actual sheer forward	} deficient.
Mean standard sheer forward	
Length of enclosed superstructure forward of amidships	} Sheer.
" aft of	

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. 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"	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 16378$ Tons per inch immersion at summer load water line T = 57 Deduction = $\frac{\Delta}{40 T}$ inches = 7.18 = 7 1/4"	TANKER. TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.685 + .68}{1.36} = \frac{1.365}{1.36}$ <table><tr><td></td><td>+</td><td>-</td></tr><tr><td>Depth Correction</td><td>13.50</td><td>-</td></tr><tr><td>Deduction for superstructures</td><td>-</td><td>16.67</td></tr><tr><td>Sheer correction</td><td>10.03</td><td>-</td></tr><tr><td>Round of Beam correction</td><td>-</td><td>.10</td></tr><tr><td>Correction for Thickness of Deck amidships</td><td>-</td><td>-</td></tr><tr><td>Other corrections, scantlings, etc.</td><td>-</td><td>-</td></tr><tr><td></td><td>23.53</td><td>16.77</td></tr></table> Summer Freeboard = 86.24		+	-	Depth Correction	13.50	-	Deduction for superstructures	-	16.67	Sheer correction	10.03	-	Round of Beam correction	-	.10	Correction for Thickness of Deck amidships	-	-	Other corrections, scantlings, etc.	-	-		23.53	16.77
	+	-																								
Depth Correction	13.50	-																								
Deduction for superstructures	-	16.67																								
Sheer correction	10.03	-																								
Round of Beam correction	-	.10																								
Correction for Thickness of Deck amidships	-	-																								
Other corrections, scantlings, etc.	-	-																								
	23.53	16.77																								

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

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

Poop:-

$$\begin{array}{r} 126.25 \\ 122.00 \\ \hline 4.25 \times \frac{2}{3} = 2.83 \\ 122.00 \\ .96 \\ \hline 125.79 \end{array}$$

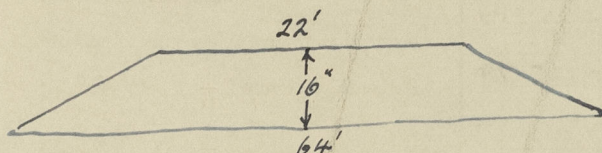
BRIDGE:-

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

FORECASTLE:-

$$\begin{array}{r} 62.25 \\ 18 \times 26 \\ 46.5 \end{array} = \frac{10.06}{52.19}$$

Round of Beam.



$$\begin{aligned} \text{Area} &= \frac{16}{12} \times 22 = 29.33 \\ &+ \frac{16}{12} \times \frac{42}{2} = \frac{28.00}{57.33} \div .64 = .896 \\ .896 \times \frac{3}{2} &= 1.344 = \underline{\underline{16.13''}} \end{aligned}$$

Trade of ship TANKER.

Names of sister ships EMPIRE BOUNTY (N° 356) - EMP: LAW (N° 357), EMP: MILNER (N° 358), EMP: PALADIN (N° 359),
EMPIRE PROTECTOR (N° 360), WAVE EMPEROR (N° 361).

Builder's name and yard number FURNESS S.B. CO LTD YARD N° 362.

Owners ADMIRALTY (R.F.A.)

Fee £ WILL BE CHARGED ON FIRST ENTRY REPORT.



© 2020

Lloyd's Register
Foundation