

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

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

Index No. 38376  
(For London Office only).

Ship's Name **FURNESS YARD No 364**  
**9/5. "WAVE SOVEREIGN"**

Official Number **180813**

Nationality and Port of Registry **BRITISH**

Gross Tonnage **8184 (APPROX.)**  
**8182**

Date of Build **1946**

Port of Survey **MIDDLESBROUGH**

Date of Survey **WHILE BUILDING**

Surveyor's Signature **H. C. Young**

Moulded Dimensions: Length **465'0"** Breadth **64'0"** Depth **35'6"**  
 MLD DISPLACEMENT AT 28'3 1/4" = 16336 TONS. T.P.I. = 56.5.

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**

Particulars of Classification **100 A.I.**  
 CARRYING PETROLEUM IN BULK  
 LONGIT. FRAMING AT BOTTOM IN CENTRE TANKS  
 & AT DECK. CLASS CONTEMPLATED.

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... 35'50"	(a) Where D is greater than Table depth (D-Table depth) R = (35.57 - 31.07) 3 = +13.50	Moulded Breadth (B) <b>64'</b> Standard Round of Beam = $\frac{B \times 12.1536}{50}$ <b>16.16"</b> Ship's Round of Beam = 16.15" <b>16.15"</b> Difference <b>UPPER DECK AT CENTRE IS HORIZONTAL</b> FROM AFT PERP. TO 123'-4" FROM FORE PERP.
Stringer plate ... 80" ... 0.6'	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓	Restricted to <b>.77</b>
Sheathing on exposed deck <b>NIL</b> $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures ✓	Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.11^2}{4} \times .5132 = -.010$
Depth for Freeboard (D) = <b>35'56"</b>		

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed <i>equiv</i> ...	<del>5.122'-0"</del> <del>5.126'-6"</del> <b>5.125'-79"</b>	125.79	7'-6"	✓	125.76
.. overhang ...	<b>NIL</b>				
R.Q.D. enclosed ...	✓				
.. overhang ...	<b>47.00</b>				
Bridge enclosed <i>equiv</i> ...	<del>5.44'-0"</del> <del>6.44'-6"</del> <b>6.44'-6"</b>	47.00	7'-6"	✓	47.00
.. overhang aft ...	<b>2'-36"</b>	1.87			1.87
.. overhang forward	<b>NIL</b>				
F'cle enclosed <i>equiv</i> ...	<del>5.62'-3"</del> <del>6.44'-3"</del> <b>6.44'-3"</b>		7'-6"	✓	
.. overhang ...	<b>2'-5" IN CENTRE 52.19</b>				52.19
Trunk aft ...	✓				
.. forward ...	✓				
Tonnage opening aft ...	✓				
.. forward	✓				
Total ...	<b>227.48</b>	<b>226.85</b>			<b>226.85</b>

Standard Height of Superstructure **7.5'**

.. R.Q.D. ...

Deduction for complete superstructure **42.0**

Percentage covered  $\frac{S}{L} = 48.82$

..  $\frac{S_1}{L} =$  ...

..  $\frac{E}{L} =$  ... **48.68**

Percentage from Table, Line **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 =  $420 \times .3968 = -16.67$

## 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
1/8 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 ...				<b>509.36</b>					<b>151.50</b>

Mean actual sheer aft =  
 Mean standard sheer aft = } **Deficient**

Mean actual sheer forward =  
 Mean standard sheer forward = }

Length of enclosed superstructure forward of amidships = } **Deficient**  
 .. .. aft of .. = } **Sheer**

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. ✓

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) =  $7.09 + 4.66 = 11.75 = 11 \frac{3}{4}"$

Deduction for Fresh Water.

Displacement in salt water at summer load water line  
 $\Delta = 16,400$   
 Tons per inch immersion at summer load water line  
 $T = 56.5$   
 Deduction =  $\frac{\Delta}{40T}$  inches  
 = **7.26**  
 = **7 1/4"**

TABULAR FREEBOARD *Tanker* corrected for Flush Deck (if required)

Correction for coefficient  $\frac{.686 + .68}{1.36} = \frac{1.366}{1.36}$

	+	-
Depth Correction ...	13.50	—
Deduction for superstructures ...	—	16.67
Sheer correction ...	10.06	—
Round of Beam correction ...	—	.10
Correction for Thickness of Deck amidships ...	—	—
Other corrections, scantlings, etc. ...	—	—
<b>23.56</b>	<b>16.77</b>	<b>+ 6.79</b>

Summer Freeboard = **86.33**

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"**  
 Fresh Water Line " " ... **7 1/4"**  
 Tropical Line " " ... **7"**  
 Winter Line below " " ... **7"**  
 Winter North Atlantic Line " " ... **11 3/4"**

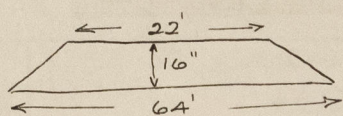
Tropical Fresh Water Freeboard ... **6'-0"**  
 Fresh Water " " ... **6'-7"**  
 Tropical " " ... **6'-7 1/4"**  
 Winter " " ... **7'-9 1/4"**  
 Winter North Atlantic " " ... **8'-2"**



# Wave Sovereign.

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.

Round of beam



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

$$\frac{16}{12} \times \frac{42}{2} = \frac{28.00}{57.33} \therefore \frac{57.33}{64.00} = .896'$$

$$\text{Equiv R of B} = .896 \times \frac{3}{2} = 1.344' = \underline{16.13''}$$

Peop  $122.0 + .96 + \left(\frac{2}{3} \times 4.25\right) = 125.79'$  equiv enclosed.

Bridge  $44.0 + \left(\frac{2}{3} \times 4.5\right) = 47.0$  " "

Forecastle  $62.25 - \left(\frac{10.06}{46.5}\right) = 52.19$  " "

Trade of ship TANKER.

Names of sister ships 9/5 "WAVE REGENT" FURNESS S.B.C. LTD YARD N: 363.

Builder's name and yard number FURNESS S.B.C. LTD YARD N: 364.

Owners ADMIRALTY (R.F.A.)

Fee £ WILL BE CHARGED ON FIRST ENTRY REPORT.



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