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Rpt. C.11 (Comp.).

Index. No. 37926
(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

MDB. No. 18118.

Ship's Name FURNESS. No. 390. M.V. "BRITISH ADMIRAL."	Official Number 181504	Nationality and Port of Registry BRITISH LONDON.	Gross Tonnage 8745 8738	Date of Build 1946. 7	Port of Survey MIDDLESBROUGH.
Moulded Dimensions: Length 465'-0" Breadth 61'-9" Depth 33'-11" MOULDED DISPLACEMENT AT 27'-4 3/4" MOULDED DRAFT — 17031 — T.P. — 59.58. Moulded displacement at moulded draught = 85 per cent. of moulded depth (28.829) 18069. tons DEPTH OF KEEL BELOW BASE LINE — 1.64" Coefficient of fineness for use with Tables .764 .762					Date of Survey WHILE BUILDING. Surveyor's Signature E. Flynn. Particulars of Classification *100 A.I. CARRYING PETROLEUM IN BULK. LONGITUDINAL FRAMING AT BOTTOM AND AT DECK. (CLASS CONTEMPLATED)

Depth for Freeboard (D). Moulded depth 33'-91.7 ... 33.92 Stringer plate8207 Sheathing on exposed deck NIL. $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 33.99	Depth correction. (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(33.99 - 31.06) 3 = +8.79$ (b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$ If restricted by superstructures <input checked="" type="checkbox"/>	SEE ALSO SKETCH OF CAMBER ON REPORT C.11. Round of Beam correction. Moulded Breadth (B) 61'-9" Standard Round of Beam = $\frac{B \times 12}{50} = 14.82$ Ship's Round of Beam 14.98 Difference + .16 Restricted to $\frac{.16 \times (1 - .4158)}{4} = .02$ Correction = $\frac{\text{Diff}^2}{4} \times (1 - S_1) =$ NOTE: NO CAMBER ABAFT N°8 FRAME IE. 16'-0" FROM A.P.
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed <i>equiv 97.98'</i>	5'-94'-3"	97.98	8'-0"	✓	97.98	
„ overhang „ <i>1.67'</i>	4'-6"	0.83			.83	
R.Q.D. enclosed						
„ overhang						
Bridge enclosed <i>equiv 42.83'</i>	5'-40'-6"	42.83	8'-0"	✓	42.83	
„ overhang aft	3'-6"	2.58.62			2.58.62	
„ overhang forward <i>17.3-6"</i>	3'-6"	.58			.58	
F'cle enclosed <i>equiv 48.91'</i>	5'-54'-6"	48.91	8'-0"		48.91	
„ overhang	NIL.					
Trunk aft						
„ forward						
Tonnage opening aft						
„ „ forward						
Total	196.06	193.7X5			193.7X	

Standard Height of Superstructure	7.5'
„ „ R.Q.D.	
Deduction for complete superstructure	42"
Percentage covered $\frac{S}{L} =$	42.08
„ „ $\frac{S_1}{L} =$	41.58
„ „ $\frac{E}{L} =$	
Percentage from Table, Line A. Tanker	32.58
(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 = $42 \times .3258 =$	- 13.68

SHEER CORRECTION.

NOTE: NO SHEER ABAFT N°8 FRAME — IE. 16'-0" FROM A.P.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual shear aft =	Mean standard shear aft =
A.P.	56.59	1		56.59	4'-7 1/8	4.64	1		55.62	Excess	
1/4 L from A.P.	25.18	4		100.72	2'-1 3/4	2.15	4		103.00		
1/2 L	6.225	2		12.45	6 1/4	0.52	2		12.50		
Amidships		4					4				
3/4 L from F.P.	12.45	2		24.90	1'-0 1/4	1.02	2		24.50		
1/4 L	50.365	4		201.46	4'-2 1/2	4.21	4		202.00		
F.P.	113.18	1		113.18	9'-5 1/2	9.46	1		113.50		
Total				509.30					511.12		

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) =$	$\frac{1.82}{18} \left(\frac{.75 - .2104}{2} \right) = -.06$
If limited on account of midship superstructure.	✓

Mean actual shear aft =	Excess
Mean standard shear aft =	
Mean actual shear forward =	Excess
Mean standard shear forward =	
Length of enclosed superstructure forward of amidships =	Tanker.
„ „ aft of „ =	
Sheer fwd	std actual
0	0
12.45	12.25
50.365	50.50
113.18	113.50
3	3
37.35	36.75
151.09	151.50
113.18	113.50
301.62	301.75

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 33.99 Summer freeboard = 6.53 Moulded draught (d) = 27.41 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.85 = 6 3/4" Addition for Winter North Atlantic Freeboard (if required) = 6.85 + 4.66 = 11.51 = 11 1/2"	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 17153$ Tons per inch immersion at summer load water line $T = 59.58$ Deduction = $\frac{\Delta}{40T}$ inches = 7.20" = 7 1/4"	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.762 + .68}{1.36} = \frac{1.442}{1.36}$ <table border="1"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction</td> <td>8.79</td> <td></td> </tr> <tr> <td>Deduction for superstructures</td> <td></td> <td>13.68</td> </tr> <tr> <td>Sheer correction</td> <td></td> <td>.06</td> </tr> <tr> <td>Round of Beam correction</td> <td></td> <td>.02</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>8.79</td> <td>13.76</td> </tr> <tr> <td>Summer Freeboard =</td> <td>78.98</td> <td></td> </tr> </table>		+	-	Depth Correction	8.79		Deduction for superstructures		13.68	Sheer correction		.06	Round of Beam correction		.02	Correction for Thickness of Deck amidships			Other corrections, scantlings, etc.				8.79	13.76	Summer Freeboard =	78.98	
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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'	Tropical Fresh Water Freeboard	5'-5"
Fresh Water Line	7 1/4"	Fresh Water	5 - 11 3/4"
Tropical Line	6 3/4"	Tropical	6 - 0 1/4"
Winter Line below	6 3/4"	Winter	7 - 1 3/4"
Winter North Atlantic Line	11 1/2"	Winter North Atlantic	7 - 6 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.

Equivalent camber :- $15.00 \times 1.125 = 16.875$
 $15.875 \times \frac{1.125}{2} = 8.930$
 25.805

Mean camber = $\frac{25.708 \times 12}{30.875} = 9.99''$

Equip camber = $\frac{9.99 \times 3}{2} = 14.98''$

less $50 \times \frac{.92}{2} = 23 \text{ sq. in.}$

plus $50 \times .27 \times \frac{2}{3} = 9 \text{ sq. in.}$
 14 sq. in.

$.097$
 25.708

Pooh = 95.15

Bridge = 40.50

+ $4.25 \times \frac{2}{3} = 2.83$
 $97.98'$

+ $3.5 \times \frac{2}{3} = 2.33$

$42.83'$
 42.83

Overhang

Trid overhang

$4.50 - 2.83 = 1.67'$

$3.5 - 2.33 = 1.17'$

Forecastle :- 11 = 46.50'

Folle = 54.50

less $5.75 \times 2.0 = 5.59$
 56.40
 48.91
 48.91

Trade of ship TANKER.

Names of sister ships

Builder's name and yard number FURNESS S.B. CO. LTD. YARD No 390.

Owners BRITISH TANKER CO. LTD.

Fee £ WILL BE CHARGED ON FIRST ENTRY REPORT.



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