

# LLOYD'S REGISTER OF SHIPPING

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## SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

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Ship's Name <b>"BULBY"</b>	Official Number <b>180327</b>	Nationality and Port of Registry <b>BRITISH FLEETWOOD</b>	Gross Tonnage <b>361</b>	Date of Build <b>1946 Jan.</b>	Port of Survey <b>HULL</b>
Moulded Dimensions: Length <u>133'0"</u> Breadth <u>25'0"</u> Depth <u>14'0"</u> Freeboard Length <u>134'4"</u> = (96% of Length on L.W.L.) Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>637</u> tons Coefficient of fineness for use with Tables <u>.68 (actual .558)</u>					Date of Survey <u>16<sup>th</sup> JANUARY 1964</u> Surveyor's Signature <u>J. Barnicot</u> Particulars of Classification <u>100A1 STEAM TANKER</u>

**DEPTH FOR FREEBOARD (D).**  
 Moulded depth ... 14'0"  
 Stringer plate ... 3"  
 Wood Sheathing on exposed deck 3"  
 $T \left( \frac{L-S}{L} \right) = \frac{3}{12} (1 - .7415) = .06$   
 Depth for Freeboard (D) = 14'09"

**DEPTH CORRECTION.**  
 (a) Where D is greater than Table depth  
 (D - Table depth) R =  $(14'09" - 8'96") 1.034 = + 5'30"$   
 (b) Where D is less than Table depth (if allowed)  
 (Table depth - D) R =  $8'13" - 14'09" = - 5'56"$   
 If restricted by superstructures ✓

**ROUND OF BEAM CORRECTION.**  
 Moulded Breadth (B) 26'0"  
 Standard Round of Beam =  $\frac{B \times 12}{50} = 6"$   
 Ship's Round of Beam = 7"  
 Difference = 1'00"  
 Restricted to  
 Correction =  $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{1'00"}{4} \times .2585 = .06$

**DEDUCTION FOR SUPERSTRUCTURES.**

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed	✓	✓	✓	✓	✓
" overhang	✓	✓	✓	✓	✓
R.Q.D. enclosed	<u>79'65"</u>	<u>79'65"</u>	<u>9'43"</u>	<u>3'229"</u>	<u>23'19"</u>
" overhang	✓	✓	<u>11'28"</u>	✓	✓
Bridge enclosed	✓	✓	✓	✓	✓
" overhang aft	✓	✓	✓	✓	✓
" overhang forward	✓	✓	✓	✓	✓
F'cle enclosed	<u>20'0"</u>	<u>20'00"</u>	<u>4'11"</u>	✓	<u>20'00"</u>
" overhang	✓	✓	✓	✓	✓
Trunk aft	✓	✓	✓	✓	✓
" forward	✓	✓	✓	✓	✓
Tonnage opening aft	✓	✓	✓	✓	✓
" forward	✓	✓	✓	✓	✓
Total	<u>99'65"</u>	<u>99'65"</u>	✓	✓	<u>43'19"</u>

Standard Height of Superstructure 6'00"  
 " " R.Q.D. 3'229"  
 Deduction for complete superstructure 19'44"  
 Percentage covered  $\frac{S}{L} = \frac{79'65"}{107'09"} = .7415$   
 " "  $\frac{S_1}{L} = \frac{79'65"}{107'09"} = .7415$   
 " "  $\frac{E}{L} = \frac{32'14"}{107'09"} = .3000$   
 Percentage from Table, Line A. 16'81"  
 (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 =  $19'44" \times .1681 = - 3'27"$

**SHEER CORRECTION.**

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>23'44"</u>	1	✓	<u>23'44"</u>	<u>62'75"</u>	<u>12'75"</u>	1	✓	<u>12'75"</u>
$\frac{1}{2}$ L from A.P.	<u>10'43"</u>	4	✓	<u>41'72"</u>	<u>32'75"</u>	<u>-5'58"</u>	4	✓	<u>-2'32"</u>
$\frac{2}{5}$ L	<u>2'58"</u>	2	✓	<u>5'16"</u>	<u>10'25"</u>	<u>-6'42"</u>	2	✓	<u>-12'84"</u>
Amidships	<u>0</u>	4	✓	<u>0</u>	<u>0</u>	<u>0</u>	4	✓	<u>0</u>
$\frac{2}{5}$ L from F.P.	<u>5'16"</u>	2	✓	<u>10'32"</u>	<u>3'0"</u>	<u>19'67"</u>	2	✓	<u>10'32"</u>
$\frac{1}{2}$ L	<u>20'86"</u>	4	✓	<u>83'44"</u>	<u>15'0"</u>	<u>48'33"</u>	4	✓	<u>83'44"</u>
F.P.	<u>46'88"</u>	1	✓	<u>46'88"</u>	<u>30'75"</u>	<u>80'75"</u>	1	✓	<u>46'88"</u>
Total	✓	✓	✓	<u>210'96"</u>	<u>+50"</u>	✓	✓	✓	<u>138'23"</u>

Correction =  $\frac{\text{Difference between sums of products}}{18} = \frac{72'73" - 379'3"}{18} = + 1'53"$   
 If limited on account of midship superstructure. ✓ *Service trim: 8ft 4" by stem.*

**Deduction for Tropical Freeboard.**

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Summer Deck = 15'03"  
 Summer freeboard = 2'35"  
 Moulded draught (d) = 12'68"  
 Keel allowance = ✓  
 Extreme draught = ✓  
 Deduction for Tropical freeboard and addition for = ✓

Winter freeboard =  $\frac{d}{4}$  inches = 3'17" 3'14"

Addition for Winter North Atlantic Freeboard (if required) = ✓

**Deduction for Fresh Water.**

Displacement in salt water at summer load water line  $\Delta = 697.6$   
 Tons per inch immersion at summer load water line  $T = 6.36$

Deduction =  $\frac{\Delta}{40 T}$  inches =  $\frac{697.6}{40 \times 6.36} = 2'74" = 2'34"$

MIN. DRAFT. 14'9" 808.35 6'55"  
13'9" 729.6 6'43" (LOAD DRAFT).  
12'9" 654.6 6'25"

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

Correction for coefficient NIL

Depth Correction ... 5'30"  
 Deduction for superstructures ... 3'27"  
 Sheer correction ... 1'53"  
 Round of Beam correction ... 0'06"  
 Correction for HEIGHT RQ of Deck amidships ... 9'00"  
 Other corrections, WOOD DECK soundings, etc. ... 2'28"

Summer Freeboard = 28'31"

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

Tropical Fresh Water Line above Centre of Disc ... 6"  
 Fresh Water Line " " ... 2'34"  
 Tropical Line " " ... 3'4"  
 Winter Line below " " ... 3'4"  
 Winter North Atlantic Line " " not assigned

Tropical Fresh Water Freeboard 1'10"  
 Fresh Water " 2'1"  
 Tropical " 2'1"  
 Winter " 2'7"  
 Winter North Atlantic " not assigned

2'44" FOR VOYAGE ONLY



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 STEAM TRAWLER.

Names of sister ships S.T. "IDOLITE"

Builder's name and yard number COOK, WELTON & GEMMELL LTD, BEVERLEY, YARD No. 456.

Owners NATIONAL TRAWLING & FISHING CO. LTD. CAPE TOWN.

Fee £ 15 : 0 : 0.

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List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950," paragraph 11.)



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