

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Index No. 19787  
(For London Office only.)

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~  
having forecastle

Port of Survey DUBLIN

Date of Survey 30 July 1st Aug. 1932

Name of Surveyor R. B. Guer

Particulars of Classification +A1 with Foreboard  
For Irish Channel Service  
SS Act. No. 3-9-27 SS Act. No. 31

Ship's Name MUIRCHU

Nationality and Port of Official Number IRISH DUBLIN 123137

Gross Tonnage 323

Date of Build 1908-7

Moulded Dimensions: Length 155' Breadth 24' Depth 13'-6"

Moulded displacement at moulded draught = 85 per cent. of moulded depth 657 tons

Coefficient of fineness for use with Tables .527 .68 lowest in tables

Depth for Freeboard (D)

Moulded depth	13.5
Stringer plate	.11
Sheathing on exposed deck	.03
T (L-S) = .25 x .7806	.19
Depth for Freeboard (D) =	13.72

Depth correction

(a) Where D is greater than Table depth  
(D-Table depth) R =  $(13.72 - 10.33) \times 1.192 = +4.04$

(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) 24.5

Standard Round of Beam =  $\frac{B \times 12}{50} = 5.88$

Ship's Round of Beam = 6

Difference .12

Restricted to

Correction =  $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{.12}{4} (1 - \frac{21.94}{14.7806}) = -.02$

## 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					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
File enclosed	34	34	7.0		34
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	34	34			34

Standard Height of Superstructure 6.00

" " R.Q.D.

Deduction for complete superstructure 21.5

Percentage covered  $\frac{S}{L} = 21.94$

" "  $\frac{S_1}{L} = 21.94$

" "  $\frac{E}{L} = 21.94$

Percentage from Table, Line A.  
(corrected for absence of forecastle (if required)) 10.97

Percentage from Table, Line B.  
(corrected for absence of forecastle (if required)) L

Interpolation for bridge less than 2L (if required)

Deduction =  $21.5 \times .1097 = -2.36$

## SHEER CORRECTION.

SHEER CORRECTION									
Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	25.5	1	25.5	35.75	36.00	36.00	1	36.00	
L from A.P. ...	11.3	4	45.36	9.75	15.60	15.60	4	62.40	
" ...	2.80	2	5.61	2.5	3.90	3.90	2	7.80	
Amidships ...	-	4	-	-	-	-	4	-	
3/4 L from F.P. ...	5.61	2	11.22	8	5.87	5.87	2	11.74	
1/4 L ...	22.695	4	90.78	25.5	23.50	23.50	4	94.00	
F.P. ...	57.0	1	57.0	53.5	54.00	54.00	1	54.00	
Total ...			229.51					265.94	

Correction =  $\frac{\text{Difference between sums of products}}{18} = \frac{229.51 - 265.94}{18} = -2.02$ 

If limited on account of midship superstructure.

Nil.

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 = 13.78 Ft.

Summer freeboard = 2.71

Moulded draught (d) = 11.07

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches =  $\frac{11.07}{4} = 2.77 = 2\frac{3}{4}$

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ 

Tons per inch immersion at summer load water line

 $T =$ Deduction =  $\frac{\Delta}{40T}$  inches $= 2\frac{3}{4}$ 

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	4.04	-
Deduction for superstructures	-	2.36
Sheer correction	-	-
Round of Beam correction	-	.02
Correction for Thickness of Deck amidships	-	.72
Other corrections, scantlings, etc.	13.92	-
	18.68	2.38

Summer Freeboard = 32.50

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

Tropical Fresh Water Line above Centre of Disc

Fresh Water Line

Tropical Line

Winter Line below

Winter North Atlantic Line

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

Winter North Atlantic

AUG 1932

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"MUIRCHU"

Particulars of Scupperns and Sanitary Discharge Pipes — Below freeboard deck.

Starb. side	aft end of forecabin cross N.C.	fitted with C.I. stern valve on ship's side.
" "	" " "	" " " " " " " "
" "	" " "	" " " " " " " "
Aft P. "	amidships	Captain " " " " " " " "

Particulars of Side Scuttles: below freeboard deck, forward of amidships 12" dia. from under  
freeboard deck to lowest edge of scuttle 2 feet aft. amidships 10" dia. from under  
freeboard deck to lowest edge of scuttle 1' 8". All side scuttles fitted with  
winged deadlights. Side scuttles to crew spaces in forecabin and casing  
are provided with portable deadlights.  
All scuttles of substantial construction.

Particulars of Guard Rails :- On forecastle deck 3'-8" high with 3 rods and stanchions spaced 4'-6" apart. On foreward deck steel bulwarks 3' to 3'-8" high efficiently constructed and supported.

Particulars of Gangways, Lifelines, etc. :— *None.*

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Wall ... ..						
Forward Wall ... ..						
AND Forward Wall Aft. Pa. Deck. FORECASTLE TO STEERN.	121' ✓	3' to 3'-8"	3' x 1'-6"	4	18 sq ✓	24. 2 1/2 ✓
State position of each freeing port ... .. } After Wall:— Fore end of deck house, stowhold door, aft end of engine room (F. and A. position and height above deck edge) } Forward Wall:— No 2 Hatch. 2 1/2" to 7 1/2" ✓ State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— shutters. ✓						
Additional area where sheer is less than standard.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..	✓							
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ... ..	✓							
Bridge, Forward Bulkhead ... ..	✓							
Forecastle Bulkhead ... ..	3' 2 3/4" x 3	25	2 1/2" x 2 1/2" x 25	3'	none	2' x 4'-11"	15 1/2"	7'
Trunk, Aft ... ..	✓							
Trunk, Forward ... ..	✓							
Exposed Machinery Casings on Free-board <del>on Raised Quarter Decks</del>	3' 2 1/2" x 3	25	2 1/2" x 2 1/2" x 3	3' - 8"	BALNETS <sup>AT AND CASING</sup> <del>RR. 2'-1 1/2" x 5'-1 1/2"</del>		16"	7'-2 1/2"
Exposed Machinery Casings on Super-structure Decks ... ..	✓				TOP. <del>S.N. 2'-0 3/4" x 4'-11"</del>			
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	✓							
Deckhouses on Flush Deck Ships ...	3' 2 1/2" x 3	25	2 1/2" x 2 1/2" x 3	3' - 8"	BALNETS <sup>TOP. CASING</sup> <del>2' x 4'-10"</del>		17"	7'-2 1/2"

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead ... ..	✓
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead ... ..	✓
Bridge, Forward Bulkhead ... ..	✓
Forecastle Bulkhead ... ..	wood door 1½" operated from both sides.
Exposed Machinery Casings on Freeboard on Raised Quarter Deck ...	off end of bearing wood door 1½" thick leading to engine room & officers quarters, operated from both sides. Hatchway steel door 2" thick, steel & pine, strong side operated from both sides.
Exposed Machinery Casings on Superstructure Decks ... ..	✓
Machinery Casings within Superstructures, not fitted with Class I Closing Appliances ... ..	✓
Deckhouses on Flush Deck Ships ...	wood doors 1½" thick operated from both sides.



