

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD. No 5010

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having quarter deck, bridge and forecastle.

Port of Survey WEXFORD.

Date of Survey 7th FEBRUARY 1933.

Name of Surveyor R. B. Grier.

Particulars of Classification +100 A1.  
S.S. Off. No. 3-2.31  
S.S. Rule No. 2-29

Ship's Name BANNUVEEN (Type of Superstructures.)  
LENCHURCH

Nationality and Port of Registry BRITISH WEXFORD

Official Number 28494

Gross Tonnage 515

Date of Build 1909-6

Moulded Dimensions: Length 162 Breadth 26.5 Depth 11.6

Moulded displacement at moulded draught = 85 per cent. of moulded depth 853 tons

Coefficient of fineness for use with Tables 712

Depth for Freeboard (D) 11.50

Moulded depth ... 26.5

Stringer plate ... 36

Sheathing on exposed deck BRIDGE 3"  
AFT AND F.R. CASING 2 1/2"

$T \left( \frac{L-S}{L} \right) =$  2 1/2

Depth for Freeboard (D) = 11.53

Depth correction

(a) Where D is greater than Table depth  
(D-Table depth) R = (11.53 - 10.80) 1.246 = .91

(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) 26.5

Standard Round of Beam =  $\frac{B \times 12}{50} =$  6.36

Ship's Round of Beam = 6.75

Difference 39

Restricted to

Correction =  $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{39}{4} \times .2123 = .02$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	✓				
" overhang ...			<u>Side Br.</u>		
R.Q.D. enclosed ...	<u>93.00</u>	<u>93.00</u>	<u>3' 10 1/2"</u>	-	<u>93.00</u>
" overhang ...	<u>11.67</u>				
Bridge enclosed ...	<u>12.3</u>	<u>11.67</u>	<u>6' 10 1/2"</u>	-	<u>11.67</u>
" overhang aft ...	<u>83</u>	<u>41</u>			<u>41</u>
" overhang forward ...	<u>10</u>				
Trunk enclosed <u>equiv.</u> ...	<u>23.94</u>	<u>21.34</u>	<u>6' 10 1/2"</u>	-	<u>21.34</u>
" overhang ...	<u>21.34</u>	<u>1.20</u>			<u>1.20</u>
Trunk aft ...	<u>2.41</u>				
" forward ...					
Tonnage opening aft ...	✓				
" " forward					
Total ...	<u>129.25</u>	<u>127.62</u>			<u>127.62</u>

Standard Height of Superstructure	<u>6.00</u>
" " R.Q.D.	<u>3.413</u>
Deduction for complete superstructure	<u>22.20</u>
Percentage covered $\frac{S}{L} =$	<u>79.78</u>
" " $\frac{S_1}{L} =$	<u>78.77</u>
" " $\frac{E}{L} =$	<u>78.77</u>
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	<u>73.78</u>
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction =	<u>-16.38</u>

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>26.2</u>	1		<u>26.2</u>	<u>23</u>	<u>22.50</u>	<u>28.04</u>	1	<u>28.04</u>
1/4 L from A.P. ...	<u>11.659</u>	4		<u>46.636</u>	<u>9</u>	<u>10.47</u>	<u>12.48</u>	4	<u>49.92</u>
1/2 L " ...	<u>2.882</u>	2		<u>5.764</u>	<u>1.75</u>	<u>2.62</u>	<u>3.08</u>	2	<u>6.16</u>
Amidships ...	-	4		-	-	-	-	4	-
3/4 L from F.P. ...	<u>5.764</u>	2		<u>11.528</u>	<u>7.5</u>	<u>6.12</u>	<u>6.12</u>	2	<u>12.24</u>
1/4 L " ...	<u>23.318</u>	4		<u>93.272</u>	<u>24.5</u>	<u>24.49</u>	<u>24.49</u>	4	<u>97.96</u>
F.P. ...	<u>52.4</u>	1		<u>52.4</u>	<u>53.5</u>	<u>54.00</u>	<u>54.00</u>	1	<u>54.00</u>
Total ...				<u>235.8</u>					<u>248.32</u>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{12.52}{18} (.75 - .3989) = .24$

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 =	<u>15.40</u>
Summer freeboard =	<u>4.04</u>
Moulded draught (d) =	<u>11.36</u>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches =	<u>2.84</u>
Addition for Winter North Atlantic Freeboard (if required) =	<u>2</u>

## 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 = $\frac{\Delta}{40 T}$ inches	<u>2 3/4</u>

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

Correction for coefficient	<u>712 + .68 = 1392</u>
Depth Correction ...	<u>91</u>
Deduction for superstructures ...	<u>16.38</u>
Sheer correction ...	<u>24</u>
Round of Beam correction ...	<u>02</u>
Correction for Thickness of Deck amidships	<u>46.50</u>
Other corrections, scantlings, etc. ...	
Summer Freeboard =	<u>48.35</u>

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

Tropical Fresh Water Line above Centre of Disc ...	<u>2 3/4</u>
Fresh Water Line " " ...	<u>2 3/4</u>
Tropical Line " " ...	<u>NIL</u>
Winter Line below " " ...	<u>2 3/4</u>
Winter North Atlantic Line " " ...	<u>4 3/4</u>
Tropical Fresh Water Freeboard ...	<u>4' 0 1/2" (limited)</u>
Fresh Water " " ...	<u>3' 9 3/4</u>
Tropical " " ...	<u>4' 0 1/2" (limited)</u>
Winter " " ...	<u>4' 3 1/4</u>
Winter North Atlantic " " ...	<u>4' 5 1/4</u>



J. F. V.

Particulars of fiddley, funnel and ventilator coamings:— Stakehold gratings covered by strong steel hangers. Covers, fiddley and funnel ventilators in efficient condition. The starboard stakehold ventilator coaming above fiddley is thin & ~~requiring to be~~ <sup>has been</sup> repaired. Fiddley top plates funnel ~~to be~~ <sup>have been</sup> repaired. Engine skylight steel strong

Particulars of Companionways:— at aft end of engine casing steel coaming fitted with wood hinged covers, ~~these require to be~~ <sup>have been</sup> repaired. aft store. In way of main locker forward at aft end of fore-castle hatch  $2\frac{1}{2} \times 20$  coaming  $13\frac{1}{2} \times 2$  fitted with wood cover  $2\frac{1}{2}$  bearing surface leading to store room, coaming & hatch ledge bars ~~to be~~ <sup>have been</sup> repaired. and tarpaulins sufficient bottoming arrangements fitted. Galley skylight repaired.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—

one Vent on forecastle deck	8½" dia.	Coaming 25" x 4"	led to No 1 Hold.	The 26" x 24" vents are
" " " fore	26" "	" 36" x 4"	" " " 1	constructed in accordance
" " " Quarter	8½" "	" 36" x 4"	" " " 2	with Rules and are
" " " "	24" "	" 36" x 4"	" " " 2	closed with wood plugs.
" " " "	24" "	" 36" x 4"	" " " 2	T saw as covers.

Vent. Coamings & covers 8½" dia. in bad condition to remove. Have been removed and deck plating in way renewed.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

One C. I. air pipe on fore-castle deck	12" high	4" discharge end to deck	3 1/2" dia. from fore peak
" " " " fore "	12" "	4" "	3 1/2" " NO1 DBT.
" " " " S " bridge "	12 1/2" "	7 1/2" "	2 3/4" " NO2 "
" " " " S " quarter "	12" "	4" "	2 3/4" " " "

*Efficient*  
means for closing these pipes are provided.

Particulars of Scupperns and Sanitary Discharge Pipes — *Below foreland deck.*

Stand,	side aft end of	fore castle	amid N.E.	C.I. storm	valve fitted	on ship's	side.
Port	"	center E.R.	casing	officers	"	"	"
"	"	Bridge		Captains	"	"	"

Particulars of Side Scuttles: No side scuttles below foreward deck. -  
side scuttles to every space in fore-castle are of substantial  
construction and fitted with hinged deadlights.

Particulars of Guard Rails:— Guard rails on fore-castle deck 3' high having 3 rods and stanchions spaced 4'. Steel bulwarks on bridge & raised quarter deck efficiently constructed & supported.

Particulars of Gangways, Lifelines, etc.:— Port side only, one platform from bridge ladder to No 1 hatch, 2 No anchories fitted on hatch stiffeners with  $2\frac{1}{2}$ " manilla rope through same & secured to bridge & fore-castle ladder hand

Suitable provision has been made for rigging Lifelines available for use in any part of the ship which might be used by the crew in the regular working of the vessel.

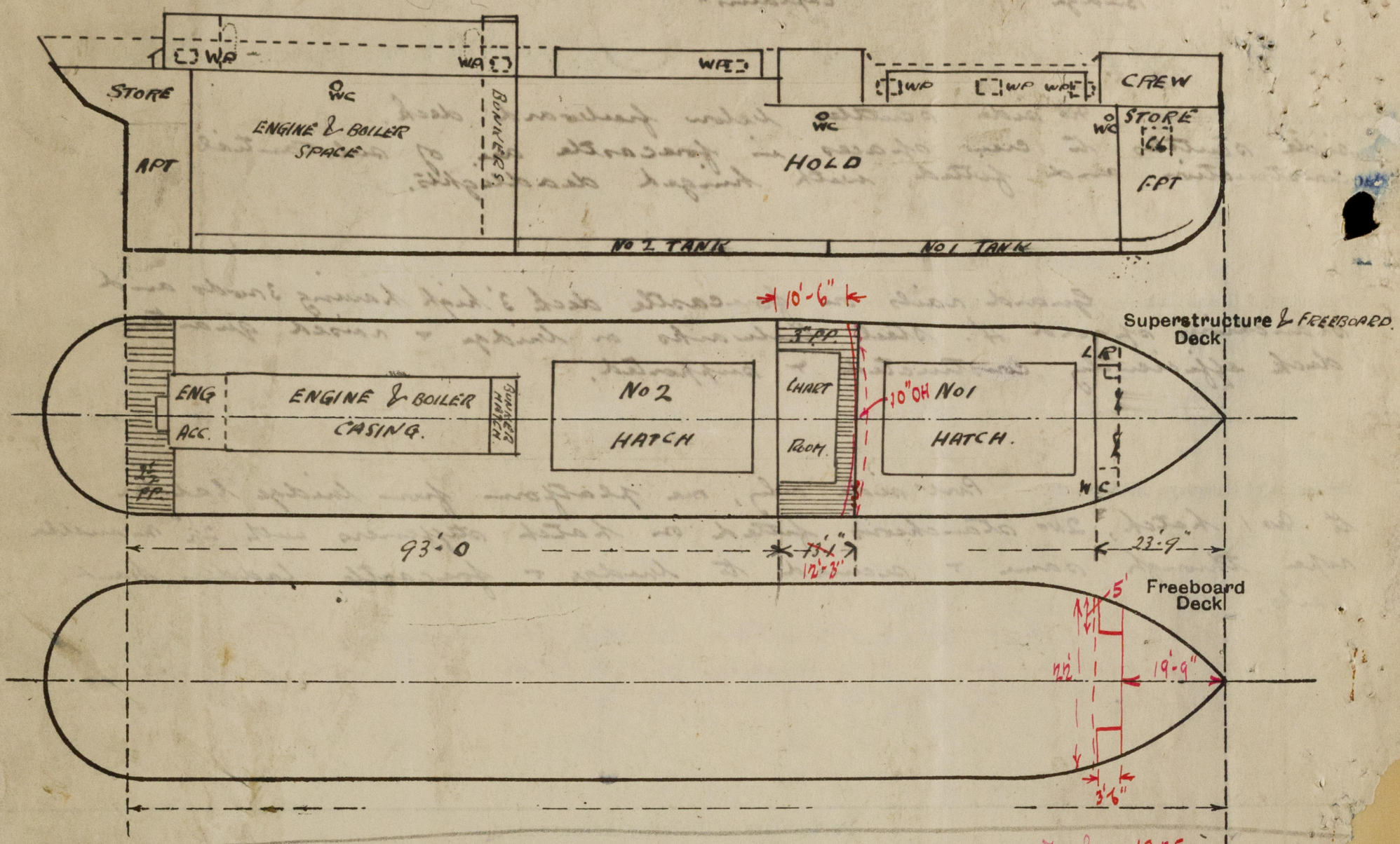
Particulars of Freeing Arrangements.							
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side	
Starboard Well	QUAR... DECK... 93'	3'- 1 1/2"	2' x 1'- 6" 4'- 6" x 9"	3 11	<del>7.5</del> 18 1/2	18.6	
Forward Well	... 33' 34'	3'- 11"	2'- 6" x 1'- 6 1/2" 3'- 8" x 9"	3P 25. 19.	11.55. P. 7.7. P. 10.8. P. 5.	9.8	
State position of each freeing port ... (P. and A. position and height above deck edge) { Starboard Well: FORW END NO 2 HATCH. FORW HATCH AND ENGINE & BOILER CHANG. 3 1/2" State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: — SHUTTERS. 9 1/2"							
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
Deep Bulkhead ... ..	✓							
Raised Quarter Deck Bulkhead ...	none	.32	BA. 6"x3"x4	4'-3"	BRAGNETTS TOP & BOTT.	none	none	3'-10½" 4'-0"
Bridge, After Bulkhead ... ..	"	.3	do.	do.	do.	do.	do.	"
Bridge, Forward Bulkhead ... ..	2'-2"x.35"	.3	BA. 6"x3"x4	2'-6"	BRAGNETTS TOP & BOTT.	none	none	6'-10½" 7'-0"
Forecastle Bulkhead ... ..	none	.3	CR. 2½"x2½"x3	3'	none	22"x4'-6"	19½"	7'
Trunk, Aft ... ..	✓							
Trunk, Forward ... ..	✓							
Exposed Machinery Casings on <del>lower</del> <u>board or</u> Raised Quarter Decks ...	18"x.32	.3	CR. 2½"x2½"x3	2'-6"	BRAGNETTS TOP	21"x4'-6"	20½"	7'
Exposed Machinery Casings on Super- structure Decks ... ..	✓							
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances ... ..	✓							
Deckhouses on Flush Deck Ships ...	✓							

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead ... ..	✓
Raised Quarter Deck Bulkhead ...	<del>none</del> no openings
Bridge, After Bulkhead ... ..	<del>none</del> no openings
Bridge, Forward Bulkhead ... ..	<del>none</del> no openings
Forecastle Bulkhead ... ..	wood doors 1 1/2" thick operated from both sides of <del>all</del> locks
Exposed Machinery Casings on <del>Lower</del> <del>board on</del> Raised Quarter Decks ...	steel doors .25" " " " " require overhaul
Exposed Machinery Casings on Super- structure Decks ... ..	✓
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances ... ..	✓
Deckhouses on Flush Deck Ships ...	✓



Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



State any special features in the construction of the ship:—

*Vessel examined afloat. Survey confined to an examination of the means for closing the openings in the deck and sides of ship.*

Builder's name and yard number J. T. ELTRINGHAM & Co. No 271.

Names of sister ships \_\_\_\_\_

Owners WEXFORD STEAMSHIPS LTD.

Fee £ 6 : 16 : 0  
expenses. 1 : 13 : 3

Received by me \_\_\_\_\_