

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. **29658**
(For London Office only.)No. **100730**

14 JUL 1932

Computation of Freeboard for Steamer, ~~Sailing Ship~~, Tanker
having **SHELTER DECK, WITH TONNAGE OPENING.**

(Type of Superstructures.)

Port of Survey **BIRKENHEAD, LIVERPOOL.**

Date of Survey **JULY, 1932.**

Name of Surveyor **R. M. Scott.**

Particulars of Classification **100 A.1. SHELTER DK. WITH FREEBOARD.**
S. J. Bkn No. 2-29

Ship's Name **"VANELLUS"** Nationality and Port of Registry **BRITISH, LIVERPOOL.** Official Number **145123** Gross Tonnage **1836.** Date of Build **1921-1 MONTH.**

Moulded Dimensions: Length **290 FT.** Breadth **42.33 FT.** Depth **21.2**
Moulded displacement at moulded draught = 85 per cent. of moulded depth **4368** tons
Coefficient of fineness for use with Tables **.692**

Depth for Freeboard (D) **21.2**

Moulded depth **21.2**

Stringer plate **.40**

Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = **21.20**

Depth correction

(a) Where D is greater than Table depth
(D - Table depth) R = $(21.20 - 19.33) \times 2.231 = + 4.17$

(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) **42.33 FT.**

Standard Round of Beam = $\frac{B \times 12}{50} = 10.16$

Ship's Round of Beam = **10.2**

Difference **Excess .34**

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.34}{4} (1 - .9675) = .0085 = \text{nil}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	27.78	13.89	8' 4" to 7' 9"		13.89
" overhang ...	32.5				
R.Q.D. enclosed					
" overhang					
Bridge enclosed...					
" overhang aft					
" overhang forward					
Fore enclosed CLOSED	257.25	257.22	7' 9" - 6' 8" to 9' 3" F.P.		257.22
" overhang ...					
Trunk aft					
" forward					
Tonnage HATCH aft	5.0	9.44			9.44
" forward					
Total ...	290.00	280.55			280.55

Standard Height of Superstructure **6.4**

" " R.Q.D. **✓**

Deduction for complete superstructure **34.67**

Percentage covered $\frac{S}{L} = 100$

" " $\frac{S_1}{L} = 96.75$

" " $\frac{E}{L} = 96.75$

Percentage from Table, Line A. **96.00**
(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 = $34.67 \times .9600 = - 33.28$

SHEER CORRECTION.

Twin Deck aft = **8' 4"**
Standard " = **6' 4"**

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	39.00	1		39.00	21	21.00	1		44.25
$\frac{1}{2}$ L from A.P. ...	17.35	4		69.40	8.2	8.19	4		78.76
$\frac{2}{3}$ L " ...	4.29	2		8.58	3	2.12	2		9.74
Amidships ...		4					4		
$\frac{2}{3}$ L from F.P. ...	8.58	2		17.16	5.2	4.56	2		18.50
$\frac{1}{2}$ L " ...	34.71	4		138.84	19	18.26	4		146.40
F.P. ...	78.00	1		78.00	53	53.00	1		87.25
Total ...				350.98					384.90

Mean actual sheer aft = **Excess**
Mean standard sheer aftMean actual sheer forward = **Excess**
Mean standard sheer forwardLength of enclosed superstructure forward of amidships = **1**
" " aft of " = **1**Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{33.92}{18} \times .25 = (-)$

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **21.20**

Summer freeboard = **.98**

Moulded draught (d) = **20.22**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **5.05 = 5"**Addition for Winter North Atlantic Freeboard (if required) = **2"**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 5005$

Tons per inch immersion at summer load water line

 $T = 23.45$ Deduction = $\frac{\Delta}{40 T}$ inches= **5.34 = 5.4"**

TABULAR FREEBOARD

Correction for coefficient **692 + 68 = 1374 / 136**

	+	-
Depth Correction	4.17	
Deduction for superstructures		33.28
Sheer correction		47
Round of Beam correction		
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
	4.17	33.75

Summer Freeboard = **11.78**

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck :-

Tropical Fresh Water Line above Centre of Disc ... **10.2"**

Fresh Water Line " " ... **5.4"**

Tropical Line " " ... **5.4"**

Winter Line below " " ... **5.4"**

Winter North Atlantic Line " " ... **7"**

Tropical Fresh Water Freeboard ... **0' - 11 3/4"**

Fresh Water " " ... **0' - 1 1/2"**

Tropical " " ... **0' - 6 1/2"**

Winter " " ... **0' - 6 3/4"**

Winter North Atlantic " " ... **1' - 4 3/4"**

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224

Particulars of fiddley, funnel and ventilator coamings:—

Particulars of Flush Bunker Scuttles:—

Particulars of Companionways :—

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

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

Fee £.....

NONE.

Vanellus

Particulars of Scuppers and Sanitary Discharge Pipes:—

SANITARY DISCHARGE PIPES ARE FITTED WITH STORM VALVES ✓
SCUPPERS ON FREEBOARD DECK ARE LED THRO' SHIP'S SIDE AND ARE FITTED WITH NON RETURN VALVES, INCLUDING SCUPPER P&S AT TONNAGE SPACE. ✓
SCUPPERS " SHELTER " " " "COLLINSON" TYPE. ✓

Particulars of Side Scuttles:—

NO SIDE SCUTTLES ON SHIP'S SIDE. ✓

Particulars of Guard Rails:—

SHELTER DECK - GUARD RAILS 3'-6" HIGH, 3 RAILS WITH STANCHIONS 5'-0" APART. ✓

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 Well	32'-9 3/8"	8'-4" AT AP. 7'-9" AT TONN. BHD.	18 1/2" x 18 1/2"	1	✓	✓
Forward Well	✓	✓	✓	✓	✓	✓
Position of each freeing port After Well:— IMMEDIATELY AFT. OF TONN. BHD. 13" ABOVE DECK. ✓ and A. position and height above deck edge) } Forward Well:— State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— HINGED STEEL SHUTTER. ✓						
Additional area where sheer is less than standard.						

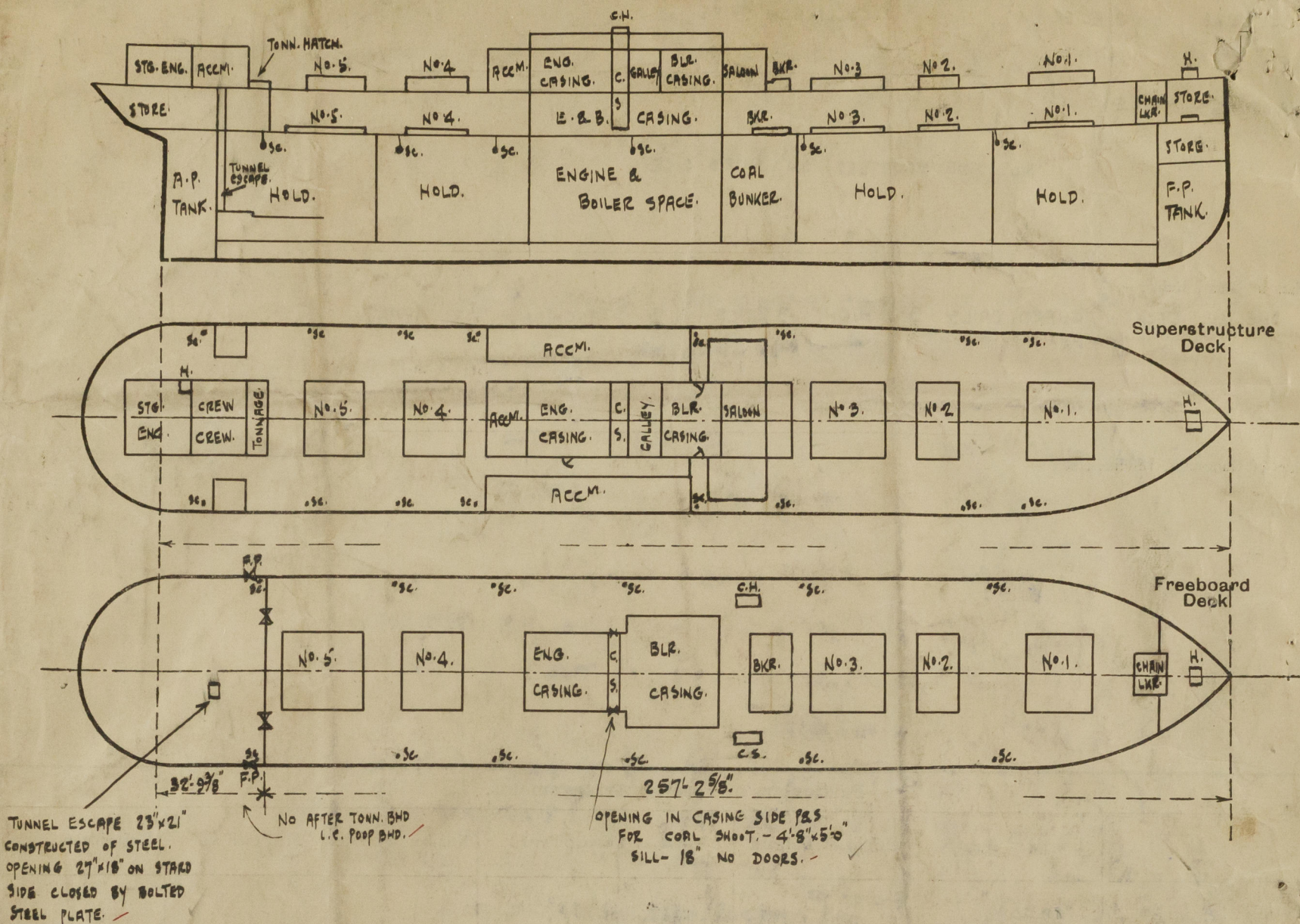
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Peep Bulkhead								
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead (FORD. TONN. BHD.)	✓	25"	3 1/2" x 3 1/2" x 30"	38" ✓	NONE	4'-1" x 3'-1" ✓	18" ✓	7'-9" AT CL.
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Deck ...	50" ✓	25" ✓	3" x 3" x 32" ✓	27" ✓	NONE	NONE	NONE	6'-8"
Exposed Machinery Casings on Superstructure Decks	30" ✓	25" ✓	3" x 3" x 32" ✓	27" ✓	BKTS. AT TOP ON ALTERNATE STIFFS.	4'-10" x 2'-0" ✓	18 1/2" ✓	7'-3"
Machinery Casings within Superstructures 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).

Peep Bulkhead	
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	
Forecastle Bulkhead (TONN. FORD. BHD.)	3" STORM BOARDS FULL HEIGHT, IN RIVETTED CHANNELS. ✓
Exposed Machinery Casings on Freeboard or Raised Quarter Deck ...	NO OPENINGS. ✓
Exposed Machinery Casings on Superstructure Decks	HINGED STEEL DOORS TO ENG. ROOM & BOILER ROOM, OPERATED FROM BOTH SIDES. ✓
Machinery Casings within Superstructures 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 shown on the following sketches:—



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

SMALL HATCH ON FBD. DK. TO F.P. STORE.
 SIZE: 2'6" x 2'6"
 COAM: 3" x 3"
 COVER: 2 1/4" W.P.
 BEAR SUR: 2 1/4"
 NO BATTENS, CLEATS OR TARPLNS.

SMALL COALING HATCH ON FBD. DK. PAS.
 6'0" x 3'0"
 3" x 3 1/2" B.A.
 3" W.P.
 3"
 CLEATS: 20"
 BATTENS & 2 TARPLNS.

Special Note
 VENTILATORS: THE VENT. COAMINGS OF VENTILATORS ON SHELTER DK. TO HOLDS & TWEEN DKS. ARE, AT PRESENT, CLOSED AT TOP WITH CEMENT.

SMALL HATCH ON SHELTER DK. TO F.P. STORE.
 SIZE: 2'2" x 2'7"
 COAM: 27" x 30"
 COVER: STEEL COVER WITH
 BEAR SUR. HINGED SCREWED BOLTS
 CLEATS: WITH WING NUTS.

HATCH ON SHELTER DK. TO BUNKER.
 6'0" x 16'0"
 30" x 44" WITH 7" x 3" B.A. STIFF.
 3" W.P.
 3"
 21" BATTENS & 1 TARPLN.
 1 OFF.
 HATCH BEAM: 3'0" SPACING.
 WEB: 11 1/2" x 30"
 TOP ANGLES: 3 1/2" x 3 1/2" x 40"
 BOT. " 6" x 3 1/2" x 58"
 BEAR SUR: 3 1/2"

SMALL HATCH IN STG. ENG. HOUSE TO AFT PK. STORE.
 3'0" x 2'0"
 6" x 3" x 30"
 2 1/2"
 2 3/4"
 NO BATTENS, CLEATS OR TARPLNS.

TONNAGE OPENING HATCH ON SHELTER DK. AFT.
 5'0" x 16'0"
 12" x 44"
 2 1/4" W.P. F&A.
 2 1/2"
 NONE.

(PART SURVEY ONLY)
 VESSEL SURVEYED IN DRYDOCK FOR COMMENCEMENT OF S.S. NO. 3 & FREEBOARD ASSIGNMENT.

Builder's name and yard number: SWAN, HUNTER & WIGHAM RICHARDSON, LTD. YARD NO. 1155.

Names of sister ships: S.S. "BITTERN".

Owners: BRITISH & CONTINENTAL S.S. CO. LTD.

Fee £ 9 : 7 : 0.

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