

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. **29438**
(For London Office only.)29 JUN 1932
10884Computation of Freeboard for Steamer, Sailing Ship, Tanker
having **R.Q.D. Bridge & Forecastle.**Port of Survey **Belfast.**Date of Survey **24 June 1932.**Name of Surveyor **John K. Williams.**Particulars of Classification **+100A1.**

Ship's Name

"WHIN"

(Type of Superstructures.)

Nationality and Port of Registry

**British.
Belfast.**

Official Number

142503.

Gross Tonnage

466.

Date of Build

1920-10.Moulded Dimensions: Length **152'-0"** Breadth **25'-0"** Depth **12'-10"**Moulded displacement at moulded draught = 85 per cent. of moulded depth **800** tonsCoefficient of fineness for use with Tables **.722**

Depth for Freeboard (D)

Moulded depth **12.00**Stringer plate **1/2" .03**

Sheathing on exposed deck

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

Depth for Freeboard (D) = **12.03**

Depth correction

(a) Where D is greater than Table depth

(D-Table depth) R =

$$(12.03 - 10.13) 1.169 = +2.22"$$

(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) **25.00**

$$\text{Standard Round of Beam} = \frac{B \times 12}{50} = 6.00$$

$$\text{Ship's Round of Beam} = 6.50$$

$$\text{Difference} = .50$$

Restricted to ☒

$$\text{Correction} = \frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.50}{4} \times .22 = -.03"$$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	✓				
" overhang ...	✓				
R.Q.D. enclosed ...	86'-6"	86.50	3'-6"	✓	86.50
" overhang ...	✓				
Bridge enclosed ...	8'-10"	8.83	7'-4"	✓	8.83
" overhang aft ...	5"				
" overhang forward ...	18" Centre to 3 sides	.12			.12
Funnel enclosed ...	20'-0" 20.96	20.96	7'-3"	✓	20.96
" overhang ...	5'-5" 4.46	2.23			2.23
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	121.00	118.64			118.64

Standard Height of Superstructure **6.00**" " R.Q.D. **3.346**Deduction for complete superstructure **21.20**

$$\text{Percentage covered } \frac{S}{L} = 79.60\%$$

$$\text{" " } \frac{S_1}{L} = 78.06\%$$

$$\text{" " } \frac{E}{L} = 78.06\%$$

Percentage from Table, Line A. **.7291**

(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) ☒

$$\text{Deduction} = 21.20 \times .7291 = -15.46"$$

SHEER CORRECTION.

actual height of R.Q.D. = 42"

Standard - - - 40.15"

Difference = 1.85"

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	25" 25.20	1		25.20	+1.85	26.85	1		26.85
1/4 L from A.P. ...	11 1/4" 11.21	4		44.84	10.86	11.95	4		47.80
1/2 L " ...	3 1/2" 3.77	2		5.54	2.71	2.95	2		5.90
Amidships ...	-	4					4		
3/4 L from F.P. ...	8" 5.54	2		11.08	6.07	6.07	2		12.14
1/4 L " ...	23" 22.43	4		89.72	24.29	24.29	4		97.16
F.P. ...	56" 50.40	1		50.40	55.00	55.00	1		55.00
Total ...				226.78					244.85

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{18.07}{18} (.75 - .399) = -.35"$$

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 = **15.53**Summer freeboard = **3.73**Moulded draught (d) = **11.80**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **2.95 = 3"**Addition for Winter North Atlantic Freeboard (if required) = **2"**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta = 949$$

Tons per inch immersion at summer load water line

$$T = 7.67$$

Deduction = $\frac{\Delta}{40 T}$ inches

$$= 3.10 = 3"$$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$$\frac{.68 + .722}{1.36} = \frac{1.402}{1.36}$$

Depth Correction **2.22**Deduction for superstructures **15.46**Sheer correction **.35**Round of Beam correction **.03**

Correction for Thickness of Deck amidships

height of Raised Quarter Deck

Other corrections, scantlings, etc. **42.00****44.22 15.84 +28.38**Summer Freeboard = **44.65**

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

Tropical Fresh Water Line above Centre of Disc **3 3/4"**Fresh Water Line " " **3"**Tropical Line " " **3 1/4"**Winter Line below " " **3"**Winter North Atlantic Line " " **5"**Tropical Fresh Water Freeboard **3'-5 3/4"**Fresh Water " " **3'-5 3/4"**Tropical " " LIMITED **3'-8"**Winter " " **3'-11 1/4"**Winter North Atlantic " " **4'-1 3/4"****3'-8 3/4"****3'-5 3/4"****3'-8"****3'-11 1/4"****4'-1 3/4"****44.65****44.65****44.65****44.65****44.65**

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
		FORE WELL.	R.Q.D.	TOP OF MCHY CASING	FORE WELL.				
Description of Hatchway	...	No 1 CARGO.	No 2 CARGO	CROSS BUNKER.	ESCAPE HATCH FORE END DENAL HOLD.				
Dimensions of Hatchway	...	28'-8" x 13'-0"	23'-3 1/2" x 13'-0"	6'-6" x 14'-1 1/2"	2'-2" x 2'-0"				
COAMINGS	Height above Deck	36"	35 1/2"	6" BA	24"				
	Thickness	7/16"	7/16"		3/8"				
	Sides								
	Ends								
	Stiffeners	none	none	none	none.				
	Brackets, Stays	10" BP SPACED 4'-8" 10" FROM TOP OF COAMING.	none.	none.	none.				
HATCH BEAMS	Number	5	4	none	none.				
	Spacing	4'-9"	4'-8"						
	Scantling and Sketch	3 1/2 x 3 x 45. ANGLE 11 1/2"	DITTO.						
		35 PLATE 16"	NO						
	Bearing Surface	3 x 1 1/2 5 RD. 3"	3"						
FORE AND AFTERS	Number	none.	none.	none.	none.				
	Spacing								
	Unsupported Lengths								
	Scantling* and Sketch								
	Bearing Surface								
HATCH COVERS	Material	Wood.	Wood.	Wood.	Wood.				
	Thickness	2 3/8"	2 3/8"	2 3/8"	2 3/8"				
	How fitted	F & A	F & A	F & A	athwart				
	Bearing Surface	3"	3"	3"	2"				
Spacing of Cleats	...	24"	20" to 26"	32"	15"				
Number of Tarpaulins	...	2	2	2	2				
*Are wood fore and afters steel shod at all bearing surfaces? <input checked="" type="checkbox"/> Are battens and wedges efficient and in good condition? <i>yes.</i> Are tarpaulins in good condition and in accordance with rule requirements? <i>yes.</i> Are lashings provided in accordance with rule requirements? <i>yes.</i>									

Particulars of fiddle, funnel and ventilator coamings:—

2 stokehold ventilators 4'-4" coaming. (all coamings of steel.)
 1 engine rm ventilator 12" coaming.
 2 mushroom vents to accommodation.
 Funnel, steel, in good condition, riveted to casing top.
 Sealer opening have strong hinged steel covers permanently attached

Particulars of Flush Bunker Scuttles:—



Particulars of Companionways:—

1 companionway from R.Q.D. to cabin thro' aft bridge bulkhead & bridge deck.
 Opening in deck covered by strong teak wood wheelhouse.
 " " aft bridge bulkhead closed by 1 3/4" thick teakwood door 1" panels, manipulate from both sides.

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

Forecastle dk. 2 ventilators to forecastle 6" dia, 15" coamings. (all coamings of steel)
 1 ventilator to No 1 hold. 8 1/2" dia, 30" coaming. fitted with wood plug & canvas cover.
 Bridge dk. 2 ventilators to accommodation 6 1/2" dia, 14" coamings.
 R.Q.D. 1 ventilator to No 2 hold. 8 1/2" dia, 36" coaming.

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

Forecastle dk. 1 air pipe to fore peak tank 14" high, protected by knighthead & breasthook.
 R.Q.D. 1 " " aft peak tank 30" "
 Canvas covers fitted to air pipes

Particulars of Gangway Cargo and Coaling Ports:—



WHIN.

Particulars of Scuppers and Sanitary Discharge Pipes —

No. scuppers from spaces below freeboard deck or from enclosed superstructures
1 closet dish from closet self contained within machinery casing. 1 storm valve fitted.

Particulars of Side Scuttles:

Forecastle 3 each side, fitted with dead lights.

Bridge none.

Particulars of Guard Rails:—

Forecastle 3'-3" high, 4'-6" spaced stanchions, 2 rails.

Bridge stanchions 3'-9" spacing, teakwood handrail, strongly boxed in with wood.

Particulars of Gangways, Lifelines, etc.:—

Forewell Manilla rope lifelines, fastened to eye bolts fitted in fore bridge
& forecastle bulkheads, & traced to rigging, & bulwarks.
Eye bolts fitted both sides of well.

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
R.Q.D. After Well	87'-0"	2'-9"	3 at 24" x 16" 2 " 30" x 16" 1 " 27" x 16"	6	17.6 sq ft	17 $\frac{1}{2}$ sq ft
Forward Well	31'-0"	2'-11"	2 at 36" x 20"	2	10 sq ft	9.6 sq ft
State position of each freeing port { After Well:— 13'-0", 33'-6", 42'-0", 57'-6", 68'-0", & 79'-6" from AP. (F. and A. position and height above deck edge) { Forward Well:— 3'-6" & 19'-0" from bridge front. State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— fore well: Shutter. R.Q.D. Hinged shutter or rail 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 ...	$\frac{1}{4}$ "	$\frac{1}{4}$ "	6 x 3 $\frac{1}{2}$ x $\frac{1}{2}$ " BA.	26"	Bracketed to deck top & bottom.	None.		
Bridge, After Bulkhead	$\frac{1}{4}$ "	$\frac{1}{4}$ "	"	"	"	29" x 20" <i>see under combinations of sills.</i>	19"	
Bridge, Forward Bulkhead	$\frac{5}{16}$ "	$\frac{1}{4}$ "	"	28"	"	None.		
Forecastle Bulkhead	$\frac{5}{16}$ "	$\frac{1}{4}$ "	3 x 3 x $\frac{3}{8}$ " ANGLES.	26"	None.	7'-4"-6" x 19 $\frac{1}{2}$ "	19"	
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	$\frac{5}{16}$ "	$\frac{1}{4}$ "	3 x 3 x $\frac{5}{16}$ " ANGLES.	32"	Bracketed top. <i>2 each side</i> <i>1 in 1st door, last 4'-0" x 23"</i>	4'-0" x 23"	20"	6'-6"
Exposed Machinery Casings on Superstructure Decks								
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).

Poop Bulkhead	✓	
Raised Quarter Deck Bulkhead ...	✓	No openings
Bridge, After Bulkhead	$1\frac{3}{8}$ " teakwood door 1" panels.	Manipulated from both sides.
Bridge, Forward Bulkhead	✓	No openings
Forecastle Bulkhead	$1\frac{3}{8}$ " teakwood door 1" panels.	" " " "
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	$\frac{5}{16}$ " single plate hinged steel door.	" " " "
Exposed Machinery Casings on Superstructure Decks		
Machinery Casings within Superstructures not fitted with Class I Closing Appliances		
Deckhouses on Flush Deck Ships ...		

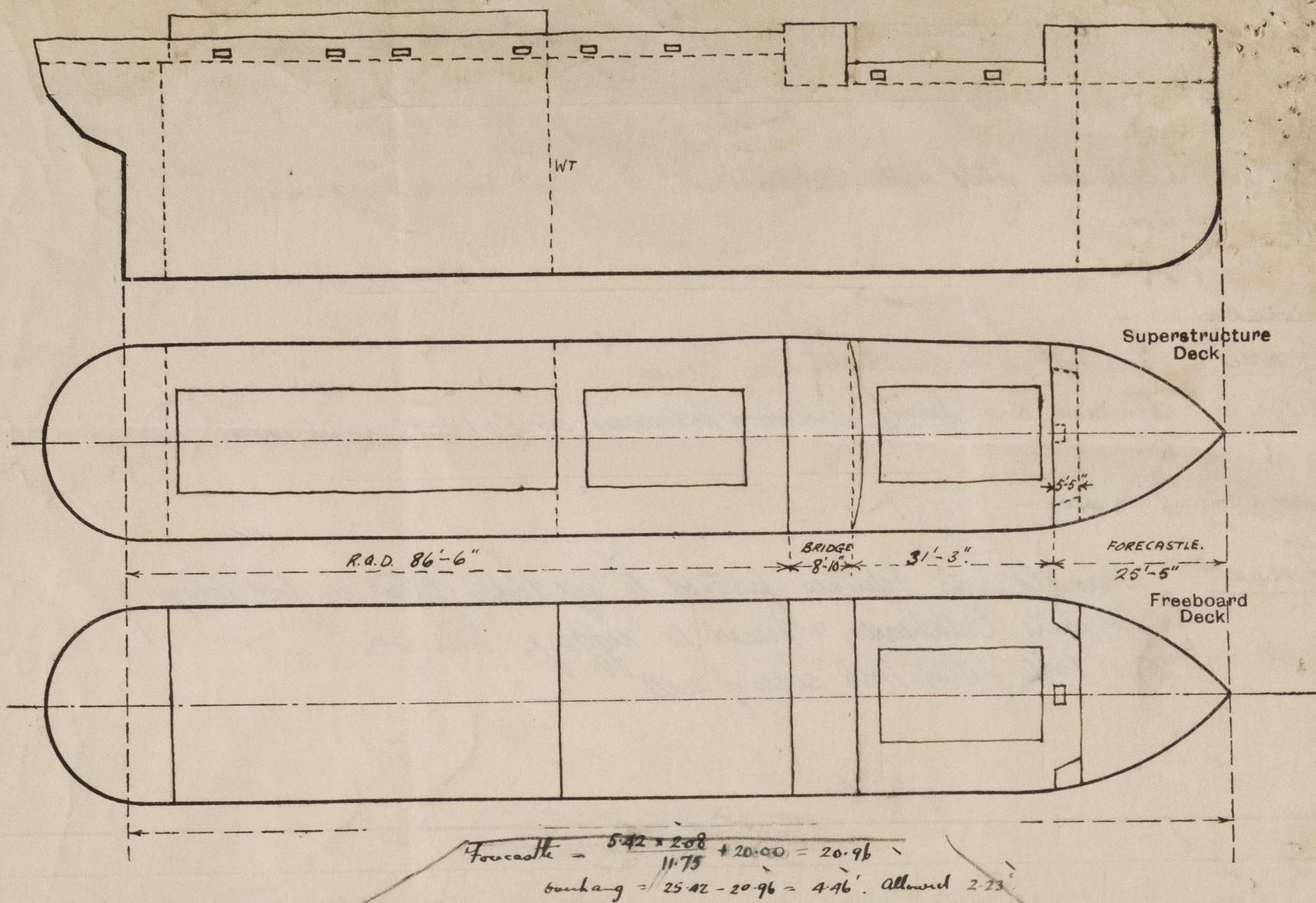


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Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the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



SMIT.

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

This vessel has been examined in dry dock and is now going through special survey No 3.

Builder's name and yard number

Names of sister ships

Owners

Fed £ 5 : 2 : 0.

Received by me

SMIT



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