

-4 APR 1932

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Index. No. **33/13**
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having **POOP BRIDGE + Forecastle**

Port of Survey **West Hartlepool**

Ship's Name **Statina** (Type of Superstructures.)

Date of Survey **1st April 1932**

Name of Surveyor **C. Miller**

Particulars of Classification **100A1**

Nationality and Port of Registry **British Newcastle**

Official Number **161542**

Gross Tonnage **4409**

Date of Build **1929-11m**

Moulded Dimensions: Length **390.0** Breadth **54.25** Depth **25.75**

Moulded displacement at moulded draught = 85 per cent. of moulded depth **10297** tons

Coefficient of fineness for use with Tables **.778**

Depth for Freeboard (D) **25.75**

Depth correction (a) Where D is greater than Table depth (D-Table depth) R = **.03**

(b) Where D is less than Table depth (if allowed) (Table depth-D) R = **(26.0-25.75)3 = .66**

If restricted by superstructures **.66**

Round of Beam correction

Moulded Breadth (B) **54.25**

Standard Round of Beam = $\frac{B \times 12}{50} = \frac{54.25 \times 12}{50} = \mathbf{13.02}$

Ship's Round of Beam = **13.37**

Difference **.35**

Restricted to

Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{.35}{4} \times .194 = \mathbf{-.02}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	34.83	34.83	8.0	✓	34.83
" overhang ...	✓	✓	✓	✓	✓
R.Q.D. enclosed ...	✓	✓	✓	✓	✓
" overhang ...	✓	✓	✓	✓	✓
Bridge enclosed ...	242.66	242.66	8.0	✓	242.66
" overhang aft ...	✓	✓	✓	✓	✓
" overhang forward ...	✓	✓	✓	✓	✓
Fore enclosed equid. ...	36.89	36.89	8.0	✓	36.89
" overhang ...	✓	✓	✓	✓	✓
Trunk aft ...	✓	✓	✓	✓	✓
" forward ...	✓	✓	✓	✓	✓
Tonnage opening aft ...	✓	✓	✓	✓	✓
" forward ...	✓	✓	✓	✓	✓
Total ...	314.38	314.38			314.38

Standard Height of Superstructure **7.50**

" " R.Q.D. **✓**

Deduction for complete superstructure **41.33**

Percentage covered $\frac{S}{L} = \frac{80.62}{80.62} = \mathbf{1.00}$

" " $\frac{S_1}{L} = \frac{80.62}{80.62} = \mathbf{1.00}$

" " $\frac{E}{L} = \frac{80.62}{80.62} = \mathbf{1.00}$

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

Percentage from Table, Line B. (corrected for absence of forecastle (if required)) **76.04%**

Interpolation for bridge less than 2L (if required) **✓**

Deduction = **41.33 x .7604 = -**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual sheer aft	Mean standard sheer aft
A.P. ...	49.00	1		49.00	66.0	66.0	✓	1	66.0	✓	✓
$\frac{1}{2}$ L from A.P. ...	21.80	4		87.20	28.5	28.5	✓	4	114.8	✓	✓
$\frac{3}{4}$ L " ...	5.39	2		10.78	6.5	6.5	✓	2	13.0	✓	✓
Amidships ...	-	4		-	-	-	✓	4	-	✓	✓
$\frac{3}{4}$ L from F.P. ...	10.78	2		21.56	10.5	10.5	✓	2	21.0	✓	✓
$\frac{1}{2}$ L " ...	43.61	4		174.44	46.0	46.0	✓	4	184.0	✓	✓
F.P. ...	98.00	1		98.00	105.0	105.0	✓	1	105.0	✓	✓
Total ...				440.98					589.0	589.0	

Mean actual sheer aft = **2.40**

Mean standard sheer aft = **2.40**

Mean actual sheer forward = **2.40**

Mean standard sheer forward = **2.40**

Length of enclosed superstructure forward of amidships **24'**

" " aft of amidships **24'**

" " " **22'**

" " " **18'**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{64.18 - 62.02}{18} \left(\frac{.75 - .403}{2} \right) = \mathbf{-1.24}$

If limited on account of midship superstructure.

If limited to maximum allowance of

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **25.79**Summer freeboard = **3.33**Moulded draught (d) = **22.46**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **5.61 = 5'**Addition for Winter North Atlantic Freeboard (if required) = **-**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = \mathbf{10636 \text{ tons}}$

Tons per inch immersion at summer load water line

T = **42.39**Deduction = $\frac{\Delta}{40T}$ inches= **6.27 = 6'**

TABULAR FREEBOARD

Correction for coefficient **.778**Depth Correction ... **d from both sides**Deduction for superstructures **with bolts + clips**Sheer correction ... **in riveted channels**Round of Beam correction ... **with bolts + clips spaced 13" apart**

Correction for Thickness of Deck

Other corrections, scantlings, etc.

with bolts + clips operated from both sides

SUMMER FREEBOARD amidships from Centre of

Tropical Fresh Water Line above Centre of Disc ... **299**Fresh Water Line " " ... **159**Tropical Line " " ... **142**Winter Line below " " ... **140**

Winter North Atlantic Line

Disc to top of Deck Line

... **114**... **6'**... **5'**... **5' in steel slides can be closed**... **hinged door, W.T. Can be**

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

[illegible]

Particulars of fiddley, funnel and ventilator coamings:—

Fidley openings. Closed with steel covers permanently attached.
Engine Room skylight is of steel, with steel hinged flaps & glass bellows.

h Bunker Scuttles :—

There are no Bunker Scuttles

Companionway on Forecastle. 16" Coaming
6 x 2' can be manipulated from both sides

lators have wooden plugs, canvas covers & lashings

itions on freeboard and superstructure decks:—

thick	x	3 ft.	high	on	2 nd l ^e , to	Crews quarters	✓
"	x	3 ft.	"	"	"	"	✓
"	x	3-11	"	in	ford well	to Cargo Hold.	Slayed from 7 th l ^e BHD.
"	x	2-6	"	on	bridge	2 nd "	✓
"	x	2-6	"	"	"	"	✓
"	x	2-6	"	"	"	"	between decks

rd, raised quarter, or superstructure decks:—
on Bridge Deck. ✓ 3 @ 9" dia x .25 x 30" to roof space ✓

" Pooh Deck } closed with Canvas covers
 " Forecastle deck } and lashings

ganquway Cargo or Coaling ports

Particulars of Scuppers and Sanitary Discharge Pipes —

2. Stoppers each side in forward well, at deck level. ✓

2. " " " " " " " " After " " " " "
Sanitary discharges, in Bridge space fitted with brass storm valves & blanked off.
about 12" above upper Deck, with brass storm valves.

Particulars of Side Scuttles :

Q. diar about 20" below foreccastle deck, in brass frames
and hinged deadlights.

Particulars of Guard Rails :—

Guard rails, around Poop Bridge & Forecastle, 3'-3" high with 2 Rods
stanchions spaced about 48" ✓
Bulwark plating 26'; Rail 6x3½ Bulw angle, 6x3½ BA stays. about 5-5.5 ft
spacing

Particulars of Gangways, Lifelines, etc. :—

There is a gangway from the Bridge to the Forecastle.
" " " " " " " " Poop.

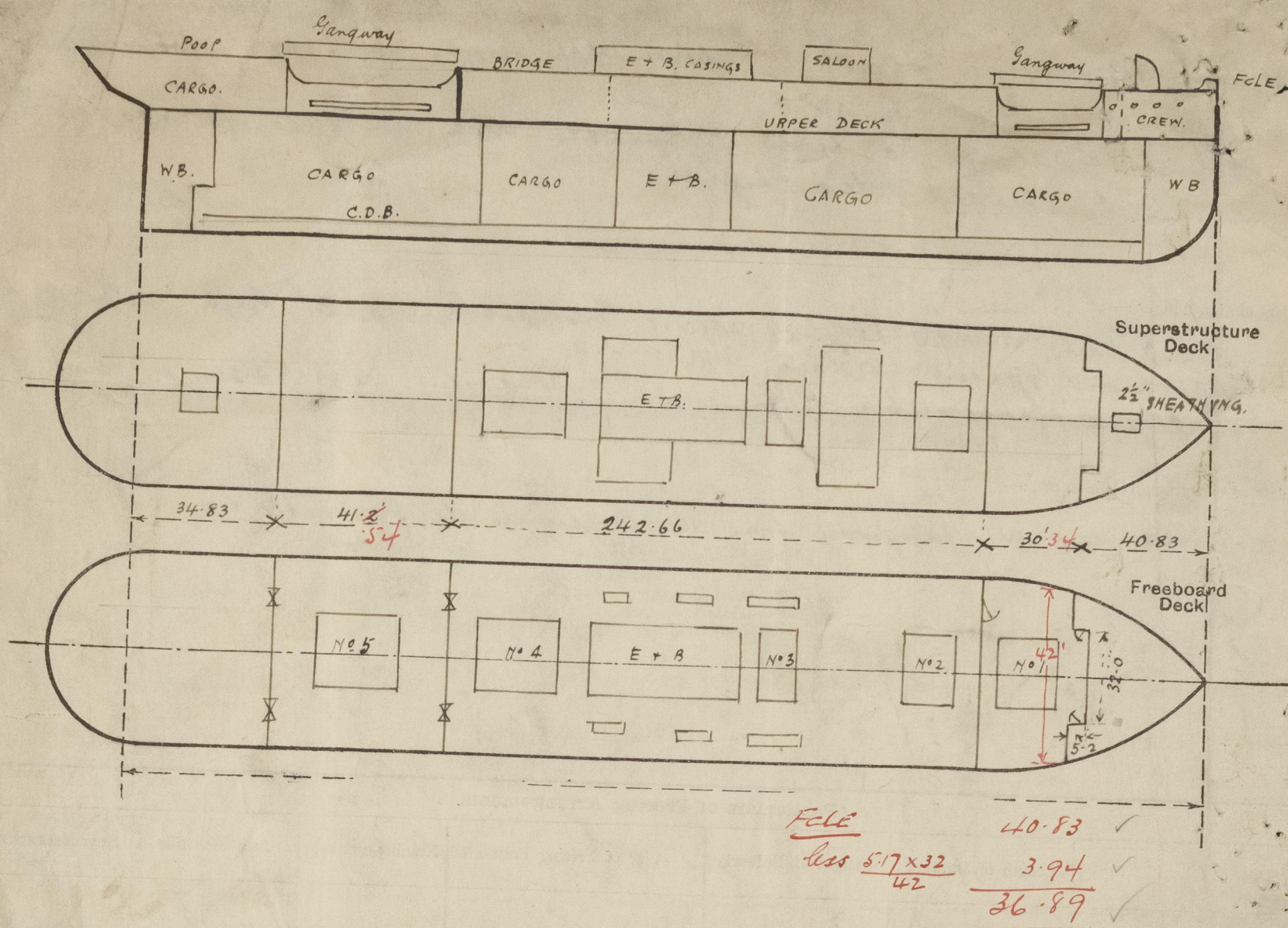
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	^{.5ft} 41' 2"	3' 4'	28' x .5'	one	14 $\frac{1}{2}$ '	10.65 $\frac{1}{2}$ '
Forward Well	^{.3ft} 30' 0"	3' 4'	18.2 x .6	one	10.9 $\frac{1}{2}$ '	9.53 $\frac{1}{2}$ '
<p>State position of each freeing port { After Well :— 5 ft from Bridge Bulkhead</p> <p>(F. and A. position and height above deck edge) { Forward Well :— 5 " " " "</p> <p>State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :— no. ✓</p>						
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	38 -	38 -	6 x 3 x 38 L	30 -	lugged -	5.25 x 4 -	24 -	✓
Raised Quarter Deck Bulkhead ...	✓	✓	✓	✓	✓	✓	✓	✓
Bridge, After Bulkhead	30 -	30 -	4 x 3 x 38 -	30 -	none -	5.25 x 4 -	24 -	✓
Bridge, Forward Bulkhead	42 -	28 -	9 x 3½ x 44 BA	30 -	lugged -	4.6 x 4.06	22½ -	✓
Forecastle Bulkhead	30 -	30 -	4 x 3 x 38	30 -	none -	2 @ 4.5 x 2 -	18 -	✓
Trunk, Aft	✓	✓	✓	✓	✓	✓	✓	✓
Trunk, Forward	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Super-structure Decks	38 -	38 -	3 x 3 x 30	30 -	✓	4.25 x 2 -	22 -	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	30 -	30 -	3 x 3 x 30	30 -	✓	5.2 x 2.8 4.0 x 2	22 - 17	8'
most houses on bridge etc	30 -	30 -				3 x 2	18 -	
Deckhouses on Flush Deck Ships ...	30 -	30 -	"	"	✓	3.6 x 2 4.6 x 2	36" 24	7'

Particulars of Closing Appliances (state if capable of being manipulated from both sides)

Poop Bulkhead	...	...	1 opening starboard side, closed with <u>steel plate secured with bolts & clips</u>	✓
Raised Quarter Deck Bulkhead	...	...	" " Port " " " Steel plate secured with bolts & clips spaced 13" apart.	✓
Bridge, After Bulkhead	...	...	2 openings closed with steel plates secured " " " "	✓
Bridge, Forward Bulkhead	...	...	1 steel W.T. door hinged in position + secured with bolts & clips operated from both sides	✓
Forecastle Bulkhead	...	...	2 steel doors (hunged) can be manipulated from both sides	✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks	...	...	2 steel hunged doors, each side, can be manipulated from both sides	✓
Exposed Machinery Casings on Super-structure Decks	...	...	2 steel " " can be operated " from both sides	✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...	...	1 sliding door each side .25 steel plate in steel sliders can be closed from both sides	✓
Deckhouses on Flush Deck Ships	...	...	Must have access to holds 2 steel hunged doors W.T. Can be operated from both sides	✓

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:—

There are no special features

The following particulars have been taken from the Deadweight + Displacement Scale on board the vessel.

Extreme Displacement at	21'-0 draft	9798 tons	tons per inch = 42.1
"	22-0 "	10,306 "	42.25
"	22-6 "	10,560 "	42.39
$15 \times 25.75 =$	21.89 ✓		
	19 ✓		
	22.08 ✓		
$\Delta @ 22'-0" =$	10306 ✓		
	42 ✓		
	10348 ✓		
	= 10297 tons ✓		
	22.46 ✓		
	19 ✓		
	22.65 ✓		
$\Delta @ 22'-6" =$	10560		
$15 \times 12 \times 42.39 =$	76 ✓		
	10636 ✓		

Builder's name and yard number The Northumberland S.B. Co yard no 414

Names of sister ships ✓

Owners The Burnett S.S. Co Ltd MacKintosh & Co. (Glasgow) Ltd

Fee £ 12 : 15 : -

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