

2 AUG 1932

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Rpt. C.11.

Index. No.
(For London Office only.)Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD. 10.910

Computation of Freeboard for Steamer, Sailing Ship, Tanker

Having *Forecastle bridge & raised quarter deck*Port of Survey *Belfast*

(Type of Superstructures.)

Date of Survey *July 24 & 30 1932*

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

*"DOWNSHIRE"**British**61780**398**1925-1**Belfast**148142*Name of Surveyor *Jas. Herne*Moulded Dimensions: Length *146.75* Breadth *24.5* Depth *11'-0"*Moulded displacement at moulded draught = 85 per cent. of moulded depth *718* tonsCoefficient of fineness for use with Tables *.48*Particulars of Classification *+ 100 A1**S.S. Bel. No. 1-29*

Depth for Freeboard (D)

Moulded depth *11'-0"*Stringer plate *.03*

Sheathing on exposed deck

 $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = *11'-03"*

Depth correction

(a) Where D is greater than Table depth

(D - Table depth) R =

 $(11.03 - 9.78) \times 1.129 = +1.41$

(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 = *7.5*Difference *Less = 1.62*

Restricted to

Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{1.62^2}{4} \left(1 - \frac{17.98}{148} \right) = .07$

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 ...	<i>86.25</i>	<i>86.25</i>	<i>3'-6"</i>		<i>86.25</i>
" overhang ...	✓				
Bridge enclosed ...	<i>9.0</i>	<i>9.0</i>	<i>7'-2 1/2"</i>		<i>9.00</i>
" overhang aft ...	✓				
" overhang forward ...	✓				
F'cle enclosed ...	<i>24.75</i>	<i>24.75</i>	<i>7'-0"</i>		<i>24.75</i>
" overhang ...	<i>.75</i>	<i>.37</i>			<i>.37</i>
Trunk aft ...	✓				
" forward ...	✓				
Tonnage opening aft ...	✓				
" " forward ...	✓				
Total ...	<i>120.75</i>	<i>120.37</i>			<i>120.37</i>

Standard Height of Superstructure *6.00*" " R.Q.D. *3.31*Deduction for complete superstructure *20.675*Percentage covered $\frac{S}{L} = 82.28$ " " $\frac{S_1}{L} = 82.02$ " " $\frac{E}{L} = 82.02$ Percentage from Table, Line A. *77.80*

(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 = $20.675 \times .7780 = -16.08$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>24.67</i>	1		<i>24.67</i>	<i>27.0</i>	<i>27.00</i>	1		<i>27.00</i>
1/2 L from A.P. ...	<i>10.98</i>	4		<i>43.92</i>	<i>12.0</i>	<i>12.00</i>	4		<i>48.00</i>
3/4 L " ...	<i>2.71</i>	2		<i>5.42</i>	<i>2.0</i>	<i>3.16</i>	2		<i>6.32</i>
Amidships ...		4					4		
3/4 L from F.P. ...	<i>5.43</i>	2		<i>10.86</i>	<i>6.1</i>	<i>6.12</i>	2		<i>12.24</i>
1/2 L " ...	<i>21.96</i>	4		<i>87.84</i>	<i>24.5</i>	<i>24.48</i>	4		<i>97.92</i>
F.P. ...	<i>49.35</i>	1		<i>49.35</i>	<i>54.0</i>	<i>54.00</i>	1		<i>54.00</i>
Total ...				<i>222.06</i>					<i>252.00</i>

Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{222.06 - 252.00}{18} = -1.67$

If limited on account of midship superstructure.

Mean actual sheer aft = *excess*Mean standard sheer aft = *excess*Mean actual sheer forward = *excess*Mean standard sheer forward = *excess*Length of enclosed superstructure forward of amidships = *.15*" " aft of " = *.50*

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *14.53*Summer freeboard = *3.54*Moulded draught (d) = *10.99*

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = *2.74 = 2 3/4*Addition for Winter North Atlantic Freeboard (if required) = *2"*

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 815 \text{ tons}$

Tons per inch immersion at summer load water line

T =

Deduction = $\frac{\Delta}{40T}$ inches= $\frac{815}{40 \times 24} = 8.46$ = *2 1/2*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{1.428}{1.36} = 1.05$ Depth Correction *1.41*Deduction for superstructures *16.08*Sheer correction *.56*Round of Beam correction *.07*Correction for Thickness of Deck amidships *1.20*Other corrections, scantlings, etc. *1*Summer Freeboard = *42.53*SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, *Wood, Steel, Deck*Tropical Fresh Water Line above Centre of Disc ... *5 1/2"*Fresh Water Line " " ... *2 3/4"*Tropical Line " " ... *2 3/4"*Winter Line below " " ... *2 3/4"*Winter North Atlantic Line " " ... *4 3/4"*Tropical Fresh Water Freeboard *3'-1 1/4"*Fresh Water " " *3'-3 3/4"*Tropical " " *3'-3 3/4"*Winter " " *3'-9 1/4"*Winter North Atlantic " " *3'-11 1/4"*

5m, 3.32.

MARKING FORM
RECEIVED 27 DEC 1932

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Freeboard Deck → R. Qls Deck → Casing Top									
Description of Hatchway	Fore Peak & Hold	No 1 cargo	No 2 cargo	After Peak	Bunkers				
Dimensions of Hatchway	3'-9" x 2'	23'-3 1/2" x 14'	23'-3 1/2" x 14'	1'-9" x 1'-9"	7' x 14'				
COAMINGS	Height above Deck	24" ✓	30" ✓	30" ✓	18" ✓	9" ✓			
	Thickness	36" ✓	40" ✓	44" ✓	36" ✓	30" ✓			
	Sides	36" ✓	44" ✓	40" ✓	36" ✓	30" ✓			
	Stiffeners	✓	10" 5 ✓	10" 5 ✓	✓	✓			
Brackets, Stays	✓	✓	✓	✓	✓				
HATCH BEAMS	Number		3 ✓	3 ✓					
	Spacing		5'-10" ✓	5'-10" ✓					
	Scantling and Sketch		15" x 34" ✓ 3 x 3 x 42 L ✓ 3 x 1 1/2 D ✓	15" x 34" ✓ 3 x 3 x 42 L ✓ 3 x 1 1/2 D ✓					
	Bearing Surface		3" ✓	3" ✓					
FORE AND AFTERS	Number								
	Spacing								
	Unsupported Lengths								
	Scantling* and Sketch								
Bearing Surface									
HATCH COVERS	Material	Wood ✓	Wood ✓	Wood ✓	Wood ✓	Wood ✓			
	Thickness	2 1/2" ✓	2 1/2" ✓	2 1/2" ✓	2 1/2" ✓	2 1/2" ✓			
	How fitted	laid in ✓	laid in ✓	laid in ✓	laid in ✓	laid in ✓			
	Bearing Surface	1 1/4" ✓	3" ✓	3" ✓	1 3/4" ✓	2" ✓			
Spacing of Cleats	30" x 12" ✓	24" ✓	24" ✓	12" ✓	31" ✓				
Number of Tarpaulins	one ✓	2 ✓	2 ✓	none ✓	one ✓				

*Are wood fore and afters steel shod at all bearing surfaces? *None ✓*
 Are battens and wedges efficient and in good condition? *Yes. (excepting side battens to main hatches which are in this condition)*
 Are tarpaulins in good condition and in accordance with rule requirements? *Yes.*
 Are lashings provided in accordance with rule requirements? *Yes.*

Particulars of fiddle, funnel and ventilator coamings:— *on high casing on R. Qls Deck.*

*Indies, funnel & vent coamings of steel. efficient.
 Engine room skylight of steel, strong.
 Indies openings protected by hinged steel cover!*

Particulars of Flush Bunker Scuttles:—

None ✓

Particulars of Companionways:—

None ✓

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

Position	Space to	No.	Height	dia.	Thickness	Closing appliance
Fore Ok.	Hold.	1	36" ✓	10" ✓	36" ✓	wooden plug & canvas cover ✓
Fore Ok.	Fore Peak.	1	36" ✓	7" ✓	36" ✓	do. do. ✓
Bridge Ok.	Under Bridge	2	18" ✓	6" ✓	30" ✓	canvas cover ✓
R. Qls. Ok.	Hold.	1	36" ✓	10" ✓	36" ✓	do & wooden plug ✓

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

Position	Space to	No.	Height to opening	dia.	mat.	Closing appliance
Fore Ok.	Fore Peak Tanks.	1	12" ✓	3" ✓	W.I. ✓	✓
R. Qls. Ok.	After " "	1	12" ✓	2 1/2" ✓	W.I. ✓	✓

Canvas covers provided

Particulars of Gangway Cargo and Coaling Ports:—

None ✓



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Particulars of Scuppers and Sanitary Discharge Pipes :—

Particulars of Side Scuttles :—

Efficient side scuttles in forecabin & bridge sides. No deadlights fitted.

Particulars of Guard Rails :—

Forecastle Deck 2 rows rails 3'0" high stanchions spaced 4'-3" apart.

Particulars of Gangways, Lifelines, etc. :—

Provision is made for lifelines
Whe fitted on either side in the
forward 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
After Well R... Qk... Dk...	86.25'	3'-3"	2'-3" x 18" 2'-4" x 18"	2 3	17 17	17.25
Forward Well	26.75'	3'-6"	2'-3" x 18"	3	10.08	9.17

State position of each freeing port } After Well :— } 3 1/2"
(E. and A. position and height above deck edge) } Forward Well :— } 10"

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :— swivelled steel 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 ...	30	30	3 1/2 x 3 x 30 L	30"	Top. Deck bar Bottom. ✓	✓	✓	3'-6"
Bridge, After Bulkhead	30	30	3 1/2 x 3 x 30 L	30"	Top. Bkt. Bottom. Deck bar	✓	✓	3'-8 1/2"
Bridge, Forward Bulkhead	35	30	5 x 2 1/2 x 36 L	30"	Top. Bkt. Bottom. Bkt.	✓	✓	7'-0"
Forecastle Bulkhead	35	25	2 1/2 x 2 1/2 x 30 L	30"	✓	3 @ 4'-4" x 24" 1 @ 5'-0" x 36" 25"	18"	6'-9"
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Deck Exposed Machinery Casings on Super- structure Decks	35	30	3 1/2 x 3 x 30	28"	Top. Bkt. Bottom. Deck bar	4 @ 4' x 2'	21"	6'-10"
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 ...	✓	
Bridge, After Bulkhead	✓	
Bridge, Forward Bulkhead	✓	
Forecastle Bulkhead	3 hinged wood doors 1 1/2" thick solid. securing both sides.	1 hinged steel door
Exposed Machinery Casings on Deck Exposed Machinery Casings on Super- structure Decks	4 hinged steel doors securing both sides.	✓
Machinery Casings within Superstruc- ture not fitted with Class I Closing Appliances	✓	
Deckhouses on Flush Deck Ships ...	✓	

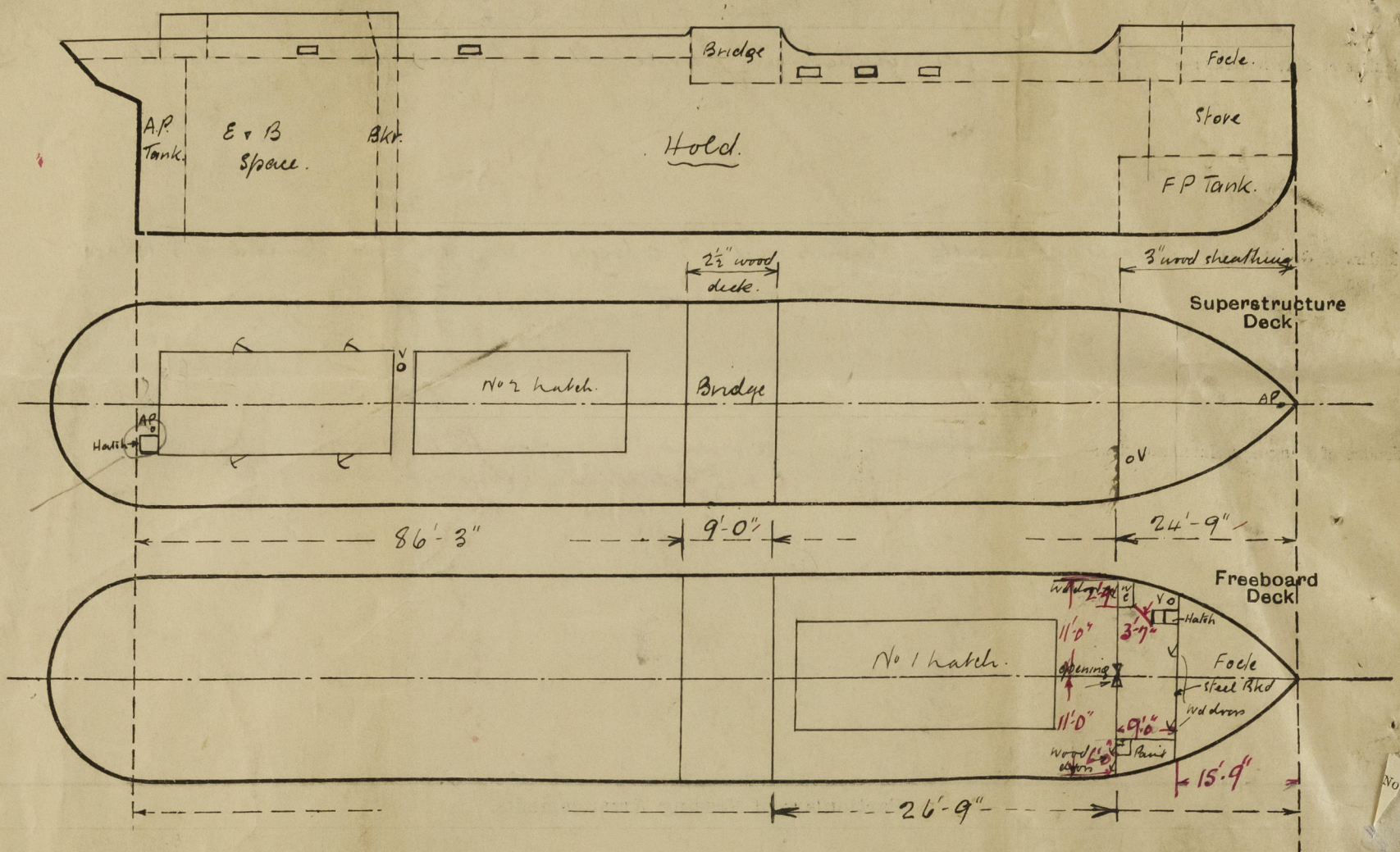


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Dawnshire

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:—



This vessel has been surveyed afloat for freeboard only.

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

forecastle = 15
 Sidehouse (SW) + (9.00)
 9.00 x 6.00 + 2.75 x 0.50 = 2
 22.00
 25.5
 18.65
 216.85
 3.42

OUT

Builder's name and yard number Scott & Sons. Bowling

Names of sister ships ✓

Owners East Downshire S. S. Co. Ltd.

Fee £ 5 : 2 : 0

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