

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. **34800**
(For London Office only.)

28 DEC 1936

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having *Complete shelter deck with tonnage opening aft*
Forecastle on shelter deck.

TEMPLE YARD (Type of Superstructures.)

Ship's Name

"DARLENY"

Nationality and Port of Registry

British
Glasgow.

Official Number

164107

Gross Tonnage

5223
5205
5200.

Date of Build

*1907.*Port of Survey *Port Glasgow.*Date of Survey *While Building*
*26-12-36.*Name of Surveyor *N.L. Swinton.*Particulars of Classification *100 A1.*
With freeboard.
*(Contemplated.)*Moulded Dimensions: Length *425'* Breadth *56'* Depth *28.17'*
Moulded displacement at moulded draught = 85 per cent. of moulded depth *12010.* tons
Coefficient of fineness for use with Tables *.738*

Depth for Freeboard (D)

Moulded depth ... *28.17'*Stringer plate ... *.05*Sheathing on exposed deck ☒

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

Depth for Freeboard (D) = **28.22**

Depth correction

(a) Where D is greater than Table depth
(D - Table depth) R = -

(b) Where D is less than Table depth (if allowed)

$$(Table\ depth - D) R =$$

$$(28.33 - 28.22) \times 3 = .33$$

If restricted by superstructures ☒

Round of Beam correction

Moulded Breadth (B) *56'*

$$Standard\ Round\ of\ Beam = \frac{B \times 12}{50} = 13.44$$

$$Ship's\ Round\ of\ Beam = 14'' = 14.00$$

Difference *.56*

Restricted to

$$Correction = \frac{Diff}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.56}{4} \times .0055 = .00077$$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>37.50</i>	<i>37.50</i>	<i>8.0'</i>	-	<i>37.50</i>
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...	<i>382.92</i>	<i>382.92</i>	<i>8.0</i>	-	<i>382.92</i>
Fore enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...	<i>4.58</i>	<i>2.29</i>	<i>8.0</i>		<i>2.29</i>
" forward ...					
Total ...	<i>425.00</i>	<i>422.71</i>			<i>422.71</i>

Standard Height of Superstructure *7.5'*" " R.Q.D. ☒Deduction for complete superstructure *42*

$$Percentage\ covered\ \frac{S}{L} = 100.00$$

$$\frac{S_1}{L} = 99.45$$

$$\frac{E}{L} = 99.45$$

Percentage from Table, Line A. *99.32*

(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) ☒

$$Deduction = 42 \times 99.32 = -41.71$$

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	<i>52.50</i>	1	<i>52.50</i>	<i>+6</i>	<i>57.00</i>	1	<i>57.00</i>
$\frac{1}{4}$ L from A.P. ...	<i>23.365</i>	4	<i>93.46</i>	<i>22.5</i>	<i>25.36</i>	4	<i>101.44</i>
$\frac{3}{8}$ L " ...	<i>5.775</i>	2	<i>11.55</i>	<i>5</i>	<i>6.27</i>	2	<i>12.54</i>
Amidships ...	-	4	-	-	-	4	-
$\frac{3}{8}$ L from F.P. ...	<i>11.55</i>	2	<i>23.10</i>	<i>11.75</i>	<i>11.99</i>	2	<i>23.98</i>
$\frac{1}{4}$ L " ...	<i>46.73</i>	4	<i>186.92</i>	<i>46</i>	<i>48.50</i>	4	<i>194.00</i>
F.P. ...	<i>105.00</i>	1	<i>105.00</i>	<i>103</i>	<i>109.00</i>	1	<i>109.00</i>
Total ...			<i>472.53</i>	<i>+6</i>			<i>497.96</i>

$$Correction = \frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{25.43}{18} (.75 - .50) = -.35$$

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 = **28.22**
Summer freeboard = **3.35**
Moulded draught (d) = **24.87**

Deduction for Tropical freeboard and addition for

$$Winter\ freeboard = \frac{d}{4} \text{ inches} = 6.22 = 6\frac{1}{4}$$

Addition for Winter North Atlantic Freeboard (if required) = ☒

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta = 12680$$

Tons per inch immersion at summer load water line

$$T = 47.38$$

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

$$= 6.69 = 6\frac{3}{4}$$

TABULAR FREEBOARD corrected for Flash Deck (if required)

Correction for coefficient

$$\frac{.738 + .68}{1.36} = \frac{1.418}{1.36}$$

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

79.35**82.74**Summer Freeboard = **40.35**

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

Tropical Fresh Water Line above Centre of Disc ...

Fresh Water Line " " ...

Tropical Line " " ...

Winter Line below " " ...

Winter North Atlantic Line " " ...

Tropical Fresh Water Freeboard ...

Fresh Water " " ...

Tropical " " ...

Winter " " ...

Winter North Atlantic " " ...

31 DEC 1936

Lloyd's Register

Found 20 JAN 1937

RECEIVED

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											
ON SUPERSTRUCTURE DECK						ON FREEBOARD DECK					
Description of Hatchway	N. 1.	N. 2.	N. 3.	N. 4.	N. 5.	N. 1.	N. 2.	N. 3.	N. 4.	N. 5.	
Dimensions of Hatchway	29' 3 1/2" x 22' 0"	34' 4 1/2" x 22' 0"	29' 9 1/2" x 22' 0"	38' 11 1/2" x 22' 0"	29' 9 1/2" x 22' 0"	29' 8" x 24' 0"	34' 4 1/2" x 22' 0"	38' 11 1/2" x 24' 0"	38' 11 1/2" x 24' 0"	29' 9 1/2" x 24' 0"	
COAMINGS	Height above Deck	30"	30"	30"	30"	30"	30"	30"	30"	30"	
	Thickness Sides	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	
	Thickness Ends	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	
	Stiffeners	7 x 3 x 40	7 x 3 x 40	7 x 3 x 40	7 x 3 x 40	7 x 3 x 40	7 x 3 x 40	7 x 3 x 40	7 x 3 x 40	7 x 3 x 40	
HATCH BEAMS	Number	5	6	5	7	5	6	5	7	5	
	Spacing	4' 10 1/2"	4' 11"	4' 11 1/2"	4' 10 1/2"	4' 11 1/2"	4' 10 1/2"	4' 11"	4' 10 1/2"	4' 11 1/2"	
	Scantling and Sketch	18 x 26	18 x 26	18 x 26	18 x 26	18 x 26	18 x 26	18 x 26	18 x 26	18 x 26	
	Bearing Surface	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	
FORE AND AFTERS	Number										
	Spacing										
	Unsupported Lengths										
	Scantling* and Sketch										
HATCH COVERS	Material	W. P.	W. P.	W. P.	W. P.	W. P.	W. P.	W. P.	W. P.	W. P.	
	Thickness	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	
	How fitted	F. O. A.	F. O. A.	F. O. A.	F. O. A.	F. O. A.	F. O. A.	F. O. A.	F. O. A.	F. O. A.	
	Bearing Surface	3"	3"	3"	3"	3"	3"	3"	3"	3"	
Spacing of Cleats	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	
Number of Tarpaulins	3	3	3	3	3	1	1	1	1	1	

*Are wood fore and afters steel shod at all bearing surfaces? ☒
 Are battens and wedges efficient and in good condition? YES. ☒
 Are tarpaulins in good condition and in accordance with rule requirements? YES. ☒
 Are lashings provided in accordance with rule requirements? YES. ☒

Livings opening on shelter d.k. 4' 7" x 22' 0".
 Com. 12 x 32 x 44 B.P. (9 1/2" above wood d.k. at aft end)
 Cover 2 1/2" efficiently secured. Rest 3". No tarp.
 Hatch at after end shelter d.k. to store. 3' 0" x 2' 6".
 Com. 30 x 44. Cover 2 1/2". Rest 2 1/2". Cleats 19' 1/2". 2 tarps.

Particulars of fiddle, funnel and ventilator coamings:—

Fiddle, funnel, & vent. coamings efficient. Engine room skylight of steel strongly constructed. Fiddle gratings covered with strong steel hinged covers permanently attached & efficiently secured.

Particulars of Flush Bunker Scuttles:—

None.

Hatch on shelter d.k. inside pile to peak. 4' 0" x 4' 0". Com. 9 x 3 x 40 B.P. cover 2 1/2". Rest 3". Cleats 19' 1/2". 1 tarp.
 Hatch on shelter d.k. inside pile to chain. 2' 0" x 3' 0". Com. 9 x 3 x 40 B.P. cover 2 1/2". Rest 3". Cleats 24' 1/2". 1 tarp.
 Coaling hatch on shelter d.k. 2 @ 18' 4" x 8' 0". Com. 30 x 44. 2 stays each side. 1 pair of aft girders with 11 x 42. double. 32 x 32 x 18 cover 2 1/2" (thwart). Rest 2 1/2". Cleats 24' 1/2". 8 tarps.
 Coaling hatch on coaling top. 6' 0" x 17' 6". Com. 9 x 3 x 40 B.P. cover 2 1/2". Rest 3". Cleats 24' 1/2". 3 tarps.
 Coaling hatch on forecast d.k. 2 @ 36' 8" x 8' 0". Com. 9 x 3 x 40 B.P. 1 pair of aft girders (painted & brown) 6 x 3 x 3 x 375 channel. cover 2 1/2" (thwart). Rest 3". Cleats 24". 1 tarp.
 Coaling hatch on forecast d.k. 2 @ 4' 7" x 5' 0". Com. 9 x 3 x 40 B.P. cover 2 1/2". Rest 3". Cleats 24' 1/2". 1 tarp.
 Escape hatch on forecast d.k. 26 @ 2' 0" x 2' 0". Com. 9 x 3 x 40 B.P. cover 2 1/2" hinged flush. Rest 3". Cleats 12' 1/2". 1 tarp.

Particulars of Companionways:—

Entrance to crew space in shelter tower deck aft from steel deckhouse on shelter d.k. openings (2) 4' 11" x 23 1/2". closed by hinged wood door manop. from both sides. Sills 18" high.
 Entrance to hold & tower d.k. from steel masthouse on shelter d.k. openings 4' 6" x 24" closed by steel hinged door manop. from both sides. Sills 18" high.
 Entrance to store in shelter tower d.k. from saloon deckhouse on shelter d.k. opening 4' 10" x 2' 4" closed by hinged wood door manop. from both sides. Sills 18" high.

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

1 Vent. on fore d.k. 8 dia. Com. 36 x 50 to peak store.	4 Vents. on fore Masthouse top 18 dia. Com. 24 x 40 to hold.
2 " on shelter d.k. 18 " 36 x 40 to hold.	4 " aft 18 " 24 x 40
2 " " 12 " 30 x 34 "	2 " after deckhouse 15 " 30 x 36
6 " " 18 " 30 x 40 "	2 " " 9 " 30 x 32
2 " " 10 " 30 x 32 to tankers.	
2 " " 15 " 30 x 36 to crew.	
1 " " 10 " 30 x 32 to tunnel.	

All Vent. coamings constructed as per Rules. Wood plugs & covers cover supplied.

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

1 on fore d.k. 3 1/2" dia. 26" high to fore peak tank.	
2 " 3 1/2" " 27 " to B.D. tank.	
18 shelter d.k. 3 1/2" " 30 " to aft peak tank.	
1 " 3 1/2" " 30 " to aft peak tank.	

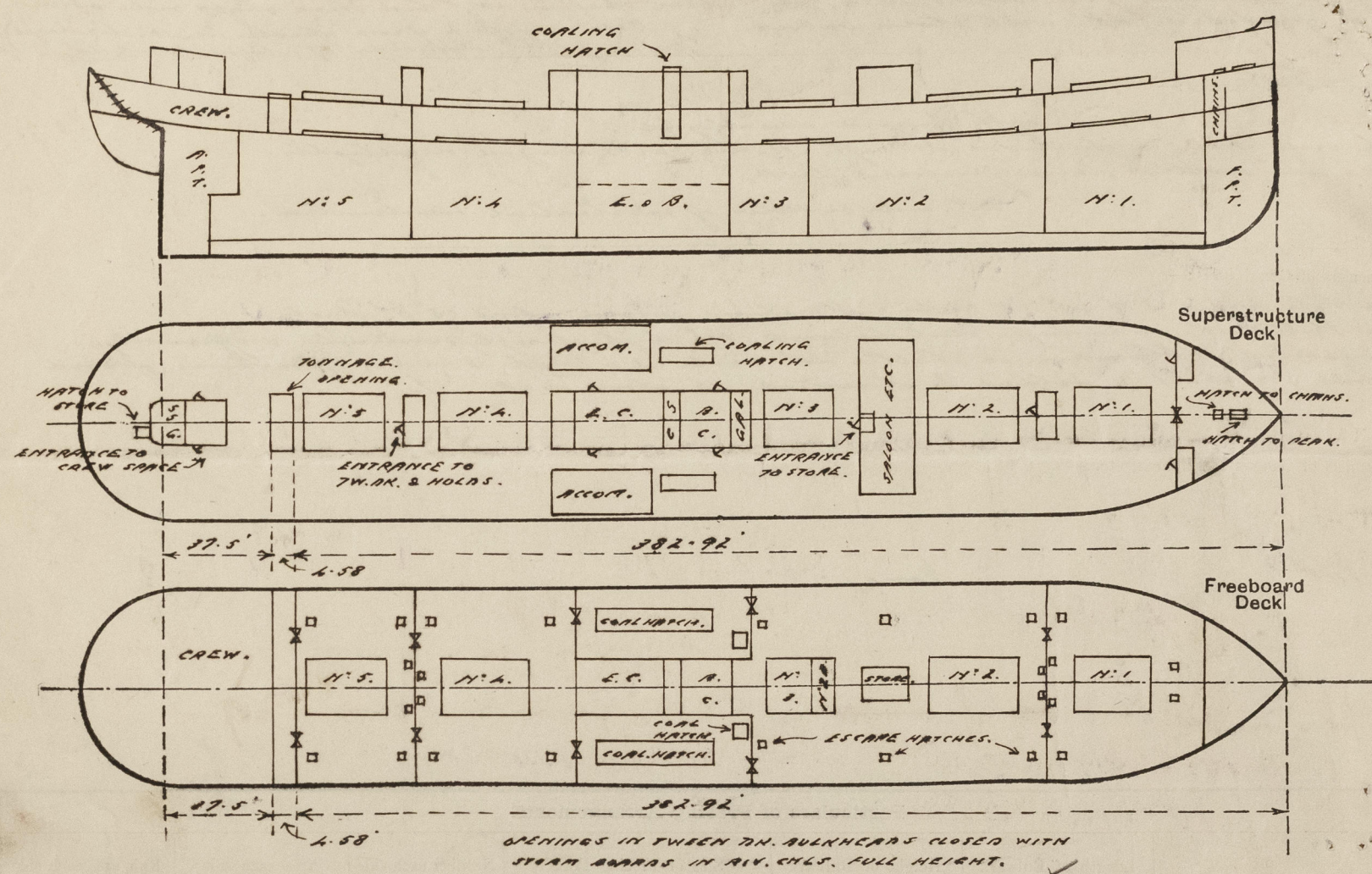
Openings of air pipes closed with canvas covers.

Particulars of Gangway Cargo and Coaling Ports:—

None.

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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:—



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

This vessel has been built in accordance with the approved plans & in general conformity with the Society's Rules for the class contemplated. The approved plans of Midships Section & Profile & deck plans are forwarded for reference. Subboard request forwarded. The vessel is to be engaged in International Trade.

Please see preliminary assignment dated 21-12-35.

Over

Full displacement @ 24'6" draught 12375 tons.				Less per inch	17.25
B:	@ 25-0	do.	12680	B:	47.38
B:	@ 25-6	do.	12960	B:	47.60

Builder's name and yard number *W. Hamilton & Co. Ltd. No. 427.*

Names of sister ships

Owners *Carriack Shipping Co. Ltd. (Douglas & Ramsey, Mgrs.)*

Fee £ *16 0 0*
ESTIMATED.

Received by me

Over



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