

64771

Newcastle-on-Tyne No. 88915.

B.T. COPY

21 JUL 1932

Rpt. C.11.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~

Having

Shelter deck with Tonnage Opening.

Port of Survey Newcas

(Type of Superstructures.)

Date of Survey 19th J.

Ship's Name

DONA FLORA

Nationality and Port of

Registry

British
Middlesbrough

Official Number

147772

Gross Tonnage

786

Date of Build

1924Name of Surveyor Alex. E. S.Moulded Dimensions: Length 200'0" Breadth 34'5" Depth 14'25"Moulded displacement at moulded draught = 85 per cent. of moulded depth 1749 tonsCoefficient of fineness for use with Tables .733Particulars of Classification +100With Freebo
S.S. Nav. No. 1-29.

Depth for Freeboard (D)

Moulded depth 14'25"Stringer plate 04"

Sheathing on exposed deck

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

Depth for Freeboard (D) = 14'29"

Depth correction

(a) Where D is greater than Table depth

(D-Table depth) R =

$$(14.29 - 13.33) / 1.538 = + 1.48"$$

(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) 34'5"

$$\text{Standard Round of Beam} = \frac{B \times 12}{50} = 8.28"$$

Ship's Round of Beam = 0Difference 8.28Restricted to /

$$\text{Correction} = \frac{\text{Diff}^a}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{8.28}{4} \times 0.135 = +$$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<u>58'0"</u>	<u>58.00</u>	<u>7'4 1/2" 2'3"</u>	<u>/</u>	<u>58.00</u>
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed			<u>7'4 1/2"</u>	<u>/</u>	
" overhang aft	<u>134'0"</u>	<u>134.00</u>	<u>7'0"</u>	<u>/</u>	<u>134.00</u>
" overhang forward			<u>12'5"</u>	<u>/</u>	
Fore enclosed					
" overhang	<u>3'6"</u>	<u>2.62</u>		<u>/</u>	<u>2.62</u>
Trunk aft					
" forward					
Tonnage opening aft	<u>4'6"</u>	<u>2.69</u>	<u>7'4 1/2"</u>	<u>/</u>	<u>2.69</u>
" " forward					
Total	<u>200.00</u>	<u>197.31</u>			<u>197.31</u>

Standard Height of Superstructure 6.00

" " R.Q.D.

Deduction for complete superstructure 26.00Percentage covered $\frac{S}{L} = 100\%$ " " $\frac{S_1}{L} = 98.65\%$ " " $\frac{E}{L} = 98.65\%$ Percentage from Table, Line A. 98.33%
(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 = $26 \times 98.33 = - 25.56$

SHEER CORRECTION.

actual T.D. Height = 84"Standard " = 72"Difference = 12"

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate plotted	S M	Product
A.P.	<u>30.00</u>	1	<u>30.00</u>		<u>+12.00</u> <u>27.00</u>	1	<u>39.00</u>
1/2 L from A.P.	<u>13.35</u>	4	<u>53.40</u>		<u>12.00</u>	4	<u>69.44</u>
2/3 L "	<u>3.30</u>	2	<u>6.60</u>		<u>3.00</u>	2	<u>8.58</u>
Amidships		4				4	
2/3 L from F.P.	<u>6.60</u>	2	<u>13.20</u>		<u>7.00</u>	2	<u>17.16</u>
1/2 L "	<u>26.70</u>	4	<u>106.80</u>		<u>28.80</u>	4	<u>128.84</u>
F.P.	<u>60.00</u>	1	<u>60.00</u>		<u>+12.00</u> <u>66.00</u>	1	<u>78.00</u>
Total			<u>270.00</u>				<u>351.02</u>

Correction = $\frac{\text{Difference}}{18} \times \text{sums of products} \left(\frac{75-S}{2L} \right) = \frac{81.02}{18} \left(\frac{75-50}{2} \right) = - 1.13$

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 = 14.29Summer freeboard = .17Moulded draught (d) = 14.12

for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = $3.53 = 3 \frac{1}{2}$ Addition for Winter North Atlantic Freeboard (if required) = 2"

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 2088$

Tons per inch immersion at summer load water line

T = 13.5Deduction = $\frac{\Delta}{40T}$ inches= $3.86 = 3 \frac{3}{4}$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction 1.48Deduction for superstructures 25.56Sheer correction 1.73Round of Beam correction03Correction for Thickness of Deck amidships -Other corrections, scantlings, etc. -Summer Freeboard = $-1.18 + 3.18 = 2.00$ SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck: 0'2" (limited)Tropical Fresh Water Line above Centre of Disc 3 3/4"Fresh Water Line " " 3 3/4"Tropical Line " " 3 1/2"Winter Line below " " 5 1/2"Winter North Atlantic Line " " 5 1/2"Tropical Fresh Water Freeboard 0'1 3/4"Fresh Water " " 0'1 3/4"Tropical " " 0'2" (limited)Winter " " 0'5 1/2"Winter North Atlantic " " 0'7 1/2"

25 JUL 1932

21 AUG 1931

6-8 JUL 1933

MARKING FORM

RECEIVED

1 AUG

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

← Shelter deck → → upper deck →

		N° 1	N° 2	N° 1	N° 2	Tonnage Op. on Shelter dk.	Cross Bunker H. on upper dk.			
	way	39'3" x 22'6"	39'3" x 22'6"	44'0" x 21'0"	50'0" x 26'8"	4'6" x 22'6"	4'6" x 22'6"			
	Height above Deck	31"	31"	9"	9"	9"	18"			
	Thickness { Sides	42"	42"	9" x 3 B.A.	9" x 3 B.A.	9" x 3 B.A.	42"			Store Hatch on Shelter deck forward.
	{ Ends	44"	44"				42"			1-9" x 1-6", coam. 18" x 30"
	Stiffeners	9" x 3 B.A.	9" x 3 B.A.	-	-	-	-			Steel top 40" secured by 6 toggles
	Brackets, Stays, 42" plate flanged 3, 14 wide ddk.	4 off.	4 off.	-	-	-	-			(toggles require repairs).
	Number	7	7	10	12	✓	✓			Fore peak hatch on upper dk.
	Spacing	4'-11"	4'-11"	4'-0"	3'-10"					W.T. manhole cover 17" x 13"
	Scantling and Sketch									Deep Tank hatch on upper dk.
	plate	19 1/2" x 36"	19 1/2" x 36"	16 1/2" x 36"	18 1/2" x 36"					W.T. manhole cover 17" x 13"
	angles	5" x 3" x 46"	5" x 3" x 46"	6" x 3 1/2" x 40"	6" x 3 1/2" x 40"					
	Bearing Surface	3 1/2"	3 1/2"	3 1/2"	3 1/2"					
	Number	✓	✓	✓	✓	✓	✓			aft peak hatch on Shelter dk.
	Spacing									21" x 23", coam 6" x 3" L.
	Unsupported Lengths									steel riveted top 40", with manhole 17" x 13"
	Scantling* and Sketch									d steel plate over with bolts 4 1/2" apart.
	Bearing Surface									Store Hatch on Shelter dk. aft.
										16" x 23", coam 8" x 35"
										Steel top 40", secured by bolts 4" apart
	Material	w.p.	w.p.	w.p.	w.p.	w.p.	w.p.			
	Thickness	2 3/4"	2 3/4"	2 3/4"	2 3/4"	2 1/2"	2 3/4"			
	How fitted	f.ta.	f.ta.	f.ta.	f.ta.	f.ta.	f.ta.			
	Bearing Surface	5" x 3"	5" x 3"	6" x 3"	6" x 3"	3"	12" x 5"			
	Spacing of Cleats	24"	24"	24"	24"	none	29"			
	Number of Tarpaulins	2	2	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.

Particulars of fiddley, funnel and ventilator coamings:—

Stokehold gratings covered by strong steel hinged covers. ✓
 Funnel & fiddley ventilators in efficient condition. ✓
 Engine skylight of steel, strongly constructed. ✓

Particulars of Flush Bunker Scuttles:—

none ✓

Particulars of Companionways:—

Entrance to Crew's quarters in Shelter Tween decks aft, in steel house on Shelter deck.
 opening 4'6" x 2'0", sill 18", with solid hinged wood door 1 1/2" thick, ~~no~~ efficient closing appliance. X
operated from both sides

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

Ventilators to Shelter Tween decks only.
wood plugs & canvas covers fitted to ventilators

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

on Shelter deck.	1. C.I. gooseneck	2 1/2" dia x 17" to opening	from fore peak	
"	1 C.I.	2 1/2" x 23"	deep tank forward	
"	2 "	3 1/2" x 18"	double bottom	
"	2 "	2 1/2" x 19"		
"	1 "	2 1/2" x 18"	aft peak	

no closing appliances.
wood plugs fitted to air pipes

Particulars of Gangway Cargo and Coaling Ports:—

none ✓



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Particulars of Scuppers and Sanitary Discharge Pipes

From Shelter Tween decks. 4 scuppers P.T.S., discharging through ships side below freeboard dk. with m.c. storm valve at ships ship & screw down plate at deck

Overboard scuppers and freeing ports in the shelter tween deck spaces have been permanently closed by riveted plate flanges. The existing automatic 3/4" scuppers with non-return valves have been augmented with an additional pair of 3 1/2" similar valves all screw down valves at their upper ends and capable of being operated from the shelter deck.

Particulars of Side Scuttles:

In Shelter tween decks aft, with hinged deadlights.

Particulars of Guard Rails:—

at fore end of shelter deck, steel bulwarks 3'-6" high, efficiently constructed & supported. remainder of shelter deck guard rails 3'-7" high, having 3 rods & stanchions spaced 3'-6" to 4'-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 Tannage Well...	8'-0"	7'-4 1/2"	2'-6" x 1'-2"	1	2.92 sq ft	
Forward Well						

State position of each freeing port } After Well:— 2'-7" from poop bulkhead. 12" above deck.
(F. 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, closed by two strongbacks

Additional area where sheer is less than standard.

Particulars of Superstructures, Trunks, Casings, Deckhouses.

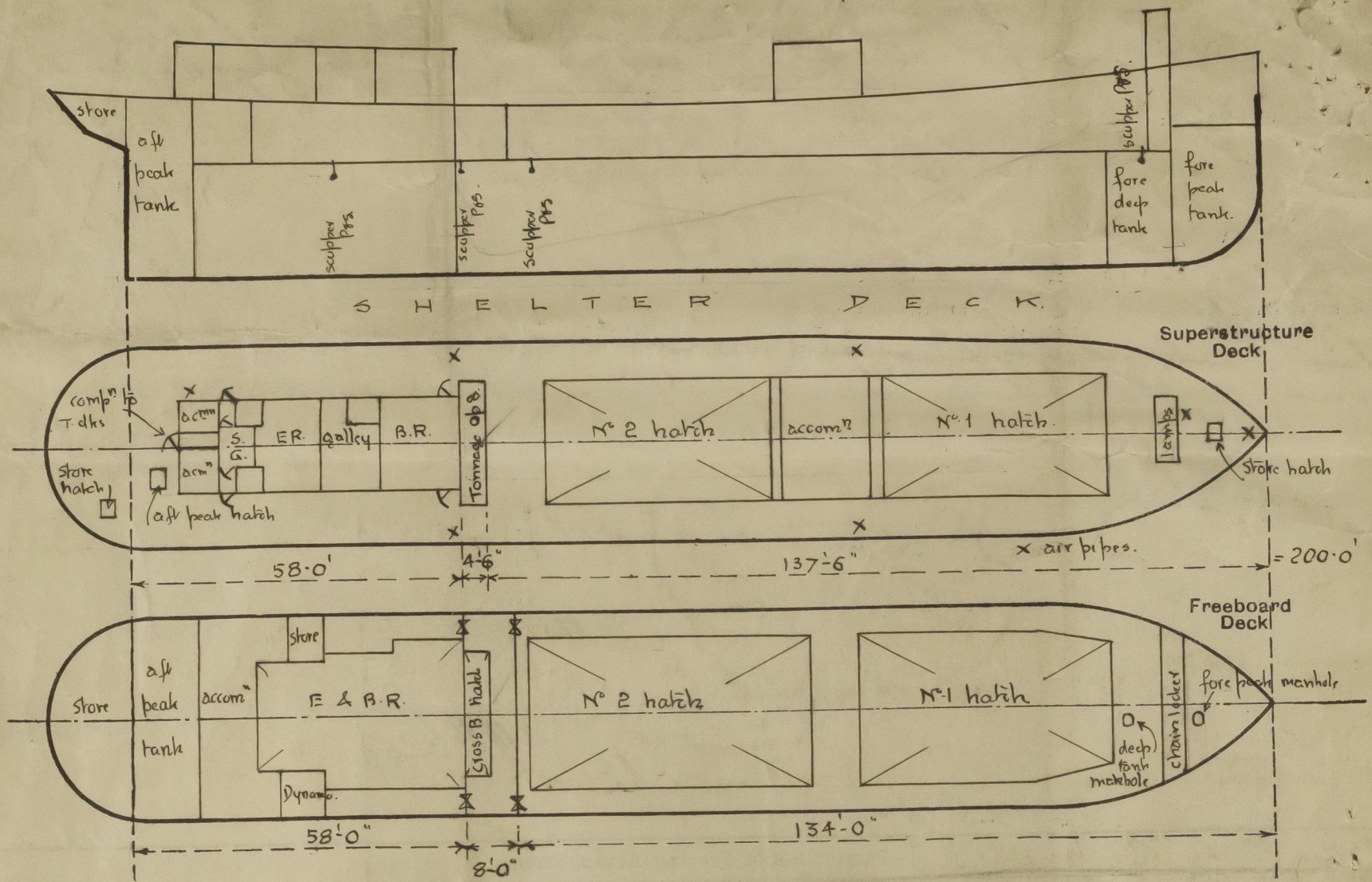
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	30"	30"	6" x 3" B.A.	30"	-	5'-0" x 3'-0" (2)	17"	7'-4 1/2"
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead	-	30"	4 1/2" flange	48"	-	5'-0" x 3'-0" (2)	19"	7'-4 1/2"
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...								
Exposed Machinery Casings on Superstructure Decks	26"	26"	3" x 3" x 30"	29"	BR Brackets at top every ER, alt. BR.	4'-8" x 2'-0" (2)	18"	7'-0"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	30"	30"	3" x 3" x 30"	29"	-	4'-6" x 2'-0" (2)	17"	7'-4" fore and
Deckhouses on Flush Deck Ships ...								

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

Poop Bulkhead	2 1/2" weather boards in raked channels extending to 6" from top of opening
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	3" weather boards in raked channels extending to 9" from top of opening
Forecastle Bulkhead	
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	BR Hinged steel doors
Exposed Machinery Casings on Superstructure Decks	ER Hinged solid wood door (1 1/2" thick)
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships ...	

no efficient closing appliances operated from both sides

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



$$86\% D = 1211 \text{ mld} = 1221 \text{ bsk. } \Delta = 2053 - (179 \times 12 \times 134) = 1765 \text{ tons net} = 1757 \text{ mld}$$

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

Timber assignment not required.

Vessel surveyed in Dry Dock, whilst undergoing Special Survey No. 2.

Builder's name and yard number

Furness S. B. Co. Ltd.

Names of sister ships

Owners

Kingdon S. S. Co. Ltd.

Fee £

6 : 16 : 0

Received by me



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