

Lloyd's Register of Shipping  
SURVEYS FOR FREEBOARD

CARDIFF. No. 50013

20 JAN 1933

Index. No. 28049  
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having Poop, Bridge & Forecastle

(Type of Superstructures.)

Ship's Name "DIONYSSIOS STATHATOS" Nationality and Port of Registry Greek Sthaca Official Number ✓ Gross Tonnage 5168 Date of Build 1919, 9mo.

Port of Survey Cardiff  
Date of Survey 17th January, 1933.  
Name of Surveyor E. Brimblecombe.

Moulded Dimensions: Length 399.7 Breadth 52.0 Depth 31.0  
Moulded displacement at moulded draught = 85 per cent. of moulded depth 12,090 tons  
Coefficient of fineness for use with Tables .773

Particulars of Classification +100A1  
S.S. Hull. No. 3-5.31

Depth for Freeboard (D)  
Moulded depth ... 31.0  
Stringer plate ... .50 ... .04  
Sheathing on exposed deck  
 $T \left( \frac{L-S}{L} \right) =$   
Depth for Freeboard (D) = 31.04

Depth correction  
(a) Where D is greater than Table depth  
(D-Table depth) R =  
 $(31.04 - 26.65) 3 = 13.17$   
(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) 52.0'  
Standard Round of Beam =  $\frac{B \times 12}{50} = 12.48$   
Ship's Round of Beam = 13"  
Difference  
Restricted to  
Correction =  $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{52}{4} \times .4956 = .06$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	49.25	49.25	8'-0"		49.25
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	112.66	112.66	8'-0"		112.66
" overhang aft ...					
" overhang forward ...					
" enclosed ...	38.71	38.71	8'-0"		38.71
" overhang ...	1.0	1.0			1.0
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	201.62	201.62			201.62

Standard Height of Superstructure 7.497  
" " R.Q.D. ✓  
Deduction for complete superstructure 41.98  
Percentage covered  $\frac{S}{L} = 50.44\%$   
" "  $\frac{S_1}{L} = 50.44\%$   
" "  $\frac{E}{L} = 50.44\%$   
Percentage from Table, Line A. ✓  
(corrected for absence of forecastle (if required))  
Percentage from Table, Line B. 36.44  
(corrected for absence of forecastle (if required))  
Interpolation for bridge less than 2L (if required)  
Deduction = -15.30

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	49.97	1		49.97	60.0	60.00	1		60.00
$\frac{1}{4}$ L from A.P. ...	22.24	4		88.96	26.07	26.07	4		104.28
$\frac{3}{4}$ L " ...	5.50	2		11.00	6.52	6.52	2		13.04
Amidships ...	✓	4		✓	✓	✓	4		✓
$\frac{3}{4}$ L from F.P. ...	11.00	2		22.00	13.03	13.03	2		26.06
$\frac{1}{4}$ L " ...	44.48	4		177.92	52.13	52.13	4		208.52
F.P. ...	99.94	1		99.94	120.0	120.00	1		120.00
Total ...				449.79					531.90

Mean actual sheer aft = Excess  
Mean standard sheer aft

Mean actual sheer forward = Excess  
Mean standard sheer forward

Length of enclosed superstructure forward of amidships =  $\frac{61.6}{399.7} = .154$   
" " aft of " =  $\frac{51.06}{399.7} = .128$

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) =$   
 $\frac{82.11}{18} (.75 - .2522) = -2.27$

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 = 31.04  
Summer freeboard = 5.98  
Moulded draught (d) = 25.06

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = 6.26 = 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

$\Delta = 11,535$

Tons per inch immersion at summer load water line

$T = 41.62$

Deduction =  $\frac{\Delta}{40T}$  inches = 6.93

"

TABULAR FREEBOARD corrected for Flush Deck (if required)  
Correction for coefficient

	+	-
Depth Correction ...	13.17	
Deduction for superstructures ...		15.30
Sheer correction ...		2.27
Round of Beam correction ...		.06
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc. ...		

Summer Freeboard = 71.83

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

Tropical Fresh Water Line above Centre of Disc	337	134
Fresh Water Line " "	178	7
Tropical Line " "	159	6 $\frac{1}{4}$
Winter Line below " "	159	6 $\frac{1}{4}$
Winter North Atlantic Line " "	✓	✓

Tropical Fresh Water Freeboard ...	5-11 $\frac{3}{4}$
Fresh Water " "	4-10 $\frac{1}{2}$
Tropical " "	5-4 $\frac{3}{4}$
Winter " "	5-5 $\frac{1}{2}$
Winter North Atlantic " "	6-6

1822  
1485  
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# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
← Fbd dk → Bridge dk ← Fbd dk →									
Description of Hatchway	1	2	4	5	3	3			
Dimensions of Hatchway	32'-6" x 26'-0"	34'-8" x 26'-0"	19'-6" x 26'-0"	30'-3" x 26'-0"	10'-10" x 18'-0"	10'-10" x 18'-0"			
COAMINGS	Height above Deck	29"	29"	32"	33"	18"	9"		
	Thickness	.44"	.44"	.44"	.44"	.44"	9 x 3/2 x .44"		
	Sides	.44"	.44"	.44"	.44"	.44"	.44"		
	Stiffeners	10 x 3/2 x .44"	10 x 3/2 x .44"	10 x 3/2 x .44"	10 x 3/2 x .44"	10 x 3/2 x .44"	10 x 3/2 x .44"		
HATCH BEAMS	Number	6	6	3	5	3	3		
	Spacing	4'-8"	4'-11 1/2"	4'-11"	5'-0 1/2"	4'-6"	4'-6"		
	Scantling and Sketch	20 1/2 x .40	20 1/2 x .38	20 1/2 x .38	20 1/2 x .40	10 x .32	10 x .32		
	Bearing Surface	3/2	3/2	3/2	3/2	3/2	3/2		
FORE AND AFTERS	Number					3	3		
	Spacing					4'-6"	4'-6"		
	Unsupported Lengths					10'-3"	10'-3"		
	Scantling and Sketch					10 x .32	10 x .32		
HATCH COVERS	Material	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.		
	Thickness	2 1/2 x 3	2 1/2 x 3	2 1/2 x 3	2 1/2 x 3	2 1/2	2 1/2		
	How fitted	F+A	F+A	F+A	F+A	athwart	athwart		
	Bearing Surface	3	3	3	3	3	3 1/2		
Spacing of Cleats	24"	24"	24"	24"	24"	24"	24"		
Number of Taraulins	3	3	3	3	2	1			

\*Are wood fore and afters steel shod at all bearing surfaces? *Yes.*  
 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 fiddle, funnel and ventilator coamings:-

*All in good condition.*  
*Engine room skylight of steel strongly constructed.*  
*Fiddle gratings closed by hinged steel storm covers.*

## Particulars of Flush Bunker Scuttles:-

*none*

## Particulars of Companionways:-

*Two on poop deck 4'-0" x 3'-0" x 6'-3" high, of steel, hinged solid wood doors 5'-0" x 2'-6", worked both sides, sill 12".*

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

*Fbd dk. One to F.P. 8" dia. x 33" x 24"*  
*" " " 17" " x 36" x 38"*  
*Fore well. Six to holds 17" dia. x 36" x 40"*  
*Bridge dk. Two " " 17" " x 36" x 40"*  
*Aft well. Two to deep tanks 17" dia. x 4'-10" x 4'-0"*  
*" " " 17" " x 36" x 38"*  
*Poop dk. Two to holds 17" " x 24" x 28"*  
*" " " 17 1/2" " x 24" x 22"*

*Wood plugs & canvas covers provided.*

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

*Fbd dk. One from F.P. 3 1/4" dia. x 13" high*  
*" " " D.B. 2 1/4" " x 13"*  
*Fore well. Two " " 2 1/4" " x 31"*  
*Bridge dk. Two " " 2 1/4" " x 33"*  
*Aft well. Two " " 2 1/4" " x 34"*  
*Poop dk. Two " A.P. 3 3/4" " x 12 1/2"*

*All of W.I. & heights given to mouths.*  
*Wood plugs provided for closing.*

## Particulars of Gangway Cargo and Coaling Ports:-

*none.*

## Particulars of Scuppers and Sanitary Discharge Pipes:-

*Scuppers. Two each side from bridge space, led thro' sides below fbd dk. Brass screw caps at deck. No storm valves.*  
*San. Discharges. Two stbd from above bridge dk led thro' side above fbd dk. } All fitted with storm valves.  
 One each side from poop space led thro' sides below fbd dk.*

## Particulars of Side Scuttles:

*In poop & fore sides of substantial construction & fitted with hinged deadlights.*

## Particulars of Guard Rails:-

*Poop dk. 3'-4" high, 2 rails, stanchions 4'-6" apart.*  
*Fbd dk. 3'-0" " " " " 4'-4" "*  
*Bridge dk. Across forward & after ends 3'-0" high, 3 rails, stanchions 4'-6".*  
*Along sides of bridge dk. substantial bulwarks 3'-6" high fitted.*

## Particulars of Gangways, Lifelines, etc.:-

*Lifelines fitted each side of each 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	99.54	3'-8"	4'-8" x 1'-6"	3	21.0 sq ft	19.91
Forward Well	99.54	3'-8"	4'-8" x 1'-6" 4'-4" x 1'-8"	2 (1 after end)	21.2 sq ft	19.91

State position of each freeing port ... After Well:- Center 20'-6", 54'-0" & 83'-0" from bridge bkd. 14".  
 (F. and A. position and height above deck edge) Forward Well:- " 6'-6", 39'-0" & 62'-6" " " 13".  
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:- 2 fore & aft bars each port. No 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	none	.42	6 x 2 1/2 x .44	2'-9"	none	(2) 5'-0" x 2'-0"	18"	
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead	none	.40	6 x 3 1/2 x .40	2'-10"	none	(2) 7'-6" x 3'-5" (1) 4'-6" x 2'-4"	none 30"	
Bridge, Forward Bulkhead	none	.40	9 x 3 1/2 x .44/3A	2'-6"	Pockets top & bottom	none		
Forecastle Bulkhead	18" x .30	.30	4 x 3 x .42	2'-9"	none	(3 at sides) 4'-11" x 2'-0" (2) 5'-6" x 2'-6"	16" 18"	
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks	none	.40	4 1/2 x 3 x .46	4'-3"	Pockets top only	(1) 4'-11" x 2'-0"	18"	4'-0" in way of galley & E.R. entrance
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	18" x .38	.34	4 1/2 x 3 x .46	4'-3"	none	(2 fiddle) 5'-6" x 2'-0" (2 deadlight) 5'-0" x 3'-0"	19" 14"	
Deckhouses on Flush Deck Ships								

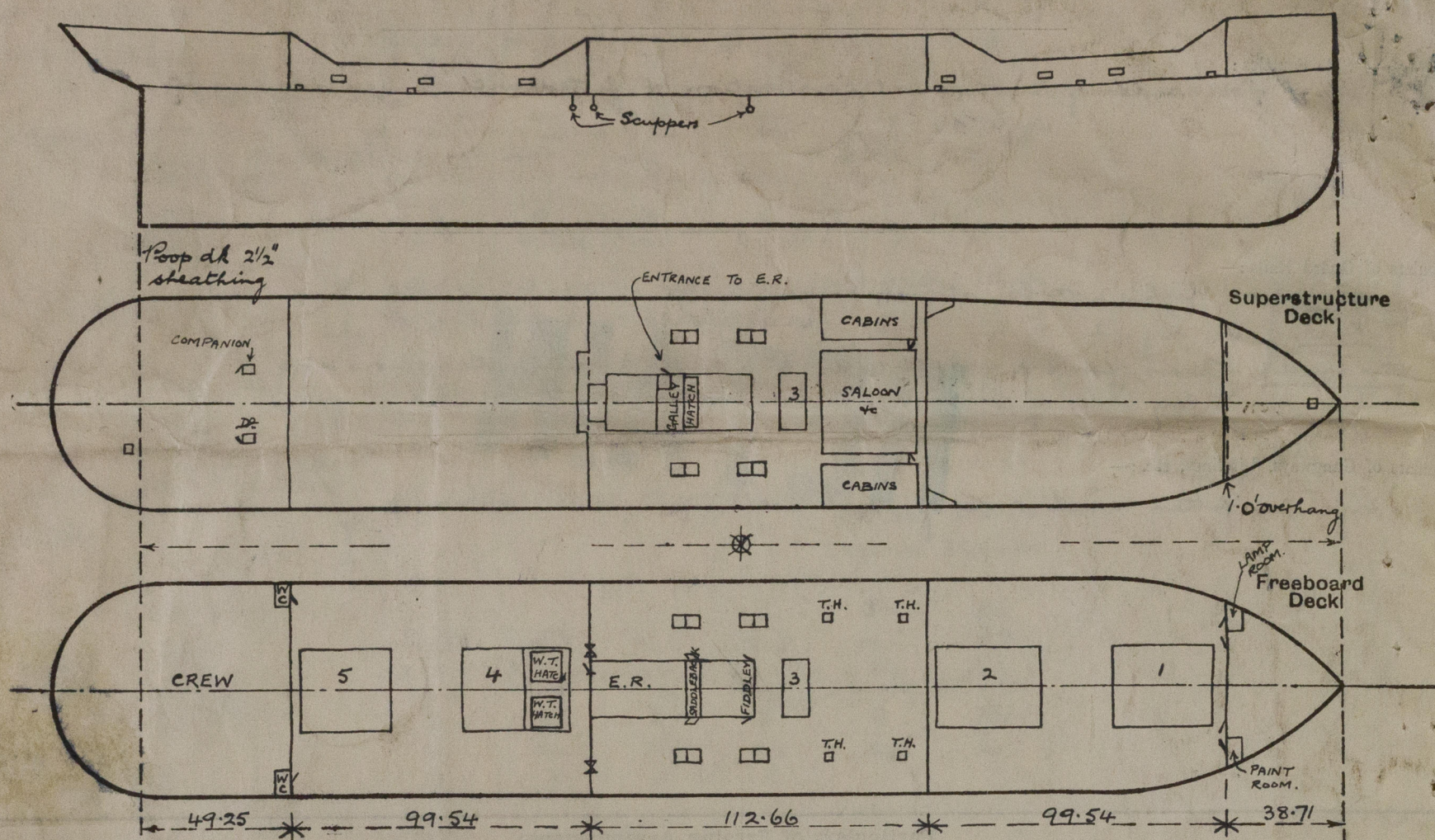
## Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	Hinged steel doors, worked both sides, to W.C.'s.
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	3" boards full height in riveted channels. (No sills). Hinged steel door to engine room, worked both sides.
Bridge, Forward Bulkhead	No openings.
Forecastle Bulkhead	Hinged hardwood doors to stores at sides, worked both sides. Hinged steel doors to forecabin, worked both sides.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	
Exposed Machinery Casings on Superstructure Decks	Hinged steel door to engine room, worked both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Hinged steel doors to fiddle, worked both sides. Hinged (at top) steel doors to saddleback, secured by clips worked one side only (from bridge space bulkhead).
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:—



A casing 6'-0" high (above top of boiler casing, which is 4'-0" above bridge deck), left open on top, is built around the fore end of the exposed machinery casings on bridge deck, to protect the fiddley gratings. This protective casing is fitted across the fore end and along each side to about 1'-3" forward of the fore end of the saddleback coaling hatch.

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

#### Small hatches:—

- Fore dk.** Two W.T. hatches in after well to deep tank 10'-0" x 10'-0", 9" x 3 1/2" x 3 1/2" x .52 [coaming on top of plating over the forward end of No. 4 hatch coaming. Hinged steel W.T. covers well stiffened by B.A.s on the underside, & secured by 3/4" bolts spaced 6" apart. Four coaling hatches in bridge space 8'-6" x 4'-0", 12" x .38 coaming with fixed athwartship division at mid length, 2 1/2" covers F.T.A. on 3" rests, cleats 30", 1 tarp. Four trimming hatches 1'-11" x 2'-3", 3" x 3" x .34 angle coaming, 3" cover athwart on 2 1/2" rests, cleats, but one tarpaulin wedged into place under the covers and efficient battening arranged.
- Peep dk.** One 2'-6" x 2'-6", 10" x 3 1/2" x .50 B.A. coaming, 2 1/2" cover F.T.A. on 2 1/4" rests, cleats 18", 2 tarps.
- Bridge dk.** Four coaling hatches 8'-6" x 4'-0", 18" x .38 coaming with fixed athwartship division at mid length, 2 1/2" covers F.T.A. on 3" rests, cleats 18", 2 tarps.
- Basing top.** One coaling hatch 4'-3" x 17'-6", 12" x .38 coaming, 2 1/2" covers F.T.A. on 3" rests, cleats 24", 2 tarps.
- File dk.** One 2'-11" x 2'-11", 22" x .30 coaming, 3" cover F.T.A. on 1 3/4" rests, cleats 16", 2 tarps.

#### From D.W. Scale:—

Draught	D.W.
26'-10"	9000
25'-10"	8500
24'-9 3/4"	8000
23'-9 1/2"	7500

The vessel was measured whilst in dry dock for slight damage repairs. It is not intended to deal with the freeboard marks until a later date, the vessel having now sailed for the R. Plate.

The Superintendent requests that the assignment be sent to Statkatos & Co., Ltd., Palmerston House, 51 Bishopsgate, E.C.2.

Builder's name and yard number

Names of sister ships

Owners S.A. Statkatos S.S. Co. Ltd (in liq.) A. D. Statkatos, Mgr.

Fee £ 13 : 12 : 0

Received by me



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