

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

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Section 44

Index. No. 1637
(For London Office only.)
N° 3525

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having **a POOP, BRIDGE & FORECASTLE** Signal letters S-V-C-V

Port of Survey **"PIRAEUS"**

Date of Survey **27th Sept 33.**

Name of Surveyor **Wm Rennie**

Particulars of Classification **+100 A1.**

Ship's Name "P. ANTONIOS VRONDISSIS"	Nationality and Port of Registry Greek Andros.	Official Number 12	Gross Tonnage 2690	Date of Build 1904-2 No.
Moulded Dimensions: Length 319.0' Breadth 44.5' Depth 23.5'		Moulded displacement at moulded draught = 85 per cent. of moulded depth 6318 tons		
Coefficient of fineness for use with Tables .78				

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... 23.5'	(a) Where D is greater than Table depth (D - Table depth) R = (23.54 - 21.27) 2.464 = + 5.57"	Moulded Breadth (B) 44.5'
Stringer plate04	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 2.27	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{10.68}{50} = \mathbf{11\frac{1}{2}"}$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = 11$\frac{1}{2}$"
Depth for Freeboard (D) = 23.54		Difference .82"
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.82}{4} \times .1573 = -.03"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	34.8	34.80	7' 3"	-	34.80
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	200.0	200.00	7' 3"	-	200.00
" overhang aft ...					
" overhang forward ...	32.43				
Forecastle enclosed ...	31.77	32.43	7' 3"	-	32.43
" overhang ...	4.33	1.53			1.53
Trunk aft ...	3.07				
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	270.30	268.76			268.76

Standard Height of Superstructure 6.69
" R.Q.D.
Deduction for complete superstructure 36.60
Percentage covered $\frac{S}{L} = \frac{84.76}{100} = \mathbf{84.76\%}$
" $\frac{S_1}{L} = \frac{84.27}{100} = \mathbf{84.27\%}$
" $\frac{E}{L} = \frac{84.27}{100} = \mathbf{84.27\%}$
Percentage from Table, Line A. (corrected for absence of forecastle (if required))
Percentage from Table, Line B. 80.59% (corrected for absence of forecastle (if required))
Interpolation for bridge less than 2L (if required)
Deduction = $36.60 \times .8059 = -29.50"$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	41.90	1		41.90	43.00	43.00	1		43.00
$\frac{1}{8}L$ from A.P. ...	18.64	4		74.56	15.80	15.80	4		63.20
$\frac{2}{8}L$ " ...	4.61	2		9.22	3.95	3.95	2		7.90
Amidships ...		4		0.0			4		
$\frac{3}{8}L$ from F.P. ...	9.22	2		18.44	9.28	9.28	2		18.56
$\frac{4}{8}L$ " ...	37.29	4		149.16	37.13	37.13	4		148.52
F.P. ...	83.80	1		83.80	87.00	87.00	1		87.00
Total ...				377.08					368.18

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{8.90}{18} \left(.75 - \frac{4238}{268.76} \right) = +.16"$

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 = 23.54
Summer freeboard = 2.33
Moulded draught (d) = 21.21

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **5 $\frac{1}{4}$ "**

Addition for Winter North Atlantic Freeboard (if required) = **2" = 51%**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$
Tons per inch immersion at summer load water line

Deduction = $\frac{\Delta}{40T}$ inches = **5 $\frac{1}{4}$ "**

TABULAR FREEBOARD corrected for Elong Deck (if required)

Correction for coefficient

	+	-
Depth Correction ...	5.57	-
Deduction for superstructures ...	-	29.50
Sheer correction16	-
Round of Beam correction ...	-	.03
Correction for Thickness of Deck amidships ...	-	-
Other corrections, scantlings, etc. ...	-	-
	5.73	29.53
Summer Freeboard = 27.89		

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

Tropical Fresh Water Line above Centre of Disc ...	10$\frac{1}{2}$" = 266
Fresh Water Line " " ...	5$\frac{1}{2}$" = 133
Tropical Line " " ...	5$\frac{1}{2}$" = 133
Winter Line below " " ...	5$\frac{1}{2}$" = 133
Winter North Atlantic Line " " ...	7$\frac{1}{4}$" = 184

Tropical Fresh Water Freeboard ...	1$\frac{1}{2}$" = 445
Fresh Water " " ...	1$\frac{1}{2}$" = 578
Tropical " " ...	1$\frac{1}{2}$" = 578
Winter " " ...	2$\frac{1}{4}$" = 849
Winter North Atlantic " " ...	2$\frac{1}{4}$" = 895

10 OCT 1933

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RECEIVED 7 SEP 1934

RECEIVED 5 FEB 1934

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

FREEBOARD DECK HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	Nº 1	Nº 2	Nº 3	Nº 4	BUNKER HATCH	Nº 2	Nº 3	BUNKER HATCH	SADDLE HATCH
Dimensions of Hatchway	14'-9" x 15'-8"	24'-0" x 15'-8"	22'-0" x 15'-8"	20'-0" x 15'-8"	10'-0" x 15'-9"	24'-0" x 15'-8"	22'-0" x 15'-8"	10'-0" x 15'-8"	12'-11" x 14'-11"
COAMINGS	Height above Deck	36"	12"	12"	36"	12"	18"	36"	36"
	Thickness	40	40	40	40	40	40	38	36
	Stiffeners	7x5x50/50	40	40	40	40	40	38	36
	Brackets, Stays	1 AT ENDS	NONE	NONE	NONE	NONE	NONE	NONE	NONE
HATCH BEAMS	Number	1	2	2	2	2	2	2	2
	Spacing	8'-10 1/2"	8'-0"	7'-4"	6'-8"	8'-0"	7'-4"	8'-0"	7'-4"
	Scantling and Sketch	STL 7" x 12" x 38"	18" x 38"	As N.º 2	3 1/2" x 38"	NONE	P. 18" x 38"	NONE	NONE
	Bearing Surface	2" (L. ON BEAM ENDS, FITTING IN)	3" x 3" x 34"	3" x 3" x 38"	3" x 3" x 38"	NONE	As on 7' b. Dk.	NONE	NONE
FORE AND AFTERS	Number	3	3	3	3	3	3	3	3
	Spacing	3'-11 1/2"	3'-11"	3'-11"	3'-11"	3'-11"	3'-11"	3'-11"	3'-11"
	Unsupported Lengths	8'-5 1/4"	7'-7"	6'-11"	6'-3"	9'-8"	7'-7"	6'-11"	9'-2"
	Scantling and Sketch	W. 6" x 8" x 8"	6" x 8" x 8"	6" x 8" x 8"	6" x 8" x 8"	6" x 8" x 8"	6" x 8" x 8"	6" x 8" x 8"	6" x 8" x 8"
HATCH COVERS	Material	CAST STEEL	CAST STEEL	CAST STEEL	CAST STEEL	CAST STEEL	CAST STEEL	CAST STEEL	CAST STEEL
	Thickness	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
	How fitted	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
	Bearing Surface	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
Spacing of Cleats	21"	27"	27"	27"	27"	27"	27"	27"	27"
Number of Tarpaulins	2	1	1	2	1	2	2	2	2

*Are wood fore and afters steel shod at all bearing surfaces? *Yes, except at bridge turn deck hatchways.*
 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:

Stokehold gratings covered by strong steel hinged covers. Fiddle, funnel and ventilators in efficient condition. Engine skylight of steel, strongly constructed.

Particulars of Flush Bunker Scuttles:

None.

Particulars of Companionways:

On 7' b. deck, - one steel companion 4'-1" x 3'-1" x 5'-10", leading to enclosed forecabin, door of steel, with 15" sill.

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

*FORECASTLE DK - 2 vents, 15" diam. Coaming 3'-0" x 36" led to hold spaces.
 BRIDGE DK - 8 " " " " 3'-0" x 36"
 Also 2 ramble posts on Bridge DK, 4" on Poop DK acting as ventilators.
 Funnel ventilator on top of steering house. No vents on well decks.
 All ventilators constructed in accordance with rules, and coamings closed with wood plugs and canvas covers.*

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

*F'CLE DK - 2 G.N. pipes 2' diam x 2'-10" high, from fore peak.
 The remaining air pipes, which are on the Bridge & Poop DK (none on 7' b. deck), are flush with the deck and closed with a wood plug or screw G.N. plug.*

Particulars of Gangway Cargo and Coaling Ports:

1 watertight coaling door P.V.S. in bridge sides 2'-6" x 2'-3", efficiently constructed, and permanently closed.

Particulars of Scuppers and Sanitary Discharge Pipes:

*No scuppers below freeboard deck, and none from bridge tween deck space.
 2 soil pipes P.V.S. side, fitted with G.N. storm valve at ship side.*

Particulars of Side Scuttles:

*None below freeboard deck.
 The side scuttles to forecabin accommodation are of substantial construction, and fitted with hinged deadlights.*

Particulars of Guard Rails:

*Steel bulwarks on freeboard deck in wells, 4'-3" high, efficiently constructed and supported.
 Guard rails on Poop deck, 3'-6" high, stanchions spaced 4'-0" apart 2 rods.
 " " " Bridge " 3'-4" " " " " 3 "
 " " " 7' cl. " 3'-8" " " " " 2 "*

Particulars of Gangways, Lifelines, etc.:

Gangway (3'-0" wide with guard rails) - fitted on the Starboard side across the fore & after well decks.

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	23.73.	4'-3"	3'-2" x 1'-8"	2	10.50'	8.9 f
Forward Well	25.57.	4'-3"	Lill 13"	2	10.50'	9.1 f

State position of each freeing port ... After Well: - From Bidge of bulkhead, 3'-6" x 20'-3"
 (P. and A. position and height above deck edge) Forward Well: - " " " " 3'-6" x 21'-4"
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: - 3 bars fitted.

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	40	34	5 1/2 x 3 1/2 x 40	2'-4"	none	(2) 3'-10" x 4'-8"	18"	✓
Raised Quarter Deck Bulkhead	36	36	5 1/2 x 3 1/2 x 40	2'-2"	none	(2) 5'-0" x 2'-2"	18"	✓
Bridge, After Bulkhead	40	38	7 x 3 1/2 x 50 CH	2'-6"	top & bot.	(2) 3'-10" x 4'-8"	✓	✓
Bridge, Forward Bulkhead	40	38	5 x 3 1/2 x 34	2'-3"	none	(1) 5'-0" x 3'-0"	14"	✓
Forecabin Bulkhead	40	38	5 x 3 1/2 x 34	2'-3"	none	(4) 5'-0" x 2'-0"	✓	✓
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks	30	30	6 x 3 1/2 x 38	2'-0"	abs. batt. at top.	(3) 5'-0" x 2'-0"	14"	7'-3"
Machinery Casings within Superstructures fitted with Class I Closing Appliances	38	30	6 x 3 1/2 x 38	2'-0"	none	(4) 5'-0" x 2'-0" (FOSTER) 1/6 (1) 5'-0" x 4'-0" (ORVALA) 1/5	✓	✓
Deckhouses on Flush Deck Ships								

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

Poop Bulkhead	✓ P.V.S., strong steel plate with angle framing on inside, 3" overlap, secured from inside by 2 strong bolts across stiffeners, with 2 eye-bolts at each (permanently attached to plate) & nuts.
Raised Quarter Deck Bulkhead	✓ P.V.S. as on poop bulkhead.
Bridge, After Bulkhead	✓ P.V.S., hinged steel door (to stores), locked from outside.
Bridge, Forward Bulkhead	NO OPENINGS
Forecabin Bulkhead	5 hinged steel doors operated from both sides.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	3 P, 2 S, hinged steel doors, hinged steel doors.
Exposed Machinery Casings on Superstructure Decks	2 P.V.S. - to fiddle and engine room, hinged steel door.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	1 P - to Donkey boiler house, double hinged steel doors.
Deckhouses on Flush Deck Ships	✓

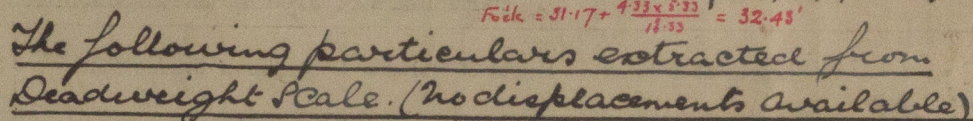
HINGED STL. DOOR P+S.

CREW.

S.P.
P+S.

S = SCUPPERS.
SP = SOIL PIPE.

NO SCUPPERS BELOW FRD. DR., OR FROM BDG TWIN. DR.



Vessel measured afloat, and
dry docked following day

FREEBOARD DECK

SUPERSTRUCTURE DR.

- (1) The floors in the machinery casings, and at fore-castle companion being made operative from both sides.
- (2) ~~The space, port side, 2 side scuttle glasses being renewed.~~
- (3) ~~The hatch bottom cleats, and hatch beams at main hatchway in bridge live-deck space, and wood fore and aft, generally being placed in order to the Surveyors satisfaction.~~

EXP 6 0.
STAMP 7 0