

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. **27422**
(For London Office only.)

3 MAR 1933

23135.

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~
having **POOP, BRIDGE, & FICLE.**

(Type of Superstructures.)

Ship's Name "MOUNT PENTELIKON."	Nationality and Port of Registry Panamanian.	Official Number ✓	Gross Tonnage 5600.	Date of Build 1919/5.
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Moulded Dimensions: Length **410.00** Breadth **54.00** Depth **29.75**
Moulded displacement at moulded draught = 85 per cent. of moulded depth **13010 12920** tons
Coefficient of fineness for use with Tables **.813 .808**

Port of Survey **Newport. (mon.)**
Date of Survey **18thth Mar. 1933.**
Name of Surveyor **Robt. Cheetham.**
Particulars of Classification **+100 A1.**
S.S. Ans. No. 3-1.32.

<p>Depth for Freeboard (D)</p> <p>Moulded depth ... 29.75 Ringer plate ... (.50")04 Catching on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 29.79</p>	<p>Depth correction</p> <p>(a) Where D is greater than Table depth (D-Table depth) R = $(29.79 - 27.33) 3 = +7.38$ (b) Where D is less than Table depth (if allowed) (Table depth-D) R = If restricted by superstructures</p>	<p>Round of Beam correction</p> <p>Moulded Breadth (B) 54.00 Standard Round of Beam = $\frac{B \times 12}{50} = 12.96$ Ship's Round of Beam = 13.5 Difference .54 Restricted to Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.54}{4} \left(1 - \frac{.50}{410} \right) = -.07$</p>
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	43.75	43.75	8'-0" + 3' 3" 1/2	✓	43.75
" overhang ...	nil.				
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed...	114.75	114.75	8'-6"	✓	114.75
" overhang aft ...	nil.				
" overhang forward	nil.				
F'cle enclosed ...	47.00	47.00	8'-0"	✓	47.00
" overhang ...	nil.				
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward					
Total ...	205.50	205.50			205.50

Standard Height of Superstructure	7.50'
" " R.Q.D.	✓
Deduction for complete superstructure	42.00"
Percentage covered $\frac{S}{L} =$	50.12
" " $\frac{S_1}{L} =$	50.12
" " $\frac{E}{L} =$	50.12
Percentage from Table, Line A.	✓
(corrected for absence of forecastle (if required))	
Percentage from Table, Line B.	36.12
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction =	42.00 × .3612 = 15.17"

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	51.00	1		51.00	71.00	71.00	1		71.00
L from A.P. ...	22.69	4		90.76	32.39	32.39	4		129.56
L " ...	5.61	2		11.22	8.09	8.09	2		16.18
amidships ...	—	4		—	—	—	4		—
L from F.P. ...	11.22	2		22.44	13.82	13.82	2		27.64
L " ...	45.38	4		181.52	55.30	55.30	4		221.20
F.P. ...	102.00	1		102.00	141.00	141.00	1		141.00
Total ...				458.94					606.58

Mean actual sheer aft = **Zero**
Mean standard sheer aft = **Zero**
Mean actual sheer forward = **Zero**
Mean standard sheer forward = **Zero**
Length of enclosed superstructure forward of amidships = $\frac{56.75}{410} = .13$
" " aft of " = $\frac{58}{410} = .14$

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{147.64}{18} (.75 - .2506) = -4.10$

If limited on account of midship superstructure.

If limited to maximum allowance of 1½ ins. per 100 ft.

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **29.79**
Summer freeboard = **5.83**
Moulded draught (d) = **23.96**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **5.99 = 6"**

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

Δ =

Tons per inch immersion at summer load water line

T =

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$\frac{.813 + .680}{1.36} = \frac{1.493}{1.36} = 1.098$

	+	-
Depth Correction ...	7.38	—
Deduction for superstructures ...	—	15.17
Sheer correction ...	—	4.10
Round of Beam correction ...	—	.07
Correction for Thickness of Deck amidships ...	—	—
Other corrections, scantlings, etc. ...	—	—
	7.38	19.34

Summer Freeboard = **69.94**

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

Tropical Fresh Water Line above Centre of Disc ...	...	Tropical Fresh Water Freeboard ...	...
Fresh Water Line " " ...	...	Fresh Water " " ...	...
Tropical Line " " ...	...	Tropical " " ...	...
Winter Line below " " ...	...	Winter " " ...	...
Winter North Atlantic Line " " ...	...	Winter North Atlantic " " ...	...

1-6 MAR 1933

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
FBD. DK. SUPER DECKS										
Description of Hatchway	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	ON FOLE.	ON BR.	ON BR.	COAL SHED ON CASING TOP.	
Dimensions of Hatchway	31'-6" x 21'-0"	31'-6" x 21'-0"	15'-9" x 17'-0"	31'-6" x 21'-0"	31'-6" x 21'-0"	3'-0" x 5'-0"	15'-9" x 17'-0"	15'-0" x 15'-0"	4'-3" x 15'-5"	
COAMINGS	Height above Deck ... 36"		12"			18"	30"	30"	6 x 3 1/2 x 40	
	Thickness { Sides ... 50		50			40		40		
	Stiffeners { Ends ... 50		50			40		40		
	Brackets, Stanchions ... 7 x 3 1/2 x 3 1/2 x 40		None			None		None		
			None			None		None		
HATCH BEAMS	Number ... 5		3				3			
	Spacing ... 5'-3"		3'-11 1/4"				3'-11 1/4"			
	Scantling and Sketch									
	Bearing Surface ... 1"		1"							
FORE AND AFTERS	Number ...									
	Spacing ...									
	Unsupported Lengths ...									
	Scantling and Sketch									
	Bearing Surface ...									
HATCH COVERS	Material ... W. Pine					W. Pine	W. Pine	W. Pine		
	Thickness ... 3"					3"	3"	3"		
	How fitted ... 3" x 3"					3" x 3"	3" x 3"	3" x 3"		
	Bearing Surface ... 3" x 3"					3" x 3"	3" x 3"	3" x 3"		
Spacing of Cleats	24"					24"	24"	24"		
Number of Tarpaulins	2					2	2	2		

Particulars of fiddley, funnel and ventilator coamings:—

Stokehold Gratings Covered by Strong Steel hinged Covers.
Fidley, Furnace, and Ventilator Coamings in efficient Condition.
Engine Skylight of Steel Strongly Constructed.

Particulars of Flush Bunker Scuttles:—

None.

Particulars of Companionways :—

1 Steel Companion 6'-0" high, x 3'-9" x 3'-0" on Poop leading to Poop Accomod.
Door of steel with 9" sill. Door worked both sides.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks

rs of Ventilators in exposed positions on freeboard and superstructure decks					
On Deck	1 Vent.	12' dia.	Corrugating	36" x .40	led to 3.9%
	2 "	24"			held.
On Fore Dk.	4 "	"	"	"	held.
On After Dk.	2 "	"	"	"	"
On Br. Dk.	2 "	"	"	"	"

On Popo DR. 2 Vents. 2^d dia. Coamps. 36" x .40 led to holds.
 " " " 12" " " " " +36 led to Tunnel
 " " " 10" " " " " .34 " St. Fear.

Ventilators Continued in accordance with Rules,
and Comings closed with wood plugs & Canvas covers.

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

No. of Air Ripes in exposed positions on freeboard, raised quarter, or superstructure decks :		
On Fore. 2, W.I. 3	33' $\frac{1}{2}$ mouth, from D.Bot. Tanks.	No closing argument.
" " 1 " " "	flush with deck, from D.Bot. Tanks.	Wood plug fitted.
On Fore Wt. 6, " " "	32' $\frac{1}{2}$ mouth from D.Bot. Tanks.	No closing argument.
" " " " "	flush with deck from D.Bot. Tanks.	Screw caps fitted.
On After Wt. 2, " " "	32' $\frac{1}{2}$ mouth, from D.Bot. Tanks.	No closing argument.
On Poop Wt. 1, " " "	32' $\frac{1}{2}$ mouth, from D.Bot. Tanks.	No closing argument.
On Poop Wt. 1, " " "	flush with deck, from D.Bot. Tanks.	Screw caps fitted.

Particulars of Gangway Cargo and Coaling Ports:—

None.

Particulars of Scuppers and Sanitary Discharge Pipes —

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	

Particulars of Side Scuttles

Side Scuttles to Ice, Poop, and Bridge Sides fitted with hinged deadlights.
All scuttles of substantial construction.

Particulars of Guard Rails :-

Bulkheads fitted at each end of Fore Dk. and after Dk. P.P.s. of steel plates, etc.
 efficiently constructed and supported.
 Fore Sides and end. Guard rails, 3-6 high, 3 rails, Stanchions 4'-6" apart cros.
 Foot " " " " 3-4 " " " " " "
 Ber. " " ends. " " 3-4 " " " " " "
 and after Dk. Sides. " " 4-0 " " " " " "

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 <i>DK</i>	<i>9'-0" only at each end.</i>	<i>4'-0"</i>	<i>none.</i> (Open rails.)	<i>none.</i> (Open rails.)	<i>Open rails.</i>	<i>—</i>
Forward Well <i>DK</i>	<i>7'-0" at fore end. 9'-6" aft "</i>	<i>4'-0"</i>	<i>none.</i> (Open rails.)	<i>none.</i> (Open rails.)	<i>Open rails</i>	<i>—</i>

State position of each freeing port } After Well :—
(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 :— } *Open rails. P.T.B. in way of I. & A. decks.*

Additional area where sheer is less than standard.

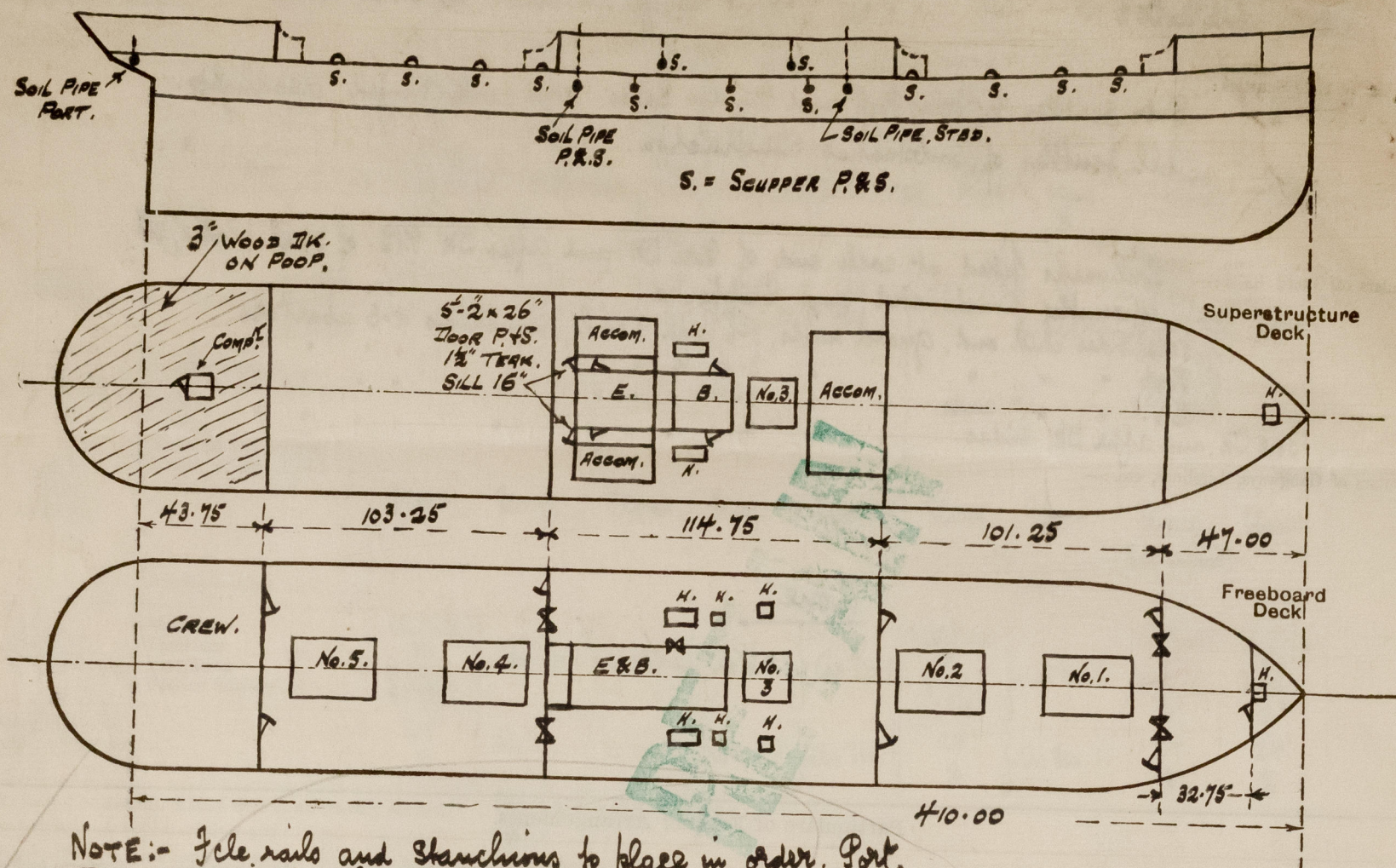
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	18" x 40	36	6 x 3½ x 45 7	30"	None.	P. 15. 5-3" x 24"	13"	✓
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead	18" x 40	36	" " " 7	"	"	P. 15. 5-6" x 36" P. 15. 5-10" x 29"	18"	✓
Bridge, Forward Bulkhead	18" x 40	36	8 x 3½ x 3½ x 50 7	24" | 30"	Sloped top & bot.	P. 15. 5-5" x 36"	18"	✓
Forecastle Bulkhead	18" x 40	36	6 x 3½ x 45 7	30" | 33"	None.	P. 15. 5-6" x 26" P. 15. 5-6" x 36"	18"	✓
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super-structure Decks	18" x 45	35	4 x 3 x 35 7	27"	Sloped at top.	P. 15. 5-0" x 24"	18"	8-6
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	" "	"	" " " 7	"	None	P. 3-0" x 17"	18"	Jan. Jw. Dec.
Deckhouses on Flush Deck Ships ...								

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

Poop Bulkhead	...	...	Hinged Steel W.T. doors, Secured by 6 handles passing through Blvd. plating. Worked 1 Side.
Raised Quarter Deck Bulkhead	...	...
Bridge, After Bulkhead	Opening	3" Weather boards in rivet chaus. (full height.)	also 1 steel hinged door worked, both Sides } Lock broken.
Bridge, Forward Bulkhead	...	...	Hinged Steel doors W.T. Secured by 8 handles passing through Blvd. plating. Worked 1 Side.
Forecastle Bulkhead	Opening	2 3/4" Weather boards full height, in rivet chaus.	also 2 steel hinged doors worked both Sides } Locks broken.
Exposed Machinery Casings on Free-board or Raised Quarter Decks	...	...	Steel hinged doors worked both Sides. Locks broken.
Exposed Machinery Casings on Superstructure Decks	...	...	Opening Port Side of boiler casing. No closing arrangement.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...	...
Deckhouses on Flush Deck Ships	...	...

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 shown on the following sketches:—



NOTE:— Ice rails and Stanchions to place in order. Port.
Coal shoot hatch covers to renew.
Defective hatch covers to renew where necessary.

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

1 hatchway on Upper Deck in Ice.

3' 3" x 3' 0"

Coaming 18" x 40

Rests 1 1/2"

Covers 3" W.P.

Cleats 24"

2 Tarps.

In Bridge, Fbd. Deck.

2 escape hatchways.

23" x 30"

Coaming (Angle 3 1/2" x 3 1/2" x 7/8)

3" W.P. covers to renew.

No battening airguts. No tarps.

2 Coaling hatchways. 2' 6" x 2' 6" and 2' 7' 0" x 3' 0"

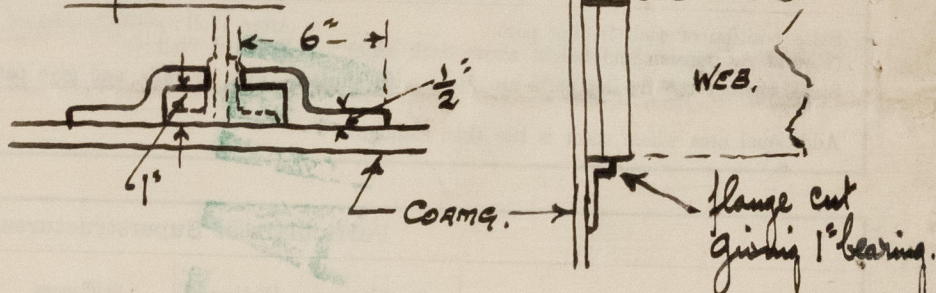
Coaming 9" x 40

Rests 1 1/2"

Cleats 24"

No covers, no battens (missing) no tarps.

Hatchway Webs Supported
as per sketch.



Disput	11000	Tons @	21' 10"	draught (including shell)
"	11500	"	22' 10"	"
"	12000	"	23' 8 1/2"	"
"	12280	"	24' 2 1/2"	"

Tons per inch

45.33 at 21' 0" draught.

45.55 " 22' 0" "

45.78 " 23' 0" "

46.00 " 24' 0" "

Vessel meas^d afloat and in dry dock.

Builder's name and yard number

Names of sister ships

Owners Atlantic S.S. Co. Ltd. (Pethymnis & Kulukenidis Ltd.)

Fee £ 13 - 12 - 0

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