

WRECK
EMPIRE HELFORD SECTION
Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.Index No. 24216
(For London Office only.)
No. 4211
No. 580

11 MAY 1936

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having POOP-BRIDGE & FORECASTLE, connected by R. SHADE DK.

Port of Survey PIRAEUS

GDYNIA

(Type of Superstructures.)

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

Date of Survey 23rd & 24th April 1936

Name of Surveyor Wm Rennie

Moulded Dimensions: Length 439.66 Breadth 53.33 Depth 32.00
Moulded displacement at moulded draught = 85 per cent. of moulded depth (27.2") 11920 tons
Coefficient of fineness for use with TablesParticulars of Classification +100 RI
SHADE DKDepth for Freeboard (D)
Moulded depth ... 32.000
Stringer plate ... 0.042
Sheathing on exposed deck 1.02 1/2"
 $T \left(\frac{L-S}{L} \right) =$ 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 =Round of Beam correction
Moulded Breadth (B)
Standard Round of Beam = $\frac{B \times 12}{50} =$
Ship's Round of Beam = 13.25"
Difference
Restricted to
Correction = $\frac{\text{Diff}^a}{4} \times \left(1 - \frac{S_1}{L} \right) =$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...			8'-0"		
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...			8'-0"		
" overhang aft ...					
" overhang forward ...					
Table enclosed ...			8'-0"		
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...					

Standard Height of Superstructure
" " R.Q.D.
Deduction for complete superstructure
Percentage covered $\frac{S}{L} =$
" " $\frac{S_1}{L} =$
" " $\frac{E}{L} =$
Percentage from Table, Line A.
(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 =

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
P. ...		1		37.00"		1	
from A.P. ...		4		16.50"		4	
" ...		2		4.00"		2	
amidships ...		4		0.00"		4	
2/3 L from F.P. ...		2		8.00"		2	
1/3 L " ...		4		32.00"		4	
F.P. ...		1		72.00"		1	
Total ...							

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

If 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 = 32.04
Summer freeboard = 7.81
Moulded draught (d) = 24.23Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches =

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 10450$

Tons per inch immersion at summer load water line

T = 42.35

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

= 6.17" = 157%

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction ...
Deduction for superstructures ...
Sheer correction ...
Round of Beam correction ...
Correction for Thickness of Deck amidships ...
Other corrections, scantlings, etc. ...

Summer Freeboard =

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

Existing freeboards
arrangedTropical Fresh Water Line above Centre of Disc ... 6 1/4" 157%
Fresh Water Line " " ... 6 1/4" 157%
Tropical Line " " ... Nil
Winter Line below " " ... Nil
Winter North Atlantic Line " " ...Tropical Fresh Water Freeboard ... 2382
Fresh Water " ... 2225
Tropical " ... 2382
Winter " ... 2382
Winter North Atlantic " ...

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											
Description of Hatchway	No. 1	No. 1	No. 2	No. 2	No. 3	No. 3	No. 4	No. 4	No. 5	No. 5	No. 6
Dimensions of Hatchway	20' x 10' 0"	11' 8" x 16' 0"	22' 1' x 16' 0"	24' 3' x 16' 0"	11' 0" x 16' 0"	10' 8" x 16' 0"	8' 10" x 12' 0"	8' 10" x 12' 0"	13' 3" x 12' 0"	12' 7" x 12' 0"	12' 0" x 12' 0"
COAMINGS	Height above Deck Wood...	30"	30"	30"	30"	30"	30"	30"	30"	30"	30"
	Thickness Sides	4 1/4"	4 1/4"	4 1/4"	4 1/4"	4 1/4"	4 1/4"	4 1/4"	4 1/4"	4 1/4"	4 1/4"
	Stiffeners	None	None	None	None	None	None	None	None	None	None
	Brackets, Stays	None	None	None	None	None	None	None	None	None	None
HATCH BEAMS	Number	2	2	4	2	2	1	1	2	2	2
	Spacing	45" to 49"	43" to 48"	52" to 55"	43" to 45"	40" to 45"	53"	53"	53"	53"	53"
	Scantling and Sketch	1 BEAM	1 BEAM	2 BEAMS	1 BEAM	1 BEAM	1 BEAM	1 BEAM	1 BEAM	1 BEAM	1 BEAM
	Bearing Surface	20' x 15' x 36"	20' x 15' x 37"	20' x 15' x 37"	20' x 15' x 36"	20' x 15' x 36"	20' x 15' x 36"	20' x 15' x 36"	20' x 15' x 36"	20' x 15' x 36"	20' x 15' x 36"
FORE AND AFTERS	Number	None	None	None	None	None	None	None	None	None	None
	Spacing	None	None	None	None	None	None	None	None	None	None
	Unsupported Lengths	None	None	None	None	None	None	None	None	None	None
	Scantling and Sketch	None	None	None	None	None	None	None	None	None	None
HATCH COVERS	Material	WP	WP	WP	WP	WP	WP	WP	WP	WP	WP
	Thickness	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
	How fitted	Fitted	Fitted	Fitted	Fitted	Fitted	Fitted	Fitted	Fitted	Fitted	Fitted
	Bearing Surface	20' x 15' x 36"	20' x 15' x 37"	20' x 15' x 37"	20' x 15' x 36"	20' x 15' x 36"	20' x 15' x 36"	20' x 15' x 36"	20' x 15' x 36"	20' x 15' x 36"	20' x 15' x 36"
Spacing of Cleats	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
Number of Tarpaulins	2	2	2	2	2	2	2	2	2	2	2

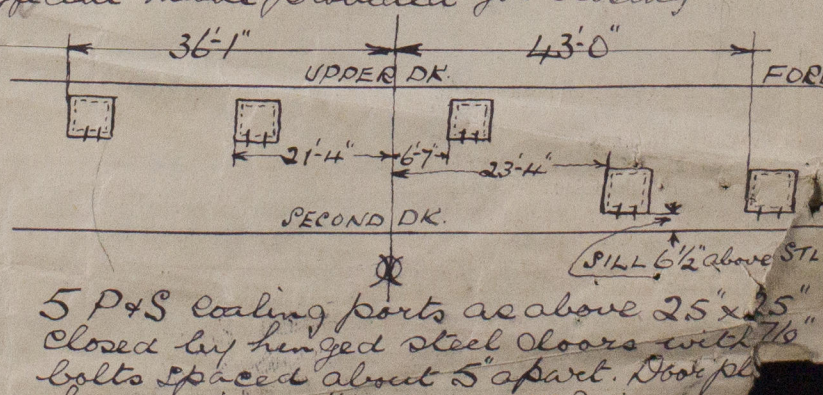
Particulars of fiddle, funnel and ventilator coamings:—
 Fiddle, funnel & ventilator coamings in efficient condition.
 The fiddle tops on which are fitted the funnels and machinery space ventilators are 3' 0" above the boat deck and are enclosed by efficient steel bulkhead 5' 6" high protecting openings etc.
 Particulars of Flush Bunker Scuttles:—
 ONE P+S on upper deck in way of gangway door passage, 23" diam, frame and lid of Cast Iron, substantially constructed, secured by bayonet joint.

Particulars of Companionways:—
 One P+S steel companionway on shade deck (forward of No. 2 Hatchway) leading to upper deck. 6' 3" x 2' 10" x 6' 0" high. Side plating 50, forward end plating 40; one stiffener each side 3' x 2" D. Hinged leadwood door at after end, operative from both sides. Lill 10 1/4" above wood deck.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—
 All ventilators constructed in accordance with the Rules & coaming closed with wood plugs & canvas covered.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—
 FORWARD WELL: PORT 1-2 1/4" DIAM x 50" AB. DECK. PORT 2-2 1/4" DIAM x 34" ABOVE DECK. STARB 1-2 1/4" DIAM x 50" AB. DECK. STARB 2-2 1/4" DIAM x 34" ABOVE DECK.

Particulars of Gangway Cargo and Coaling Ports:—
 1 P+S gangway door in bridge side 66" x 46". Door plates 62" thick. The hinged doors are of strong construction and are closed by forked hinges to take hinged bolts. The door openings are reinforced by strong angle frames and the outside plating of the top and bottom of the opening is fitted with doubling plates. Lill 10 1/2" above 2nd upper deck.



P.S. KOSCIUSZKO

Particulars of Scuppers and Sanitary Discharge Pipes:—
 5 P+S Sanitary Discharge Pipes from space below the freeboard deck. Lill 39" to 43" below 2nd deck. Each discharge is fitted with a substantial 6" M automatic non return valve with a positive means of closing from an accessible position above the freeboard deck (in accordance with Rule 32). The remaining scuppers & sanitary discharges which discharge below the freeboard deck are fitted with a substantial back balanced type of storm valve of 6" M. Lowest discharge 4" above second deck in way of bridge.

Particulars of Side Scuttles:— All side scuttles are of efficient construction and are fitted with hinged deadlights between 2nd & 3rd deck in way of forecabin, between upper & 2nd deck, and in forecabin space. In proper & bridge space portable deadlights provided. The lowest side light sill of ordinary construction with hinged deadlight is situated 58 1/2" above the fore side of the 2nd deck & 9' 6" below the upper deck. The lowest side light sill of special W.T. construction as described hereunder is situated 20' 9" above large house on shade deck & 9' 9" below upper deck at side. The side scuttles between the second & third deck except in way of the forecabin are specially constructed and all parts are of Naval brass. They are 10" diam. hinged to a frame 5/8" thick, which is attached to the plate plating by ten screwing bolts 3/8" diam. The glass is one inch thick and is secured in a strong holder and protected by a frame from inside. In a hinged deadlight of strong construction, the glass holder & hinged deadlight are secured by five 7/8" bolts. An outer steel plate cover 5/8" thick, which can be placed in position from inside to protect the glass is provided in each case.

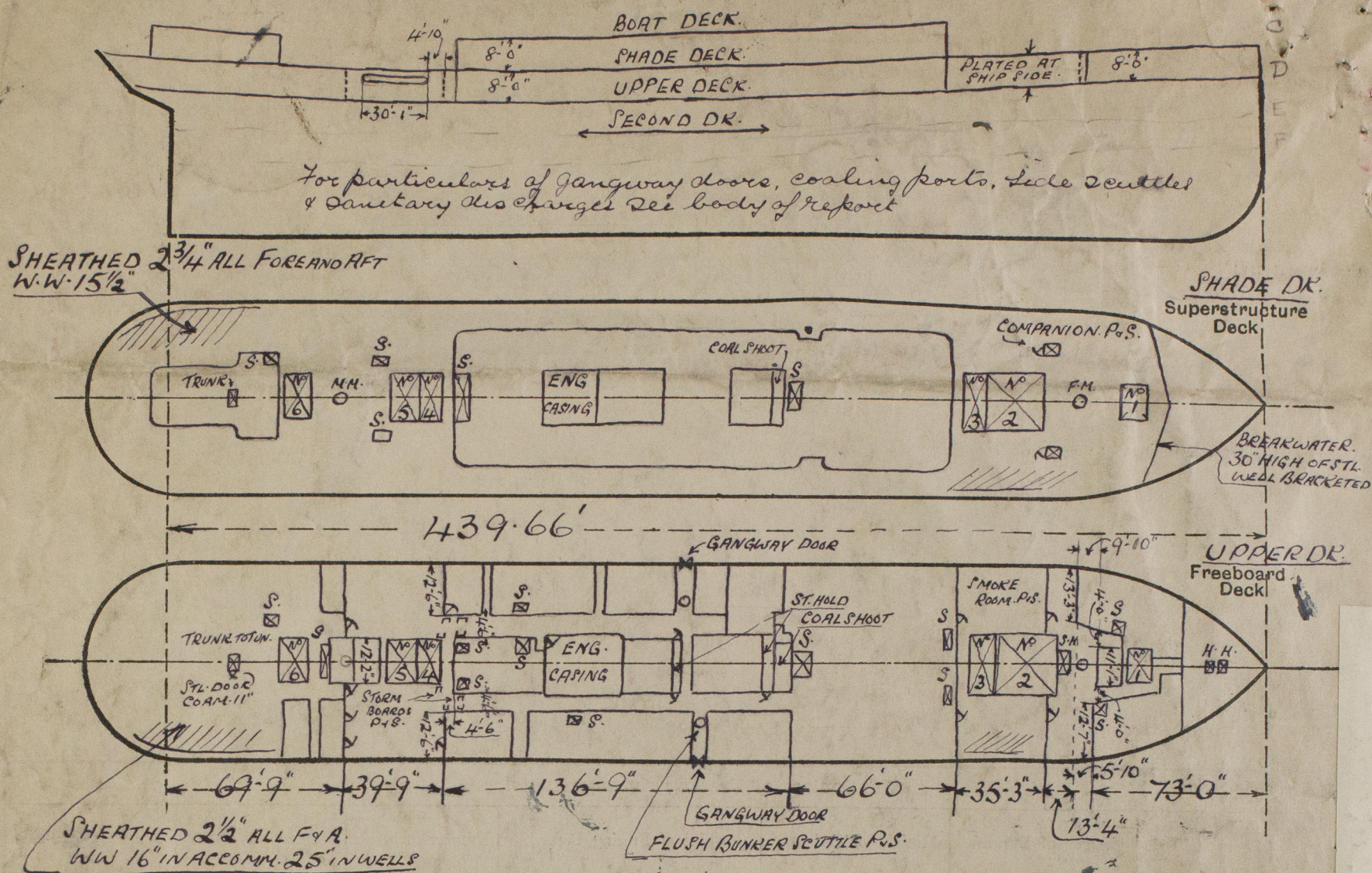
Particulars of Gangways, Lifelines, etc.:—
 Not required. (Shade DK).

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	30' 08"	4' 92"	3' 33" x 1' 54"	2	10' 26' 0"	9' 5' 0"
Forward Well	In way of forward well, plated at side between upper deck & shade deck. No freeing ports fitted.					

Particulars of Superstructures, Trunks, Casings, Deckhouses.							
	Coaming above 2nd deck	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills
Poop Bulkhead	17 1/2' x 32"	32"	3' x 3' x 32' 0" alt. incl 3' 1/2" pl. flange	26" to 42"	None	2 @ 60" x 28 1/2"	15' 0" above 2nd deck
Raised Quarter Deck Bulkhead						1 @ 60" x 25"	14' 0" above 2nd deck
Bridge, After Bulkhead	18' x 32"	32"	3' x 3' x 32' 0" alt. incl 3' 1/2" pl. flange	34" to 40"		2 @ 59" x 24 1/2"	16' 0" above 2nd deck
Bridge, Forward Bulkhead		30"	3' x 3' x 30' 0" alt. incl 3' 1/2" pl. flange	26" to 30"		2 @ 62" x 31"	16' 0" above 2nd deck
Forecastle Bulkhead	32"	32"	3' x 3' x 32' 0" alt. incl 3' 1/2" pl. flange	25" to 29"		2 @ 62" x 31"	16' 0" above 2nd deck
Trunk, Aft						2 @ 62" x 25"	10' 0" above 2nd deck
Trunk, Forward						2 @ 62" x 25"	10' 0" above 2nd deck
Exposed Machinery Casings on Freeboard or Raised Quarter Decks						2 @ 62" x 25"	10' 0" above 2nd deck
Exposed Machinery Casings on Superstructure Decks						2 @ 62" x 25"	10' 0" above 2nd deck
Machinery Casings within Superstructure						2 @ 62" x 25"	10' 0" above 2nd deck
Deckhouses on Flush Deck Ships						2 @ 62" x 25"	10' 0" above 2nd deck

Particulars of Closing Appliances (state if capable of being manipulated from both sides):
 Poop Bulkhead: 1 P+S to passage, hinged 2nd W.T. doors. Locks operated from both sides.
 Raised Quarter Deck Bulkhead: Passages fitted with 3" storm boards in riveted channels to 50" above wood deck. Otherwise hinged lead door with lock.
 Bridge, After Bulkhead: 1 P+S hinged steel door operative from both sides.
 Bridge, Forward Bulkhead: Passages open. In centre steel hinged doors, otherwise lead doors operative from both sides.
 Forecastle Bulkhead: Boilers & engine casing - hinged steel doors operative from both sides.
 Exposed Machinery Casings on Freeboard or Raised Quarter Decks: Boilers & engine casing - hinged steel doors operative from both sides.
 Exposed Machinery Casings on Superstructure Decks: Boilers & engine casing - hinged steel doors operative from both sides.
 Machinery Casings within Superstructure: Boilers & engine casing - hinged steel doors operative from both sides.
 Deckhouses on Flush Deck Ships: Boilers & engine casing - hinged steel doors operative from both sides.

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:—

- S = Stairway opening.
 SH = Stairway hatch in forward well.
 Coaming 9' x 3 1/2' x 55 BA.
 Cleats 2' to 3'. No covers.
 Hatchways enclosed by wooden house with lugged wood door.
 H = Small hatchways on Fbd. Dk in fore-castle space.
 Coaming 3' x 3' L. wood cover 3'.
 Tarpaulin 2 & efficient locking bar.

DRAFT	EXTERNAL DISPLACET	TONS PER INCH
23'-0"	9780 TONS	42.00 TONS
24'-0"	10280 "	42.25 "
25'-0"	10790 "	42.55 "

Vessel measured afloat and also examined in dry dock.

Builder's name and yard number Barclay Curle & Co. Ltd. Glasgow. Yard N. 512.

Names of sister ships "T.S.S. PULASKI" ?

Owners Golconda American Shipping Lines Ltd.

Fee £ 28 : 18 : 0 WR Received by me.
 Exp. 3 : 0 : 0
 STAMPS. 10 : 0



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