

Rpt. C.11 (Comp.).

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(For London Office only.)Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

ARCHON SERAFIM (COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name ex DARTMOOR.	Official Number 183156	Nationality and Port of Registry GREEK BRITISH PIRAEUS LONDON.	Gross Tonnage 5290 (APPROX.) 5324.	Date of Build 12 MOS 1949	Port of Survey Sunderland
Moulded Dimensions: Length 420'-1 1/2" Breadth 56'-2 1/2" Depth 29'-0" To CR of RUDDER STOCK.					Date of Survey During Construction
Moulded displacement at moulded draught = 85 per cent. of moulded depth 12184 tons					Surveyor's Signature Niel P.H. Duncan
Coefficient of fineness for use with Tables 0.7326					Particulars of Classification +100A1 with Hubward (Contemplated)

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 29.0 29.00	(a) Where D is greater than Table depth (D-Table depth) R = (29.03-28.01) 3 = -3.06	Moulded Breadth (B) 56.21
Stringer plate ... 3/8"03	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = .02	Standard Round of Beam = $\frac{B \times 12}{50} = 13.49$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures <input checked="" type="checkbox"/>	Ship's Round of Beam = 14
Depth for Freeboard (D) = 29.03		Difference = 0.51
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.51^2}{4} \times .0068 = .N.L.$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	34.44	34.44			34.44
" overhang29	.15			.15
R.Q.D. enclosed ...	✓				
" overhang ...	✓				
Bridge enclosed ON F.D. ...	377.79	377.79	9.0	✓	377.79
" overhang aft ...	2.62	1.97			1.97
FILE ON UPPER DECK overhang forward ...	32.79				
ON FAD DECK F'cle enclosed ...	377.79				
" overhang ...	2.62				
Trunk aft ...	✓				
" forward ...	4.96	1/2 DIFF			
Tonnage opening aft ...	7.87	2.88			2.88
" forward ...	✓				
Total ...	420.10	417.23			417.23

Standard Height of Superstructure	7.50
" " R.Q.D.	✓
Deduction for complete superstructure	42.00
Percentage covered $\frac{S}{L} =$	100.00
" " $\frac{S_1}{L} =$	99.32
" " $\frac{E}{L} =$	99.16
Percentage from Table, Line A. & B	99.16
(corrected for absence of fore-castle (if required))	✓
Percentage from Table, Line B.	✓
(corrected for absence of fore-castle (if required))	✓
Interpolation for bridge less than .2L (if required)	✓
Deduction = 42.00 x 99.16 = -41.65	✓

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	52.01	1	✓	52.01	+18.00	78.03	1	✓	78.03
1/8 L from A.P. ...	23.14	4	✓	92.56	26.005	34.73	4	✓	138.92
2/8 L " ...	5.72	2	✓	11.44	6.035	8.58	2	✓	17.16
Amidships ...	✓	4	✓	✓	✓	✓	4	✓	✓
2/8 L from F.P. ...	11.44	2	✓	22.88	13.04	15.18	2	✓	30.36
1/8 L " ...	46.29	4	✓	185.16	53.06	61.41	4	✓	245.64
F.P. ...	104.02	1	✓	104.02	120.00	138.00	1	✓	138.00
Total ...				468.07	+18.00				648.11

Mean actual sheer aft
Mean standard sheer aft =Mean actual sheer forward
Mean standard sheer forward =Length of enclosed superstructure forward of amidships =
" " aft of " =Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{180.04}{18} \times .25 = -2.50$
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.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	77.83
Depth to Freeboard Deck = 29.04	Displacement in salt water at summer load water line	Correction for coefficient $\frac{733+68}{1.36} = 1.413 / 1.36$	80.86
Summer freeboard = 3.31	$\Delta = 12978$	Depth Correction ... 3.06	
Moulded draught (d) = 25.73	Tons per inch immersion at summer load water line	Deduction for superstructures ... ✓ 41.65	
Deduction for Tropical freeboard and addition for	$T = 48.30$	Sheer correction ... ✓ 2.50	
Winter freeboard = $\frac{d}{4}$ inches = 6.43 = 6 1/2"	Deduction = $\frac{\Delta}{40 T}$ inches	Round of Beam correction ... ✓	
Addition for Winter North Atlantic Freeboard (if required) = ✓	= 6.67	Correction for Thickness of Deck amidships ... ✓	
	= 6 1/4"	Other corrections, scantlings, etc. ... ✓	
		3.06 44.15 - 41.09	
		Summer Freeboard = 39.77	

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

Tropical Fresh Water Line above Centre of Disc	13 1/4"	33.64	Tropical Fresh Water Freeboard	2.22	674
Fresh Water Line " "	6 1/4"	17.1	Fresh Water " "	2.9	839
Tropical Line " "	6 1/2"	16.5	Tropical " "	2.9 1/4"	845
Winter Line below " "	6 1/2"	16.5	Winter " "	3.1	1175
Winter North Atlantic Line " "	not		Winter North Atlantic " "		

Archon Serafin

Dartmoor

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

Displacement at Summer Draft $25'-10\frac{3}{4}" = 12878$ Tons.

Tons per inch " " = 48.3

Keel = $2\frac{1}{8}"$

Stinger = $\frac{3}{8}"$

Trade of ship

Ocean going

Names of sister ships

Similar to M.V. "CRAGMOOR"

Builder's name and yard number

Wm Dorland & Sons Ltd. Yard No 771

Owners

Marine Line Ltd.

Fee £

Will be charged on T. & C.

39026A



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Foundation