

LLOYD'S REGISTER OF SHIPPING SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

Received
 Index No.
 Govt. Copy
 Owners C11

Ship's Name APTJ AMBAR	Official Number	Nationality and Port of Registry GREEK	Gross Tonnage	Date of Build
Moulded Dimensions: Length 421.33 Breadth 57.25 Depth 38.00				
Freeboard Length 421.33 TO $\frac{1}{2}$ OF RUDDER STOCK				
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) _____ tons				
Coefficient of fineness for use with Tables 0.756				

Port of Survey **LONDON H.G.**
 Date of Survey **31/3-66**
 Surveyor's Signature _____
 Particulars of Classification

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	38.00	(a) Where D is greater than Table depth (D-Table depth) R = $\frac{38.08 - 28.09}{3} = 29.97$		Moulded Breadth (B)	57.25
Stringer plate	0.05	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = $\frac{9.99}{4} = 2.4975$		Standard Round of Beam = $\frac{B \times 12}{50} = 13.74$	
Wood Sheathing on exposed deck	0.03	If restricted by superstructures		Ship's Round of Beam = 14"	
Depth for Freeboard (D) = 38.08				Difference = 0.26	
				Restricted to	
				Correction = $\frac{\text{Diff}^2}{4} \times (1 - \frac{S_1}{L}) = \frac{0.26^2}{4} \times 0.979 = 0.06$	

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
F'cle enclosed	27.70	27.70	7.50		27.70
" overhang	4.00	3.20			3.20
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	31.70	30.40			30.40

Standard Height of Superstructure **7.50**
 " " R.Q.D. _____
 Deduction for complete superstructure **42.00**
 Percentage covered $\frac{S}{L} = 7.40$
 " " $\frac{S_1}{L} = 7.21$
 " " $\frac{E}{L} = 7.21$
 Percentage from Table, Line A. **3.61**
 (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 = $0.0361 \times 42 = -1.52$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	M	Product
A.P.	52.13	1	52.13	42	42	1	42	
$\frac{1}{2}L$ from A.P.	23.20	4	92.80	19	19	4	76	
$\frac{1}{2}L$ "	5.73	2	11.46	5	5	2	10	
Amidships	0	4	0	0	0	4	0	
$\frac{1}{2}L$ from F.P.	11.47	2	22.94	9	9	2	18	
$\frac{1}{2}L$ "	46.40	4	185.60	37	37	4	148	
F.P.	104.27	1	104.27	84	84	1	84	
Total			469.20				378	

Mean actual sheer aft = < 1
 Mean standard sheer aft = _____
 Mean actual sheer forward = **0.799**
 Mean standard sheer forward = _____
 Length of enclosed superstructure forward of amidships = _____
 " " aft of " = _____ DEFICIENT SHEERS

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{91.20}{18} \left(\frac{0.75 - 0.0370}{2} \right) = 3.61$
 If limited on account of midship superstructure. If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100ft.

Deduction for Tropical Freeboard.
 Addition for Winter and Winter North Atlantic Freeboard.
 Depth to Freeboard Deck = 11.598
 Summer freeboard = 3.063
 Moulded draught (d) = 28.00
 Keel allowance = _____
 Extreme draught = _____
 Deduction for Tropical freeboard and addition for = _____
 Winter freeboard = $\frac{d}{4}$ inches = 178 mm.
 Addition for Winter North Atlantic Freeboard (if required) = NOT REQUIRED

Deduction for Fresh Water.
 Displacement in salt water at summer load water line
 $\Delta =$
 Tons per inch immersion at summer load water line
 $T =$
 Deduction = $\frac{\Delta}{40 T}$ inches
 $= \frac{6.70}{40 \times 178} = 189 \text{ mm}$
 $\frac{6.70}{40} = 178 \text{ mm}$

TABULAR FREEBOARD corrected for Flush Deck (if required) **79.97**
 Correction for coefficient $\frac{0.756 + 0.680}{1.36} = 1.05588$ **84.44**
 Depth Correction ... 29.97
 Deduction for superstructures ... 1.52
 Sheer correction ... 3.61
 Round of Beam correction ... 0.06
 Correction for Thickness of Deck amidships ... 0.36
 Other corrections, scantlings, etc. TO ... 4.51
Summer Freeboard = 120.59 = 3063 mm

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

Tropical Fresh Water Line above Centre of Disc	367 mm
Fresh Water Line " "	189 mm
Tropical Line " "	178 mm
Winter Line below " "	178 mm
Winter North Atlantic Line " "	NOT REQUIRED

Tropical Fresh Water Freeboard	7096 mm
Fresh Water " "	2874 mm
Tropical " "	2885 mm
Winter " "	3291 mm
Winter North Atlantic " "	NOT REQUIRED

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.

SHEAR FORWARD :

STANDARD	ACTUAL
104,27	84
139,20	111
<u>34,41</u>	<u>27</u>
277,88	222 = 0,799 STANDARD

EQUIVALENT LENGTH OF FORECASTLE OVERHANG = $0,799 \times 4 = 3,196$

Trade of Ship.....

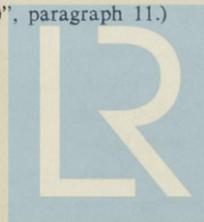
Names of sister ships.....

Builder's name and yard number.....

Owners.....

Fee £.....

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950", paragraph 11.)



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