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Rpt. C.11 (Comp.)

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LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build
Scheepswerf "Appingedam"	Yard No. 178			

Port of Survey

Date of Survey

Surveyor's Signature

Particulars of Classification 100A1 (Contemplated)

Moulded Dimensions: Length 47.65 M. Breadth 8.50 M. Depth 3.589 top of keel

Freeboard Length 47.85 to cr. of rudderstock

Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) 872 M^3

Coefficient of fineness for use with Tables 0.703

DEPTH FOR FREEBOARD (D).

Moulded depth	3.589
Stringer plate 9.5 mm	.009
Wood Sheathing on exposed deck $T\left(\frac{L-S}{L}\right)$ =	
Depth for Freeboard (D) =	3.598

DEPTH CORRECTION.

(a) Where D is greater than Table depth (D—Table depth) R =

8.33(3.598 - 3.19)12.083 = +41 mm.

(b) Where D is less than Table depth (if allowed) (Table depth—D) R =

If restricted by superstructures

ROUND OF BEAM CORRECTION.

Moulded Breadth (B)		8.50
Standard Round of Beam = $\frac{B \times B}{50}$	=	170
Ship's Round of Beam	=	200
Difference		+ 30
Restricted to		
Correction = $\frac{\text{Diff}^e}{4} \times \left(1-\frac{S_1}{L}\right)$	=	$\frac{30}{4}$ x .5632 = -4 mm.

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S_1)	Height	Height Correction	Effective Length (E)
Poop enclosed	11.75	11.75	2.05		11.750
„ overhang					
R.Q.D. enclosed	2.20	2.20	1.00	1000/1028	2.155
„ overhang					2.140
Bridge enclosed					
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed	6.95	6.95	2.00 mean		6.950
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft ...					
„ „ forward ...					20.840
Total	20.90	20.90			20.855

Standard Height of Superstructure 1830

„ „ R.Q.D. 1028

Deduction for complete superstructure 552

Percentage covered $\frac{S}{L}$ =) 43.68
„ „ $\frac{S_1}{L}$ =)

„ „ $\frac{E}{L}$ = 43.58 43.55

Percentage from Table, Line A. 26.54 26.52
(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 = .2654² x 552 = 147⁶ mm.

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	653	1	653	595	815	1	815
$\frac{1}{6}$L from A.P. ...	290	4	1160	180	203	4	812
$\frac{2}{6}$L „ ...	73	2	146	10	10	2	20
Amidships ...	0	4	0	0	0	4	0
$\frac{1}{6}$L from F.P. ...	145	2	290	180	180	2	360
$\frac{1}{6}$L „ ...	580	4	2320	560	560	4	2240
F.P.	1305	1	1305	1345	1345	1	1345
Total ...			5874				5592

See pg. 2

Sheer aft: 653 1 653 | 815 1 815
290 3 870 | 203 3 609
73 3 219 | 10 3 30
1742 | 1454

Mean actual sheer aft / Mean standard sheer aft = > ·75 standard

1454 / 1742 = ·835

Mean actual sheer forward / Mean standard sheer forward = > 1.0

Length of enclosed superstructure / L forward of amidships =

„ „ aft of „ =

Correction = $\frac{\text{Difference between sums of products}}{18}\left(\cdot 75-\frac{S}{2L}\right)$ = $\frac{282}{18}$ (.75 - .2184) = .5316 = +8 mm.

If limited on account of midship superstructure.

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

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

	Ft.	M.
Depth to Freeboard Deck =	3.598	
Summer freeboard =	.32	
Moulded draught (d) =	3.278	
Keel allowance =		
Extreme draught =		
Deduction 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

Δ =

Tons per inch immersion at summer load water line

T =

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

=

TABULAR FREEBOARD ~~corrected for Flush Deck (if required)~~ 418 mm.

Correction for coefficient $\frac{.703 + .68}{1.36} = \frac{1.383}{1.36}$ 425 mm.

	+	−
Depth Correction	41	-
Deduction for superstructures	-	1476
Sheer correction	8	-
Round of Beam correction	-	4
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc.		
	49	150

- 102 mm.

Summer Freeboard = 3234 mm.

10/8/56.

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck :— 32 cm.

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 „	

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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.

29.150
11.750
6.950
47.850

Actual height of poop = 2050 ✓
Standard " " " = 1830 ✓

Excess 220 ✓

Sheer at A.P.P. = 595 ✓ + 220 ✓ = 815 ✓
" " 1/6 L = 180 ✓ + 220 ✓ x $\left(\frac{3.775}{11.75}\right)^2$ = 203. ✓

6 | 47.85
7.975
11.750
3.775

Sheers if 66.88 % standard.

Actual sheer × 2/3 L 1/3 L F.P.

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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