

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD. G.R.O. RPT. No. 855

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name PUSPARAGAM	Official Number ✓	Nationality and Port of Registry INDONESIA DJAKARTA	Gross Tonnage ±660 669	Date of Build 1953	Port of Survey GRONINGEN
Moulded Dimensions: Length 52.475 Breadth 9.700 Depth 2.958 m C.O.R. st ±.ΔK.					Date of Survey JULY, 1953
Moulded displacement at moulded draught = 85 per cent. of moulded depth 855 m³					Surveyor's Signature <i>[Signature]</i>
Coefficient of fineness for use with Tables .68 (ACTUAL .668)					Particulars of Classification <input checked="" type="checkbox"/> 100A1 Contemplated

DEPTH FOR FREEBOARD (D). Moulded depth ... 2958 Stringer plate ... 7 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ see sketch Depth for Freeboard (D) = 2965	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 = $8.33 (3.499 - 2.965) 13.252 =$ $.534$ If restricted by superstructures YES 56 mm. SEE OVER.	ROUND OF BEAM CORRECTION. Moulded Breadth (B) 9700 Standard Round of Beam = $\frac{B-12}{50} = 194$ Ship's Round of Beam = 195 NIL. Difference +194 Restricted to Correction = $\frac{\text{Diff.}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{194 \times 0.138}{4} = +14$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	12815	12815	2200	—	12815
„ overhang ...	400	200	—	—	200
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...	22550	22550	2200	—	22550
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed ...	15460	15460	1250	1.25/1.33	10560
„ overhang ...					
Trunk aft ...					
„ forward ...		1/2 DIFF			
Tonnage opening aft ...	1250	725	2200		725
„ „ forward ...					
Total ...	52475	51750			46850.

Standard Height of Superstructure **1.83 m**

„ „ R.Q.D. **—**

Deduction for complete superstructure **590 mm**

Percentage covered $\frac{S}{L} = 100$

„ „ $\frac{S_1}{L} = 98.62$

„ „ $\frac{E}{L} = 89.28$

Percentage from Table, Line A+B **86.80**
(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 = $590 \times 0.8680 = -512 \text{ mm.}$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate SEE OVER	S	M	Product
A.P. ...	691	1	✓	691	593	1918	1	✓	1918
1/2 L from A.P. ...	307	4	✓	1228	222	854	4	✓	3416
1/4 L „ ...	77	2	✓	154	61	211	2	✓	422
Amidships ...	✓	4	✓	✓	0	✓	4	✓	✓
1/2 L from F.P. ...	154	2	✓	308	165	165	2	✓	330
1/4 L „ ...	614	4	✓	2456	635	635	4	✓	2540
F.P. ...	1382	1	✓	1382	1602	1602	1	✓	1602
Total ...				6219					10228

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{4009}{18} \left(.75 - .59 \right) = -56 \text{ mm.}$

If limited on account of midship superstructure. ✓

Mean actual sheer aft =
Mean standard sheer aft =

Mean actual sheer forward =
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = **> .1 L**

„ „ aft of „ = **> .1 L**

actual to. Δk Δk = 2200
Standard „ „ = 1830
370.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Ft.
Depth to Freeboard Deck = **2964**
Summer freeboard = **50**
Moulded draught (d) = **2914**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{48}$ inches = **61 mm = 6 cm**

Addition for Winter North Atlantic Freeboard

required = **61 + 51 = 112 mm = 11 cm**

Deduction for Fresh Water.

Displacement in salt water at summer load water line
Δ = **1007 m³**
m³ per cm immersion at summer load water line
T = **3.91 m³/cm**

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient **NIL.**

Depth Correction ... **56**
Deduction for superstructures ... **512**
Sheer correction ... **56**
Round of Beam correction ... **1**
Correction for Thickness of Deck amidships ...
Other corrections, scantlings, etc. ...

+	-
—	56
—	512
—	56
1	—
—	—
1	624

Summer Freeboard = **-151 mm.**

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

Tropical Fresh Water Line above Centre of Disc ...	6 cm
Fresh Water Line „ „ ...	6 „
Tropical Line „ „ ...	0 „
Winter Line below „ „ ...	6 „
Winter North Atlantic Line „ „ ...	11 „

Tropical Fresh Water Freeboard MINUS.1	
Fresh Water „ MINUS.1	
Tropical „ 5 cm (LIMITED)	
Winter „ 11 cm	
Winter North Atlantic „ 16 cm	

PUSPARAGAM

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.

Sheer @ Poof Front = 132 mm. Excess To. Sk. Ht. = 370 Total = 502.

$$\therefore \text{Virtual Sheer @ A.P.} = \frac{502 \times 26.238^2}{13.423^2}$$
$$= 1918.$$

$$\begin{aligned} \text{Actual Sheer @ A.P.} &= 593. \\ \text{Excess To. Sk. Ht.} &= 370. \\ \text{Ht. of Poof} &= 1324 \\ &\underline{2287} \end{aligned}$$

\therefore Use 1918.

Depth Correction.

$$\text{Correction Factor} = \frac{26.5195 + \frac{1250}{1830} \times 4.9655}{31.485}$$

$$= \frac{26.5195 + 3.392}{31.485} = \frac{29.9115}{31.485} = .9503.$$

$$\therefore \text{Actual depth Correction} = 59 \times .9503.$$
$$= \underline{56 \text{ cm.}}$$

Trade of ship INTERNATIONAL

Names of sister ships "BARLIAN", "BIDURI", "PERMATA", "MUTIARA" (except minor items on deck)

Builder's name and yard number N.V. Scheepswerk "Waterhuizen", J. Pattje, yard no 217

Owners Republik Indonesia

Fee f 198,-



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