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(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD. Gro. Rpt. 799

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name BIDURI	Official Number ✓	Nationality and Port of Registry Indonesia Djakarta	Gross Tonnage 600 662.39	Date of Build 1953	Port of Survey Groningen
Moulded Dimensions: Length 52.475 Breadth 9.700 Depth 2.950 C.O.R.S.T.					Date of Survey February, 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 100 A1 Contemplated

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 2950 ✓	(a) Where D is greater than Table depth (D-Table depth) R =	Moulded Breadth (B) 9.700 ✓
Stringer plate ... 67 ✓	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B^2}{50} = \frac{9.7^2}{50} = 194$ ✓
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ see sketch	8.33 (3.499 - 2.964) 13.252 = 59 mm If restricted by superstructures YES 56 mm. SEE OVER.	Ship's Round of Beam = 195 ✓
Depth for Freeboard (D) = 2964 ✓		Difference = -194 ✓
		Restricted to
		Correction = $\frac{\text{Diff.}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{194}{4} \times 0.0138 = 1.34$ ✓

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	11	—	200
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...	22550	22550	2200	—	22550
„ overhang aft ...					
„ overhang forward ...					
F'cle enclosed ...	15460	15460	1250	125	10560
„ overhang ...					
Trunk aft ...					
„ forward ...					
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 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 = **590 x 86.80 = -512 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
$\frac{1}{2}$ L from A.P. ...	307	4	1228	222	854	4	3416
$\frac{3}{4}$ L „ ...	77	2	154	61	211	2	422
Amidships ...	0	4	0	0		4	0
$\frac{3}{4}$ L from F.P. ...	154	2	308	165	165	2	330
$\frac{1}{2}$ L „ ...	614	4	2456	635	635	4	2540
F.P. ...	1382	1	1382	1602	1602	1	1602
Total ...			6219				10228

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{4009(.75 - .50)}{18 \times 25} = -56 \text{ mm}$

If limited on account of midship superstructure.

ACTUAL TWEEN DECK HT. = 2200 ✓
STANDARD „ „ „ = 1830 ✓
370 ✓

Mean actual sheer aft =
Mean standard sheer aft =

Mean actual sheer forward =
Mean standard sheer forward =

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

„ „ aft of „ = $> .1L$

EXCESS.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

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 = $61 \text{ mm} = 6 \text{ cm}$ ✓

Addition for Winter North Atlantic Freeboard (if required) = **61 + 51 = 112 mm = 11 cm.** ✓

Deduction for Fresh Water.

Displacement ~~in salt water~~ at summer load water line
 $\Delta = 1007 \text{ m}^3$
per Δ immersion at summer load water line
 $T = 3.91 \text{ m}^3/\text{cm}$
Deduction = $\frac{\Delta}{40 T}$ inches = 6.44 cm ✓
= **6 cm.** ✓

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. ...	—	—
	1	624

Summer Freeboard = **-151 mm.**SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Water~~, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc ...	6 cm ✓	Tropical Fresh Water Freeboard	MINUS 1 ✓
Fresh Water Line „ „ ...	6 „ ✓	Fresh Water „	MINUS 1 ✓
Tropical Line „ „ ...	0 „ ✓	Tropical „	5 cm (LIMITED) ✓
Winter Line below „ „ ...	6 „ ✓	Winter „	11 cm ✓
Winter North Atlantic Line „ „ ...	11 „ ✓	Winter North Atlantic „	16 cm ✓

21.4.1953.

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.

$$\text{SHEER @ POOP FRONT} = 132 \text{ mm} \quad \text{EXCESS TW. DK. HT.} = 370 \quad \text{TOTAL} = 502$$

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

$$\begin{aligned} \text{ACTUAL SHEER @ A.P.} &= 593 \\ \text{EXCESS TW. ENDK HT} &= 370 \\ \text{HT. OF POOP} &= 1324 \\ \hline &2287 \\ \therefore \text{USE } &1918 \end{aligned}$$

DEPTH CORRECTION.

$$\begin{aligned} \text{CORRECTION FACTOR} &= \frac{26.5195 + \frac{1250 \times 4.9655}{1830}}{31.435} \\ &= \frac{26.5195 + 3.392}{31.435} = \frac{29.9115}{31.435} = 0.9503 \\ \therefore \text{ACTUAL DEPTH CORRECTION} &= 59 \times 0.9503 \\ &= 56 \text{ mm} \end{aligned}$$

Trade of ship Ocean Trade

Names of sister ships Barlian

Builder's name and yard number N.V. Scheepswerf "Waterhuizen" J. Pattje, yard no 216

Owners Republik Indonesia

For 1988



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