

## LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

*BANGU 43673*

Ship's Name <b>BABUT</b>	Official Number ✓	Nationality and Port of Registry <b>Indonesian Djakarta</b>	Gross Tonnage <b>250</b>	Date of Build <b>1952</b>	Port of Survey <b>Rotterdam</b>
Moulded Dimensions: Length <b>35.00 MTR</b> Breadth <b>6.50 MTR</b> Depth <b>2.959 MTR</b>					Date of Survey <b>July-August 1952</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>360</b> <b>14.3</b> tons (excluding bossing)					Surveyor's Signature <i>Kraayabind</i>
Coefficient of fineness for use with Tables <b>68 (actual 629)</b>					Particulars of Classification <b>+100 A1</b> <b>for service in Indonesian Archipelago</b>

DEPTH FOR FREEBOARD (D).	
Moulded depth	2959
Stringer plate	8
Sheathing on exposed deck	(50)
$T \left( \frac{L-S}{L} \right) = 50 \times \frac{20.45}{35}$	29
Depth for Freeboard (D) =	2996

DEPTH CORRECTION.	
(a) Where D is greater than Table depth (D-Table depth) R =	$833(2996-2324)8.838 = +49 \frac{1}{2}$
(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	$662$
If restricted by superstructures	✓

ROUND OF BEAM CORRECTION.	
Moulded Breadth (B)	6500
Standard Round of Beam = $\frac{B \times 12}{50}$	130
Ship's Round of Beam	130
Difference	—
Restricted to	—
Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L}\right)$	—

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed					
„ overhang					
R.Q.D. enclosed					
„ overhang					
Bridge enclosed	10000	10000	2100	—	10000
„ overhang aft			+21		
„ overhang forward					
F'cle enclosed	3650	3650	1800	177/183	3532
„ overhang			-29		
Trunk aft					
„ forward					
Tonnage opening aft					
„ „ forward					
Total	13650	13650			13532

Standard Height of Superstructure	1830 m/m
„ „ R.Q.D.	—
Deduction for complete superstructure	444
Percentage covered $\frac{S}{L} =$	39.00
„ „ $\frac{S_1}{L} =$	—
„ „ $\frac{E}{L} =$	38.67
Percentage from Table, Line A.	22.37
(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 =	22.37 x 444 = -99

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	546	1	546	400	400	1	400
$\frac{1}{8}L$ from A.P.	243	4	972	145	145	4	580
$\frac{3}{8}L$ „	61	2	122	11	11	2	22
Amidships	—	4	—	0	—	4	—
$\frac{5}{8}L$ from F.P.	121	2	242	134	121	2	242
$\frac{7}{8}L$ „	485	4	1940	481	487	4	1948
F.P.	1091	1	1091	1091	1095	1	1095
Total			4113				4287

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{626}{18} (.75 - .195) = +19 \frac{1}{2}$

If limited on account of midship superstructure.

Mean actual sheer aft

Mean standard sheer aft = 59.54%

Mean actual sheer forward

Mean standard sheer forward = 71

Length of enclosed superstructure

L

forward of amidships =

aft of

Service trim 300 mm

sheer measured from line parallel to service waterline

If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100 ft.

## Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 3017

Summer freeboard = 1020

Moulded draught (d) = 1997

Keel allowance =

Extreme draught =

Deduction for Tropical freeboard and addition for

Winter freeboard = 4 cm

Addition for Winter North Atlantic Freeboard (if required) =

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 276$  tons

Tons per inch immersion at summer load water line

T = 1.77

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

= 4 cm

## TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

Corrected to a summer moulded draught of 1993 m (1997 actual)

+

-

49

-99

19

-

21

-

738

827

99

1728

Summer Freeboard = 1020

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

Tropical Fresh Water Line above Centre of Disc

Fresh Water Line

Tropical Line

Winter Line below

Winter North Atlantic Line

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

Winter North Atlantic



# Babut.

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 in saltwater : 279,5 tons (of 1000 kg) at draught 2000 mm

" " " 371,3 " " " 2500 "

" " " 468,0 " " " 3000 "

Service trim 300 mm

Moulded draught forward : 1830 mm

" " aft : 2130 mm

Sheer measured from line parallel to service waterline.

Sheer forward

Standard

Actual

1091 1 1091

1091 1091

485 3 1485

181 1443

121 3 363

132 482

2909

2986

Excess 27

Allowed sheer

$$2909 + (27 \times \frac{9.54}{25}) = 2919.30$$

Effective sheer forward

121

485

1091

2919.3

2909

= 121

487

1095

Trade of ship Indonesian Archipelago

Names of sister ships BANGO, BEO, BETTET.

Builder's name and yard number L. Smit & Zoons scheeps- en werktuigbouw N.V. nr CO: 179

Owners Indonesian Government

Fee fl. 100,-

DMIT



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