

LLOYD'S REGISTER OF SHIPPING

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

Received _____
 Index No. _____
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Ship's Name **M. V. "LENGKENG"** Official Number **-** Nationality and Port of Registry **Indonesian Djakarta** Gross Tonnage **677** Date of Build **Novem 1960**

Port of Survey **Gdynia**
 Date of Survey **October, 1960**

Moulded Dimensions: Length **59.00m** Breadth **10.50m** Depth **3.747m** (as measured)
 Freeboard Length **59.00m** (to centre of rudder stock)
 Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing)
 Coefficient of fineness for use with Tables **.814**

Surveyor's Signature **[Signature]**
 Particulars of Classification **+ 100 A1**
 "Longitudinal Framing at Bottom" Contemplated.

DEPTH FOR FREEBOARD (D). **3.747m**
 Moulded depth (as measured) **3.747**
 Stringer plate **0.007m** **.007**
 Wood Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$
 Depth for Freeboard (D) = **3.754**

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(3.933-3.754)/4.90 = 22
 If restricted by superstructures **no**

ROUND OF BEAM CORRECTION.
 Moulded Breadth (B) **10.50**
 Standard Round of Beam = $\frac{B \times 4}{50} = \frac{10.50 \times 4}{50} = 210.0$
 Ship's Round of Beam = **0**
 Difference **210.0**
 Restricted to
 Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S}{L} \right) = \frac{210}{4} \times 0.0128 = 1.344$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	15.90	15.900	2.23		15.900
" overhang	0.28	0.140	2.20		0.140
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
F'cle enclosed	41.30	41.300	3.00		41.300
" overhang	0.29	0.220	2.20		0.220
Trunk aft					
" forward		0.076			
Tonnage opening aft	1.23	0.685			0.685
" forward					
Total	59.00	58.245			58.245

Standard Height of Superstructure **1.83**
 " " R.Q.D. _____
 Deduction for complete superstructure **645**
 Percentage covered $\frac{S}{L} = \frac{1.00}{1.00} = 1.00$
 " " $\frac{S_1}{L} = \frac{58.245}{59} = 98.72$
 " " $\frac{E}{L} = \frac{58.245}{59} = 98.72$
 Percentage from Table, Line A. **98.42**
 (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 = **645 x 98.42 = 635mm**

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	745	1	745	723	1093	1	1093
$\frac{1}{4}$ L from A.P. ...	331	4	1324	337	486	4	1944
$\frac{3}{4}$ L	83	2	166	100	120	2	240
Amidships	0	4	0	0	0	4	0
$\frac{3}{4}$ L from F.P. ...	166	2	332	167	207	2	414
$\frac{1}{4}$ L „	663	4	2652	653	839	4	3356
F.P.	1491	1	1491	1515	1885	1	1885
Total			6710				8932

Correction = Difference between sums of products $\left(\frac{75-S}{2L} \right) = \frac{2222 - 8932}{18} = -309.44 = 310mm$
 If limited on account of midship superstructure. **no**
 If limited to maximum allowance of 1 1/2 ins. per 100ft. **no**

Deduction for Tropical Freeboard.
 Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck **3.754**
 Summer freeboard **3.754**
 Moulded draught (d) = **3.704**
 Keel allowance = **3.704**
 Extreme draught = **3.704**
 Deduction for Tropical freeboard and addition for =

Winter freeboard = $\frac{d}{48} \text{ inches} = 7.38 \text{ cm}$

Addition for Winter North Atlantic Freeboard (if required) = **8 + 5 = 13 cm**

x) = Metric tons.

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 1664.9 \text{ tons}^x$
 Tons per inch immersion at summer load water line
 $T = 5.22 \text{ tons}^x / \text{cm}$
 Deduction = $\frac{\Delta}{40 T} \text{ inches} = \frac{1664.9}{40 \times 5.22} = 8 \text{ cm}$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient **1.36**

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

	+	-
Depth Correction		22
Deduction for superstructures		435
Sheer correction		31
Round of Beam correction	1	
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
	1	688

Summer Freeboard = **72 mm**

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

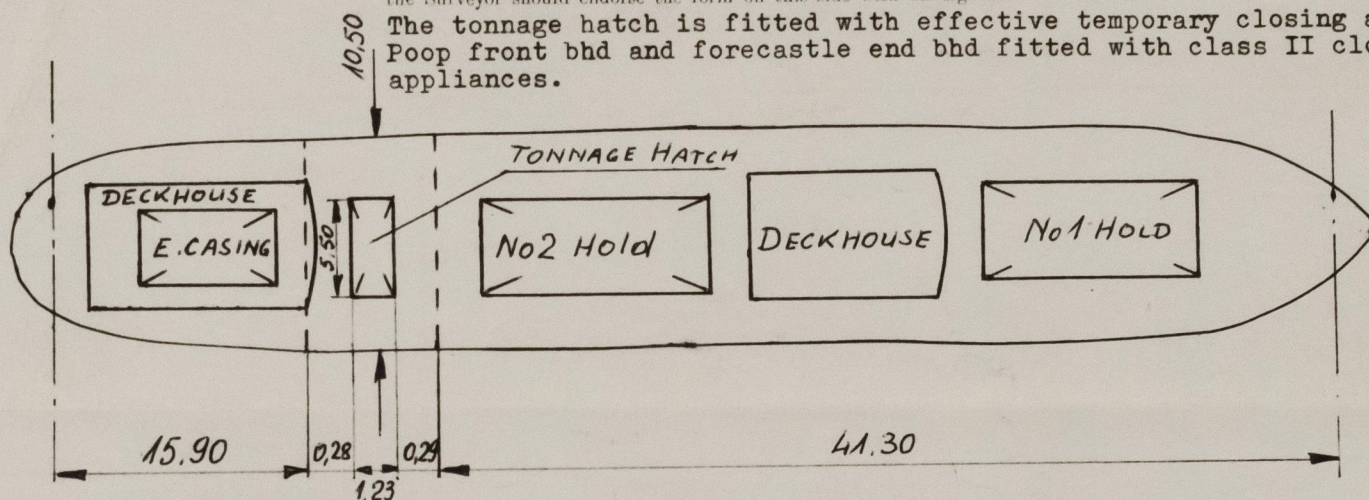
Tropical Fresh Water Line above Centre of Disc	8 cm	Tropical Fresh Water Freeboard	MINUS 3 cm
Fresh Water Line	"	Fresh Water	MINUS 3 cm
Tropical Line	0 (limited)	Tropical	5 cm (limited)
Winter Line	8 cm	Winter	18 cm
Winter North Atlantic Line	13 cm	Winter North Atlantic	18 cm

29 NOV 1960

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.

The tonnage hatch is fitted with effective temporary closing appliances. Poop front bhd and forecastle end bhd fitted with class II closing appliances.



All dimensions given in metres.

Trade of ship

Cargo- Passenger Coaster

Names of sister ships

M.V. "RAMBUTAN", M.V. "DUKUH", M.V. "DUREN",
M.V. "DUWET", M.V. "DJERUK", M.V. "LANGSAT" (~~all under construction~~)

Builder's name and yard number

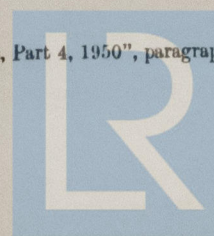
Stocznia im. Komuny Paryskiej, Gdynia, Poland, Yard No. B471/17

Owners

Indonesian Government

Fee £

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



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