

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, ~~SAILING SHIP, TANKER.~~)

Ship's Name M. H. THAMRIN	Official Number	Nationality and Port of Registry Indonesian Djakarta	Gross Tonnage	Date of Build	Port of Survey Innoshima, Japan
Moulded Dimensions: Length 140.00 Breadth 19.40 Depth 9.50					Date of Survey whilst building
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) 14,712 M³					Surveyor's Signature <i>Nicola McLean</i>
Coefficient of fineness for use with Tables 68 (ACTUAL 67.1)					Particulars of Classification 100A1 Contemplated

DEPTH FOR FREEBOARD (D).

Moulded depth ... **9.500**

Stringer plate ... **10 mm**

Sheathing on exposed deck

$T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = **9510**

DEPTH CORRECTION.

(a) Where D is greater than Table depth
(D - Table depth) R = **833 (9.50 - 9.335) 30.5 = +44 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) **19.400 m.**

Standard Round of Beam = $\frac{B}{50} = \frac{19.400}{50} = \mathbf{0.388}$

Ship's Round of Beam = **0.15**

Difference **59.5 x .0053**

Restricted to

Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \mathbf{NIL}$

DEDUCTION FOR SUPERSTRUCTURES.

$$\frac{B_1 - B}{B_1} = \frac{15.612 - 7.380}{15.612} = 7.5$$

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	8.800	8.800	2.700		8.800
" overhang23	.115			.115
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...	M				
F'cle enclosed ...	129.60	129.600	2.700		129.600
" overhang ...	0.01	.008			.008
Trunk aft ...					
" forward ...		1/2 DIFF			
Tonnage opening aft ...	1.360	.739	2.700		.739
" forward ...					
Total ...	140.000	139.262			139.262

Standard Height of Superstructure **2.290 m.**

" " R.Q.D. ...

Deduction for complete superstructure **1067 mm.**

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

" " $\frac{S_1}{L} =$

" " $\frac{E}{L} =$ } **99.47**

Percentage from Table, Line A. **2.8.** **99.34**

(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 = **1067 x .9934 = 1060 mm.**

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ...	1420	1	1420	1.200	1200	1	1200
1/6 L from A.P. ...	631	4	2524	.514	514	4	2056
2/6 L " ...	158	2	316	.132	132	2	264
Amidships ...	0	4	0	0	0	4	0
2/6 L from F.P. ...	316	2	632	.268	268	2	536
1/6 L " ...	1262	4	5048	1.009	1009	4	4036
F.P. ...	2840	1	2840	2.400	2400	1	2400
Total ...			12,780				10,492

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{S}{2L} \right) = \frac{2,288 - 307}{18} \times .25 = -45 \text{ mm.}$

If limited on account of midship superstructure. **No** = $\frac{127 - 307}{18} = 180$ If limited to maximum allowance of 1 1/2 ins. per 100 ft. **No**

Mean actual sheer aft = **EXCESS**

Mean standard sheer aft = **EXCESS**

Mean actual sheer forward = **DEFICIENT**

Mean standard sheer forward = **DEFICIENT**

Length of enclosed superstructure forward of amidships = **L**

" " aft of " = **C.S.S. / T.O.**

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard deck = **9.510**

Summer freeboard = **1.224**

Moulded draught (d) = **8.286**

Keel allowance =

Extreme draught =

Deduction for Tropical freeboard and addition for Winter freeboard = **173**

Addition for Winter North Atlantic Freeboard (if required) =

See Over

Deduction for Fresh Water.

Displacement in salt water at summer load water line **15643 m/Tons.**

Tons per inch immersion at summer load water line **22.22**

Deduction = $\frac{\Delta}{40 T}$ inches = **176**

TABULAR FREEBOARD corrected for Flush Deck (if required) **NIL**

Correction for coefficient

Depth Correction ... **44**

Deduction for superstructures ... **1060**

Sheer correction ... **45**

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

+	-
44	1060
-	45
-	-
-	-
-	-
44	1105
Summer Freeboard = 1224	

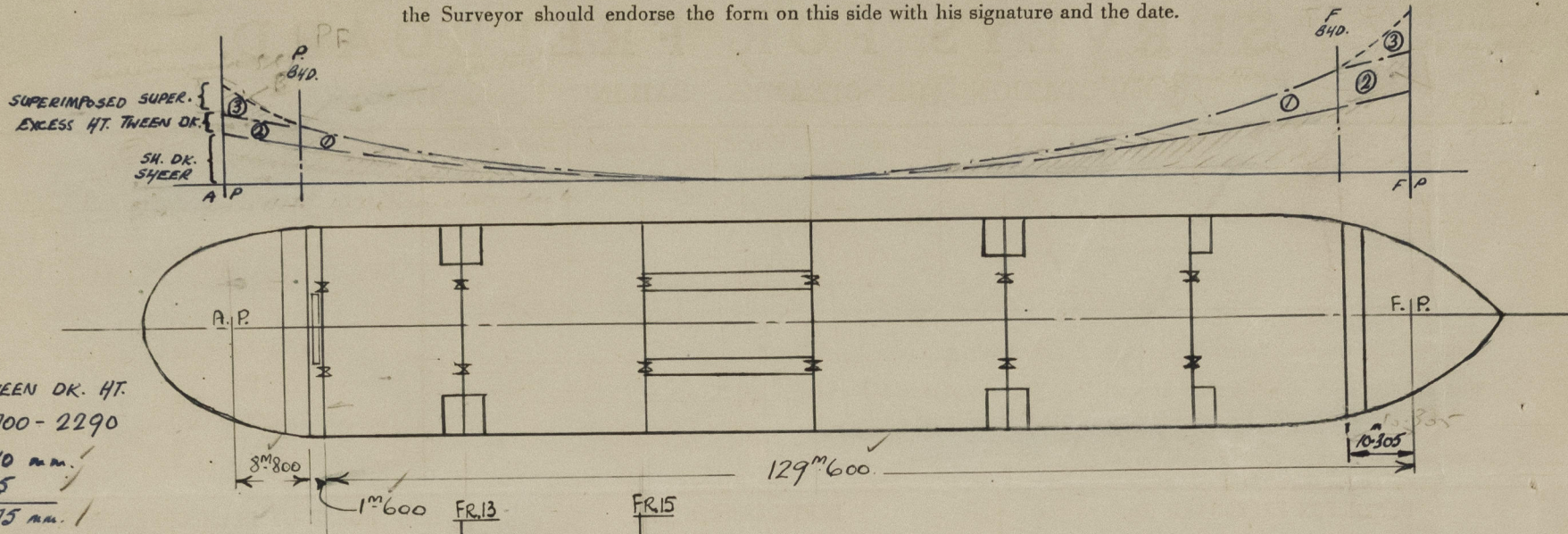
SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:

Tropical Fresh Water Line above Centre of Disc	...	349 mm	Tropical Fresh Water Freeboard	...	875
Fresh Water Line	"	176	Fresh Water	"	1048
Tropical Line	"	173	Tropical	"	1051
Winter Line	below	173	Winter	"	1397
Winter North Atlantic Line	"		Winter North Atlantic	"	

14 MAR 1961

M. H. Thamrin.

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.



EXCESS TWEEN DK. HT.
= 2700 - 2290
= 410 mm.
+ SHEATHING 65
TOTAL 475 mm.

SHEER

ALLOWANCE FOR EXCESS HEIGHT OF SUPERSTRUCTURES

AFT. :-

$$\begin{aligned} ① &= \frac{475}{3} \times \frac{61.2}{140} = 68 \\ ② &= \frac{475}{3} \times \frac{8.8}{140} = 30 \\ ③ &= \frac{2335}{3} \times \frac{8.8}{140} = 49 \\ &147 \end{aligned}$$

FORWARD :-

$$\begin{aligned} ① &= \frac{475}{3} \times \frac{59.695}{140} = 68 \\ ② &= \frac{475}{3} \times \frac{10.305}{140} = 35 \\ ③ &= \frac{2335}{3} \times \frac{10.305}{140} = 57 \\ &160 \end{aligned}$$

TOTAL SHEER ALLOWANCE
= 147 + 160 = 307 mm.

Draft Mtd.	Displacement incl. APP in KT	T/cm.K.T.
7.5 M	13,890	21.72 K.T.
8.0 M	14,990	22.05 K.T.
8.5 M	16,100	22.35 K.T.
9.0 M	17,240	22.70 K.T.

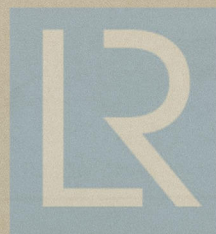
Trade of ship International

Names of sister ships Setia Budhi, Mitsubishi, Hiroshima No.144: H.O.S. "Tjokroaminto" N.K.K. (Yokohama) No.768.

Builder's name and yard number Hitachi Shipbuilding & Eng. Co., Ltd., Innoshima Shipyard, Japan No.3902

Owners The Government of the Republic of Indonesia.

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