

TIMBER.

LOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

For LONDON OFFICE ONLY

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Ship's Name M.E.S. "NARRA"	Official Number	Nationality and Port of Registry PHILIPPINES MANILA	Gross Tonnage 3,367 TONS.	Date of Build 1959.	Port of Survey KASADO, JAPAN
Moulded Dimensions: Length 97.000 m Breadth 15.000 m Depth 7.700 m					Date of Survey WHILE BUILDING
Freeboard Length 97.000					Surveyor's Signature S. BOWMAN
Moulded displacement at moulded draught = 85 per cent. of moulded depth 7176 LONG tons					Particulars of Classification +100A1 (Class cancelled)
Coefficient of fineness for use with Tables .747					

DEPTH FOR FREEBOARD (D). Moulded depth 7.700 Stringer plate 20 m/m020 Wood Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 7.720		DEPTH CORRECTION. (a) Where D is greater than Table depth (D-Table depth) R = $8.33 (7.720 - 6.467) 24.49 = 256$ (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) 15.000 Standard Round of Beam = $\frac{B \times 12}{50} =$ 300 Ship's Round of Beam = 300 Difference NIL Restricted to Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S}{L} \right) =$ NIL
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	Mean Covered Length (S)	Equivalent Enclosed Length (S _i)	Height	Height Correction	Effective Length (E)
Poop enclosed .490 m	25.380	25.380	2.200	-	25.380
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
Fore enclosed	9.770	9.770	2.100		9.770
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	35.150	35.150			35.150

Standard Height of Superstructure **2039 m** ✓

" " R.Q.D. **-**

Deduction for complete superstructure **929 m** ✓

Percentage covered $\frac{S}{L} =$ **36.24** ✓

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

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

Percentage from Table, Line A. **TIMBER = 58.95** ✓
 (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 = $929 \times 58.95 = 548$ m ✓

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	1062	1		1062	1102	1263	1		1263
$\frac{1}{8}L$ from A.P.	472	4		1888	469	487	4		1948
$\frac{2}{8}L$ "	118	2		236	124	124	2		248
Amidships	0	4		0	0	0	4		0
$\frac{3}{8}L$ from F.P.	236	2		472	247	247	2		494
$\frac{4}{8}L$ "	944	4		3776	957	957	4		3828
F.P.	2124	1		2124	2230	2230	1		2230
Total				9558					10011

Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{453}{18} = 25.17$ (if limited to maximum allowance of $1\frac{1}{2}$ ins. per 100ft.)

If limited on account of midship superstructure. **YES - NIL**

TABULAR FREEBOARD corrected for Flush Deck (if required) **1217** ✓

Correction for coefficient **1277** ✓

	+	-
Depth Correction	256	
Deduction for superstructures		548
Sheer correction		
Round of Beam correction		
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
	256	548
Summer Freeboard =	985	

7.72
985
6.735

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Depth to Freeboard Deck = **25.33** Ft.
 Summer freeboard = **3.23** Ft.
 Moulded draught (d) = **22.10** Ft.
 Keel allowance =
 Extreme draught =
 Deduction for Tropical freeboard and addition for $\frac{d}{4} = 5\frac{1}{2}$ " ✓
TIMBER Winter freeboard = $\frac{d}{4}$ inches = **7'4"** ✓
 Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.
 Displacement in salt water at summer load water line $\Delta = 6984$
 Tons per inch immersion at summer load water line $T = 31.793$
 Deduction = $\frac{\Delta}{40 T}$ inches = **5.49**" ✓
5'2" ✓

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

TIMBER Tropical Fresh Water Line above Centre of Disc 25'4" ✓	TIMBER Tropical Fresh Water Freeboard 2' - 33 1/4" ✓
" Fresh Water Line " 19'3 1/4" ✓	" Fresh Water " 2' - 9 1/4" ✓
" Tropical Line " 19'3 1/4" ✓	" Tropical " 2' - 9 1/4" ✓
" Winter Line " 7' ✓	" Winter " 2' - 10" ✓
" Winter North Atlantic Line " 4'1 1/4" ✓	" Winter North Atlantic " 5' - 0 1/4" ✓

B FEB 1959