

LLOYD'S REGISTER OF SHIPPING  
UNITED WITH THE BRITISH CORPORATION REGISTER  
SURVEYS FOR FREEBOARD.

22 DEC 1959

F-6292

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

## Metric units

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
M.S. "NARRA"	-	Philippines Manila	367 3,367 TONS	1959	Kasado, Japan
Moulded Dimensions: Length 97 M Breadth 15M Depth 7.7M to Centre of Rudder Stock Moulded displacement at moulded draught = 85 per cent. of moulded depth 7176 Long tons (excluding bossing) Coefficient of fineness for use with Tables 747					Date of Survey while building
					Surveyor's Signature S. Bowman
					Particulars of Classification +100A1 contemplated

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth ...	7.700	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	15.000 m
Stringer plate ...	20 m/m	8.33 (7.726 - 6.467) 24.49 = 256		Standard Round of Beam = $\frac{B \times 12}{50}$	300 m/m
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	None	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Ship's Round of Beam 300	300 m/m
Depth for Freeboard (D) =	7.720	If restricted by superstructures		Difference	NIL
				Restricted to	
				Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right)$	NIL

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed See Sketch	25.380	25.380	2,200		25.380	Standard Height of Superstructure 2.039 m
" overhang ...	-	-				" " R.Q.D. -
R.Q.D. enclosed ...	-	-				Deduction for complete superstructure 929
" overhang ...	-	-				Percentage covered $\frac{S}{L} =$
Bridge enclosed ...	-	-				" $\frac{S_1}{L} =$ 36.24
" overhang aft ...	-	-				" $\frac{E}{L} =$
" overhang forward	-	-				Percentage from Table, Line A. = 20.30
F'cle enclosed ...	9.770	9.770	2,100		9.770	(corrected for absence of forecastle (if required))
" overhang ...	-	-				Percentage from Table, Line B.
Trunk aft ...	-	-				(corrected for absence of forecastle (if required))
" forward ...	-	-				Interpolation for bridge less than 2L (if required)
Tonnage opening aft	-	-				Deduction = 929 x 2.03 = 189
" forward	-	-				
Total	35.150	35.150			35.150	

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate m/m	Effective Ordinate	S M	Product	
A.P. ...	1062	1	1062	1,102	1263	1	1263	Mean actual sheer aft =
1/8 L from A.P. ...	472	4	1888	496	487	4	1948	Mean standard sheer aft =
2/8 L " ...	118	2	236	124	124	2	248	Mean actual sheer forward =
Amidships ...	0	4	0	0	0	4	0	Mean standard sheer forward =
3/8 L from F.P. ...	236	2	472	247	247	2	494	Length of enclosed superstructure forward of amidships =
1/8 L " ...	944	4	3776	957	957	4	3828	" " aft of " =
F.P. ...	2124	1	2124	2,230	2230	1	2230	
Total			9558				10011	

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75-S}{2L} \right) = \frac{453}{18} \left( \frac{75-1812}{5688} \right) = -14 \text{ mm}$

If limited on account of midship superstructure. YES - NIL

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard.		Deduction for Fresh Water.		TABULAR FREEBOARD corrected for Flush Deck (if required)	
Depth to Freeboard deck = 25.33		Displacement in salt water at summer load water line		Correction for coefficient	
Summer freeboard = 4.42		$\Delta = 6984$		Depth Correction ...	256
Moulded draught (d) = 20.91		Tons per inch immersion at summer load water line		Deduction for superstructures ...	189
Keel allowance =		T = 31.793		Sheer correction ...	
Extreme draught =		Deduction = $\frac{\Delta}{40 T}$ inches		Round of Beam correction ...	
Deduction for Tropical freeboard and addition for Winter freeboard = 5.23		= 5.49		Correction for Thickness of Deck amidships ...	
Addition for Winter North Atlantic Freeboard (if required) = 5 1/4 + 2 = 7 1/4		= 5 1/2		Other corrections, scantlings, etc. ...	
				Summer Freeboard = 1344	

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

Tropical Fresh Water Line above Centre of Disc	10 3/4	Tropical Fresh Water Freeboard	3 1/4
Fresh Water Line	5 1/2	Fresh Water	3 1/2
Tropical Line	5 1/2	Tropical	3 1/2
Winter Line below	5 1/4	Winter	4 1/4
Winter North Atlantic Line	7 1/4	Winter North Atlantic	5 1/4



M/S. Narra.

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.

LONG TONS

MLD. DRAUGHT	T.P.1"	EXT. DISPLACEMENT
6.30 M	31.72	6893
6.35 M	31.77	6955
6.40 M	31.82	7018

Poop.  
length at side = 24.380 ✓  
+  $\frac{2}{3} \times 1.500$  ✓ = 1.000 ✓  
equiv. = 25.380 ✓

Actual ht. of poop = 2.200 ✓  
Standard " " = 2.039 ✓  
excess = .161 ✓  
 $\frac{1}{6} = 16.167 \text{ mm}$  ✓

Sheer at A.P. = 1102 ✓ + 161 ✓ = 1263 ✓  
Sheer at  $\frac{1}{6}$  = 469 ✓ + 161 ✓  $\left( \frac{8.213}{24.98} \right)^2 = 487 \text{ ✓}$   
18 ✓

Trade of ship ..... International - Cargo and timber deck cargo. ....

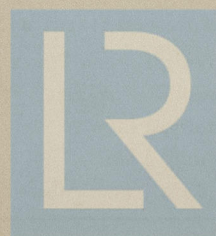
Names of sister ships "MOLAVE" & "YAKAL" (A.B. Class) .....

Builder's name and yard number Kasado Dockyard Co., Ltd. ....

Owners Ace Lines Inc., Philippines .....

Fee £ ..... to be charged with First Entry.

Midship Section. (2 off)  
Profile & Decks  
Lines Plan  
Actual Sheer for Freeboard



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Lloyd's Register  
Foundation