

DISCLOSED SECTION 30

LLOYD'S REGISTER OF SHIPPING.

(CLASSIFICATION SOCIETY RECOGNISED BY THE JAPANESE GOVERNMENT)
 SURVEY FOR FREEBOARD.

Ship's Name M.V"FLORIDA MARU"	Port of Registry Kobe	Official No. -	No. in R.B. -	Gross Tonnage 5832	Tonnage under Fbd. Deck=V 5321.5	Date of Launch 27th.Oct. 1924	Date when Built -	Report Number -
Owners Kawasaki Dockyd Co.Ltd		Builders Kawasaki Dockyd Co.Ltd.		Yard No. 484		Port of Survey Kobe		
Type of vessel 2 Decks & P.B.& F Full Scantling		Particulars of Classification * 100 A.1.		Position of Freeboard Deck Upper Deck.		Date of Survey While Building		
Name of Surveyor H.J.Cox & H.D.Buchanan								

PRINCIPAL DIMENSIONS.

Length between perpendiculars 405 ft.	Breadth Moulded = B _o 53.00 ft.	Depth Moulded to Fbd. deck = D _o 34.0 ft.
Length on Load Line 403 ft.	Thickness of Side plating in ins. x ³ / ₁₂ .64x12 + .16 ft.	Round of Beam + 1.10 ft.
	* (2/12 if plating is jogged)	Depth from base line to top of inner bottom plating or ordinary floors 35.10 ft.
Length for Freeboard = L 403 ft.	Breadth for Freeboard = B 53.16 ft.	Depth for Tonnage Coef. (Art. 39) = D 31.39 ft.

CORRECTION TO TONNAGE (Art. 39)

Tonnage between top of ceiling on double bottom or ordinary floors as fitted and standard level of top of ceiling (v) = **+ 39.8** tons.

DEPTH OF DOUBLE BOTTOM (Art. 39)

Depth of Actual Double Bottom (including plating) or Ordinary Floors **44.52** ins.
 Depth of Standard Double Bottom (including plating) or Ordinary Floors **44.52** ins.
 Difference **0**
 x ¹/₁₂ = **0** = d.

SHEER (Arts. 39 and 60-63)

Ordinate	Height of Sheer in inches.	S.M.	Products
1	50.63	1	50.63
2	19.50	4	78.00
3	4.88	2	9.76
4	0	4	0
5	8.38	2	16.76
6	38.50	4	154.00
7	25.81	1	95.81

Sum of Products = **404.96**

Mean Height of Sheer = S = $\frac{\text{Sum of Products}}{18} = \frac{404.96}{18} = \mathbf{22.50}$ ins.

Standard Mean Height = S_o = $\frac{1}{3}(L/10 + 10) = \frac{1}{3}(403/10 + 10) = \mathbf{16.77}$ ins.

Difference **5.73** x ¹/₁₂ = **.48** ft. = d₁

Correction (Arts. 60-63) = $\frac{3}{4}(1 - e)(S_o - S) = \frac{3}{4}(1 - e)(16.77 - 22.50) = \mathbf{-3.12}$ ins.

FRAMING (Art. 39)

Between Frames	Length in ft.	Depth of Frame in ins.	Thickness of Sparring in inches	Total depth in inches	Products ft. x inches
74-94	44.17	10"	-	10	441.70
else-where	358.83	10"	2	12	4305.96
Note:- Length of peaks less than $\frac{L}{12}$					

Sum of Products = **4747.66**

Sum of Products = Actual Mean Depth of framing **11.78** ins.
 Length of Ship

Standard " " " " **8.50** ins.

Difference **3.28** x ²/₁₂ = **.55** = 2b

COEFFICIENT OF FINENESS (Art. 37 or 43)

$$\frac{100(V + v)}{L(B - 2b)(D + d + d_1)} + n$$

$$\frac{100(5321.5 + 39.8)}{403(53.16 - .55)(31.39 + 0 + .48)} + 0 = \mathbf{.79}$$

$$\text{or } \frac{35 \times \Delta}{L \times B_o \times d_o} + 0.04$$

$$= \text{---} + 0.04 =$$

See Plans

Sketch showing arrangement and height of double bottom or ordinary floors and of superstructures (unless complete plans are submitted).

See Plans

2 1/2" Ceiling on Battens under Hatchways only
 Standard depth of c.d.b. = 44.52 + 2 1/2" = 47.02"
 Actual " " " = **44.52**

Diff. **2.5** ins.

Total actual area of tank top = 12480 sq.ft.
 Correction = $124.80 \times 2 = \mathbf{-24.96}$ tons

C.d.b. abaft machinery space = 62.52 ins deep
 Standard **44.52** "

Diff. = **18** ins.

Area affected = **4323** sq.ft.

Correction to tonnage = $4323 \times 1.5 = \mathbf{+64.8}$ tons
 Nett Correction = **+39.8**

Sketch of deck erections showing openings in end bulkheads and position and arrangement of closing appliances. Hatchways, and Engine and Boiler openings also to be shown. Extent and thickness of wood deck or composition to be shown in red ink, and extent and thickness of ceiling (and battens) on tank top to be given.

WOOD DECK (Arts. 5 and 6)

	Mean Length in ft.	Thickness in ins.	Products
Forecastle	31.0		
Bridge	117.04	35-.48	
Poop or R.Q.D.	27.66	-3.02	530.61
Open Deck, fwd.			
.. .. aft.			
Total length = l =	175.70		Sum of Products = 530.61
Sum of Products = t =		ins. ;	Sum of Products = t ₁ = 1.32 ins.

CORRECTION FOR DEPTH & CORRECTION FOR FREEBOARD.

If no sheathing fitted amidships = t₁ = \pm 1.32 ins. (Arts. 6 and 57 p. 1)
 If sheathing is fitted amidships = (t - t₁) = \mp ins. (Arts. 6 and 57 p. 2)
 * Note: Use the upper sign in correction for depth and the lower sign in correction for freeboard.

DEPTH TO USE IN FREEBOARD TABLE.

Depth moulded = 34 ft. 0 ins.
 Thickness of Stringer Plate = .48 ..
 Thickness of Wood Deck Amidships = 34 - 0.48 ..
 Correction for partial wood deck = \pm 1.32 ..
 Depth to use in Freeboard Tables = 34 ft. 1.80 ins. = D₁ = 34.15 ft.

SUPERSTRUCTURES.

HEIGHT (Arts. 46-48)
 Standard Height = (0.018 L + 1.2) ft. = 7.5 .. ft.

	Complete Superstructure	Forecastle	Bridge	Poop or R.Q.D.
Actual		7.38	7.39	7.38
Standard		7.5	7.5	7.5

CLOSING APPLIANCES (Arts. 50 and 54)

	Forecastle	Bridge	Poop or R.Q.D.
Means of Closing	Hinged steel door	Boards in	Hinged steel doors
openings in bulkhead	Intact	Riveted channels	N.W.T.
Corresponding Class	II	I	II

EFFECTIVE LENGTH (Arts. 55 and 56)

	Mean Length	Coef. Art. 56	Height Coef.	Products
Forecastle closed part	30.01	1.00	.98	29.41
.. open part	.99	.75	.98	.73
Bridge closed part	116.13	1.00	.98	113.81
.. open part fwd.				
.. .. aft.	.91	.75	.98	.67
Poop closed part	27.66	1.00	.98	27.11
.. open part				
Total Effective Length =	171.73			

Total Effective Length = 171.73
 Length of Vessel = r = .43
 Corresponding Coef. in Table (Art. 49) = e = .275
 Reduction for Complete Superstructure = 39 .. ins.
 Product = 10.73 .. ins.
 Correction for Superstructures = 10.73 .. ins.

EFFECTIVE LENGTH (Shelter Deck Vessels Arts. 87-92)

$l + \frac{1}{2}(1-p)(L-l) =$.. ft.
 (* See Art. 90)

CORRECTION FOR PROPORTIONS L/D (Art. 58)

When D₁ is less than 35 ft. = $\frac{D_1 + 16}{300} (1 - e/2) (L - 12 D_1)$
 greater than 35 ft. = $0.17 (1 - e/2) (L - 12 D_1)$
 [Note e = 1.0 if more than 6/10 covered] = $\frac{50.15 \times 863 \times 6.80}{300} = -.98$.. ins.

Are the Engine and Boiler openings covered by a Bridge, Poop, Raised Quarter Deck or enclosed by a strong steel deck house? **yes**

If openings are not so protected give thickness of plating and scantlings and spacing of stiffeners of Casings **-**

Are suitable means provided for closing all openings in them in bad weather? **yes**

State the vertical distance from base line at top of keel to lower edge of lowest side scuttle **All above freeboard deck**

State if there are any cargo ports or scuppers through sides of vessel below upper deck **no**

State any special features in the construction of the vessel **-**

Sister vessels ..

Fee, Yen ..; Depth of Keel .. ins.; Draught (btm. keel) .. ft. .. ins.

DETAILS OF CONSTRUCTION OF WEATHER DECK HATCHWAYS.

	No. 1	No. 2	Bridge No. 3	No. 4	No. 5	No. 6
Length and Breadth	30'11"x18'0"	33'1 1/2"x18'0"	17'8"x24'0"	37'6 1/2"x18'0"	33'1 1/2"x18'0"	
Height above deck and thickness of side and end coaming	30" x .44 5 Steel	30" x .44 6 Steel	30" x .44 3 Steel	30" x .44 7 Steel	30" x .44 6 Steel	
Shifting Beams	16 1/2" x .36" 4x3x.44	15 1/2" x .36" 4x3x.44	14"x.34" 6x3 1/2"x.44	15 1/2" x .36" 4x3x.44	15 1/2" x .36" 4x3x.44	
*Fore and Afters	None	None	None	None	None	
Thickness of hatches		All 3" thick				
Remarks						

* When the fore and afters are of wood the depth should be stated from the underside of hatches.

LONGITUDINAL MODULUS.

Height of Assumed Axis above base = .. Section at ..

BELOW ASSUMED AXIS.						ABOVE ASSUMED AXIS.					
Item	Scantlings	Area	Lever	Moment	Mt. of Inertia	Item	Scantlings	Area	Lever	Moment	Mt. of Inertia
Flat Keel						Top Deck Str.					
" "						" " "					
Centre Girder						" " Plating					
C.G. btm. ang.						" " "					
C.G. top angles						" " "					
T.T. Cr. Strake						" " Str. Ang.					
T.T. plating						2nd Deck Str.					
" "						" " Plating					
" "						" " "					
" "						" " "					
" "						" " Str. Ang.					
Margin Plate						3rd Deck Str.					
" "						" " Plating					
" Angle						" " "					
Shell Strake A						" " "					
" " B						" " Str. Ang.					
" " C						Sheerstrake					
" " D						Strake below					
" " E						Shell Strake					
" " F						" "					
" " G						" "					
Totals below assumed axis						Totals above assumed axis					
" above assumed axis											
Sum or Difference											

Moment of Inertia about assumed axis = 2

Neutral Axis above assumed axis (x) = ..
 Correction = (Total Area x x² x 2) = - ..
 Moment of Inertia about Neutral Axis ..
 Distance from Neutral Axis to top of Strength deck beam at side = .. ft. Keel

MODULUS OF SECTION = ..

DRAUGHT PERMITTED BY LONGITUDINAL STRENGTH (Arts. 81-86) = $\frac{\text{Actual Modulus}}{f. B_0} =$..

TRANSVERSE MODULUS.

Minimum Side Plating (Art. 77) $\frac{0.105 \times}{100} + 17 =$..; Standard Frame Spacing (Art. 78) = $\frac{17}{17} =$..

Actual Side Plating .. = ..; Actual Frame Spacing .. = ..

If actual frame spacing exceeds the standard $\sqrt{\frac{\text{Actual frame spacing}}{\text{Standard frame spacing}}}$ t = ..

Moulded Geometric Breadth (d) = .. H = .. f₁ = ..
 t = .. K = .. f₂ = ..
 d - t = .. f₁ + f₂ = ..

Standard I/y = $\frac{s(d-t)(f_1 + f_2)}{1000} =$..

Frame in ship = .. at .. spacing, I/y = ..

DRAUGHT PERMITTED BY TRANSVERSE STRENGTH = $\frac{I/y \times 1000}{s(f_1 + f_2)} + t =$..

