

DISCLOSED SECT Copy for London Office
J. 28

LLOYD'S REGISTER OF SHIPPING.
(CLASSIFICATION SOCIETY RECOGNISED BY THE JAPANESE GOVERNMENT)
SURVEY FOR FREEBOARD.

Ship's Name AKIBASAN MARU	Port of Registry - Kobe	Official No. -	No. in R.B. -	Gross Tonnage 3922.5	Tonnage under Fbd. Deck = V	Date of Launch 10th. Sept. 1924	Date when Built Building	Report Number 29
Owners Mitsui Bussan Kaisha		Builders Mitsui Bussan Kaisha			Yard No. 64	Port of Survey Kobe		
Type of vessel Poop, Bridge, & Focle 2 Decks	Particulars of Classification Full Scantling * 100 A1.		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..... 375'0" ft.	Breadth Moulded = B _o 50.0 ft.	Depth Moulded to Fbd. deck = D _o 30.00 ft.
Length on Load Line..... 375'0" ft.	Thickness of Side plating in ins. x $\frac{3}{12}$ * $\frac{11}{16}$ x $\frac{3}{12}$ + .17 ft.	Round of Beam 11 3/4" + .98 ft.
Length for Freeboard = L..... 375'0" ft.	Breadth for Freeboard = B..... 50.17 ft.	Depth from base line to top of inner bottom plating or ordinary floors..... 30.98 3.50 ft.
		Depth for Tonnage Coef. (Art. 39) = D..... 27.48 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) = **- 34.0** tons.

DEPTH OF DOUBLE BOTTOM (Art. 39) Tank Margin drops

Depth of Actual Double Bottom
(including plating) or Ordinary Floors.....**42.0** ins.
Depth of Standard Double Bottom
(including plating) or Ordinary Floors.....**42.5** ins.
Difference.....**-.5**
x $\frac{1}{12}$ = **-.04** = d.

SHEER (Arts. 39 and 60-63)

Ordinate	Height of Sheer in inches.	S.M.	Products
1	84.00	1	84.00
2	36.18	4	144.72
3	9.44	2	18.88
4	0	4	0
5	1.18	2	2.36
6	15.56	4	62.24
7	42.81	1	42.81
Sum of Products =			355.01
Mean Height of Sheer = S = $\frac{\text{Sum of Products}}{18}$ = 19.72 ins.			
Standard Mean Height = S _o = $\frac{1}{3}(L/10 + 10)$ = 15.83 ins.			
Difference..... 3.89 x $\frac{1}{12}$ = .32 ft. = d,			
Correction (Arts. 60-63) = $\frac{3}{4}(1 - e)(S_o - S)$ = $\frac{3}{4} \times .648 \times 3.89$ = -1.89 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
0 - 10	20	6	-	6	120.00
10 - 16	16.5	9	2	11	181.50
16 - 51	96.25	11	2	13	1251.25
51-77	71.5	11	-	11	786.50
77 - 111	93.5	11	2	13	1215.50
111- 136	56.25	10	2	12	675.00
136- F.P	21.00	7	-	7	147.00
Sum of Products =					4376.75
Sum of Products = Actual Mean Depth of framing..... 11.67 ins.					
Length of Ship..... 8.00 ins.					
Standard „ „ „ „ 8.00 ins.					
Difference..... 3.67 x $\frac{2}{12}$ = .61 = 2b					

COEFFICIENT OF FINENESS (Art. 39 or 43)

$$\frac{100(V + v)}{L(B - 2b)(D + d + d_1) + n} + 0 = .75$$
$$\frac{100(3922.5 - 34)}{375(50.17 - .61)(27.53 - .04 + .32)} = .75$$

$$\text{or } \frac{35 \times \Delta}{L \times B_o \times d_o} + 0.04 =$$
$$= \frac{35 \times 11.67}{375 \times 50.17 \times 8.00} + 0.04 =$$

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 2 Battens throughout ex. in Machy space & Deep Tank
No ceiling in Machy space and D.T. = $\frac{71 \times 41 \times .25}{100}$ = **- 7.3** tons

Drop of Tank margin = **5 11/32"**
Standard depth = **45.0**
Actual Mean = **42.33**
Difference **2.67 = .22'**
375 x 41 x .79 x .22 = - 26.7 tons
100 total = - 34.0 tons

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.

006831-006844-0048

© 2020

Lloyd's Register
Foundation

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 **above freeboard deck**

State if there are any cargo ports or scuppers through sides of vessel below upper deck **n_o**

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

Sister vessels

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

yes

-

rather ? yes

lowest side scuttle above freeboard deck

low upper deck no

-

draught (btm. keel) ft. ins.

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. btn. ang.						" " "					
C.G. top angles						" " "					
T.T. Cr. Strake						" „ Str. Ang.					
T.T. plating						2nd Deck Str.					
" "						" " "					
" "						" " "					
" "						" „ 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											

2

Moment of Inertia about assumed axis

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) = $\frac{\text{Actual Modulus}}{600}$ =

TRANSVERSE MODULUS.

Minimum Side Plating (An. 77) $\frac{0.105 \times +17}{100} = \dots$; Standard Frame Spacing (An. 78) $= .025 \times +17 = \dots$

Actual Side Plating $= \dots$; Actual Frame Spacing $= \dots$

If actual frame spacing exceeds the standard $\sqrt{\left(\frac{\text{Actual frame spacing}}{\text{Standard frame spacing}} \right) t} = \dots$

Moulded Geometric Draught (d) = \dots H = \dots f₁ = \dots

t = \dots K = \dots f₂ = \dots

d - t = \dots f₁ + f₂ = \dots

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

Frame in ship = \dots at \dots spacing, I/y = \dots

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

006831-006844-0048