

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.—STEAM SHIPS.

REGULATIONS RELATING TO ALL STEAM SHIPS ~~WITHER KEEL OR DECKED OR~~ WITH  
 ALLANT FORECASTLES, SHORT POOPS AND BRIDGE HOUSES DISCONNECTED, ~~OR~~  
~~OR GALLANT FORECASTLES HAVING LONG POOPS, OR RAISED QUARTER DECKS~~  
~~CONNECTED WITH BRIDGE HOUSES, OR OTHERWISE~~

Port of Survey NAGASAKI.  
 Date of Survey 26th October, 1921.  
 Name of Surveyor R. Crawford.

Ship's Name. <u>ARUNA MARU</u>	Port of Registry and Nationality. <u>Tokio. Japanese.</u>	Official Number.	Gross Tonnage. <u>10,421</u>	Date of Build. <u>1922.</u>	Particulars of Classification. <u>*100AI, Contemplated.</u>
-----------------------------------	--	------------------	---------------------------------	--------------------------------	--

LENGTH.	BREADTH.	DEPTH.	UNDER DECK TONNAGE.
<u>495</u>	<u>62.27</u>	<u>34.16</u>	<u>8392</u>
<u>494.3</u>	Frame Depth 12 Rule „ 7 5	Ceiling <u>Fitted</u> Sheer + <u>.84</u>	Peak } Tanks } <u>Incl</u>
<u>494.3</u>	<u>61.43</u>	<u>35.0</u>	<u>8392</u>

Moulded Depth as measured..... 37' - 0"  
 Addition for Keel below base line for draught record... 2. 1/8 inches.

NOTE — If the depth is measured when vessel is afloat, the details of measurement should be reported.

CORRECTION FOR LENGTH.

Length of Ship on Loadline.....	<u>494.3</u>
Length in Table .....	<u>444.0</u>
Difference .....	<u>50.3</u>
Correction for 10ft., Table A. ....	<u>1.7</u> Table C.
× Difference divided by 10 .....	<u>8.55</u> (if required.)
If 1/10ths length covered divide by 2	<u>4.27</u> = <u>+ 4 1/2"</u>

CORRECTION FOR IRON DECK.

Proportion covered, if less than 7/10ths length covered .....

Thickness of usual wood deck, less stringer .....

3 1/2" wood sheathing.

CORRECTION FOR ROUND OF BEAM.

Breadth at Gunwale amidships.....	<u>62.0</u>
Round of Beam .....	<u>15 1/2</u>
Normal round.....	<u>15 1/2</u>
Difference .....	/ ÷ 2 = .....
Proportion of Deck uncovered (Para. 19) .....	

NOTE — The round of beam should be reported on the full breadth of vessel at the gunwale.

of fineness..... .789  
 ation necessary }  
 (a) to (e)]\* } .02 C.D.B.  
 is corrected ..... .76 77

..... 119 } 180 ÷ 2 = 90 ...Mean  
 ipost ... 61

the length from { Stem 67  
 Sternpost 34 } 101 ÷ 2 = 50 1/2 ...Mean  
 -- -- .55 = 90

n Sheer ..... 90

an Sheer [Table, Para. 18] ..... 59.5 Correction  
 Difference..... 30.5 ÷ 4 =  
 as Para. 18 (f) ..... - 7 1/2"

eer { At front of bridge house.....  
 hips {  
 )] At after end of forecastle .....

eer }  
 (d) } ÷ 2 = /  
 vered ..... Correction

ALLOWANCE FOR DECK ERECTIONS:—

able C... (10' - 1 1/2") - (3' - 2") ..... 7' - 2 1/2"

r Length, if required (Para. 12, 13, and 14) ..... ✓

Table A, corrected for sheer, and for length, if required (Para. 12, 13, and 14) }  
 ..... 9' - 9 1/2"  
 ..... 2' - 6 1/2"  
 below..... 43 %  
 = 13.11"

r R. Q. Dk. if engine and boiler openings not by bridge house (Para. 11)	/	
Deck Erections .....		
Length.	Length allowed.	Height.
..... <u>55.5</u>	<u>55.5</u>	<u>8' - 1"</u>
..... <u>186.0</u> ( <u>94' Closed</u> )	<u>163.0</u>	<u>9' - 0"</u>
Dk.....		
..... <u>93.8</u>	<u>93.8</u>	<u>8' - 1"</u>
..... <u>335.3</u>	<u>312.3</u>	= <u>.63</u>
ip..... <u>4954.3</u>	<u>4954.3</u>	
percentage } 2, 13, or 14) }	<u>43 %</u>	

Freeboard, Table A .....	<u>10' - 4 1/2 5"</u>
Correction for Sheer .....	<u>- 7 1/2"</u>
	<u>9' - 9 1/2"</u>
Correction for Length .....	<u>+ 4 1/2"</u>
	<u>10' - 1 1/2 3/4"</u>
Allowance for Deck Erections .....	<u>- 1' - 1"</u>
	<u>9' - 0 1/2 3/4"</u>
Correction for Round of Beam.....	/
Correction for fall in Sheer (if any).....	/
Correction for Iron Deck (if required) .....	/
Additions for non-compliance with provisions of Para. 11 (d) and (e) †	
Other Corrections (if any) <u>To correspond to subdivision load line of 28' - 0" moulded,</u>	<u>+ 3 1/2 3"</u> <u>9' - 3 3/4"</u>
Winter Freeboard .....	
Summer Freeboard .....	
Indian Summer Freeboard .....	<u>9' - 3 3/4"</u>
N. A. Winter Freeboard .....	

Correction necessary because clearside amidships, measured in accordance with the Statute is not taken at the intersection of the ~~wood or iron~~ deck with side. 1 3/4"

Winter Freeboard from deck line .....

Summer " " " " .....

Indian Summer " " " " .....

N. A. Winter " " " " .....

LD recommended amidships from centre of Disc to top of Statutory Deck Line, ~~Wood (Iron) Deck~~ — For all seasons, 9' - 5 1/2"

Fresh Water Line	above centre of Disc	.....	<u>7"</u>
Indian Summer Line	" " "	.....	/
Winter Line	below " " "	.....	/
Winter North Atlantic Line	" " "	.....	/

kin planking, or ceiling are of unusual thickness the breadth of vessel to inside could be reported if possible.  
 ing an allowance for deck erections under Para. 11 where the sheer drops abaft amidship of the R.Q.D. is to be taken from the level of the top of the amidship beam.  
 vessels the total standard mean sheer means the sheer measured at the stem and stern-ends having poops and forecastles, it means the sheer measured at points distant of the vessel's length from stem and stern-post.

† State dimensions of freeing port area on back of this form.  
 ‡ The Surveyor should state whether the fall in sheer as reported is measured relatively to the straight line of keel or to the water line. If measured relatively to water line the vessel's draft at time of survey, and also the usual load draft forward and aft should be reported.

Do all the Frames extend to the top height in the Poop? **Yes** / Raised Quarter Deck? **/** Bridge House? **Yes** / Forecastle? **Yes** /  
 To what height do the Reverse Frames extend? **To 2nd deck, except in No.1, 3 & 4 holds.**  
 Has the Poop or Raised Quarter Deck an efficient Iron Bulkhead at the fore end? **Yes.** /  
 Give particulars of the means for closing the openings in Bulkhead **W. T. Steel Doors.** /  
 Is the Poop or Raised Quarter Deck connected with the Bridge House? **No** / Has the Bridge House an efficient Bulkhead at the fore end? **Yes.** /  
 Give particulars of the means for closing the openings in Bulkhead **No openings.** /  
 What is the thickness of the Bridge Front plating? **.40"** / and Coaming plate? **.44"** /  
 Give scantlings and spacing of the Stiffeners **9' x 3 1/2" x .64 B.A. Spaced 33" apart.** /  
 Are bracket plates fitted at each end of the Stiffeners? **Yes.** / Are hor'l. brackets fitted connecting Bridge Bulk'd. with Bulwarks? **Yes.** /  
 Has the Bridge House an efficient Iron Bulkhead at the after end? **Yes.** /  
 How are the openings closed? **Storm boards half height in riveted steel channels.** /  
 Is the Forecastle at least as high as the main or top-gallant rail? **Yes.** / Has the Forecastle an efficient Iron or Wood Bulk'd. at after end? **Yes.** /  
 Are the Engine and Boiler openings covered by a Bridge, Poop, Raised Quarter Deck, or enclosed by a Strong Iron or Steel Deckhouse? **Bridge and also steel superstructures fitted.** /  
 If the openings are not so protected are the exposed parts of the Casings efficiently constructed? **/**  
 Give thickness of plating; scantlings and spacing of Stiffeners. **/**  
 What is the height of the exposed Casings **E = 8'-6" above Boat Dk.** / Are suitable means provided for closing all openings in them in bad weather? **/**  
**B = 2'-3" "**  
 Are the Weather Deck Hatchways efficiently constructed and at least equal to the requirements of Section 28 of the Rules for 1904-5? Give particulars below:— **Yes.**

Position and Size	No.1 Ford 20'3"x18'0"		No.2, 30'x 20'		No.3, 12' x 16' on bridge.		No.4, 15'x 20'		No.5, 24x20.No.6, 18x20!	
	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Rule.	Ship.	Ship.
COAMING. Height above top of DECK	30		30		30		30		30	30
Thickness	Sides.....	.44	.50	.44	.44	AS	.44	AS	.44	.44
	Ends.....	.44	AS	.44	AS	.44	AS	.44	AS	.44
SHIFTING BEAMS OR WEB PLATES.	Number.....	3	Approved	5	Approved	2	Approved	2	Approved	4
	Section and Scantlings.....	16"-8"x.36	18"-9"x.36	Angles	11"-6"x.34	Angles	18"-9"x.36	Angles	17 1/2"-8 3/4"x.36	12 1/2"-6 1/4"x.36
	Material.....	Angles 4x3x.44	Angles 4x3x.44	Angles 3 1/2x3x.50	Angles 4x3x.44	Angles 4x3x.44	Angles 4x3x.44	Angles 4x3x.44	Angles 4x3x.44	Angles 4x3x.44
* FORE AND AFTERS.	Number.....		Do		Do		Do		Do	Do
	Section and Scantlings.....	None								
	Material.....									
HATCHES Thickness.....	3"		Do		Do		Do		Do	Do
Remarks.....	Good									

\* The depth of Fore and Afters should be stated from the underside of the hatches in all cases.

(If the sill of the lowest side scuttle will be less than 6 inches above the Indian Summer Load Line if assigned under the tables, state vertical distance from top of deck at side amidships to lower edge of lowest side scuttle.)

The following information is to be given in all Cases of vessels dealt with under Paras. 11, 12 (under 15 feet Moulded depth) and under Shelter Deck Rules.

What is the thickness of the Bridge Sheerstrake? **/** Strake between Main and Bridge Sheerstrakes? **/**

Delete the words **{** The Crew are, are not, berthed in the bridge house. **}**  
 that do not apply **{** The arrangements to enable them to get backwards and forwards from their quarters are, are not satisfactory. **}**

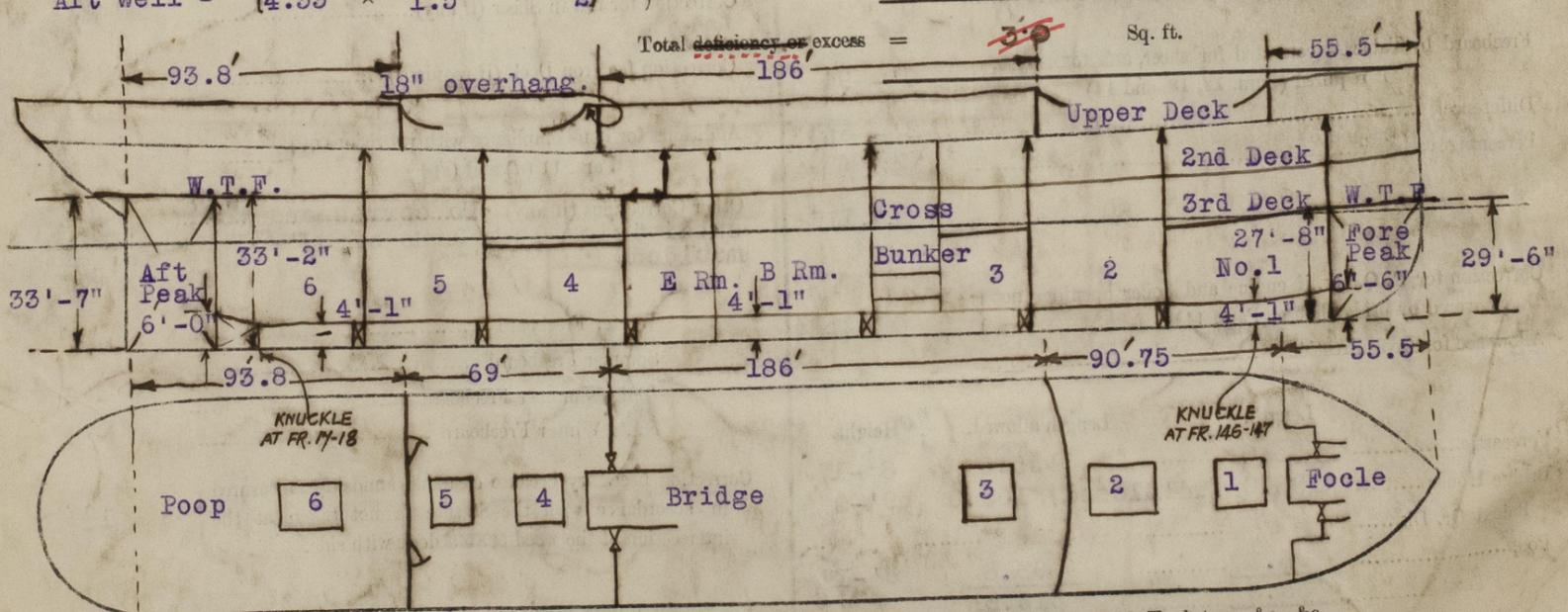
Length of Bulwarks in well **159.75 feet.**

Area of Freeing Ports required by Para. 11 (e) each side of vessel = **32.50** Sq. ft.

Ft. Tenths. Ft. Tenths. No. } Freeing Ports = **35.50** Sq. ft.  
 (each side of vessel)

Fore well = 4.33 x 1.5 x 3  
 Aft well = 4.33 x 1.5 x 2

Total deficiency or excess = **3.5** Sq. ft.



State any special features in the construction of the Vessel **Channel framing. Spaced 36" apart, with rev. Fr. to 2nd Dk.**

Formal request form and report on requirements of Board of Trade Instructions relating to the construction of Passenger Steamships are herewith enclosed.

Owners **Nippon Yusen Kabushiki Kaisha.,** (Sister Vessel to s/s "Hakone Maru" Report No.1342.)

Address **Tokio. Japan.**

Fee £ **Yen. 150:00**

Received by me **27/2/22**

*B. Crawford*



© 2021

Lloyd's Register Foundation