

STEEL ~~STEAMER~~ MOTORSHIP.

Received at London Office... 23 JUL 1934

State if Report has been sent on the Freeboard of the Vessel *no*State if Report is sent on the Machinery of the Vessel *yes*Date of completion of report *6-7-34*Port of *Kobe*No. *8656*Survey held at *Kobe*Date First Survey *6-9-33*Last Survey *23-6-34*

19

On the *STEEL SCREW MOTOR VESSEL**Tōa Maru**Machinery off Single*State Type *Full Scantling Vessel*State Type of Erections *Truss, Bridge*TONNAGE under Tonnage Deck *9037.64*CLASS **100A1*State if with freeboard *—*Built at *Kawasaki Dockyard*

Do. of space or spaces between Tonnage Dk. and Upper Dk.

Length from fore part of stem to after part of stern post on summer L.W.L. See Sec. 3 (1a) *L 500'-0"*Launched *2 April 1934* Yard No. *572*Total *9037.64*Breadth (greatest moulded) *B 65'-0"*Builders *The Kawasaki Dockyard Co. Ltd.*Gross Tonnage *10052.14*Depth, at middle of length from top of keel to top of beam at side of uppermost continuous deck. See Sec. 3 (1c) *D 37'-0.8"*Owners *The Line Shoji Kak. Kaisha*Register Tonnage *5823.23*1st Longitudinal Number (L x D) *= 18523*

Managers

(Where necessary to be entered in Reg. Book.)

REGISTERED DIMENSIONS.

Length *500.00*

Framing Depth "d," at middle of length. See Sec. 3 (1d)

Proportions—Depth to Length—Uppermost continuous deck to top of keel *13.49*Breadth *65.0*Do. Long Bridge to top of keel *11.16*Depth *37.0*

Draught Moulded

Residence *N*Port of Registry *MAKAMAZURU*

If surveyed while building, afloat, or in dry dock

Building

FRAMES, DOUBLE BOTTOM AND BEAMS.

Longitudinal framing in oil tanks

	INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.		INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.
LONGITUDINAL	BOTTOM SIDES				
FRAMES, Spacing amidships <i>in Fore Hold</i>	<i>31 1/2 30</i>		Bracket Floors, Frame		
" " from 3 length to Collision bulkhead <i>TRANSVERSE</i>	<i>27</i>		" " Reversed Frame		
" " in peaks	<i>24</i>		" " Vertical Struts		
in Machinery Space	<i>3 1/2</i>		Centre Girder, depth and thickness amidships <i>AFT</i>	<i>48.5 43 49</i>	<i>63.49</i>
SIDE FRAMING.			" " top Angles	<i>100 100 13</i>	
Frame Amidships, Angle, <i>E or F</i>	<i>280 90 127</i>		" " bottom Angles	<i>150 150 15</i>	
" " Eng. Room <i>E</i>	<i>12 3 1/2 58/60</i>		Side Girders, No. each side and thickness <i>AFT</i>	<i>As Per Plan</i>	
" " Extends up to <i>2nd Deck</i>			Margin Plate depth (excl. of flange) and thickness	<i>.57</i>	
Reversed Frame Amidships, Angle			" " Vertical Angle to Tank side	<i>90 90 13</i>	
" " Extends up to...			Bracket abaft 1/2 len. from stem <i>E.R.</i>	<i>Double</i>	
Depth of Framing Girder			" " Vertical Angle to Tank side		
Frames in Uppermost Continuous tween Decks, Angle, <i>E or F</i>	<i>230 90 11 3</i>		Bracket forward 1/2 len. from stem		
" " Second tween Decks, Angle, <i>E or F</i>			Gussets, spacing and scantling abaft 1/2 len. from stem	<i>Every Frame Continuous .50</i>	
" " Third " " " "			Gussets, spacing and scantling forward 1/2 len. from stem		
Framing in Peaks, Angle or <i>E</i>	<i>9 3 1/2 48</i>		Tank Side Brackets, height above base line at toe of Frame and thickness	<i>.50</i>	
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	<i>7/8" As approved</i>		INNER BOTTOM PLATING, in E.R.		
State if Frame Joggled	<i>yes</i>		Breadth and thickness of Middle Line Strake	<i>56.5 .57</i>	
PANTING ARRANGEMENTS (Sec. 7), state system and particulars	<i>Web frame</i>		Thickness of remainder in <i>Holds</i>	<i>.57</i>	
STRENGTHENING OF BOTTOM FORWARD. State Particulars	<i>3 Side Stringers below 2nd Deck 4 web frame about Collision bulkhead</i>		Are Rule requirements complied with regarding increases of scantlings in way of double bottom in E. & B. space and framing in Bunkers and Boiler Room?	<i>yes</i>	
SINGLE BOTTOM.			BEAMS, LONGITUDINALS IN CARGO TANKS		
Floors, Depth and thickness at mid-line in Holds	<i>48 45 in Fore Hold</i>		Uppermost Continuous Deck, amidships in Wells, Angle, <i>E or F</i>		
Height of Brackets at side above base line at toe of frame	<i>73</i>		" " in way of Bridge, Angle, <i>E or F</i>		
Middle Line Keelson, on Floors, Angles, <i>E or F</i>	<i>90 90 12 JL</i>		Spacing		
" " Through Plate or Intercoastal Plate	<i>51.5 46</i>		Second Deck, amidships, Angle, <i>E or F</i>		
" " Foundation Plate on Floors			Spacing		
" " Flat Plate Keel Angles	<i>130 130 12 JL</i>		Third Deck, amidships, Angle, <i>E or F</i>		
Side Keelsons, No. each side			Spacing		
" " thickness of Intercoastal Plate			Fourth Deck, amidships, Angle, <i>E or F</i>		
" " Angles			Spacing		
DOUBLE BOTTOM, in E.R.			Poop Deck, Angle, <i>E or F</i> <i>TRANSVERSE</i>	<i>230 90 11</i>	
Solid Floors, thickness and spacing <i>45.50 in E.R. Spacing 3 1/2</i>			Spacing	<i>3 1/2</i>	
" " Are Frame and Reversed Frame joggled?	<i>yes</i>		Bridge Deck, Angle, <i>E or F</i>	<i>150 75 9.5</i>	
Bracket Floors, breadth and thickness at middle line			Spacing	<i>29 5/8</i>	
" " breadth and thickness at margin plate			Forecastle Deck, Angle, <i>E or F</i>	<i>200 75 11</i>	
			Spacing	<i>27 1/4</i>	

PILLARS AND DECKS.

		INCHES IN SHIP.		Any Departure from Approved Plans to be Noted.	
PILLARS. No. of Rows <i>TWO LONGITUDINAL BULKHEADS</i>					
in 'tween Decks, Size and Spacing.....					
" " " "					
in Holds " "					
<i>TWIN LONG.</i> " " " "					
Centre Line Bulkhead.					
Stiffeners and Spacing..... <i>As per plan</i>		30"			
Plating, thickness of .....		.40 TOP	52 BOTTOM		
STRINGERS AND DECKS.					
Uppermost Continuous Deck.					
Stringer Plate, breadth and thickness in Wells		72	79		
" " " " in way of Bridge		72	95		
" Angle in Wells		180	180 20		
Thickness of Plating abreast Deck openings } in way of Wells .....		.76			
Thickness of Plating abreast Deck openings } in way of Bridge		"			
Thickness of Plating within line of openings...		.76			
If Sheathed, material and thickness					
Second Deck. <i>Fore</i>		48	36		
Stringer Plate, breadth and thickness in Wells...					
Stringer Plate, breadth and thickness in way of Bridge					
Thickness of Plating abreast Deck openings } in way of Bridge					
Thickness of Plating within line of openings...					
If Sheathed, material and thickness					
Third Deck.					
Stringer Plate, breadth and thickness.....					
If Plated, state thickness.....					
Fourth Deck.					
Stringer Plate, breadth and thickness.....					
If Plated, state thickness					
Poop Deck.					
Stringer Plate, breadth and thickness		68 1/2	68		
Plating, Sheathing, material and thickness ...		.58			
Bridge Deck.					
Stringer Plate, breadth and thickness.....		44	44		
Plating, Sheathing, material and thickness ...		.38			
Forecastle Deck.					
Stringer Plate, breadth and thickness.....		36	40		
Plating, Sheathing, material and thickness ...		.38			

SHELL PLATING.

SCANTLINGS.					RIVETING.								
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS . . TO BE NOTED.	EDGES.			BUTTS.				
	AMIDSHIPS.		FORWARD.	AFT.		State if jogged?	SINGLE OR DOUBLE.	RIVETS.		No. of ROWS OF RIVETS.	RIVETS.		STRAIPPED OR LAPPED.
	Breadth.	Thickness.	Thickness.	Thickness.				Diam.	Spacing cr. to cr.		Diam.	Spacing cr. to cr.	
	Inches.	Inches.	Inches.	Inches.			Inches.	Inches.		Inches.	Inches.		
FLAT PLATE KEEL	56	1.08 ✓	.83	.83		2	1 1/8"	4 1/2"	5 ✓	1 1/8"	4 1/2"	LAPPED	
„ DBLG. (if any)						—						"	
BOTTOM PLATING, No. of Strakes ... 4 .....		.78 ✓	.56"	.56"		2	1"	4"	5 ✓	1"	4 1/2"	"
BILGE PLATING, No. of Strakes ... 1 .....		.75 ✓	.56	.56		2	1"	4"	5 ✓	1"	4 1/2"	"
SIDE PLATING, No. of Strakes ... 4 .....		.70	.50	.50		3R-2R	7/8"	3 1/2"	4 ✓	7/8"	4"	"
UPPER DECK, Sheer- strake in Wells	52 1/2	1.13 ✓	.50	.50		2	1 1/8"	4 1/2"	5 ✓	1 1/8"	4 1/2"	"	
UPPER DECK, Sheer- strake in Bridge ^{Poof} ...	52 1/2	.72		.50		2	7/8"	3 1/2"	4 ✓	7/8"	4"	"	
STRAKE BELOW Sheer- strake in Wells	52 1/2	.96	.50	.50		2	1 1/8"	4 1/2"	5 ✓	1 1/8"	4 1/2"	"	
STRAKE BELOW Sheer- strake in Bridge ^{Poof} ...		.72				2	7/8"	3 1/2"	4 ✓	7/8"	4"	"
POOF SIDE PLATING .....		.68 ✓		.50		2	7/8"	3 1/2"	3 ✓	7/8"	3 1/2"	"
BRIDGE SIDE PLATING ...		.44				2	3/4"	3	2 ✓	3/4"	3 1/2"	"
FOREC'TLE SIDE PLATING			.45 ✓			1	3/4"	3	2 ✓	3/4"	3 1/2"	"	

WATERTIGHT BULKHEADS.

FORGINGS and CASTINGS.

Total No. of W.T. BULKHEADS in Vessel—						Casting or Forging.	Scantlings.	Maker's Name.	Any departure from approved plans to be noted.
Extending to Upper Deck (Sec. 3 c) <i>all</i>									
,, Deck next below									
As per Rule									
		Plating Thickness.	STIFFENERS.						
			VERTICAL.		HORIZONTAL.				
			Scantlings.	Spacing.	Scantlings.	Spacing.			
MIDSHIP BULK'D,	Upper tween decks								
"	" Second "	<i>See approved plan of oil tight bulkheads</i>							
"	" Third "								
"	" Holds								
COLLISION	(in Hold)								
AFTER PEAK	"								
KEEL, Bar									
STEM									
STERN FRAME { Propeller Post									
{ Rudder "									
RUDDER—A × D.....									
Speed of Vessel.....									
RUDDER mainpiece at head ...									
" " heel ...									
" how constructed									
" double or single plate coupling, vertical or horizontal									

STEEL.

[illegible]

Has the Steel been tested as required by the Rules?

EQUIPMENT No. 52956												LETTER ft	ANCHORS. 4		
Number of Certificate.	Anchors.	WEIGHT, EX. STOCK.			WEIGHT OF STOCK.			TEST, PER CERTIFICATE.				WEIGHT REQUIRED BY TABLE 53.	Description of Anchor.	Makers.	Where and when tested and Superintendent.
		Cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.					Cwts.
842	1st Bower	96	3	17				66	2	2	11	90	Shackles	Japan Steel Works Hakodate	24 Oct 1933
841	2nd "	95	2	25				65	15	0	0	90	"	"	"
77071	3rd "	83	0	26				60	10	0	0	77 1/2	"	Hemping & Sons Netherton	19 Jan 1917
	Collective weight.	275	1	68								257 1/2			
843	Stream	85	3	19				33	0	3	15	26 1/2 - Steel		Japan Steel Works Hakodate	24 Oct 1933

CHAIN CABLES.										HAWSERS AND WARPS.									
Number of Certificate.	Length and size supplied.		Test per Certificate.		WEIGHT OF CHAIN CABLE.			Length and size per Table 53.		Description.	Makers of Cables.	Where and when tested, and Superintendent.	Material.	Length and size supplied.		Breaking Test of Steel Wire.	Length and size per Table 53.		
	Length.	Diam.	Stations.	Break- ing.	Supplied.	Per Rule.		Length.	Diam.					Length.	Cir.		Length.	Cir.	
1983	151 1/2	2 5/8	120 1/10	109 1/4	558-2-6					Steel Nippon	Osaka 6 Nov. 1933		TOWLINE	130	6"	122.9	130	5 1/2	
1992	151	2 5/8	"	"	557-2-0					Link Nippon	Osaka 24 Nov. 1933		HAWSERS & WARPS	120	2 3/4	23.45	100	2 3/4	120-10"
										Chain Wks	Y. To			120	2 3/4	23.5	100	2 3/4	120-10"
														120	8"				
														120	8"				
														120	9"				
Iron/Stream Chain or Steel Wire	121 1/6	1 1/2	40 3/10	58 7/10	144-0-9	126 3/4		120	1 7/16	"	Do	Osaka 24 Nov. 1933							

Steering Gear, Steam *Electric Hydraulic (Heli Shaw)* Steering Gear, Hand *By moving winch means of rope & blocks*

Boats *2 Lifeboats* Steering Chains, Size and Test *From* Windlass *Steam*

Ceiling in Holds, thickness and material *2 1/2" Japanese Pine* Cargo Battens, thickness, material and spacing *2" Japanese Pine 7'-8' apart*

No. 1 *Coaming* Thickness of Hatches *Steel 10mm*

Cargo Hatchways. (Upper Deck) *30" x 44"* O.T. Hatches

Size of No. 1 Hatchway (Forward) *27'-0" x 21'-8"* No. 2 No. 3 No. 4 No. 5 No. 6

Number of Shifting Beams and/or Fore and Afters *No. 1 Hatch 5 Shifting Beams fore & afters*

Builder's Signature *[Signature]* *for the Kawasaki Dockyard Co., Ltd.*

GENERAL DECLARATION. It should be stated (a) whether the vessel is fitted for the carriage and burning of oil used as fuel (b) whether the vessel, not being an oil tanker, is fitted for carrying oil as cargo. The positions in which oil is carried as fuel or cargo should be indicated, together with the flash point.

This vessel has been built in accordance with the approved plans & the Rules. The materials and workmanship are good. The double bottom tanks, deep fuel tanks, settling tanks, peak tanks, fresh water tanks, water, effluents, cargo tanks, reserve fuel tanks, weather decks, bulkheads, stiffeners, watertight doors have been satisfactorily tested as required by the Rules. Section 20 of the Rules have been complied with and oil fuel is to be carried in deep tanks, double bottom tanks & forward fuel tank. In my opinion this vessel is entitled to the notations "Carrying Petroleum in Bulk" "Lloyd's A-C-P" "Wireless" "Electric Light" "Longitudinal Framing".

The amount of Entry Fee £ 10 : 0 : 0 Fees applied for, 22 June 1934

Special Survey Fee £ 844-19-4 1/2 Received by me, 23 June 1934

Travelling Expenses, if any *Gen 27.60*

I am of opinion the Vessel should be Classed *+100A1* "Carrying Petroleum in Bulk"

State whether the Vessel has been built under Special Survey *yes*

Signature

[Signature] Surveyor to Lloyd's Register of Shipping.

Certificate to be sent to *Builder* Date of issue *31/7/34*

Committee's Minute

TUE. 31 JUL 1934

TUE. 23 OCT 1934

Character assigned

+100A1
Carrying petroleum in bulk

Lloyd's a+c

+ Lmb 6.34 C.L.
3 S.B. - 178 lb

Write V&A form

[Signature]

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Lloyd's Register Foundation

W1341-001533

GENERAL REMARKS—(The Surveyor should state the Number of Report and Name of any Sister Vessel. Plans showing Vessel as built should be forwarded and a List of the Plans should be embodied.)

- The following plans & documents accompany this report:-
- (1) Midship Section (As Built)
 - (2) Profile & Deck
 - (3) Steel Admin Notes
 - (4) Lifting of Trussing & Lifting Certificate

Particulars of Drop Test of Cast Steel Anchors, viz.:— Weight, Surveyor's Initials, Number of Certificate, Date of Test.	Weight	Surveyor	N ^o of Cert.	Date of Test
1st Bower	62-0-22	M.K.	839	18-9-33
2nd "	61-1-18	M.K.	838	18-9-33
3rd "	56-0-8	Green	77071	19-1-17
Stream	22-3-27	M.K.	840	18-9-33

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop 161.5 ft., R.Q.D. — ft., Bridge 37.0 ft., Forecastle 36.0 ft.
(in feet and tenths). When the Poop is joined to the B.D., this should be distinctly stated.

No. and Material of Decks (this information is to be given as it should appear in the Register Book). Upper Deck Steel. Forecastle, Bridge & Long Deck
2nd Deck at ends only. Steel

Official No. 39204 ; Signal Letters J.V.U.1
Is bottom of Vessel coated with cement Yes, in water tanks
particulars of composition Mineral oil in fuel oil tanks. Oil tight paint in cargo tanks

PARTICULARS OF WATER BALLAST.—

Where Fitted.	*Length. Feet.	Water Capacity. Tons.	Where Fitted.	*Length. Feet.	Water Capacity. Tons.
Double bottom, aft, <i>fuel oil tanks not included under Engines (Fuel Water)</i>	99.75	225.0	Fore peak tank,	28.5	220.0
Double bottom, under Engines and Boilers,			After peak tank,	21.0	98.4
Double bottom, if under Engines only,			Deep tank, aft,	49.6	498.8
Double bottom, if under Boilers only,			Deep tank, forward,		
Double bottom, forward,			Other tanks, if fitted,		
Total capacity of double bottom			(If necessary, furnish further information by sketch.)		

* The wells are not to be included in the lengths of the tanks.

Order for Special Survey No. 44

Date 11th Jan 1933

Dates of Surveys held while building

Sept 1933. 6.21.25. Oct. 6.12.24. Nov. 2.11.29.30. Dec. 1.6.18. Jan 1934. 17.26.25.26.27.30
Feb. 5.15.21.24.26.27 March 5.9.10.12.13.15.17.19.20.22.24.26.28.29. April 21. Mannesmann
11.19. May 10.16.25.29.30 June 1.2.4.12.13.23

Lloyd's Register
Foundation

Total No. of Visits 53

PARTICULARS OF LONGITUDINAL FRAMING.

FRAMING.	AMIDSHIPS.			ENDS.			AMIDSHIPS.			ENDS.			RIVETING.				
	In Ship.			In Ship.			Per Rule or as approved.			Per Rule or as approved.			Rivets in Longitudinal Frames. Diam. Speng. Ins. Ins.	Spacing of Rivets on each side of Transverses and Bulkheads. Inches.	Rivets in Brackets to Bulkheads.		
	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Number.			Diameter. Inches.		
of L, L or C																	
Bridge 'tween Decks...																	
Uppermost Continuous																	
No. 1	200	90	11 3	<i>Transverse framing</i>									7/8	6d	—	11	7/8"
" 2	200	90	11										"	"	—	"	"
" 3	200	90	11										"	"	—	"	"
" 4	230	90	11										"	"	—	12	"
" 5	230	90	13										"	"	—	"	"
" 6	250	90	11										"	"	—	13	"
" 7	250	90	13										"	"	4 1/2" for 10 Rivs	"	"
" 8	280	90	12.5				280	90	12				"	"	" side	14	"
" 9	280	90	14				280	90	12				"	"	"	"	"
" 10	300	90	13				280	90	12.5				"	"	"	"	"
" 11	300	90	13				280	90	14				"	"	3 1/2" for 10 Rivs	"	"
" 12	300	90	14				300	90	13				"	"	" each side	15	"
" 13	12	3 1/2	.60				300	90	13				"	"	"	"	"
" 14	12	3 1/2	.60				300	90	14				"	"	"	"	"
" 15																	
" 16																	
Amidships	30"																
At Ends																	
<i>Bottom</i>																	
Tank Top Longitudinals	17	4	4.55														
Bottom "																	
Longitudinals { Amidships	32 1/2																
At Ends...																	
Transverses.																	
{ Depth and Thickness				<i>Transverse framing</i>													
{ Face Angles																	
{ Lugs to Shell																	
{ Depth and Thickness	48	46															
{ Face Angles	10	3 1/2	17 3/4														
{ Lugs to Shell	150	150	12														
{ Depth and Thickness	39	46															
{ Face Angles	200	90	12.5														
{ Lugs to Shell	130	150	12 1/2														
Back Bars	90	90	12 1/2														
Brackets	Bottom	44	44														
Transverse Frames	Top	37	44														
If joggled or liners.	9	10 1/2															
Bridge Deck ...																	
Upper "	230	90	11 3														
Second "																	
Third "																	

Particulars of framing in peaks (if ordinary), Floors, Centre Girder, Side Girders and Margin Plate and their angle attachments, etc., to be entered in their respective places provided for on the Report Forms.

NOTE:—This slip to be pasted on the fourth page of the Report, and reference to same to be made under framing, etc., on the first page.

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