

# STEEL STEAMER OR MOTORSHIP.

Received at London Office

7-JUL 1954

State of Report has been sent on the Freeboard of the Vessel Yes  
 State of Report is sent on the Machinery of the Vessel Yes  
 Date of completion of report 23 March 1954 Port of Shimonoseki No. 330  
 Survey held at Nagasaki Date First Survey 8 April 1953 Last Survey 4 Feb 1954  
 On the Steel Tug Screw motor vessel "AKI-MARU"  
 State Type Full scantling State Type of Erections Forecastle, Bridge & Poop

TONNAGE under } 6,645.30  
 Tonnage Deck ... }  
 Do. of space or spaces }  
 between Tonnage Dk. }  
 and Upper Dk. }  
 Total 6,645.30  
 Gross Tonnage 7,732.60  
 Register Tonnage 4,316.41

## REGISTERED DIMENSIONS.

FEET

Length 467.58  
 Breadth 62.34  
 Depth 34.45

CLASS State if with freeboard as condition of Class NO  
 Length from fore part of stem to after part of stern post on summer L.W.L. See Sec. 3 (1a) 459.34  
 Breadth (greatest moulded) B 62.34  
 Depth, at middle of length from top of keel to top of beam at side of uppermost continuous deck. See Sec. 3 (1c) UPPER 34.45  
 1st Longitudinal Number (L x D) 15,824.26  
 2nd Numeral L x (B + D) 44,459.52  
 Framing Depth "d," at middle of length. See Sec. 3 (1d) 21.2  
 Proportions—Depth to Length—Uppermost continuous deck to top of keel 13.4  
 Do. Long Bridge to top of keel 10.8  
 Draught Moulded I.G.F.R.P. 27.5

Built at Nagasaki, Japan  
 Launched 26 Oct 1953 Yard No. 1438  
Nagasaki Works.  
 Builders Mitsubishi Zosen K.K.  
 Owners Nippon Yusen Kaisha  
 Managers (Where necessary to be entered in Reg. Book)  
 Residence   
 Port of Registry Tokyo  
 If surveyed while building, afloat, or in dry dock while building

## FRAMES, DOUBLE BOTTOM AND BEAMS.

	INCHES IN SHIP. mm.	Any Departure from Approved Plans to be Noted.		INCHES IN SHIP. mm.	Any Departure from Approved Plans to be Noted.
FRAMES, Spacing amidships.....	800	✓	Bracket Floors, Frame .....		
" " from $\frac{1}{2}$ length amidships to Collision bulkhead.....	650	✓	" " Reversed Frame.....		
" " in peaks .....	600	✓	" " Vertical Struts .....		
SIDE FRAMING. Inv.			Centre Girder, depth and thickness amidships	1170 13.5	✓
Frame Amidships, Angle, [ or ] .....	300x90x 10/15	✓	" " top Angles .....	welded	✓
" " Extends up to.....	2nd DF.	✓	" " bottom Angles.....	welded	✓
Reversed Frame Amidships, Angle .....			Side Girders, No. each side and thickness.....	1 9.5	✓
" " Extends up to .....			Margin Plate depth (excl. of flange) and thickness .....	995 13.5	✓
Depth of Framing Girder.....	300	✓	" " Vertical Angle to Tank side Bracket abaft $\frac{1}{2}$ len. from stem .....	welded	✓
Frames in Uppermost Continuous 'tween Decks, Angle, [ or ] .....	200x90x 8/13.5	✓	" " Vertical Angle to Tank side Bracket from forward $\frac{1}{2}$ len. from stem to Panting Area .....	continuous 12	✓
" " Bridge Second 'tween Decks, Angle, [ or ] .....	125x75x 10	✓	" " Gussets, spacing and scantling abaft $\frac{1}{2}$ len. from stem.....	continuous	✓
" " Third " " " " .....			" " Gussets, spacing and scantling from forward $\frac{1}{2}$ len. from stem to Panting Area .....		✓
" " from $\frac{1}{2}$ len. for'd. to 15% len. from Stem .....	300x90x 10/15 with Rev. Fr. 90x90x 10 A.	✓	Tank Side Brackets, height above base line at toe of Frame and thickness	2200 12	✓
" " in Peaks, Angle or [ .....	230x90x 11	✓	INNER BOTTOM PLATING.		
Diameter and Spacing of Rivets through Frame and Shell Plating amidships .....	welded	✓	Breadth and thickness of Middle Line Strake...	1370 13	✓
State if Frame Joggled.....	Yes (Upper 'tween Dk. only)	✓	Thickness of remainder in Holds .....	11.5	✓
Are the scantlings and arrangements in the Panting Area in accordance with the Rules and/or as approved? .....	Yes	✓	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? .....	Yes	✓
Are the scantlings and arrangements in way of the Bottom Forward in accordance with the Rules and/or as approved? .....	Yes	✓	BEAMS.		
SINGLE BOTTOM.			Uppermost Continuous Deck, amidships in Wells, Angle, [ or ] .....	200 90 8/13.5	✓
Floors, Depth and thickness at mid-line in Holds.....			" " in way of Bridge, Angle, [ or ] .....	150 90 10/15	✓
Height of Brackets at side above base line at toe of frame.....			Spacing .....	800	✓
Middle Line Keelson, on Floors, Angles, [ or ] .....			Second Deck, amidships, Angle, [ or ] .....	200x90x 8/13.5 230x90x 9/13	✓
" " Through Plate or Inter-costal Plate .....			Spacing .....	800	✓
" " Foundation Plate on Floors .....			Third Deck, amidships, Angle, [ or ] .....		
" " Flat Plate Keel Angles .....			Spacing.....		
Side Keelsons, No. each side.....			Fourth Deck, amidships, Angle, [ or ] .....		
" " thickness of Inter-costal Plate.....			Spacing.....		
" " Angles .....			Poop Deck, Angle, [ or ] .....	150x90x 9	✓
DOUBLE BOTTOM.			Spacing.....	600	✓
Solid Floors, thickness and spacing .....	11 800	✓	Bridge Deck, Angle, [ or ] .....	200x90x 8/13.5 150x90x 9/13	✓
" " Are Frame and Reversed Frame joggled? .....	No	✓	Spacing.....	800	✓
Bracket Floors, breadth and thickness at middle line .....			Forecastle Deck, Angle, [ or ] .....	150x90x 12	✓
" " breadth and thickness at margin plate.....			Spacing.....	650 or 600	✓

## PILLARS AND DECKS.

	INCHES IN SHIP.		Any Departure from Approved Plans to be Noted.		INCHES IN SHIP.		Any Departure from Approved Plans to be Noted.	
	H.M.	N			H.M.	N		
<b>PILLARS, No. of Rows .....</b>	No.1	150x9	6.5					
" " " " "	No.2	175x10	10.4					
" " " " "	No.3	185x10	10.4					
" " " " "	No.4	230x13.5	30					
" " " " "	No.5	230x10.5	12.0					
" " " " "	No.6	200x10	12.0					
" " " " "	No.7	195x10	7.1					
" " " " "	No.1	270x12	6.5					
" " " " "	No.2	400x15	10.4					
" " " " "	No.3	430x16.5	10.4					
" " " " "	No.4	450x16	6.4					
" " " " "	No.5	430x15	6.4					
" " " " "	No.6	370x15	12.0					
" " " " "	No.7	370x12	12.0					
<b>Centre Line Bulkhead.</b>								
Stiffeners and Spacing .....								
Plating, thickness of .....								
<b>STRINGERS AND DECKS.</b>								
<b>Uppermost Continuous Deck.</b>								
Stringer Plate, breadth and thickness in Wells	1,800	28						
" " " " " in way of Bridge	1,800	10.5						
" " " " " Angle in Wells	200	200	25					
Thickness of Plating abreast Deck openings } in way of Wells		28	max 26					
Thickness of Plating abreast Deck openings } in way of Bridge		9.5	10.5 in way of Eng opening					
Thickness of Plating within line of openings...		9 in well	7.5 in way of bridge					
If Sheathed, material and thickness.....		-						
<b>Second Deck.</b>								
Stringer Plate, breadth and thickness in Wells		9.5 aft						
		10.5 free						
Stringer Plate, breadth and thickness in way of Bridge	1,600	7.5						
Thickness of Plating abreast Deck openings } in way of Wells		9.5 aft						
		10.5 fore						
Thickness of Plating abreast Deck openings } in way of Bridge		7.5						
Thickness of Plating within line of openings...		7.5						
If Sheathed, material and thickness.....		-						
<b>Third Deck.</b>								
Stringer Plate, breadth and thickness.....								
If Plated, state thickness .....								
<b>Fourth Deck.</b>								
Stringer Plate, breadth and thickness.....								
If Plated, state thickness.....								
<b>Poop Deck.</b>								
Stringer Plate, breadth and thickness.....		10						
Plating, Sheathing, material and thickness ...	Plate	10						
<b>Bridge Deck.</b>								
Stringer Plate, breadth and thickness.....	1,800	18.5						
Plating, Sheathing, material and thickness ...	Plate	18.5						
<b>Forecastle Deck.</b>								
Stringer Plate, breadth and thickness.....		10						
Plating, Sheathing, material and thickness...		10						

## 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.		STRAPPED OR LAPPED.
	Breadth.	Thickness.	Thickness.	Thickness.				Diam.	Spacing cr. to cr.		Diam.	Spacing cr. to cr.	
	Inches. m.m.	Inches. m.m.	Inches. m.m.	Inches. m.m.			Inches. m.m.	Inches. m.m.		Inches.	Inches.		
Flat Plate Keel.....	1370	23	23	23	✓	Double	25	115	welded	✓			
„ Dblg. (if any)						—	—	—					
Bottom Plating, No. of Strakes .....	2100 2100 2000 1600	18.5 20 in wells	A. 18 E. 15	A. 15 E. 16	✓	Double	25	115	welded	✓			
Bilge Plating, No. of Strakes .....	1800 1800	18.5 20 in wells	15	16	✓	Double	25	115	Ditto	✓			
Side Plating, No. of Strakes .....	1900 2000 2000 1400	16 17 in wells	15 below L.W.L. 20 above L.W.L.	L.W.L. L.W.L.	12	Double	22	100	Ditto	✓			
Upper Deck, Sheer- strake in Wells.....	1600	25	12	12	✓	welded			?	✓			
Upper Deck, Sheer- strake in Bridge ...	1600	16			✓	welded							
Strake below Sheer- strake in Wells.....	1500	17 fore 16 aft	12	12	✓	Double	22	100	✓				
Strake below Sheer- strake in Bridge ...	1400	16			✓	Double	22	100	✓				
Poop Side Plating.....				10	✓	welded							
Bridge Side Plating.....		Sheer str. 19 16			✓	Double	25 22	115 100	✓				
Forecastle Side Plating			11		✓	welded							

## WATERTIGHT BULKHEADS.

Total No. of W.T. BULKHEADS in Vessel—	
Extending to Upper Deck (Sec. 3 c).....	8 ✓
„ Deck next below.....	10 ✓
As per Rule.....	7 ✓

## FORGINGS AND CASTINGS.

	Casting or Forging.	Scantlings.	Maker's Name.	Any Departure from Approved Plans to be Noted
KEEL, Bar	Forged Steel to G.M.W.L.	260 x 75	Mitsubishi Steel Mfg. Co.	✓
STEM	Steel casting above G.M.W.L.	260 x 75	Nagasaki W.K.O.	✓
STERN FRAME	Propeller Post Rudder	Steel casting Steel casting	Ditto	✓
Speed of Vessel		17 knots		✓
RUDDER—Type		Semi-balanced		✓
" A x D		18.09 M <sup>2</sup> x 0.9 M = 16.3 M <sup>3</sup>		✓
" Diam. of head		330		✓
" Mainpiece at top pintle	Casting	40 x 60 x 100		✓
" " heel	"	40 x 60 x 150		✓
" how constructed		Plate & diaphragms		✓
" double or single plate		Double		✓
" coupling, vertical or horizontal		Vertical		✓

# STEEL.

Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture)..... *Open Hearth*

Yawata Iron & Steel Works

Has the Steel been tested as required by the Rules?

Yes

Lloyd's Register  
Foundation

*The Surveyors are requested not to write on or below the Committee's Minutes.*

EQUIPMENT No. 47,148

LETTER 47

ANCHORS.

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.				
Y-4824	1st Bower	82	2	17				60	5	0	0	81 1/4	Latest Improved Hall's Type	Tokyo Steel Casting Co.	T.S.C.P.H. 24.8.53 T.N.
Y-4825	2nd "	82	1	23				60	5	0	0	81 1/4	C.S. Head & Shank.	"	ditto 28.8.53 T.N.
Y-4823	3rd "	82	1	1				60	5	0	0	81 1/4	F.S. Shackle & P.P.N.	"	ditto 24.8.53 T.N.
	Collective weight	247	1	13								232			
Y-4826	Stream	24	3	27	6	2	21	24	15	0	0		Hyd. ratty Pattern, C.S. Shank	Ditto	ditto 28.8.53 T.N.

## 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.	Statu-tory.	Break-ing.	Supplied.	Per Rule.		Length.	Diam.					Length.	Ins.	Tons.	Length.	Ins.
CL 17266	363.67	5 1/2	KT.	KT.	948.0.14	940		300	5 1/2	Steel link	Kamatsu Mfg. Co. Ltd.	Kamatsu Mfg. Co. Ltd. 23.6.53 H.Z.	TOWLINE	130	5 1/2	84.4	130	5 1/2
										Special steel.			HAWSERS & WARPS	100	8 3/4	26	100	8
														100	8	20	100	8
Iron Stream Chain or Steel Wire	125	4 3/4						125	4 3/4	Steel wire.								

Gear, Type (Power or hand) Electric Hydraulic (35 H.P.), 2 Motors Alternative Means of Steering Jamney type hand pump

Chains (Size and Test) None Windlass Electric (90 H.P.) Boats 4 (wood) 150 x 50 pine

n Holds, thickness and material 65 mm. pine on 13 mm. sleeper Cargo Battens, thickness, material and spacing Spacing, 180 mm.

Hatchways. (Upper Deck) Steel plates and angles (welded) Thickness of Hatches 9 mm. Steel plate

Hatchways No. 1 (Fwd.) 6500 x 5500 mm. No. 2 12000 x 7000 mm. No. 3 9600 x 7000 mm. No. 4 8800 x 7000 mm. No. 5 12000 x 7000 mm. No. 6 7200 x 7000 mm.

of Shifting Beams } Mac Gregor Patent Steel Hatch Covers Fore and Afters

Builder's Signature

J. Matsushita  
NAGASAKI WORKS

MITSUBISHI SHIPBUILDING &amp; ENGINEERING CO., LTD.

DECLARATION. It should be stated (a) whether the vessel (if not a motorship) is fitted for the carriage and burning of oil used as fuel. Yes

(b) whether the vessel, not being an oil tanker, is fitted for carrying oil as cargo. Yes The positions in which oil is carried as fuel or cargo should be indicated, together with the flash point (where required to be inserted in the Notation).

This Ship has been built under Special Survey in conformity with the Society's Rules and Regulations and Secretary's letters.

The scantlings and arrangements of the ship are as given in the Report and as shown on the "As fitted" plans now forwarded.

All modifications or addition to the original approved arrangements made during construction have been indicated on the plans and have been approved as being in accordance with or by standards equivalent to the Rule requirements, the plans of midship section and profile of the ship as fitted now forwarded herewith, have been checked with the approved arrangements and found in order.

The materials and workmanship are satisfactory. All double bottom tanks, peak tanks and deep tanks, cofferdams, have been tested and found to be in accordance with the Rules and satisfactory. The weather decks, 't Bulkheads, Tunnel, 't Floor, have been satisfactorily tested.

The windlass and steering gear have been satisfactorily tried under working condition. The freeboards assigned by the Japanese Government have been marked on the ship's sides (verified and cut in). Oil fuel Flash point not lower than 150°F.

Vegetable oil can be carried in the Deep Tanks.

The amount of Entry Fee..... £ 2020.000

Special Survey Fee..... £

Travelling Expenses, if any ..... £ 30.27.0

Fees applied for, 2nd June 1954

LOCALLY

Received by me, 19

(Special notations, where part of class, to be stated.)

I am of opinion the Vessel should be Classed +100 AI

State whether the Vessel has been built under Special Survey

Yes

Signature

Surveyor to Lloyd's Register of Shipping.

Certificate to be sent to Smk in Triplicate Date of issue 9/9/54

Committee's Minute TUESDAY 31 AUG 1954

Character assigned +100 AI Carrying vegetable oil in deep tanks aft.

Lloyd's A + CP.

+LMC 2.54 Oil Eng..

DB 100 lb.

CL.

Write Smk.

SRL. RMC.

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 are enclosed (As fitted) :

Midship Section  
Construction Profile and Deck Plans (2-Sheets)  
w/t & o/t Bulkheads  
Stern Casting  
Shaft bracket.  
Stem  
Rudder  
Shell expansion  
Double Bottom Plans  
Both Peak Construction  
Upper Bridge Deck, W.S.P. Girder & House under.  
Welding detail  
Capacity plan.  
Pumping Arrangement.  
Allocation of P403 plate  
Forging Certificates :  
Stem.  
Stern cut up  
Stern frame  
Shaft bracket  
Rudder stock  
Rudder frame  
Sister Ship :  
T.M.V. "ARITA-MARU"

PARTICULARS OF ELECTRIC WELDING (if employed) w/t & o/t Bld plating & stiffeners, Tunnel Tank top plating, Floors & Engine seating.

Frames to shell amidships, Deck plating, Beams & Girders, All shell ptg butts, Part of side shell plating, All casings  
Deck houses, Superstructure decks.

Argon welding to Aluminum plate wheel house.

SPECIAL NOTATIONS :—Either as part of the vessel's class or for record in the Register Book

Cruiser Stern-D.F.-ESD-GYC-Radar-LLOYD'S A.C.P. - Part Electric welded -

Fitted for O.F. F.P. above 150°F to be carried in all D.B. (Except No. 4) & Wing Tanks,

Vegetable Oil to be carried in D.T.s in No. 4 Hold.

RADAR Equipment (State if fitted) Yes

State Type or Pattern No. Sperry Radar Mark 2 (84 Scanner)

State Name of Maker and/or Supplier Tokyo Keiki K.K.

Particulars of Drop Test of Cast Steel Anchors, viz. :—  
Weight, Surveyor's Initials, Number of Certificate, Date of Test.

1st Bower	82. 2. 17	T.N.	No. Y-4824	24.8.53
2nd "	82. 1. 23	T.N.	No. Y-4825	28.8.53
3rd "	82. 1. 1	T.N.	No. Y-4823	24.8.53

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop 23.11 ft., R.Q.D. 197 ft., Bridge 202.11 ft., Forecastle 36.85 ft.

(in feet and tenths). When the Poop or Forecastle are joined to the B.D., this should be distinctly stated

Official No. 71770 Signal Letters J D R F Extreme Breadth over Belting (Circ. 1611) Over-all Length 495.24 (Circ. 1703)

No. and Material of Decks 2 Decks Steel

Parts of Bottom of Vessel coated with cement or approved composition Fore & Aft peaks, No. 4 D.B.T. Bilges.

Particulars of composition (if fitted) and of approval

PARTICULARS OF WATER BALLAST :—(Comprising all tanks which may be used for Water Ballast. (Circ. 1284)  
(Wells are not to be included in the lengths of the tanks, but Cofferdams and Dry Tanks (if tested) are to be included.)

Where Fitted.	Length.	Water Capacity.	Where Fitted.	Length.	Water Capacity.
	Feet. Meters	Tons.		Feet. M.	Tons.
Double bottom, aft,	28.6	341	Fore peak tank,	8	78 (F.W.)
Double bottom, under Engines and Boilers.	15.2	271 OF	After peak tank,	6	103 (F.W.)
Double bottom, X under Engines only, (F.W.)	4	73 FW	Deep tanks aft of Mach. space	15	1534
Double bottom, if under Boilers only,			Deep tanks forward, in way of tunnel	18	328
Double bottom, forward,	49.4	580	Other tanks, if fitted, Centre tank in way of B.T.	12	93
Total length (if continuous) and Capacity.		921	(If necessary furnish further information by sketch.)		

Order for Special Survey No.

Date

Dates of Surveys held while building

1953. April 8, May 9, June 11, 29, July 13, 17, 21, 22, 25, 28, 29, 31 Aug. 1, 4, 5, 8, 14, 22, 31 Sep. 7, 15, 24, 26, 28, 29, 30  
Oct. 2, 5, 6, 9, 10, 12, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 26 Nov. 11, 12, 13, 14, 26, 28, 30 Dec. 1, 3, 8, 9, 12, 15, 16, 17, 18, 19, 26, 28  
1954. Jan. 6, 13, 14, 20, 22 Feb. 4

Total No. of Visits 67