

## REPORT ON MACHINERY.

No. 2401  
WED. 20 NOV. 1918

Received at London Office

Date of writing Report 1st Oct, 1918 When handed in at Local Office

Port of Yokohama

No. in Survey held at Uraga  
Reg. Book.

Date, First Survey April 30th Last Survey 23rd Sept, 1918.

(Number of Visits 27)

on the Twin S. S. "Meiwa Maru"

Tons { Gross 8230.09.  
Net 5114.79.  
When built 9 - 18.

Master Built at Uraga By whom built Uraga Dock Co Ltd

Engines made at Uraga By whom made Uraga Dock Co Ltd when made 9 - 18.

Boilers made at Tokyo By whom made Ishikawajima Shipbuilding &amp; E Co Ltd when made 9 - 18

Registered Horse Power Owners Meiji Kaun Kaisha Port belonging to Dairen

Nom. Horse Power as per Section 28 700 703 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

**ENGINES, &c.**—Description of Engines twin screw triple expansion No. of Cylinders 6 No. of Cranks 6  
 Dia. of Cylinders 22-36 1/2-61 Length of Stroke 48 Revs. per minute 86 Dia. of Screw shaft as per rule 13 1/2 Material of screw shaft S  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight  
 in the propeller boss Yes If the liner is in more than one length are the joints burned x If the liner does not fit tightly at the part  
 between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes If two  
 liners are fitted, is the shaft lapped or protected between the liners xx Length of stern bush 60"  
 Dia. of Tunnel shaft as per rule 12.2 as fitted 12.375 Dia. of Crank shaft journals as per rule 12.8 as fitted 13 1/2 Dia. of Crank pin 13 1/2 Size of Crank webs 25x8 1/2 Dia. of thrust shaft under  
 collars 13 1/2 Dia. of screw 16'-0" Pitch of Screw 18'-0" No. of Blades 4 State whether moveable Yes Total surface 85.3 sq ft  
 No. of Feed pumps 2 Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work Yes  
 No. of Bilge pumps 2 Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work Yes  
 No. of Donkey Engines Sizes of Pumps 5x3 1/2 x 6" stroke, Ballast pump 9x12x10" stroke,  
 In Engine Room 4 off-3 1/2" in bunkers, 2 off-3 1/2" 2 Mumford pump, 10x8x24" stroke, No. and size of Suctions connected to both Bilge and Donkey pumps  
 2-3 1/2, No. 4 hold 2-3 1/2, No. 5 hold 2-3 1/2, tunnel 2-3 1/2, tunnel well 1-3 1/2. In Holds, &c. No. 1 hold 2-3 1/2, No. 2 hold 2-3 1/2, No. 3 hold  
 No. of Bilge Injections 2 sizes 8" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes - 4 1/2  
 Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible None  
 Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Discharge Pipes above or below the deep water line Above  
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes  
 What pipes are carried through the bunkers Bilge pipes How are they protected Wood casing & Iron in way of storm valves  
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes  
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top platform

**BOILERS, &c.**—(Letter for record S.) Manufacturers of Steel Worth Bros.

Total Heating Surface of Boilers 9835 sq ft 11,219 Is Forced Draft fitted Yes No. and Description of Boilers 4 Multitubular 4SB.  
 Working Pressure 200 Tested by hydraulic pressure to 400 Date of test 27-6-18 2-9-18 No. of Certificate A 9, A 11.  
 Can each boiler be worked separately Yes Area of fire grate in each boiler 58.289 sq ft No. and Description of Safety Valves to  
 each boiler 2 Spring loaded Area of each valve 11.04 sq in Pressure to which they are adjusted 205 Are they fitted with easing gear Yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 22" Mean dia. of boilers 14'-3" Length 11'-6" Material of shell plates S  
 Thickness 1 1/2 Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R.  
 long. seams D.B.S.T.R. Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 10 Lap of plates or width of butt straps 22  
 Per centages of strength of longitudinal joint rivets 91.4 plate 85 Working pressure of shell by rules 223 Size of manhole in shell 16 x 12  
 Size of compensating ring 36 1/2 x 32 1/2 No. and Description of Furnaces in each boiler 3 Deighton Material S 3 boilers 3-9 1/2  
 Length of plain part top xx bottom xx Thickness of plates crown 3/8 bottom 3/8 Description of longitudinal joint Weld No. of strengthening rings x  
 Working pressure of furnace by the rules 217 Combustion chamber plates: Material S Thickness: Sides 45/64 Back 44/64 Top 45/64 Bottom 15/16  
 Pitch of stays to ditto: Sides 10 1/2 x 7 1/2 Back 8 3/8 x 8 3/8 Top 9 1/4 x 8 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 207  
 Material of stays S Area at smallest part 2-03 Area supported by each stay 83 Working pressure by rules 221 End plates in steam space:  
 Material S Thickness 1 3/16 Pitch of stays 18 3/4 x 16 1/4 How are stays secured D.Nuts Working pressure by rules 214 Material of stays S  
 Area at smallest part 7.7 Area supported by each stay 311 sq in Working pressure by rules 249 Material of Front plates at bottom S  
 Thickness 3/4 Material of Lower back plate S Thickness 3/4 Greatest pitch of stays 8.5 Working pressure of plate by rules 276  
 Diameter of tubes 3 Pitch of tubes 4 1/4 x 4 1/4 Material of tube plates S Thickness: Front 3/4 Back 3/4 Mean pitch of stays 8 3/8  
 Pitch across wide water spaces 13 1/2 Working pressures by rules 225 Girders to Chamber tops: Material S Depth and  
 thickness of girder at centre 8 x 13 Length as per rule 30 3/4 Distance apart 8 Number and pitch of stays in each 2 x 9 1/4  
 Working pressure by rules 225 Steam dome: description of joint to shell xx % of strength of joint  
 Diameter xx Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes  
 Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

**SUPERHEATER.** Type Date of Approval of Plan Tested by Hydraulic Pressure to  
 Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler  
 Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted



IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded? XX

SPARE GEAR. State the articles supplied:— 4 connecting rod top end bolts & nuts 2 connecting rod bottom end bolts & nuts, 2 main bearing bolts, 6 coupling bolts, 1 set feed & bilge pump valves, 1 set piston springs, 1 section crank shaft, 1 propeller shaft, 4 propeller blades, top & bottom end brasses, main bearing brasses, ahead & astern eccentric rods, air pump rod, bolts & nuts assorted etc.

The foregoing is a correct description,

*Y. Kammura*

Manufacturer.

Dates of Survey while building { During progress of work in shops - - April 30, May 13, 24, June 4, 14, 19, 27, July 5, 9, 10, 12, 13, 15, 22, 24, 25, Aug 2, 8, 9.  
During erection on board vessel - - - August 17, 27, Sept 7, 13, 14, 20, 21, 23.  
Total No. of visits 27.

Is the approved plan of main boiler forwarded herewith No

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 9-13-7-18 Slides 22-7-18 Covers 22-7-18 Pistons 22-7-18 Rods 22-7-18  
Connecting rods 22-7-18 Crank shaft 17-8-18 Thrust shaft 27-8-18 Tunnel shafts 27-8-18 Screw shaft 23-7-18 Propeller 8-8-18  
Stern tube 25-7-18 Steam pipes tested 7-9-18 Engine and boiler seatings 25-7-18 Engines holding down bolts 27-8-18  
Completion of pumping arrangements 21-9-18 Boilers fixed 27-8-18 Engines tried under steam 21-9-18  
Completion of fitting sea connections 8-8-18 Stern tube 8-8-18 Screw shaft and propeller 13-9-18  
Main boiler safety valves adjusted 23-9-18 Thickness of adjusting washers A.S.f. 1 1/16", 3/16", A.P.f. 1 1/32", 1 1/16", F.S.f. 1 1/16", 1 1/16", P.do  
Material of Crank shaft S Identification Mark on Do. J.S.C. Material of Thrust shaft S Identification Mark on Do. J.S.C.  
Material of Tunnel shafts S Identification Marks on Do. J.S.C. Material of Screw shafts S Identification Marks on Do. J.S.C.  
Material of Steam Pipes Steel Test pressure 600 lbs

Is an installation fitted for burning oil fuel No Is the flash point of the oil to be used over 150°F.

Have the requirements of Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case Yes If so, state name of vessel Mecanicien Donzel

General Remarks (State quality of workmanship, opinions as to class, &c. The Machinery of this

vessel has been built under special Survey in accordance with the approved plans and the Society's Rules, the materials and workmanship are good, The machinery has been satisfactorily tried under steam, and is in my opinion eligible for the record LMC 9 - 18.

It is submitted that this vessel is eligible for THE RECORD. + LMC 9. 18. F.D.

*JWD*  
21/11/18

*JP*

The amount of Entry Fee ... £ 850.00  
Special ... £ : :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 26-9-18  
When received, 1-10-18

Committee's Minute

Assigned

TUE 24 DEC 1918

*Lm 6. 9. 18*

*F.D.*

*James Cairns*

Engineer Surveyor to Lloyd's Register of Shipping.



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