

REPORT ON MACHINERY.

Received at London Office

WED. 9 - JUL. 1919

Date of writing Report 24th May, 1919 When handed in at Local Office

Port of Yokohama

No. in Survey held at Tokyo & Tsurumi

Date, First Survey Jan 10th Last Survey 20th May, 1919

Reg. Book.

(Number of Visits 24)

on the S. S. "Kaikyū Maru"

Tons Gross 8134 Net 5046

Master Built at Tsurumi

By whom built Asano Shipbuilding Co Ltd (Yard No. 16)

When built 1919

Engines made at Kobe

By whom made Kubota Iron Works

when made 1919

Boilers made at Tokyo

By whom made Ishikawajima S. B & E Co Ltd.

when made 1919

Registered Horse Power

Owners Katsuda Kisen Kaisha

Port belonging to Mitsugahama

Nom. Horse Power as per Section 28 703

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines

No. of Cylinders

No. of Cranks

Dia. of Cylinders

Length of Stroke

Revs. per minute

Dia. of Screw shaft

as per rule

Material of screw shaft

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

Is the after end of the liner made water tight

in the propeller boss If the liner is in more than one length are the joints burned

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

If two

liners are fitted, is the shaft lapped or protected between the liners

Length of stern bush

Dia. of Tunnel shaft

as per rule

Dia. of Crank shaft journals

as per rule

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

collars

Dia. of screw

Pitch of Screw

No. of Blades

State whether moveable

Total surface

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 2 Woodeson 10 1/2 x 8 x 24 Duplex 10 x 6 x 11 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 3 - 3 1/2 1 B.D. 1 Bilge 9 x 1 2 x 10 In Holds, &c. No. 1 - 2, 3 1/2", No. 2 - 2, 3 1/2", No. 3 -

2, 3 1/2", Side bunkers 2, - 3 1/2", No. 4 - 2, 3 1/2", No. 5 - 2, 3 1/2", tunnel well 1-3"

No. of Bilge Injections 2 sizes 7 3/4 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 3 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 Yes

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 Forward bilges How are they protected Wood ceiling

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 9835.2 Is Forced Draft fitted Yes No. and Description of Boilers 4 Multitubular 4 SB

Working Pressure 200 Tested by hydraulic pressure to 400 Date of test 17-4-19 No. of Certificate 43 2 off

Can each boiler be worked separately Yes Area of fire grate in each boiler 58.289 ft No. and Description of Safety Valves to

each boiler 2 Spring Loaded Area of each valve 11.04sqin 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 13/32 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 Outside diameter 3-10 1/4

Length of plain part top x Thickness of plates crown 5/8 Description of longitudinal joint Weld No. of strengthening rings xx

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 83sqin Working pressure by rules 221 End plates in steam space:

Material S Thickness 1 3/16 Pitch of stays 18 1/2 x 16 1/2 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 311sqin 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 1/2 x 4 1/2 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 1 1/2 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:— One crank shaft, one propeller shaft, one propeller blade, two connecting rod top - end bolts and nuts, two connecting rod bottom - end bolts and nuts, two main bearing bolts, one set of coupling bolts, one set of feed and bilge pump valves, one of piston springs, a quantity of assorted bolts and nuts, iron of various sizes.

The foregoing is a correct description,



T. Uchida Manufacturer.

Dates of Survey while building: During progress of work in shops - - - Jany 10, 18, 25, Feby 12, 21, 24, March 3, 10, 17, 24, 31 April 4, 7, 14, 17, 24, 30, 31; During erection on board vessel - - - April 16, 23, 24, 28, May 8, 9, 13, 19, 20. Total No. of visits 24.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts: Cylinders Slides Covers Pistons Rods Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller

Stern tube Steam pipes tested 3-5-19 Engine and boiler seatings 15-4-19 Engines holding down bolts 30-4-

Completion of pumping arrangements 13-5-19 Boilers fixed 24-4-19 Engines tried under steam 20-5-19

Completion of fitting sea connections 15-4-19 Stern tube 15-4-19 Screw shaft and propeller 15-4-19

Main boiler safety valves adjusted 19-5-19 Thickness of adjusting washers Jam nuts.

Material of Crank shaft S Identification Mark on Do. Material of Thrust shaft S Identification Mark on Do.

Material of Tunnel shafts S Identification Marks on Do. Material of Screw shafts S Identification Marks on Do.

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 See below

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

See Kobe Report No. 2485 for engines.

Duplicate vessels " Hakushika Maru " Reprt No. 2307,

" " " War Helmet " Report No. 2320,

" " " War Armour " Report No. 2328,

" " " War Lance " Report No. 2338,

" " " Aden " Report No. 2354,

" " " Capitaine Faure " Report No. 2363.

It is submitted that this vessel is eligible for THE RECORD. + LMC 5.19 FD

JUD ReM 9.7.19

JM

The amount of Entry Fee ... £ : : When applied for, Special ... £ 2560.00 21.5.19 Donkey Boiler Fee ... £ : : Travelling Expenses (if any) £ 10.50 24.5.19

Jas Cairns Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

FRI. JUL. 18. 1919

Assigned

+ L.M.C. 5.19

MACHINERY CERTIFICATE WRITTEN



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