

REPORT ON MACHINERY.

No. 2938

Received at London Office THU. JUL. 28 1921

Date of writing Report 2nd JUNE 1921 When handed in at Local Office 5th JUNE 1921 Port of YOKOHAMANo. in Survey held at TOKYO Date, First Survey 27th AUGUST 1920 Last Survey 23rd MAY 1921

Reg. Book. on the STEEL SINGLE SCREW STEAMER "KOKI MARU" (Number of Visits 4-5) Tons Gross 5693.74 Net 3496.11

Master E. FUKUDA Built at TOKYO By whom built ISHIKAWAJIMA S. B. & E. CO. When built 1921

Engines made at TOKYO By whom made ISHIKAWAJIMA S. B. & E. CO. when made 1921

Boilers made at TOKYO By whom made ISHIKAWAJIMA S. B. & E. CO. when made 1920 & 1921

Registered Horse Power Owners HASHIMOTO KISEN KAISHA Port belonging to ATAMIMACHI

Nom. Horse Power as per Section 28 515 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 26"-45 1/2"-72" Length of Stroke 48" Revs. per minute 79 Dia. of Screw shaft as per rule 15" Material of screw shaft as fitted 16" Steel

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 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 63 3/4"

Dia. of Tunnel shaft as per rule 13.54" Dia. of Crank shaft journals as per rule 14.12" Dia. of Crank pin 14.5" Size of Crank webs 27 1/2" Dia. of thrust shaft under

collars 14.5 Dia. of screw 17.9 Pitch of Screw 19'-1" No. of Blades 4 State whether moveable Total surface 97.6 sq

No. of Feed pumps 2 Diameter of ditto 4 1/2" Stroke 24" Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 24" Can one be overhauled while the other is at work yes

No. of Donkey Engines 18. 105. DONKEY Sizes of Pumps 7.5"x7" DUPLEX No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2 WOODSON FEED PUMPS 10"x8"x18" In Holds, &c. No. 1, 1.3 1/2; No. 2, 2-3 1/2; No. 3, 4.5 1/2

No. 4, 2.3 1/2 TUNNEL 1.2 1/2"

No. of Bilge Injections 1 sizes 9" Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size 5"

Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices in 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 No. 1 & 2 HOLD SUCTIONS 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 5) Manufacturers of Steel WORTH STEEL CO. CAMBRIA STEEL CO. GLASGOW, IRON & STEEL CO.

Total Heating Surface of Boilers 2296 Is Forced Draft fitted yes No. and Description of Boilers 3 Cylindrical Multitubular

Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 27-12-20 No. of Certificate 153

Can each boiler be worked separately yes Area of fire grate in each boiler 58.2 sq ft No. and Description of Safety Valves to

each boiler 2. Spring load Area of each valve 11.04 sq ft Pressure to which they are adjusted 205 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 26" Mean dia. of boilers 14'-3" Length 11'-6" Material of shell plates Steel

Thickness 1 1/2" Range of tensile strength 28532 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double

long. seams DOUBLE STRAP TRED RIVET 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 93 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 Union Material Steel Outside diameter 3'-8 7/8"

Length of plain part top 2 bottom 2 Thickness of plates crown 5/8 Description of longitudinal joint welded No. of strengthening rings 1

Working pressure of furnace by the rules 225 Combustion chamber plates: Material Steel Thickness: Sides 45/64 Back 1/16 Top 45/64 Bottom 15/16

Pitch of stays to ditto: Sides 10 1/2" x 7 1/2" Back 8 1/2" x 9 3/8" Top 8" x 9 1/4" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 206

Material of stays Steel Area at smallest part 2.03 Area supported by each stay 78.75 Working pressure by rules 229 End plates in steam space:

Material Steel Thickness 1 3/16 Pitch of stays 16 1/2" x 19" How are stays secured NUTS & WASHERS Working pressure by rules 211 Material of stays Steel

Area at smallest part 7.67 Area supported by each stay 313.5 Working pressure by rules 254 Material of Front plates at bottom Steel

Thickness 3/4" Material of Lower back plate Steel Thickness 3/4 Greatest pitch of stays 8 1/2" Working pressure of plate by rules 269

Diameter of tubes 3" Pitch of tubes 4 1/8" x 4 1/4" Material of tube plates Steel Thickness: Front 3/4 Back 3/4 Mean pitch of stays 8 1/2"

Pitch across wide water spaces 13 1/2" Working pressures by rules 225 Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 9" x 1 3/4" Length as per rule 30 3/4" Distance apart 8" Number and pitch of stays in each 2-9 1/4"

Working pressure by rules 225 Steam dome: description of joint to shell % of strength of joint

Diameter 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?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— One crank shaft, one screw shaft, one prop. blade, one set top end
brasses with bolts and nuts, one set bottom end brasses with bolts & nuts, one main bearing
with bolts & nuts, one set coupling bolts, one set feed & bilge valves, one set piston rings for
each cylinder, 24 boiler tubes 53 condenser tubes, 3 safety valve springs, 26 rods
1 valve spindle 1/2 set air pump valves, a quantity of assorted bolts and nuts
and iron of various sizes

The foregoing is a correct description,

THE ISHIKAWAJIMA SHIPBUILDING
AND ENGINEERING CO., LTD., TOKYO,

T. Uchida Manufacturer.

Dates of Survey while building: During progress of work in shops - 1920 Aug 21 Sept 14 21 25 27 Oct 8 15 22 26 30 Nov 5 15 30 Dec 3 14 19 20 23 27 Jan 7 14 16 18 25 28 Feb 17 14 21
During erection on board vessel - 1920 Nov 19 12 MAR 4 12 21 31 APR 6 14 18 28 MAY 3 9 16 18 23
Total No. of visits 4/8

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 8-10-20 Slides 14-1-21 Covers 15-11-20 Pistons 5-11-20 Rods 5-11-20
Connecting rods 5-11-20 Crank shaft 5-11-20 Thrust shaft 25-4-21 Tunnel shafts 25-4-21 Screw shaft 18-11-20 Propeller 18-11-20
Stern tube 26-10-20 Steam pipes tested 21-3-21 Engine and boiler seatings 19-11-20 Engines holding down bolts 14-4-21
Completion of pumping arrangements 23-5-21 Boilers fixed 18-4-21 Engines tried under steam 16-5-21
Completion of fitting sea connections 12-3-21 Stern tube 4-3-21 Screw shaft and propeller 4-3-21

Main boiler safety valves adjusted 9-5-21 Thickness of adjusting washers PORT 3/4 1/4 CENT 1 1/16 1/4 STD 5/8 7/16
Material of Crank shaft STEEL Identification Mark on Do. LLOYDS R.O.B. Material of Thrust shaft STEEL Identification Mark on Do. LLOYDS R.O.B.
Material of Tunnel shafts STEEL Identification Marks on Do. LLOYDS R.O.B. Material of Screw shafts STEEL Identification Marks on Do. LLOYDS R.O.B.
Material of Steam Pipes STEEL Test pressure 600 lb.

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 CLYDE MARU. MILAN MARU &c.

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 approved plans and
the Society's Rules. The materials and workmanship are good.
The machinery tried under steam and found satisfactory.
Eligible in my opinion for record of LMC 5-21

It is submitted that
this vessel is eligible for
THE RECORD + LMC 5.21 FD CL

Bel
5/8/21

APR

The amount of Entry Fee ... £ 60.00 When applied for, 30-5-1921
Special ... £ 798.00 When received, 4-6-1921
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) £ 144.00

Committee's Minute

Assigned

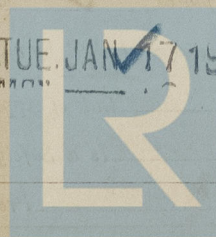
FRI. 5 AUG. 1921

+ LMC 5.21

LD. CL

Alfred Ewing
Engineer Surveyor to Lloyd's Register of Shipping.

TUE. JAN 17 1922



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Lloyd's Register
Foundation