

REPORT ON MACHINERY.

No. 2382.

Date of writing Report 3rd June, 1918 When handed in at Local Office

Received at London Office MON 22 JUL 1918

Port of Yokohama

No. in Survey held at
Reg. Book.

Date, First Survey Decr 27th, Last Survey 28th May, 1918

on the Steel Single Screw Steamer "Kureha Maru"

(Number of Visits 21)

Master

Built at Tsurumi

By whom built

Asano S. B. Co. Ltd (Yard No 7)

Tons { Gross 5809
Net 3648

Engines made at Tokio

By whom made

Ishikawajima Shipbuilding & E. Co. Ltd when made 1918

Boilers made at Tokio

By whom made

do when made 1918

I.H.P.
Registered Horse Power 3500

Owners Tatsuuma S. S. Co

Port belonging to Yokohama

Nom. Horse Power as per Section 28 513

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 26-43½-72

Length of Stroke 48

Revs. per minute 79

Dia. of Screw shaft as per rule 15

Material of 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 I length 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 tight fit If two liners are fitted, is the shaft lapped or protected between the liners xx Length of stern bush 63 ¾"

Dia. of Tunnel shaft as per rule 13.6

Dia. of Crank shaft journals as per rule 14.25

Dia. of Crank pin 14 ½

Size of Crank webs 27x9 ½

Dia. of thrust shaft under

collars 14 ½

Dia. of screw 17-19"

Pitch of Screw

No. of Blades 4

State whether moveable Yes

Total surface 99-65 sq ft

No. of Feed pumps 2

Diameter of ditto 4 ½

Stroke 24

Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2

Diameter of ditto 4 ½

Stroke 24

Can one be overhauled while the other is at work Yes

No. of Donkey Engines 1 G.D.

SIZES OF PUMPS

7"x5"x7

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2 Woodeson feed pumps 10 ½ x 8 x 8

3 - 3 ½"

No. 3, 2-3 ½"

No. 4, 2 - 3 ½"

In Holds, &c. No. 1, 1-3 ½"

No. 2, 2-3 ½"

No. of Bilge Injections 1 sizes 8"

Connected to condenser, or to circulating pump

Cer. P.

Is a separate Donkey Suction fitted in Engine room & size

Yes 5"

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 No. 1-2 holds bilge 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 S.) Manufacturers of Steel Worth Bros.

Total Heating Surface of Boilers 7376.4 Is Forced Draft fitted Yes No. and Description of Boilers 3 Multitubular

Working Pressure 200

Tested by hydraulic pressure to 400

Date of test 30-4-18

No. of Certificate A.7

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 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 ½

Pitch of rivets 10

Lap of plates or width of butt straps

22

Per centages of strength of longitudinal joint

rivets 91.4

Working pressure of shell by rules

223

Size of manhole in shell

16 x 12

Size of compensating ring 36 ½ x 32 ½

No. and Description of Furnaces in each boiler

3 Deighton

Material S

Outside diameter

3-10 ½

Length of plain part top xx

Thickness of plates

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 ½ x 7 ½

Back 8 ½ x 8 ½

Top 9 ½ 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 ½ x 16 ½

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 ¾

Material of Lower back plate

S

Thickness ¾

Greatest pitch of stays

8.5

Working pressure of plate by rules

276

Diameter of tubes 3

Pitch of tubes 4 ½ x 4 ½

Material of tube plates

S

Thickness: Front

¾

Back ¾

Mean pitch of stays 8 ¾

Pitch across wide water spaces 13 ½

Working pressures by rules

225

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

8 x 13 ½

Length as per rule 30 ¾

Distance apart

8

Number and pitch of stays in each

2 x 9 ½

Working pressure by rules

225

Steam dome: description of joint to shell

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

Pressure to which each is adjusted

Is Easing Gear fitted

Diam. of rivet holes

Pitch of rivets

Working pressure of shell by rules

Crown plates

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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, 2 Connecting rod top- end belts and nuts, 2 connecting rod bottom-end belts and nuts, 2 main bearing belts, 1 set of coupling belts, 1 set of feed and bilge pump valves, 1 set of piston springs, A quantity of assorted belts and nuts, Iron of various sizes.

The foregoing is a correct description,

T. Uchida

THE ISHIKAWAJIMA SHIP BUILDING
AND ENGINEERING Co. Ltd, TOKYO.

Manufacturer.

Dates of Survey while building { During progress of work in shops -- Decr 27, Jan'y 14, 18, 22, Feb'y 8, 21, 23, March 15, 26, April 4, 16, 22, 27, 30.
During erection on board vessel -- May 10, 11, 14, 23, 25, 27, 28.
Total No. of visits 21.

Is the approved plan of main boiler forwarded herewith No ✓

Dates of Examination of principal parts—Cylinders 22-4-18 Slides 30-4-18 Covers 30-4-18 Pistons 16-4-18 Rods 19-2-18
Connecting rods 8-2-18 Crank shaft 1-2-18 Thrust shaft 19-11-18 Tunnel shafts 12-2-18 Screw shaft 17-12-17 Propeller 16-4-18
Stern tube 15-3-18 Steam pipes tested 20-5-18 Engine and boiler seatings 8-3-18 Engines holding down bolts 14-5-18
Completion of pumping arrangements 23-5-18 Boilers fixed 14-5-18 Engines tried under steam 25-5-18
Completion of fitting sea connections 25-4-18 Stern tube 15-4-18 Screw shaft and propeller 25-4-18
Main boiler safety valves adjusted 23-5-18 Thickness of adjusting washers F.B.P. 15/16 fl. A.S.B. 1/16 fl. 3/16 A.P.B.
Material of Crank shaft S Identification Mark on Do. R.O.B. Material of Thrust shaft S Identification Mark on Do. 13/16 fl. R.O.B.
Material of Tunnel shafts S Identification Marks on Do. R.O.B. Material of Screw shafts S Identification Marks on Do. R.O.B.
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 No ✓ If so, state name of vessel

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 5-18.

It is submitted that this vessel is eligible for THE RECORD. + LMC 5. 18. F. D.

J.W.D.
26/7/18

James Cairns

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 30 :	When applied for,
Special ... £ 685 :	19
Donkey Boiler Fee ... £ :	When received,
Travelling Expenses (if any) £ 38.50 :	19

Committee's Minute

FRI. 26 JUL. 1918

Assigned

+ R.M.C. 5. 18 J.D.

MACHINERY CERTIFICATE



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