

REPORT ON MACHINERY

No. 2571

Received at London Office

TUE SEP 23 1919

Date of writing Report

19

When handed in at Local Office

19

Port of Kobe

No. in Survey held at
Reg. Book.

Kobe

Date, First Survey 16 Nov. 1918 Last Survey 21 May 1919

(Number of Visits 40)

on the Steel Single Screw Steamer "Chile Maru"

Gross 5850 90
Net 4260 31

Master N. Asano

Built at

Kobe

By whom built Kawasaki Dockyard Co., Ltd.

When built 1919

Engines made at

Kobe

By whom made

Kawasaki Dockyard Co., Ltd.

when made 1919

Boilers made at

do

By whom made

do

when made 1919

Registered Horse Power

Owners The Kawasaki Kisen Kaisha

Port belonging to Kobe

Nom. Horse Power as per Section 28

440

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: 43 1/2: 72 Length of Stroke 48 Revs. per minute 70 Dia. of Screw shaft 15-6 as per rule 15-4 as fitted 16 Material of screw shaft Steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube No liner 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 5: 5 1/2

Dia. of Tunnel shaft as per rule 13-48 as fitted 13-54 Dia. of Crank shaft journals as per rule 14-15 as fitted 14-21 Dia. of Crank pin 14 3/4 Size of Crank webs 9 1/2 + 20 1/2 Dia. of thrust shaft under collars 14 3/8 Dia. of screw 17: 6 Pitch of Screw 19: 0 mean No. of Blades 4 State whether moveable yes Total surface 100 sq. ft. + 268 at pin + journal

No. of Feed pumps One Diameter of ditto 5 Stroke 24 Can one be overhauled while the other is at work yes (with Weir's feed)

No. of Bilge pumps Two Diameter of ditto 5 Stroke 24 Can one be overhauled while the other is at work yes

No. of Donkey Engines Three Sizes of Pumps Bal. 10" x 11" x 12" dupl. Weir's feed 9 1/2 x 7 x 2 1/2 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Three 3 1/2 Gen. Sw. 7 1/2 x 5 x 6 dupl. In Holds, &c. Nos. 1, 3 + 4 holds each two 3 1/2

and One 3 1/2 to Tunnel Well No. 2 hold, two 4

No. of Bilge Injections 1 sizes 9 Connected to condenser, or to circulating pump In p. 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 Larger Valves, Smaller Cocks

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 None How are they protected

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 upper platform of Eng. R.

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Illinois Worth Bros. American Spiral Pipe Wks.

Total Heating Surface of Boilers 5636 Is Forced Draft fitted yes No. and Description of Boilers Two 3. 6 + Aux. 5. 6

Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 14 1/2 18 March No. of Certificate 400 LBS

Can each boiler be worked separately yes Area of fire grate in each boiler 60 1/2 No. and Description of Safety Valves to

each boiler Two Spring loaded Area of each valve 3 1/2 dia. 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 12 Mean dia. of boilers 14: 6 Length 12: 0 Material of shell plates Steel

Thickness 1 1/2 Range of tensile strength 26-7851632 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams Ends doub. Mid. Triple.

long. seams Free riveted Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 9 1/2 + 4 1/16 Lap of plates or width of butt straps 20 1/2

Per centages of strength of longitudinal joint rivets 96 plate 84.5 Working pressure of shell by rules 204 lbs. Size of manhole in shell 16 x 12

Size of compensating ring (7 1/2 + flange) 1 1/2 No. and Description of Furnaces in each boiler 3 Morrison's Material Steel Outside diameter 48 1/4

Length of plain part top bottom Thickness of plates crown 2 1/32 Description of longitudinal joint Weld No. of strengthening rings

Working pressure of furnace by the rules 221 Combustion chamber plates: Material Steel Thickness: Sides 1 1/16 Back 1 1/16 Top 1 1/16 Bottom 1 1/8

Pitch of stays to ditto: Sides 8 1/2 x 8 1/2 Back 8 1/2 x 9 Top 8 1/2 x 9 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 203 lbs.

Material of stays Steel Area at smallest part 2. 10 Area supported by each stay 8 1/2 x 9 1/2 Working pressure by rules 230 lbs. End plates in steam space:

Material Steel Thickness 1 1/8 Pitch of stays 19 1/2 x 20 1/2 How are stays secured Doub. nuts Working pressure by rules 201 lbs. Material of stays Steel

Area at smallest part 10 Area supported by each stay 19 1/2 x 20 1/2 Working pressure by rules 201 lbs. Material of Front plates at bottom Steel

Thickness 13/16 Material of Lower back plate Steel Thickness 3/4 Greatest pitch of stays 13 1/2 + 4 wide Working pressure of plate by rules 200 lbs.

Diameter of tubes 3 1/4 Pitch of tubes 11 1/2 x 11 1/2 Material of tube plates Steel Thickness: Front 1 Back 13/16 Mean pitch of stays 8 3/4

Pitch across wide water spaces 13 3/4 3/4 Working pressures by rules 210 lbs. Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 10 1/2 x 13/16 Length as per rule 34 1/2 Distance apart 9 3/8 Number and pitch of stays in each 3 @ 8 1/2

Working pressure by rules 220 lbs. 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

009/82 - 009/91 - 0216

IS A DONKEY BOILER FITTED? *Aux. Br. only* If so, is a report now forwarded? *yes*

SPARE GEAR. State the articles supplied:—

Four main bearing bolts + nuts	Set packing rings + springs each piston	Centrifugal pump
Two crank pin bolts + nuts	Set junk ring bolts + nuts	impeller + shaft
Two crosshead bolts + nuts	One part crank shaft	Crosshead + crank pin
Set coupling bolts + nuts	Propeller shaft	A.P. rod + nut 3 set
Set Feed + Bilge pump valves	Four blades + 2 sets studs + nuts	Valve springs and
Assorted bolts + nuts + iron	Slide valve spindle each size	Br. tubes etc. etc.

The foregoing is a correct description

Kawasaki Dockyard Co., Ltd.

Per *J. Ota Kane*

Manufacturer.

Dates of Survey
During progress of work in shops --
During erection on board vessel --
building
Total No. of visits

Nov. 16. 22. Dec. 9. 14. 27. 1918. Jan. 6. 16. 18. 21. 22. 24. Feb. 3. 13. 15. 18. 19. 20. 22. 26.

March 5. 6. 8. 10. 13. 14. 18. 29. April 4. 9. 10. 16. 18. 19. 21. 25. 29. May 12. 15. 21. 1919

Is the approved plan of main boiler forwarded herewith

" " " donkey " " " *S/S Glasgow*

Dates of Examination of principal parts—Cylinders *26/2/19* Slides *4/4/19* Covers *17/4/19* Pistons *25/4/19* Rods *9/12/18*

Connecting rods *16/4/19* Crank shaft *13/3/19* Thrust shaft *13/3/19* Tunnel shafts *9/4/19* Screw shaft *4/4/19* Propeller *16/4/19*

Stern tube *9/4/19* Steam pipes tested *16. 21. 29/4/19* Engine and boiler seatings *25/4/19* Engines holding down bolts *12/5/19*

Completion of pumping arrangements *9/5/19* Boilers fixed *9/5/19* Engines tried under steam *(14/5/19) Overhaul*

Completion of fitting sea connections *22/4/19* Stern tube *25/4/19* Screw shaft and propeller *30/4/19*

Main boiler safety valves adjusted *12/5/19* Thickness of adjusting washers *Locknuts clear. Port Bl. F 3/2. Star. F 7/8. A.W. 19. 13/3*

Material of Crank shaft *Steel* Identification Mark on Do. *13-3-19 A.W. 19* Material of Thrust shaft *Steel* Identification Mark on Do. *13/3/19*

Material of Tunnel shafts *Steel* Identification Marks on Do. *13-3-19 A.W. 19* Material of Screw shafts *Steel* Identification Marks on Do. *13-3-19 A.W. 19*

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. *Spare*

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 *War Queen (Rpt 2009) etc*

Liverpool Meru (2519) Glasgow Meru

General Remarks (State quality of workmanship, opinions as to class, &c.) *Singapore Meru (2530)*

The machinery has been made & fitted under special survey, in accordance with the Rules & materials & workmanship are good.

The vessel is eligible in my opinion for the notation + LMC 5.1919

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

25/9/19

A.L. Jones & A. Watt

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... *40* : When applied for, *4 June 1919*

Special ... *735* : When received, *9 June 1919*

Donkey Boiler Fee ... *15* : Travelling Expenses (if any) *15*

Committee's Minute

Assigned *25/9/19*

WATSON'S CERTIFICATE

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