

REPORT ON MACHINERY.

No. 2567

Received at London Office

TUE FEB 23 1919

Date of writing Report 15th Aug 1919 When handed in at Local Office

Port of Kobe

No. in Survey held at
Reg. Book.Date, First Survey 18th Jan.Last Survey 5th July 1919

(Number of Visits 43.)

Gross 5860

Net 4260

on the Steel Single Screw Steamer "Aden Marie"

Master K. NAGAYA

Built at Kobe

By whom built Kawasaki Bkyd. 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 Kaisha

Port belonging to Kobe

Nom. Horse Power as per Section 28 1140

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders Three

No. of Cranks Three

Dia. of Cylinders 26: 43 1/2 : 72

Length of Stroke 48

Revs. per minute 70

Dia. of Screw shaft

as per rule 15.6

Material of 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

Length of stern bush 5' : 5 1/4"

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

Dia. of Tunnel shaft

as per rule 13.48

Dia. of Crank shaft journals

as per rule 14.15

Dia. of Crank pin 14 3/4

Size of Crank webs 90 1/2 x 20 1/2

Dia. of thrust shaft under

+26 1/2 x pin + journal

Total surface 100 sq. ft.

collars 1 1/2

Dia. of screw 17' : 6"

Pitch of Screw 19' : 0"

mean No. of Blades 1

State whether moveable Yes

Total surface 100 sq. ft.

No. of Feed pumps One

Diameter of ditto 6"

Stroke 24"

Can one be overhauled while the other is at work Yes (with Weir feed)

No. of Bilge pumps Two

Diameter of ditto 6"

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 feed 9 1/2" x 7" x 24" Two

Gen. Serv. 7 1/2" x 5" x 6" Dupl.

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

In Engine Room Three 3 1/2

and One 3 1/2 to tunnel well

In Holds, &c. Nos. 1, 3 + 1 holds each two 3 1/2

No. 2 hold, two 1"

No. of Bilge Injections 1

sizes 9"

Connected to condenser, or to circulating pump

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

How are they protected

What pipes are carried through the bunkers None

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 E. R.

BOILERS, &c.—(Letter for record S.)

Manufacturers of Steel Illinois Steel Co, Carnegie Steel, North Br. & Amer. Spiral

2252 x 2 + 1132 (aux. lbs.)

Total Heating Surface of Boilers = 5636

Is Forced Draft fitted Yes

No. and Description of Boilers Two 3. 6 + Aux.

2SB & 1AUX.SB

LLOYD'S TEST

400 LBS

Working Pressure 200 lbs.

Tested by hydraulic pressure to 400 lbs.

Date of test 21-5-19

No. of Certificate 21-5-19

24-5-19

No. and Description of Safety Valves to

Can each boiler be worked separately Yes

Area of fire grate in each boiler 602

Are they fitted with easing gear Yes

each boiler Two Spring loaded

Area of each valve 3 1/4" 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 3/8"

Range of tensile strength 26,48 to 32

Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams Ends double

Pitch of rivets 9 1/8 + 1 1/16"

Lap of plates or width of butt straps 20 1/2 + 1 3/8"

long. seams Double riveted

Diameter of rivet holes in long. seams 1 1/16"

Pitch of rivets 9 1/8 + 1 1/16"

Lap of plates or width of butt straps 20 1/2 + 1 3/8"

Per centages of strength of longitudinal joint

rivets 95.84

Working pressure of shell by rules 200 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 1/2"

Length of plain part top

Thickness of plates crown 21/32

Description of longitudinal joint Weld

No. of strengthening rings

Working pressure of furnace by the rules 221

Combustion chamber plates: Material Steel

Thickness: Sides 11/16"

Back 11/16"

Top 11/16"

Bottom 7/8"

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. 1"

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 3/8"

Pitch of stays 19 1/2 x 20 1/2

How are stays secured Double 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 260 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 at wide

Working pressure of plate by rules 200 lbs.

Mean pitch of stays 8 1/2"

Diameter of tubes 3 1/4"

Pitch of tubes 4 1/6 x 4 1/6

Material of tube plates Steel

Thickness: Front 1"

Back 13/16"

Mean pitch of stays 8 1/2"

Pitch across wide water spaces 13 1/4 + 3/4

Working pressures by rules 210 lbs.

Girders to Chamber tops: Material Steel

Depth and

thickness of girder at centre 10 3/4 + 13/16 (2)

Length as per rule 3 1/2"

Distance apart 9 1/2"

Number and pitch of stays in each 3 @ 8 1/2"

% of strength of joint

Working pressure by rules 220 lbs.

Steam dome: description of joint to shell

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 Schmidt's

Date of Approval of Plan

Tested by Hydraulic Pressure to 600 lbs.

Date of Test 22nd May No. 14h; 21/5 No. 2 Bh

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes

Is Easing Gear fitted No

Diameter of Safety Valve 3"

Pressure to which each is adjusted 205 lbs.

007078-007087-0239

IS A DONKEY BOILER FITTED? *Ans. Bkr. 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 impeller shaft
Two crank pin bolts + nuts	✓	Set junk ring bolts + nuts	Crosshead + crankpin brasses
Two crosshead bolts + nuts	✓	One part crank shaft	A.P. rod + nut.
Set coupling bolts + nuts	✓	Propeller shaft. { P.F. 801 LLOYDS AW. E.	3 safety valve springs Cond
Set feed + bilge pump valves	✓	Four blades + 2 sets studs + nuts	Bkr. liches etc. etc.
Assorted bolts + nuts + iron	✓	Slide valve spindle each size	

The foregoing is a correct description,

Kawasaki Dockyard Co., Ltd.,

Per *J. Ota Kane*

Secretary.

Manufacturer.

Dates of Survey while building { During progress of work in shops -- } *1919 Jan. 18, 21, 24, 29; Feb 5, 12, 21, 25, 28; Mar. 1, 3, 6, 24, 28, 29; Apr. 4, 8, 11, 12, 19, 22, 25*
{ During erection on board vessel -- } *May 1, 2, 5, 10, 14, 16, 17, 19, 21; June 3, 5, 9, 11, 12, 13, 30; July 3, 4, 5.*
Total No. of visits *42.*

Is the approved plan of main boiler forwarded herewith *No*
" " " *any* " " *See Glasgow Mary R. Material*
" " " *any* " " *No.*

Dates of Examination of principal parts—Cylinders *8-4-19* Slides *21-5-19* Covers *8-4-19* Pistons *21-5-19* Rods *11-6-19*

Connecting rods *9-6-19* Crank shaft *30-4-19* Thrust shaft *30-4-19* Tunnel shafts *16-5-19* Screw shaft *15-5-19* Propeller *21-5-19*

Stern tube *21-5-19* Steam pipes tested *13-6-19* Engine and boiler seatings *12-6-19* Engines holding down bolts *25-6-19*

Completion of pumping arrangements *25-6-19* Boilers fixed *30-6-19* Engines tried under steam *3-7-19* overhaul *4-7-19*

Completion of fitting sea connections *12-6-19* Stern tube *6-6-19* Screw shaft and propeller *12-6-19*

Main boiler safety valves adjusted *30-6-19* Thickness of adjusting washers *Lock nuts — Caps sealed by Jap. Gov. Ins.*

Material of Crank shaft *Steel* Identification Mark on Do. *LLOYDS 30-4-19 AW. E.* Material of Thrust shaft *Steel* Identification Mark on Do. *LLOYDS 30-4-19 AW. E.*

Material of Tunnel shafts *Steel* Identification Marks on Do. *LLOYDS 16-5-19 AW. E.* Material of Screw shafts *Steel* Identification Marks on Do. *PF 815 LLOYDS 19-5-19 AW. E.*

Material of Steam Pipes *Steel* Test pressure *600 lbs sq inch Water.*

Is an installation fitted for burning oil fuel *✓* 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 *"War Queen" Rpt no 2009*

General Remarks (State quality of workmanship, opinions as to class, &c. *War Prince " 2031*
Glasgow Mary " 2528
Brazil Mary " 2572

The machinery has been made + fitted under Special Survey in accordance with the requirements of the Rules + the materials + workmanship are good.

The vessel is eligible in my opinion for the notation
+L.M.C. 7, 19 in Register Book.

It is submitted that
this vessel is eligible for
THE RECORD + L.M.C. 7, 19. F.D.

The amount of Entry Fee ... *Yen 30⁰⁰* : When applied for, *7th July 1919*
Special ... *Yen 735⁰⁰* :
Boiler Fee *Inc. £* : When received, *11th July 1919*
Travelling Expenses (if any) *Yen 15⁰⁰* :

Committee's Minute

Assigned

TUE 7-OCT. 1919

Alexander Watt
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation