

REPORT ON MACHINERY.

No. 2658.

Received at London Office

SAT JUL 3 1920

Date of writing Report 27-5-1920 When handed in at Local Office

Port of Yokohama

No. in Survey held at Yokohama
Reg. Book.

Date, First Survey 12-7-19

Last Survey 19th May, 1920.

(Number of Visits 32)

on the Steel S.S. "Sapporo Maru No. 8" Yard No. 8.

Tons { Gross 2206.7
Net 1323.07

Master Built at Yokohama

By whom built Uchida S. B & E Co

When built 1920.

Engines made at Yokohama

By whom made Uchida S. B & E Co

when made 1920.

Boilers made at Kanagawa (Yka)

By whom made Uchida S. B & E Co

when made 1920.

Registered Horse Power

Owners Inugami Steamship Coy

Port belonging to Yokohama

Nom. Horse Power as per Section 28

190 2/6

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Triple Reciprocating

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 19 x 31 1/2 x 52

Length of Stroke 39

Revs. per minute 68

Dia. of Screw shaft as per rule 11.39

Material of S

as fitted 12

screw shaft

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

X

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

XX

If two

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

XXX

Length of stern bush 48 1/2

Dia. of Tunnel shaft as per rule 9.9

Dia. of Crank shaft journals as per rule 10.4

Dia. of Crank pin 10 3/4

Size of Crank webs 6 1/2 x 20 x 38 1/2

Dia. of thrust shaft under

collars 10 1/2

Dia. of screw 14'-2"

Pitch of Screw 16'-3"

No. of Blades 4

State whether moveable

No

Total surface 81 sq ft

No. of Feed pumps 2

Diameter of ditto 4

Stroke 19 1/2

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps 2

Diameter of ditto 4

Stroke 19 1/2

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines 3

Sizes of Pumps 1-6x8x18

1-7x9x9

1-5 1/2 x 3 x 5

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

In Engine Room 2-3"

In Holds, &c. F.P. 1-3, Fore Hold 2-3, After Hold 2-3,

A.P. 1-3"

No. of Bilge Injections 1

size 6"

Connected to condenser, or to circulating pump

Yes

Is a separate Donkey Suction fitted in Engine room & size

Yes 1-3"

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

Yes

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

XX

How are they protected

XX

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 of Engine room

BOILERS, &c.—(Letter for record

(S)

Manufacturers of Steel Carnegie Steel Co

Total Heating Surface of Boilers 3019.52

Is Forced Draft fitted

Yes

No. and Description of Boilers

2 Scotch Marine Type

Working Pressure 180

Tested by hydraulic pressure to 360

Date of test 31-3-20

No. of Certificate 109

Can each boiler be worked separately

Yes

Area of fire grate in each boiler 40.5

No. and Description of Safety Valves to

each boiler 2 Spring loaded

Area of each valve 7.07

Pressure to which they are adjusted 180

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

XX

Mean dia. of boilers 11'-6"

Length 11'-3"

Material of shell plates S

Thickness 1"

Range of tensile strength 26 to 32 T Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams D.R.L.

long. seams T.R.D.B.S.

Diameter of rivet holes in long. seams 1 3/16

Pitch of rivets 8 1/2

Lap of plates or width of butt straps 16 3/4

Per centages of strength of longitudinal joint

rivets 96.9

Working pressure of shell by rules 191

Size of manhole in shell 12 x 16

Size of compensating ring

X

No. and Description of Furnaces in each boiler 2 Morison O.S.

Material S

Outside diameter 44 5/8

Length of plain part

top X

Thickness of plates

crown 5/8

bottom 5/8

Description of longitudinal joint

Welded

No. of strengthening rings

X

Working pressure of furnace by the rules 225

Combustion chamber plates: Material S

Thickness: Sides 5/8

Back 3/4

Top 3/4

Bottom 3/4

Pitch of stays to ditto: Sides 8 1/2 x 8

Back 8 3/8 x 8

Top 8 1/2 x 8 1/2

If stays are fitted with nuts or riveted heads

D.Nuts

Working pressure by rules 196

Material of stays S

Area at smallest part 1.79

Area supported by each stay 68.3

Working pressure by rules 286

End plates in steam space:

Material S

Thickness 1"

Pitch of stays 16 3/4 x 15

How are stays secured

D.Nuts

Working pressure by rules 188

Material of stays S

Area at smallest part 5.38

Area supported by each stay 251.25

Working pressure by rules 221

Material of Front plates at bottom S

Thickness 3/4

Material of Lower back plate S

Thickness 3/4

Greatest pitch of stays 18 x 8 1/2

Working pressure of plate by rules 196

Diameter of tubes 3

Pitch of tubes 4 x 4

Material of tube plates S

Thickness: Front 3/4

Back 3/4

Mean pitch of stays 8

Pitch across wide water spaces 13 3/4

Working pressures by rules 214

Girders to Chamber tops: Material S

Depth and

thickness of girder at centre 7 1/2 x 1 1/2

Length as per rule 28

Distance apart 8 1/2

Number and pitch of stays in each

2 at 8 1/2

Working pressure by rules 199.6

Steam dome: description of joint to shell

XX

% of strength of joint

XX

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

007100 - 007115 - 0178

REPORT ON MACHINERY.

IS A DONKEY BOILER FITTED? No. If so, is a report now forwarded?

SPARE GEAR. State the articles supplied :-
2 each connecting rod top and bottom end bolts nuts and brasses, 2 main bearing bolts, 1 set of coupling bolts, 1 set of feed and bilge pump valves, 1 set of piston rings, complete for each engine quantity assorted bolts and nuts and steel plates, 1 valve spindle for each engine, 1 set of eccentric rods, 2 safety valve springs, 3 set of air pump valves, 1 circulating pump impeller, 1 set of valves, seats, and springs for Auxiliary pumps.

The foregoing is a correct description,

J. La. Leta. Manufacturer.

Dates of Survey while building { During progress of work in shops -- July 12, Aug 25, Sept 10, 13, 18, 22, 30, Oct 6, 10, 13, 18, 22, Nov 27, Dec 18, Jan 13, 18, Feb 6, 19, Mar 4, 15, 27, Apr 5, 7, 13, 28 May 4, 7, 10, 12, 14, 17, 19.
During erection on board vessel --
Total No. of visits 32.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 12-7-19 Slides 25-8-19 Covers 12-7-19 Pistons 18-9-19 Rods 18-9-19
Connecting rods 18-9-19 Crank shaft 15-1-20 Thrust shaft 13-1-20 Tunnel shafts 19-2-20 Screw shaft 19-2-20 Propeller 19-2-20
Stern tube 19-2-20 Steam pipes tested 13-4-20 Engine and boiler seatings 27-3-20 Engines holding down bolts 28-4-20
Completion of pumping arrangements 4-5-20 Boilers fixed 4-5-20 Engines tried under steam 10-5-20
Completion of fitting sea connections 4-5-20 Stern tube 4-5-20 Screw shaft and propeller 4-5-20
Main boiler safety valves adjusted 10-5-20 Thickness of adjusting washers Lock nuts.
Material of Crank shaft S Identification Mark on Do. F.G.A. Material of Thrust shaft S Identification Mark on Do. F.G.A.
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
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 and boilers of this vessel were constructed under special survey of materials tested to Rule Requirements and workmanship was found sound throughout, On completion the machinery was thoroughly tested under working condition with satisfactory result, In the opinion of the undersigned the machinery is eligible to be classed in the Register Book **LMC 5-20** and notation Electric Light.

It is submitted that this vessel is eligible for THE RECORD. + LMC 5. 20. F.D.

ARR
20/7/20
J. Frankland.

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee £ 30.00 : When applied for,
Special £ 498.00 : 15-5- 19 20
Donkey Boiler Fee £ : : When received,
Travelling Expenses (if any) £ 29.00 : 17-5- 19 20.

Committee's Minute FRI. JUL. 23 1920
Assigned + LMC 5. 20 70.
MACHINERY DEPT
WRITTEN

© 2020
Lloyd's Register Foundation
FRI. JUL. 28 1922