

REPORT ON MACHINERY.

No. 2686.

Received at London Office

Report Dec 22nd 1919 When handed in at Local Office

Port of KOBE

TUE. 24th FEB. 1920

Survey held at

Kobe

Date, First Survey

July 14th

Last Survey

Dec. 12th 1919.

on the Steel Single Screw Steamer

"SPAIN MARU"

K. NAKAJIMA.

Built at

Kobe

By whom built

The Kawasaki Dockyard Co.

When built

1919

made at

Kobe

By whom made

The Kawasaki Dockyard Co. Ltd.

when made

1919

made at

do

By whom made

do

when made

1919

and Horse Power

Owners

Kawasaki Kisen Kaisha.

Port belonging to

Kobe

se Power as per Section 28

437
440

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

yes

ES, &c.—Description of Engines

TRIPLE EXPANSION

No. of Cylinders

THREE

No. of Cranks

3

Cylinders 26: 43 1/2: 72

Length of Stroke

48"

Revs. per minute

70

Dia. of Screw shaft

as per rule 15.41
as fitted 16"

Material of STEEL

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

propeller boss

If the liner is in more than one length are the joints burned

yes

If the liner does not fit tightly at the part

the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

If two

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

Length of stern bush

5'-5 1/4"

Tunnel shaft

as per rule 13.48

13.54

Dia. of Crank shaft journals

as per rule 14.15

4.22

Dia. of Crank pin

14 3/4"

Size of Crank webs

8 1/2 x 2 1/2"

Dia. of thrust shaft under

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.

Feed pumps One

Diameter of ditto

5"

Stroke

24"

Can one be overhauled while the other is at work yes (with Weir's Feed)

Bilge pumps Two

Diameter of ditto

5"

Stroke

24"

Can one be overhauled while the other is at work

yes

Donkey Engines THREE

Sizes of Pumps

Ballast 10 x 11 x 12

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

Donkey 5 1/2 x 3 1/2 x 9

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

No. 1, 3, & 4 Hold each two 3 1/2"

Engine Room THREE

3 1/2"

ONE 3 1/2" to tunnel well

No. 2. Hold Two 4"

Is a separate Donkey Suction fitted in Engine room & size

yes 3 1/2"

Bilge Injections 1

Connected to condenser, or to circulating pump

yes

Is a separate Donkey Suction fitted in Engine room & size

yes 3 1/2"

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

connections with the sea direct on the skin of the ship

yes

Are they Valves or Cocks

Larger valves, Smaller Cocks.

yes

Are the Discharge Pipes above or below the deep water line

above

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

pipes are carried through the bunkers

None

How are they protected

yes

Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

yes

Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

yes

Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from up platform of Eng. Rm.

ERS, &c.—(Letter for record

S.

Manufacturers of Steel

Illinois Stl. Co., Carnegie Stl. Co., Am. Spiral Pipe Co.

2. S.B. & 1. A.U.S.B. (Furnaces)

2252 x 2 + 1132 (AUX BLR)

No. and Description of Boilers

Two S.E. & AUX. S.E.

No. 1

No. 2

Heating Surface of Boilers

5636 sq. ft.

Forced Draft fitted

yes

No. and Description of Boilers

Two S.E. & AUX. S.E.

No. 1

No. 2

No. of Certificate

No. 1

Working Pressure

200 lbs.

Tested by hydraulic pressure to

400 lbs.

Date of test

23-10-19

28-10-19

No. of Certificate

No. 1

No. 2

each boiler be worked separately

yes

Area of fire grate in each boiler

60 1/2 sq. ft.

No. and Description of Safety Valves to

each boiler

Two

Are they fitted with easing gear

yes

Clearance between boilers or uptakes and bunkers or woodwork

12"

Mean dia. of boilers

14'-6"

Length

12'-0"

Material of shell plates

STEEL

Range of tensile strength

2678 to 3260

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

ENDS DOUB.

1 3/8"

Diameter of rivet holes in long. seams

1 1/8"

Pitch of rivets

9 1/2" x 4 1/6"

Lap of plates or width of butt straps

20 1/2" + 1 3/8"

to be gages of strength of longitudinal joint

rivets 95.84

plate 84.28

Working pressure of shell by rules

200 lbs.

Size of manhole in shell

16" x 12"

No. and Description of Furnaces in each boiler

3 MORISON'S

Material

STEEL

Outside diameter

48 1/4"

Thickness of plates

2 1/2"

Description of longitudinal joint

WELD

No. of strengthening rings

yes

Working pressure of furnace by the rules

221

Combustion chamber plates: Material

STEEL

Thickness: Sides

1 1/16"

Back

1 1/16"

of stays to ditto: Sides

8 1/2" x 8 1/2"

Back

8 1/2" x 9"

Top

8 1/2" x 9 3/8"

If stays are fitted with nuts or riveted heads

NUTS

Working pressure by rules

203 lbs.

End plates in steam space:

Material of stays

STEEL

Working pressure by rules

201 lbs.

at smallest part

10 1/4"

Area supported by each stay

19 3/4" x 20 1/2"

Working pressure by rules

260

Material of Front plates at bottom

STEEL

Thickness

3 1/4"

Greatest pitch of stays

13 1/2" at Wide

Working pressure of plate by rules

200 lbs.

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/6" x 4 5/6"

Material of tube plates

STEEL

Thickness: Front

1"

Back

1 1/16"

Mean pitch of stays

8 3/4"

Working pressures by rules

210 lbs.

h across wide water spaces

3 3/4" x 3 3/4"

Girders to Chamber tops: Material

STEEL

Depth and

Length as per rule

34 1/2"

Distance apart

9 3/8"

Number and pitch of stays in each

3 @ 8 1/2"

% of strength of joint

yes

