

REPORT ON MACHINERY

WED. FEB. 11, 1920

Received at London Office

Date of writing Report

19

When handed in at Local Office

9. 2.

1920. Port of

Glasgow

No. in Survey held at Reg. Book.

Glasgow

Date, First Survey

12th Sept 1918

Last Survey

23rd Jan 1920

on the

T.S.S. OTAKI

(Number of Visits) 96

Gross 4964

Net 4985

Master

Built at

Glasgow

By whom built

Barclay Curle & Co Ltd

When built

1920

Engines made at

Glasgow

By whom made

No.

when made

1920

Boilers made at

No.

By whom made

Double ended

No.

when made

1920

Registered Horse Power

Owners

Federal Stevedoring Co Ltd

Port belonging to

Plymouth

Nom. Horse Power as per Section 28

1122

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

No. of Cranks

Dia. of Cylinders

26 1/2, 44, 73

Length of Stroke

48

Revs. per minute

Dia. of Screw shaft

as per rule 14.6

Material of screw shaft

Steel

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

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

Dia. of Tunnel shaft

as per rule 13.69

Dia. of Crank shaft journals

as per rule 14.38

Dia. of Crank pin

14 3/4

Size of Crank webs

9x28

Dia. of thrust shaft under collars

15

Dia. of screw

17-3

Pitch of Screw

19-0

No. of Blades

4

State whether moveable

Yes

No. of Feed pumps

4

Diameter of ditto

4 1/2

Stroke

24

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

4

Diameter of ditto

4 1/2

Stroke

24

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

5

Sizes of Pumps

2 Feed 15 1/2 x 11 1/2 x 24

1 Ballast 10 x 12 x 12

1 General 10 x 7 x 12

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

In Engine Room

(3) 3 1/2, (2) 3 1/2

No. of Bilge Injections

2

sizes

13

Connected to condenser, or to circulating pump

Yes

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

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

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

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 E.R. top Platform See separate Rpt on S.E.

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

Stewart & Lloyds

6 Colville St

2 D & 2 S.B.

Total Heating Surface of Boilers

16680

Is Forced Draft fitted

Yes

No. and Description of Boilers

2 Scotch 2 Scotch

26.11.19

No. of Certificate

14998

Working Pressure

200

Tested by hydraulic pressure to

360 lb

Date of test

20.11.19

No. of Certificate

14996

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

SE 63.3

No. and Description of Safety Valves to each boiler

SE (3) Spring loaded

Area of each valve

SE 14.180

Pressure to which they are adjusted

200 lb

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

1-6

Mean dia. of boilers

16-3

Length

20-6

Material of shell plates

Thickness

1 15/32

Range of tensile strength

28/32 ton

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

Ladder J

long. seams

TRDBS

Diameter of rivet holes in long. seams

1 1/2

Pitch of rivets

10 1/2

Lap of plates or width of butt straps

22 7/8

Per centages of strength of longitudinal joint

ribs 85.2

plate 85.7

Working pressure of shell by rules

207

Size of manhole in shell

16x12

No. and Description of Furnaces in each boiler

SE 3

Material

Steel

Outside diameter

44 1/2

Length of plain part

top

Thickness of plates

19/32

Description of longitudinal joint

bevel

No. of strengthening rings

-

Working pressure of furnace by the rules

213

Combustion chamber plates: Material

Steel

Thickness: Sides

11/16

Back

Top

11/16

Bottom

Pitch of stays to ditto: Sides

9 1/2 x 8 1/2

Back

Top

7 x 6 3/4

If stays are fitted with nuts or riveted heads

Yes

Working pressure by rules

277

Material of stays

Steel

Area at smallest part

2.03

Area supported by each stay

77 1/2

Working pressure by rules

241

End plates in steam space:

Material

Steel

Thickness

1 7/32

Pitch of stays

21 x 6

How are stays secured

Do & W

Working pressure by rules

201

Material of stays

8 tub

Area at smallest part

7.06

Area supported by each stay

33.6

Working pressure by rules

218

Material of Front plates at bottom

Steel

Thickness

1

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

-

Diameter of tubes

2 1/2

Pitch of tubes

3 3/4, 3 5/8

Material of tube plates

Steel

Thickness: Front

1 1/4

Back

Pitch across wide water spaces

13 1/2

Working pressures by rules

203

Girders to Chamber tops: Material

Steel

Depth and thickness of girder at centre

8 x 3 (2)

Length as per rule

52 1/2

Distance apart

8 1/2 x 7

Number and pitch of stays in each

(6) 8 1/2 x 6

Working pressure by rules

235

Steam dome: description of joint to shell

None

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

