

## REPORT ON MACHINERY.

THU. 25 JAN. 1920.

No. 27715

Received at London Office

e of writing Report

19

When handed in at Local Office

28 JAN 1920

Port of

SUNDERLAND.

in Survey held at  
g. Book *Deck*  
on the *S/S "MURISTAN"*

SUNDERLAND.

Date, First Survey

17 Mar. '19

Last Survey

23 January 1920

(Number of Visits

43

Gross

3062

Tons

Net

1877

Master *Howatt*Built at *Sunderland*

By whom built

*Miss Priestman & Co (284)*

When built

1920

Engines made at *Sunderland*

By whom made

*Miss G. Clark & Co (1093)*

when made

1920

Milers made at *Sunderland*

By whom made

*Miss G. Clark & Co (1093)*

when made

1920

Registered Horse Power

Owners

*J. B. Stick & Co.*

Port belonging to

*Swansea*

m. Horse Power as per Section 28

358

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

410

GINES, &amp;c.—Description of Engines

*Triple*

No. of Cylinders

3

No. of Cranks

3

a. of Cylinders

25, 41, 68

Length of Stroke

45

Revs. per minute

76

Dia. of Screw shaft

as per rule 13.58

Material of screw shaft

Iron

the screw shaft fitted with a continuous liner the whole length of the stern tube

410

Is the after end of the liner made water tight

the propeller boss

410

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

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

✓

Length of stern bush

5-0

Dia. of Tunnel shaft

as per rule 12.4

as fitted 12.5

Dia. of Crank shaft journals

as per rule 13.03

as fitted 13.1

Dia. of Crank pin

1 3/4

Size of Crank webs

8 1/2 x 20 1/2

Dia. of thrust shaft under

Milers

13 1/4

Dia. of screw

16-0

Pitch of Screw

16-3

No. of Blades

4

State whether moveable

no

Total surface

800

No. of Feed pumps

2

Diameter of ditto

3 1/2

Stroke

24

Can one be overhauled while the other is at work

410

No. of Bilge pumps

2

Diameter of ditto

3 1/2

Stroke

24

Can one be overhauled while the other is at work

410

No. of Donkey Engines

3

SIZES OF PUMPS

9 1/2 x 7 x 1/8

9 1/2 x 7 x 1/8

10 1/2 x 11 1/2 x 1/8

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

Engine Room

5 x 3

Transfer pumps

6 x 5 x 1/8

In Holds, &amp;c. 2 1/2" in each hold, 1 1/2" in tunnel

No. of Bilge Injections

1

sizes

8"

Connected to condenser or to circulating pump

410

Is a separate Donkey Suction fitted in Engine room &amp; size

4 1/2 x 3 1/2"

Are all the bilge suction pipes fitted with roses

410

Are the roses in Engine room always accessible

410

Are the sluices on Engine room bulkheads always accessible

none

Are all connections with the sea direct on the skin of the ship

410

Are they Valves or Cocks

both

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

410

Are the Discharge Pipes above or below the deep water line

above &amp; below

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

410

Are the Blow Off Cocks fitted with a spigot and brass covering plate

410

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

410

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

410

Is the Screw Shaft Tunnel watertight

410

Is it fitted with a watertight door

410

worked from

upper platform

OILERS, &amp;c.—(Letter for record

3)

Manufacturers of Steel

*Sprunns & Sons*

3. S. B.

Total Heating Surface of Boilers

5826

Is Forced Draft fitted

no

No. and Description of Boilers

*Three single end*

Working Pressure

150 lbs

Tested by hydraulic pressure to

360 1/2 lbs

Date of test

14.11.19

No. of Certificate

3629

Can each boiler be worked separately

410

Area of fire grate in each boiler

52

No. and Description of Safety Valves to

each boiler

*Two spring valves*

Area of each valve

8.29

Pressure to which they are adjusted

155 lbs

Are they fitted with easing gear

410

Smallest distance between boilers or uptakes and bunkers or woodwork

no

Mean dia. of boilers

14-0

Length

11-7

Material of shell plates

6

Thickness

1 1/2

Range of tensile strength

28-32

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

lap all

Long. seams

lap 1/2"

Diameter of rivet holes in long. seams

1 3/8

Pitch of rivets

8 1/2

Length of plates or width of butt straps

18"

Per centages of strength of longitudinal joint

rivets

86

Working pressure of shell by rules

182

Size of manhole in shell

12 x 16

Size of compensating ring

*Hand*

No. and Description of Furnaces in each boiler

3 Dighton

Material

S

Outside diameter

3-7"

Length of plain part

top

bottom

Thickness of plates

crown

3 1/2

bottom

Description of longitudinal joint

welded

No. of strengthening rings

-

Working pressure of furnace by the rules

190

Combustion chamber plates: Material

S

Thickness: Sides

3/8

Back

3/4

Top

1 3/8

Bottom

1 3/8

Pitch of stays to ditto: Sides

9 1/2 x 12

Back

10 1/2 x 9 1/2

Top

12 x 9 1/2

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

196

Material of stays

S

Area at smallest part

2.36

Area supported by each stay

112

Working pressure by rules

189

End plates in steam space:

Material

S

Thickness

1 3/8

Pitch of stays

23 3/4 x 19 1/2

How are stays secured

nuts

Working pressure by rules

182

Material of stays

S

Area at smallest part

7.16

Area supported by each stay

460

Working pressure by rules

186

Material of Front plates at bottom

S

Thickness

3/2

Material of Lower back plate

S

Thickness

7/8

Greatest pitch of stays

13 1/2

Working pressure of plate by rules

186

Diameter of tubes

3 1/2

Pitch of tubes

4 3/4 x 4 3/4

Material of tube plates

S

Thickness: Front

3/2

Back

3/4

Mean pitch of stays

9 1/2 x 9 1/2

Pitch across wide water spaces

14 1/2

Working pressures by rules

189

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

14 x 1 3/4

Length as per rule

36

Distance apart

9 3/8

Working pressure by rules

182

Steam dome: description of joint to shell

✓

% of strength of joint

-

Diameter

✓

Thickness of shell plates

✓

Material

-

Description of longitudinal joint

