

## REPORT ON MACHINERY.

No. 26282

Received at London Office

MON NOV. 23. 1914

Date of writing Report

19

When handed in at Local Office

20 NOV 1914

Port of

Sunderland

No. in Survey held at  
Reg. Book.

on the

New Steel S.S. ~~Rectina~~ Eggesford

Date, First Survey

21st April

Last Survey

19th Nov. 1914

Number of Visits

35

Master

J. Johnston

Built at

Sunderland

By whom built

R. Thompson &amp; Sons Ltd

Gross Tons

4914

Net Tons

2787

When built

1914

Engines made at

Sunderland

By whom made

North Eastern Marine Eng Co Ltd

when made

1914

Boilers made at

do

By whom made

do

do

when made

1914

Registered Horse Power

Owners

Tatam Steam Nav. Co Ltd

Port belonging to

Cardiff

Nom. Horse Power as per Section 28

3148

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

## ENGINES, &amp;c. Description of Engines

Triple expansion

No. of Cylinders

Three

No. of Cranks

Three

Dia. of Cylinders

24" x 41" x 68"

Length of Stroke

45"

Revs. per minute

64

Dia. of Screw shaft

as per rule 11.11

Material of

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

yes

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

yes

If two

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

yes

Length of stern bush

4'-10 1/2"

Dia. of Tunnel shaft

as per rule 12.11

Dia. of Crank shaft journals

as per rule 13.07

Dia. of Crank pin

13 1/8"

Size of Crank webs

8 1/2" x 19 1/8"

Dia. of thrust shaft under

collars

13 1/8"

Dia. of screw

14'-6"

Pitch of Screw

14'-6"

No. of Blades

4

State whether moveable

no

Total surface

93 sq ft

No. of Feed pumps

Two

Diameter of ditto

3 1/2"

Stroke

24"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

Two

Diameter of ditto

4"

Stroke

24"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

Two

Sizes of Pumps

1 1/2" x 9" x 10 1/2", 6" x 4" x 6"

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

In Engine Room

Three

@ 3 1/2" diameter

In Holds, &amp;c.

Two @ 3 1/2" in each hold

No. of Bilge Injections

1

sizes

4 1/2"

Connected to condenser, or to circulating pump

yes

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

Bilge suction

How are they protected

wood casings

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

Dates of examination of completion of fitting of Sea Connections

13.4.14

of Stern Tube

8.4.14

Screw shaft and Propeller

28.4.14

Is the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from

top platform

## BOILERS, &amp;c. (Letter for record)

Manufacturers of Steel

J. Spence &amp; Sons Ltd Newburn Steel Works

Total Heating Surface of Boilers

5512 sq ft

Is Forced Draft fitted

no

No. and Description of Boilers

Two single ended

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

4.4.14

No. of Certificate

3231

Can each boiler be worked separately

yes

Area of fire grate in each boiler

65 sq ft

No. and Description of Safety Valves to

each boiler

Two spring loaded

Area of each valve

4.04 sq in

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

20"

Mean dia. of boilers

16'-6"

Length

11'-6"

Material of shell plates

Steel

Thickness

1 1/4"

Range of tensile strength

28 1/2 to 43 1/2 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

D.R.

long. seams

T.R.D.P.S.

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

9 3/4"

Lap of plates or width of butt straps

20 1/2"

Per centages of strength of longitudinal joint

rivets 86.5

plate 86.2

Working pressure of shell by rules

180 lbs

Size of manhole in shell end

16" x 12"

Size of compensating ring

dished

No. and Description of Furnaces in each boiler

Three daylight

Material

Steel

Outside diameter

4'-9 1/2"

Length of plain part

top

bottom

Thickness of plates

crown 3 1/4"

bottom 6 1/4"

Description of longitudinal joint

weld

No. of strengthening rings

2 1/2"

Top

3 1/4"

Bottom

3 1/4"

Working pressure of furnace by the rules

180 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides

3/4"

Back

3/4"

Top

3/4"

Bottom

3/4"

Pitch of stays to ditto: Sides

11 3/4" x 8 3/4"

Back

10 3/4" x 10 3/4"

Top

11 3/4" x 8 3/4"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

180 lbs

End plates in steam space:

Material of stays

Steel

Diameter at smallest part

2.1"

Area supported by each stay

102.8 sq in

Working pressure by rules

183 lbs

Material of stays

Steel

Material of Front plates at bottom

Steel

Material of stays

Steel

Material

Steel

Thickness

1 1/4"

Pitch of stays

23 3/4" x 23 3/4"

How are stays secured

DN Wash

Working pressure by rules

180 lbs

Material of stays

Steel

Material of Front plates at bottom

Steel

Material of stays

Steel

Diameter at smallest part

9.67"

Area supported by each stay

54.3 sq in

Working pressure by rules

184 lbs

Material of Front plates at bottom

Steel

Material of stays

Steel

Material of Front plates at bottom

Steel

Material of stays

Steel

Steel

Thickness

3/4"

Material of Lower back plate

Steel

Thickness

1 1/4"

Greatest pitch of stays

14 3/4" x 10 3/4"

Working pressure of plate by rules

180.8 lbs

Material of stays

Steel

Material of Front plates at bottom

Steel

Material of stays

Steel

Diameter of tubes

3 1/4"

Pitch of tubes

4 3/4" x 4 3/4"

Material of tube plates

Steel

Thickness: Front

3/4"

Back



