

Rpt. 4.

## REPORT ON MACHINERY

MON. JAN. 26. 1914

No. 8250.

MON. DEC. 29. 1913

Received at London Office

Date of writing Report 23/12/13 19

When handed in at Local Office 23. 12. 10 13

Port of

MIDDLESBRO'

No. in Survey held at  
Reg. Book.

Stockton-on-Tees

Date, First Survey 16<sup>th</sup> OctoberLast Survey 18<sup>th</sup> Dec

1913.

on the

Steel screw steamer "Stanley"

(Number of Visits 25.

S.S. No. 534

Tons

Gross

Net

When built

Master

Built at W. Hartlepool

By whom built

J. B. &amp; D. Co. Ltd.

Engines made at

Stockton

By whom made

Thos. Blair &amp; Co. Ltd. (No. 1789)

when made

Boilers made at

Stockton

By whom made

Thos. Blair &amp; Co. Ltd.

when made

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28

435

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

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

Tri-compound

No. of Cylinders

No. of Cranks

Dia. of Cylinders

25-42-68

Length of Stroke

48

Revs. per minute

62

Dia. of Screw shaft

as per rule 14.33

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 in one

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

tight fit

If two

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

yes

Length of stern bush

5'-4"

Dia. of Tunnel shaft

as per rule 12.74

Dia. of Crank shaft journals

as per rule 13.38

Dia. of Crank pin

14 1/2

Size of Crank webs

27 1/2 x 9 1/4

Dia. of thrust shaft under

collars

14 1/2

Dia. of screw

17'-6"

Pitch of Screw

17'-6"

No. of Blades

State whether moveable

no

Total surface

94 sq

No. of Feed pumps

2

Diameter of ditto

3 1/4

Stroke

34

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

4 3/4

Stroke

34

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

3

Sizes of Pumps

Ballast 11' x 10", Fuel 4 1/2' x 10"

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

4 1/2' x 8"

In Engine Room

4 @ 3 1/2"

In Holds, &amp;c.

2 @ 3 1/2" in each hold

No. of Bilge Injections

1 size 7"

Connected to condenser or to circulating pump

yes

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

yes-4"

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

none

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

Suctions to forward holds

How are they protected

Wood ceiling

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

23/11/13

of Stern Tube

23/11/13

Screw shaft and Propeller

9.12.13

Is the Screw Shaft Tunnel watertight

see hull Rpt.

Is it fitted with a watertight door

yes

worked from

top platform

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

Manufacturers of Steel

Thos. John Spencer &amp; Sons Ltd.

(2 Main &amp; 1 Aux) = (6138 + 1764)

2SB &amp; 1 Aux SB.

Total Heating Surface of Boilers

7902

Is Forced Draft fitted

no

No. and Description of Boilers

2 single ended main &amp; 1 aux

Working Pressure

180

Tested by hydraulic pressure to

360

Date of test

5.12.13

No. of Certificate

5202

Can each boiler be worked separately

yes

Area of fire grate in each boiler

70.1 sq

No. and Description of Safety Valves to

each boiler

2 direct spring

Area of each valve

8.29

Pressure to which they are adjusted

185

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

3'-0"

Mean dia. of boilers

17'-0"

Length

11'-6"

Material of shell plates

steel

Thickness

1 3/8"

Range of tensile strength

28-32

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

2 Riv. lap

long. seams

2 Riv. 3 Riv.

Diameter of rivet holes in long. seams

1 3/8"

Pitch of rivets

9 1/2"

Lap of plates or width of butt straps

20 1/4 x 1 1/8"

Per centages of strength of longitudinal joint

rivets 87.1

Working pressure of shell by rules

186

Size of manhole in shell

16" x 12"

Size of compensating ring

7 1/2" x 1 3/8"

No. and Description of Furnaces in each boiler

3 Morrison

Material

steel

Outside diameter

50 3/16"

Length of plain part

top 12

Thickness of plates

crown 12

Description of longitudinal joint

Weld

No. of strengthening rings

yes

Working pressure of furnace by the rules

187

Combustion chamber plates: Material

steel

Thickness: Sides

2 1/2"

Back

4 1/2"

Top

2 1/2"

Bottom

2 1/2"

Pitch of stays to ditto: Sides

9 1/2" x 8"

Back

9 1/2" x 8 1/2"

Top

9 1/2" x 8"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

188

Material of stays

steel

Diameter at smallest part

1.99

Area supported by each stay

84.7

Working pressure by rules

212

End plates in steam space:

yes

Material

steel

Thickness

1 1/2"

Pitch of stays

20 x 22 1/2"

How are stays secured

nuts &amp; washers

Working pressure by rules

189

Material of stays

steel

Diameter at smallest part

8.48

Area supported by each stay

450

Working pressure by rules

196

Material of Front plates at bottom

steel

Thickness

1"

Material of Lower back plate

steel

Thickness

1 1/8"

Greatest pitch of stays

17 1/2" x 9 1/2"

Working pressure of plate by rules

205

Diameter of tubes

3 1/2"

Pitch of tubes

4 1/2" x 4 1/2"

Material of tube plates

steel

Thickness: Front

1 1/2"

Back

1 1/2"

Mean pitch of stays

11 1/2"

Pitch across wide water spaces

14 1/2"

Working pressures by rules

191

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

8 3/8" x 2"

Length as per rule

33

Distance apart

9 3/4"

Working pressure by rules

186

Superheater or Steam chest; how connected to boiler

none

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

yes

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

yes

Working pressure



