

REPORT ON MACHINERY.

Port of **WEST HARTLEPOOL**Received at London Office **SAT. 14 JUN 1902**

To. in Survey held at

Hartlepool

Date, first Survey

23rd Oct. 1901(Last Survey **27th May 1902**)

Book.

on the

Steel S.S. "Ramsay"(Number of Visits **87**)Tons { Gross **4318**Net **2779**When built **1902**

By J. C. Mullan.

Built at **Sunderland**

By whom built

J. L. Thompson & SonWhen made **1902**Machinery made at **Hartlepool**

By whom made

Richardsons, Westgarth & Co.When made **1902**Boilers made at **Hartlepool**

By whom made

do**do**when made **1902**

Registered Horse Power

Owners

Bolton S.S. Co. Ltd.Port belonging to **London.**

Horse Power as per Section 28

330

Is Refrigerating Machinery fitted

No

Is Electric Light fitted

No

MACHINES, &c.—Description of Engines

Triple expansion

No. of Cylinders

threeNo. of Cranks **three**

No. of Cylinders

25" 40" 64"

Length of Stroke

45"

Revs. per minute

60

Dia. of Screw shaft

13 1/2"

as per rule

13 1/2"

Lgth. of stern bush

4 1/2"

Dia. of Tunnel shaft

as per rule

11 1/2"

as fitted

12 1/2"

Dia. of Crank shaft journals

as per rule

12 1/2"

as fitted

12 1/2"

Dia. of Crank pin

13"

Size of Crank webs

8" x 18 1/2"

Dia. of thrust shaft under

13"

Pitch of screw

14"

Pitch of screw

14"

No. of blades

4

State whether moveable

no

Total surface

81 sq. ft.

No. of Feed pumps

2

Diameter of ditto

3"

Stroke

27"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

3 1/2"

Stroke

27"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

Two

Sizes of Pumps

Feed 4 1/2" x 6"**Ballast 8 1/2" x 4"**

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

two of 3 1/2" each hold peak 2 1/2"

Engine Room

Three

3 1/2" dia

In Holds, &c.

two of 3 1/2" each hold peak 2 1/2"

Tunnel well 2 1/2" a P. 2 1/2"

one

Connected to condenser, or to circulating pump

circ. pump

Is a separate donkey suction fitted in Engine room & size

Yes 3 1/2"

No. of bilge injections

one

sizes

5"

Connected to condenser, or to circulating pump

circ. pump

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

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

That pipes are carried through the bunkers

none

How are they protected

Yes

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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock

Nov. 1901

Is the screw shaft tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

Top platform

BOILERS, &c.—

(Letter for record **S**)

Total Heating Surface of Boilers

5381 sq. ft.

Is forced draft fitted

no

No. and Description of Boilers

2 Single ended. by J. Mullan

Working Pressure

160 lbs.

Tested by hydraulic pressure to

320 lbs.

Date of test

18. 3. 02

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

51 sq. ft.

No. and Description of safety valves to

165 lbs.

Each boiler

2 Spring direct

Area of each valve

4.07 sq. ft.

Pressure to which they are adjusted

165 lbs.

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

14"

Mean dia. of boilers

16' 4"

Length

11' 0"

Material of shell plates

steel

Thickness

1 1/2"

Range of tensile strength

28-32

Are they welded or flanged

no

Descrip. of riveting: cir. seams

double

long. seams

treble

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

8 1/2"

Lap of plates or width of butt straps

19 1/2"

Per centages of strength of longitudinal joint

85.5

Working pressure of shell by rules

161 lbs.

Size of manhole in shell

13" x 16 1/2"

Size of compensating ring

29" x 30" x 1 1/2"

No. and Description of Furnaces in each boiler

3 Morrison

Material

steel

Outside diameter

49 1/2"

Length of plain part

6' 2"

Thickness of plates

9"

Description of longitudinal joint

weld

No. of strengthening rings

—

Working pressure of furnace by the rules

148 lbs.

Combustion chamber plates: Material

steel

Thickness: Sides

9/16"

Back

9/16"

Top

9/16"

Bottom

13/16"

Pitch of stays to ditto: Sides

8" x 8 1/2"

Back

8" x 7 1/2"

Top

8" x 8 1/2"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

160.8 lbs.

Material of stays

Steel

Diameter at smallest part

1 3/8"

Area supported by each stay

68 sq. in.

Working pressure by rules

174 lbs.

End plates in steam space:

—

Material

steel

Thickness

1"

Pitch of stays

17 1/2" x 18 1/2"

How are stays secured

D. N. M.

Working pressure by rules

161 lbs.

Material of stays

steel

Diameter at smallest part

2 1/2"

Area supported by each stay

2930 sq. in.

Working pressure by rules

167 lbs.

Material of Front plates at bottom

steel

Thickness

7/8"

Material of Lower back plate

steel

Thickness

3/4"

Greatest pitch of stays

13"

Working pressure of plate by rules

166 lbs.

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/2"

Material of tube plates

steel

Thickness: Front

15/16"

Back

3/4"

Mean pitch of stays

9"

Pitch across wide water spaces

14 1/4"

Working pressures by rules

166 lbs.

Girders to Chamber tops: Material

steel

Depth and

—

thickness of girder at centre

8" x 1 1/2"

Length as per rule

2'-9"

Distance apart

8 1/2"

Number and pitch of Stays in each

3 - 8"

Working pressure by rules

160 lbs.

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 riv

