

## REPORT ON MACHINERY.

Port of WEST HARTLEPOOL

WED. 5 JAN 1898

Received at London Office 18

No. in Survey held at  
Reg. Book.

WEST HARTLEPOOL

Date, first Survey

10<sup>th</sup> Dec, 1896. Last Survey 4<sup>th</sup> Jan'y 1898

(Number of Visits 177)

on the

S.S. "Victoria."

Tons

Gross 6849  
Net 4384

When built 1897/8

Master J. W. Linton

Built at

WEST HARTLEPOOL

By whom built

J. W. Linton &amp; Co., Ltd.

Engines made at

Hartlepool

By whom made

J. W. Linton &amp; Co., Ltd.

when made

1897

Boilers made at

Do

By whom made

Do

when made

1897

Registered Horse Power

Owners J. W. Linton &amp; Co., Ltd.

Port belonging to WEST HARTLEPOOL

Nom. Horse Power as per Section 28

963

Is Electric Light fitted

Yes

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

No. of Cylinders

No. of Cranks

Diameter of Cylinders

Length of Stroke

Revolutions per minute

Diameter of Screw shaft

as per rule  
as fitted

Diameter of Tunnel shaft

as per rule  
as fitted

Diameter of Crank shaft journals

Diameter of Crank pin

Size of Crank webs

Diameter of screw

Pitch of screw

No. of blades

State whether moveable

Total surface

No. of Feed pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of Bilge pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of Donkey Engines

Sizes of Pumps

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

In Engine Room

In Holds, &amp;c.

No. of bilge injections

sizes

Connected to condenser, or to circulating pump

Is a separate donkey suction fitted in Engine room &amp; size

Are all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

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

Are they Valves or Cocks

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

Are the discharge pipes above or below the deep water line

Are they each fitted with a discharge valve always accessible on the plating of the vessel

Are the blow off cocks fitted with a spigot and brass covering plate

What pipes are carried through the bunkers

How are they protected

Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times

Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges

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

Is the screw shaft tunnel watertight

Is it fitted with a watertight door

worked from

## BOILERS, &amp;c.—

(Letter for record (A.) Total Heating Surface of Boilers 121418 Is forced draft fitted

No

No. and Description of Boilers

Two Single ended

Working Pressure 190

Tested by hydraulic pressure to

380

Date of test 23.8.97

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

49.5

No. and Description of safety valves to

each boiler

Two Spring

Area of each valve

7.07

Pressure to which they are adjusted

195

Are they fitted

with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

Ship's side

Mean diameter of boilers

15.3"

Length 11.0

Material of shell plates

Steel

Thickness

1 1/2"

Description of riveting: circum. seams

Butt &amp; double

long. seams

8.13. 1/2"

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

10"

Lap of plates or width of butt straps

21 1/4"

Per centages of strength of longitudinal joint

rivets

89.5

Working pressure of shell by rules

199.5

Size of manhole in shell

16 1/2"

Size of compensating ring

2.6 x 2.6 x 1 1/2"

No. and Description of Furnaces in each boiler

3 Morrison

Material

Steel

Outside diameter

4.0"

Length of plain part

top 6.9  
bottom 6.6

Thickness of plates

crown 5 1/2"  
bottom 5"

Description of longitudinal joint

Butt &amp; double

No. of strengthening rings

4

Working pressure of furnace by the rules

210

Combustion chamber plates: Material

Steel

Thickness: Sides

3 1/2"

Back

5"

Top 3 1/2"

Bottom 1 1/2"

Pitch of stays to ditto: Sides

8 1/2"

Back

8"

Top

8 1/2"

If stays are fitted with nuts or riveted heads

Yes

Working pressure by rules

194

Material of stays

Iron

Diameter at smallest part

1 1/2"

Area supported by each stay

74 sq

Working pressure by rules

201

End plates in steam space:

Material

Steel

Thickness

1 3/4"

Pitch of stays

16 1/4"

How are stays secured

By nuts

Working pressure by rules

240

Material of stays

Iron

Diameter at smallest part

3 1/4"

Area supported by each stay

292

Working pressure by rules

212

Material of Front plates at bottom

Steel

Thickness

1 1/2"

Material of Lower back plate

Steel

Thickness

1 1/2"

Material of Lower back plate

Steel

Thickness

1"

Greatest pitch of stays

13 1/2"

Working pressure of plate by rules

193

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/2"

Material of tube plates

Steel

Thickness: Front

1 1/4"

Back

3/4"

Mean pitch of stays

9"

Pitch across wide water spaces

14 1/4"

Working pressures by rules

195

Girders to Chamber tops: Material

Iron

Depth and

thickness of girder at centre

10 1/2 x 2 1/4"

Length as per rule

2.10

Distance apart

8 1/2"

Working pressure by rules

278

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

No

No

No

No

No

No

No

No



DONKEY BOILER— Description

Made at \_\_\_\_\_ By whom made \_\_\_\_\_ When made \_\_\_\_\_ Where fixed \_\_\_\_\_  
Working pressure \_\_\_\_\_ tested by hydraulic pressure to \_\_\_\_\_ No. of Certificate \_\_\_\_\_ Fire grate area \_\_\_\_\_ Description of safety valves \_\_\_\_\_  
No. of safety valves \_\_\_\_\_ Area of each \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ If fitted with easing gear \_\_\_\_\_ If steam from main b.  
enter the donkey boiler \_\_\_\_\_ Diameter of donkey boiler \_\_\_\_\_ Length \_\_\_\_\_ Material of shell plates \_\_\_\_\_ Thickness \_\_\_\_\_  
Description of riveting long. seams \_\_\_\_\_ Diameter of rivet holes \_\_\_\_\_ Whether punched or drilled \_\_\_\_\_ Pitch of rivets \_\_\_\_\_  
Lap of plating \_\_\_\_\_ Per centage of strength of joint \_\_\_\_\_ Rivets \_\_\_\_\_ Thickness of shell crown plates \_\_\_\_\_ Radius of do. \_\_\_\_\_ No. of Stays to do. \_\_\_\_\_  
Dia. of stays \_\_\_\_\_ Diameter of furnace Top \_\_\_\_\_ Bottom \_\_\_\_\_ Length of furnace \_\_\_\_\_ Thickness of furnace plates \_\_\_\_\_ Descri.  
joint \_\_\_\_\_ Thickness of furnace crown plates \_\_\_\_\_ Stayed by \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_  
Working pressure of furnace by rules \_\_\_\_\_ Diameter of uptake \_\_\_\_\_ Thickness of uptake plates \_\_\_\_\_ Thickness of water tubes \_\_\_\_\_

SPARE GEAR. State the articles supplied :—

The foregoing is a correct description,

For THOMAS RICHARDSON & SONS, LIMITED

Manufacturer.

Dates \_\_\_\_\_  
of Survey \_\_\_\_\_  
while \_\_\_\_\_  
building \_\_\_\_\_  
During progress of work in shops - -  
During erection on board vessel - -  
Total No. of visits \_\_\_\_\_

Director.

General Remarks (State quality of workmanship, opinions as to class, &c.)

Certificate (if required) to be sent to

The amount of Entry Fee.. £ : : When applied for, \_\_\_\_\_  
Special .. £ : : \_\_\_\_\_  
Donkey Boiler Fee .. £ : : \_\_\_\_\_  
Travelling Expenses (if any) £ : : \_\_\_\_\_

Richard Hirst  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute FRI. 14 JAN 1893

Assigned



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Foundation