

REPORT ON MACHINERY.

Port of

Newcastle

WED 15 MAR 1895

Received at London Office

18

o. in Survey held at

South Shields

Date, first Survey

12/3/94

Last Survey

March 1st 1895

Book.

S. S. "Warrior"

(Number of Visits 12)

on the

S. S. "Warrior" (Screw Lug)

Tons { Gross 190.21

Net 84.19

terran Jamieson

Built at South Shields

By whom built

J. P. Remoldson & Son

When built

1895

ines made at South Shields

By whom made

J. P. Remoldson & Son

when made

1895

ers made at South Shields

By whom made

J. I. Eltringham & Co

when made

1895

istered Horse Power 98

Owners

Messrs Dick & Page

Port belonging to

London

Horse Power as per Section 28

75

FINES, &c.

Description of Engines

Triple, surface condensing

No. of Cylinders

3

meter of Cylinders

13 1/2" x 22" x 36"

Length of Stroke

24"

Revolutions per minute

107

Diameter of Screw shaft

as per rule 6 1/4"

meter of Tunnel shaft

as per rule 6 1/2"

Diameter of Crank shaft journals

7"

Diameter of Crank pin

7"

Size of Crank webs

4 3/8" x 10" built

meter of screw

9-4"

Pitch of screw

13-0"

No. of blades

4

State whether moveable

no

Total surface

264 sq ft

of Feed pumps

1

Diameter of ditto

2 1/2"

Stroke

12"

Can one be overhauled while the other is at work

yes

of Bilge pumps

1

Diameter of ditto

3 1/2"

Stroke

12"

Can one be overhauled while the other is at work

yes

of Donkey Engines

1 Duplex

Sizes of Pumps

5" x 2 1/4" x 4 1/2"

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

Engine Room

two 2" dia

In Holds, &c.

one in fore part of ship &

in after part 2" dia each

of bilge injections

1

sizes

3"

Connected to condenser, or to circulating pump pump Is a separate donkey suction fitted in Engine room & size

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

yes

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

yes

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

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

25-2-95

Is the screw shaft tunnel watertight

Is it fitted with a watertight door

no

worked from

yes

OILERS, &c.

(Letter for record 5)

Total Heating Surface of Boilers

1368 sq ft

No. and Description of Boilers

One Mult. Cyl. single ended

Working Pressure

160 lbs

Tested by hydraulic pressure to

Date of test

8-1-95

Can each boiler be worked separately

yes

Area of fire grate in each boiler

43 sq ft

No. and Description of safety valves to

each boiler

two ordinary spring

Area of each valve

7.07 sq in

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

Length

10-0"

Material of shell plates

steel

Thickness

3/32"

Description of riveting: circum. seams

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

6 1/2"

Lap of plates or width of butt straps

12 3/8"

long. seams

lap 5 rows

Per centages of strength of longitudinal joint

rivets 82

plate 83

Working pressure of shell by rules

163 lbs

Size of manhole in shell

16 x 12"

Size of compensating ring

7 x 1 1/2"

No. and Description of Furnaces in each boiler

3 plain

Material

steel

Outside diameter

Length of plain part

top 6-6"

Thickness of plates

crown 3/32"

bottom 3/32"

Description of longitudinal joint

Working pressure of furnace by the rules

160 lbs

Combustion chamber plates: Material

steel

Thickness: Sides

5/8"

Back

5/8"

Top

5/8"

Bottom

21/32"

Pitch of stays to ditto: Sides

9 x 9"

Back

9 x 4 1/2"

Top

9 x 9"

If stays are fitted with nuts or riveted heads

9 nuts

Working pressure by rules

Material of stays

steel

Diameter at smallest part

1 1/2"

Area supported by each stay

82 1/2 sq in

Working pressure by rules

162 lbs

End plates in steam space:

Material

steel

Thickness

1 1/8"

Pitch of stays

16 x 14 1/4"

How are stays secured

D. N. Y.

Working pressure by rules

162 lbs

Material of stays

Diameter at smallest part

2 5/16"

Area supported by each stay

228 sq in

Working pressure by rules

169 lbs

Material of Front plates at bottom

Thickness

7/8"

Material of Lower back plate

steel

Thickness

7/8"

Greatest pitch of stays

14"

Working pressure of plate by rules

Diameter of tubes

3 1/2"

Pitch of tubes

4 5/8" x 4 5/8"

Material of tube plates

steel

Thickness: Front

15/16"

Back

7/8"

Mean pitch of stays

11 5/8"

Pitch across wide water spaces

14"

Working pressures by rules

160 lbs

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

5 1/4" x 2 3/8"

Length as per rule

26 1/2"

Distance apart

9"

Number and pitch of Stays in each

two - 9"

Working pressure by rules

162 lbs

Superheater or Steam chest;

none

Can the superheater be shut off and the boiler worked

separately

yes

Diameter

yes

Length

yes

Thickness of shell plates

yes

Material

yes

Description of longitudinal joint

yes

Diam. of rivet

yes

Pitch of rivets

yes

Working pressure of shell by rules

yes

Diameter of flue

yes

Material of flue plates

yes

Thickness

yes

If stiffened with rings

yes

Distance between rings

yes

Working pressure by rules

yes

End plates: Thickness

yes

How stayed

yes

Working pressure of end plates

yes

Area of safety valves to superheater

yes

Are they fitted with easing gear

yes

Working pressure of end plates

yes

Area of safety valves to superheater

yes

Are they fitted with easing gear

yes

Working pressure of end plates

yes

DONKEY BOILER—

Description *None fitted*

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 boiler _____

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 _____ Description of 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:— *Main bearing bolts, top end bolts, bottom end bolts, two of each, 1 set of coupling bolts & 1 set of piston bolts. 1 set of feed & 1 set of bilge pump valves, a quantity of assorted bolts nuts & pieces*

The foregoing is a correct description,

Wm. Olden & Sons Manufacturers of Engines *W. T. Cunningham & Co. Glasgow*

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines & boiler of the vessel have been constructed & fitted on board under special survey the workmanship being good throughout. The main steam pipe has been tested by hydraulic test to 320 lbs. The engines & boiler have been tried under steam & found satisfactory which in my opinion renders the vessel eligible for the record of LMC 3-95 in the Register Book.*

W. T. Cunningham & Co.
13-3-95

Certificate (if required) to be sent to *Newcastle Office*

The amount of Entry Fee.. £ 1 : 0 : 0 When applied for, _____

Special £ 11 : 5 : 0 *12/3/1895*

Donkey Boiler Fee £ : : : _____

Travelling Expenses (if any) £ : : : *14/3/95*

Committee's Minute *TUES 19 MAR 1895*

Assigned *+ Lmc 3,95*

Robert Haig
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

VESS

* These particulars

mal Letters (if any)

Official Number.

104545

to., Date, and Port of

Whether British or Foreign Built.

British

Number of Decks

Number of Masts

Rigged

Stern

Build

Galleries

Head

Framework and description of vessel

Number of Bulkheads

Number of water ballast and their capacity

Total to quarter the

at side amidships

No. of Engines

Description

Triple Compound

Surface boiler

One

Boilers

Number

Iron or Steel

Pressure when

Gross

Under Tonnage Dec

Closed-in spaces above

Space or spaces below

Poop

Forecastle

Round House

Other closed-in spaces

Machine

Gross Ton

Deductions, as per

Register

Name of Ma

No. of Owners

Name, Residence, &

M. D. John

Shipowner

Dated *1/*

W B & L (439w)—41262—1

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