

REPORT ON MACHINERY.

14791

MON. 29 OCT 1888

Ed No 14791
No. 22004

Port of Newcastle

Received at London Office

18

No. in Survey held at
Reg. Book

Newcastle

Date, first Survey 9th April

Last Survey 27 Sept

18

on the

S.S. Sueston

(Number of Visits 19)

1454

Tons 945

Master R. Lindale

Built at Sunderland

By whom built

J. Blumer & Co

When built 1888

Engines made at

Newcastle

By whom made

North Eastern Marine Eng^{rs} Ltd

1888

Boilers made at

do

By whom made

do

do

do

when made

do

Registered Horse Power

130

Owners

Robinson Bros

Port belonging to

Whitby

ENGINES, &c.—

Description of Engines

Triple expansion on three cranks

Diameter of Cylinders

19.31.51

Length of Stroke

33

No. of Rev. per minute

74

Point of Cut off, High Pressure

1/6

Low Pressure

3/2

Diameter of Screw shaft

9 1/2

Diam. of Tunnel shaft

9

Diam. of Crank shaft journals

9 1/2

Diam. of Crank pin

9 1/2

size of Crank webs

11 x 6 1/2

Diameter of screw

12.0

Pitch of screw

13.6

No. of blades

4

state whether moveable

do

total surface

49 ft

No. of Feed pumps

2

diameter of ditto

3

Stroke

18

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

diameter of ditto

3

Stroke

18

Can one be overhauled while the other is at work

Yes

Where do they pump from

Port from port bilge - Starboard from bilges & tunnel

No. of Donkey Engines

Two

Size of Pumps

6 x 9 and 3 x 4 1/2

Where do they pump from

Ballast tank from bilge

well and tanks. feed from hotwell sea bilge suction.

Are all the bilge suction pipes fitted with roses

Yes

Are the roses always accessible

Yes

Are the sluices on Engine room bulkheads always accessible

Yes

No. of bilge injections

one

and sizes

3

Are they connected to condenser, or to circulating pump

Yes

How are the pumps worked

by levers over condenser from end engine.

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

Yes

Are they Valves or Cocks

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

Below

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

What pipes are carried through the bunkers

none

How are they protected

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

Yes

Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges

Yes

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

Yes

Is the screw shaft tunnel watertight

Yes

and fitted with a sluice door

Yes

worked from

top platform

BOILERS, &c.—

Number of Boilers

One

Description

Cyl. Single-ended

Whether Steel or Iron

Steel

Working Pressure

160 lbs

Tested by hydraulic pressure to

320 lbs

Date of test

August 4th 1888

Description of superheating apparatus or steam chest

none

Can each boiler be worked separately

Yes

Can the superheater be shut off and the boiler worked separately

Yes

No. of square feet of fire grate surface in each boiler

54 ft

Description of safety valves

spring

No. to each boiler

two

Area of each valve

8.3 sq in

Are they fitted with easing gear

Yes

No. of safety valves to superheater

Yes

area of each valve

Yes

Are they fitted with easing gear

Yes

Smallest distance between boilers and bunkers or woodwork

12

Diameter of boilers

14.0

Length of boilers

10.10

description of riveting of shell long. seams

double butt 12

circum. seams

double

Thickness of shell plates

1 3/4

Diameter of rivet holes

1 1/8

whether punched or drilled

double

pitch of rivets

4

Lap of plating

14 x 1

Per centage of strength of longitudinal joint

79.4

working pressure of shell by rules

157

size of manholes in shell

12 x 16

Size of compensating rings

No. of Furnaces in each boiler

three

Outside diameter

30 1/2

length, top

Pure

bottom

thickness of plates

1/2

description of joint

Yes

if rings are fitted

Yes

Greatest length between rings

Yes

working pressure of furnace by the rules

160

combustion chamber plating, thickness, sides

9

back

9

top

9

Pitch of stays to ditto, sides

7 1/2

back

7 1/4

top

7 1/2

If stays are fitted with nuts or riveted heads

Yes

working pressure of plating by

rules

162

Diameter of stays at smallest part

1 3/8

Pitch of stays to ditto

15

how stays are secured

double nut

working pressure by rules

159

Front plates at bottom, thickness

3/4

Back plates, thickness

3/4

Greatest pitch of stays

11 1/2

working pressure by rules

160

Diameter of tubes

3 1/4

pitch of tubes

4 1/2

thickness of tube

5 1/2

Diameter of Superheater or Steam chest

Yes

length

Yes

thickness of plates

Yes

description of longitudinal joint

Yes

diam. of rivet holes

Yes

Pitch of rivets

Yes

working pressure of shell by rules

Yes

diameter of flue

Yes

thickness of plates

Yes

If stiffened with rings

Yes

Distance between rings

Yes

working pressure by rules

Yes

end plates of superheater, or steam chest; thickness

Yes

how stayed

Yes

Superheater or steam chest; how connected to boiler

Yes

DONKEY BOILER— Description *Vertical H + tube (steel)*
Made at *Satishead* by whom made *Clark Chapman Parsons & Co* when made *22-9-88* where fixed *at Satishead*
Working pressure *80 lb* tested by hydraulic pressure to *160 lb* No. of Certificate *2614* fire grate area *14 sq ft* description of safety
valves *direct spring* No. of safety valves *one* area of each *11.040* if fitted with easing gear *yes* if steam from main boilers can
enter the donkey boiler *no* diameter of donkey boiler *5.9* length *13.6* description of riveting *all*
Thickness of shell plates *13/32* diameter of rivet holes *13/16* whether punched or drilled *a* pitch of rivets *3* lap of plating *4 1/2*
per centage of strength of joint *72* thickness of crown plates *9/16* stayed by *50 stays 1 1/2*
Diameter of furnace, top *4.6 1/8* bottom *4.11* length of furnace *5.8* thickness of plates *9/16* description of joint *all*
Thickness of furnace crown plates *1/2* stayed by *as crown* working pressure of shell by rules *91*
Working pressure of furnace by rules *88* diameter of uptake *1 1/4* thickness of plates *3/8* thickness of water tubes *3/8*

SPARE GEAR. State the articles supplied: *Top and bottom end connecting rod bolts & nuts
two main bearing bolts, one set of coupling bolts, feed and bilge pump
valves, bolts, nuts & iron assorted, propeller.*

The foregoing is a correct description,
for North Eastern Marine Engineering Coy. Ltd.
W. Strington Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has
been constructed under special survey the materials and workmanship
are sound and good and eligible on completion, in my opinion, to be
classed + L.M.C. 10-88 in the Locusts Register Book.*

*The vessel has proceeded to Sunderland where the following
details will be completed viz. Fitting, fixing & starting under steam of
donkey boiler, tunnel system and examination of Spare Gear.
On the vessel's arrival at Sunderland the above mentioned work
has been satisfactorily finished and spare gear supplied*
R. M. Salmon.

*It is submitted that
this vessel is eligible
to have + S.M.C. 10-88
recorded*

The amount of Entry Fee *£ 2* : - : - received by me,
Special *£ 19* : *10* : - *at Sunderland*
Donkey Boiler Fee *£* : - : - *Office*
Certificate (if required) *£ gratis* : 25 Oct 1888.
To be sent as per margin.

(Travelling Expenses, if any, £)

Committee's Minute

+ dm 69/10/88

TUES 30 OCT 1888

John P. Waller
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



Lloyd's Register
Foundation