

REPORT ON MACHINERY.

Port of *Newcastle-on-Tyne*

SAL. 17 MAY 1902

No. in Survey held at
Reg. Book.*Newcastle*

Date, first Survey

Dec 13 '01

Last Survey

May 9 1902(Number of Visits *18*)

on the

S/S "Paris"

Tons

Gross *1229*Net *633*When built *1902*

Master

G. W. Young

Built at

Newcastle

By whom built

Wood Skinner & Co

Engines made at

Newcastle

By whom made

North Eastern Marine Eng. Co

when made

1902

Boilers made at

Newcastle

By whom made

North Eastern Marine Eng. Co

when made

1902

Registered Horse Power

Owners

J. Strick & Co. Ltd.

Port belonging to

Swansea

Nom. Horse Power as per Section 28

196 201

Is Refrigerating Machinery fitted

no

Is Electric Light fitted

no

ENGINES, &c.—Description of Engines

Triple

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

21" 34" 56"

Length of Stroke

36"

Revs. per minute

70

Dia. of Screw shaft

as per rule 11.5"

Lgth. of stern bush

4.3"

Dia. of Tunnel shaft

as per rule 9.81"

Dia. of Crank shaft journals

as per rule 10.3"

Dia. of Crank pin

10.5"

Size of Crank webs

20.5" x 6.8"

Dia. of thrust shaft under

collars 10.5"

Dia. of screw

13-10"

Pitch of screw

16-0"

No. of blades

4

State whether moveable

no

Total surface

60.9

No. of Feed pumps

2

Diameter of ditto

3.5"

Stroke

18"

Can one be overhauled while the other is at work

no

No. of Bilge pumps

2

Diameter of ditto

3.5"

Stroke

18"

Can one be overhauled while the other is at work

no

No. of Donkey Engines

2

Sizes of Pumps

7.5" x 8.5" x 8" x 6" x 4" x 6"

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

In Engine Room

Four 3"

In Holds, &c.

Two in fore hold 3" one in after

No. of bilge injections

1

sizes

4"

Connected to condenser or to circulating pump

no

Is a separate donkey suction fitted in Engine room & size

no 3"

Are all the bilge suction pipes fitted with roses

no

Are the roses in Engine room always accessible

no

Are the sluices on Engine room bulkheads always accessible

no

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

no

Are they Valves or Cocks

Both

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

no

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

no

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

no

What pipes are carried through the bunkers

none

How are they protected

✓

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

no

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

no

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

no

Is the screw shaft tunnel watertight

no

Is it fitted with a watertight door

no

worked from

upper platform

BOILERS, &c.—

(Letter for record *S*)

Total Heating Surface of Boilers

2564.8

Is forced draft fitted

no

No. and Description of Boilers

One Simple End

Working Pressure

160 lb

Tested by hydraulic pressure to

320 lb

Date of test

26/3/02

Can each boiler be worked separately

✓

Area of fire grate in each boiler

60.9

No. and Description of safety valves to

each boiler

Two, spring

Area of each valve

11.04 sq. in.

Pressure to which they are adjusted

165 lb

Are they fitted with easing gear

no

Smallest distance between boilers or uptakes and bunkers or woodwork

no bunkers in way of boiler

Mean dia. of boilers

14-9.8"

Length

11-6"

Material of shell plates

S

Thickness

3.5"

Range of tensile strength

29-32

Are they welded or flanged

no

Descrip. of riveting: cir. seams

lap joints

long. seams

d.b. d. no.

Diameter of rivet holes in long. seams

1.76"

Pitch of rivets

8.5"

Lap of plates or width of butt straps

5.3"

Per centages of strength of longitudinal joint

82.3

Working pressure of shell by rules

160

Size of manhole in shell

16 x 12"

Size of compensating ring

flanged in

No. and Description of Furnaces in each boiler

3 Furnaces

Material

S

Outside diameter

44.3"

Length of plain part

top 3.33"

Thickness of plates

bottom 3.64"

Description of longitudinal joint

welded

No. of strengthening rings

✓

Working pressure of furnace by the rules

162

Combustion chamber plates: Material

S

Thickness: Sides

1/8"

Back

1/8"

Top

1/8"

Bottom

3/8"

Pitch of stays to ditto: Sides

10 x 10

Back

9 x 10

Top

10 x 10

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

163

Material of stays

S

Diameter at smallest part

1.24"

Area supported by each stay

100 sq. in.

Working pressure by rules

161

End plates in steam space:

Material

S

Thickness

1.76"

Pitch of stays

25.5 x 23.5"

How are stays secured

d.n. & w.

Working pressure by rules

161

Material of stays

S

Diameter at smallest part

3.5"

Area supported by each stay

605 sq. in.

Working pressure by rules

162

Material of Front plates at bottom

S

Thickness

2.5"

Material of Lower back plate

S

Thickness

3/4"

Greatest pitch of stays

14.5"

Working pressure of plate by rules

164

Diameter of tubes

2.5"

Pitch of tubes

3.5 x 3.5"

Material of tube plates

S

Thickness: Front

7/8"

Back

3/4"

Mean pitch of stays

7.8"

Pitch across wide water spaces

14.5"

Working pressures by rules

240

Girders to Chamber tops: Material

S

thickness of girder at centre

8 x 1.5"

Length as per rule

29"

Distance apart

10"

Number and pitch of Stays in each

2, 10"

Working pressure by rules

172

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

✓

DONKEY BOILER— No. *one* Description *Vertical, cross tubes*
Made at *Stockton* By whom made *Ludron & Co* When made *28/2/02* Where fixed *Stockton*
Working pressure *80 lbs* tested by hydraulic pressure to *160 lbs* No. of Certificate *2700* Fire grate area *172.5* Description of safety valves *Spring*
No. of safety valves *2* Area of each *4.91* Pressure to which they are adjusted *80 lbs* If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *no* Dia. of donkey boiler *5'-6"* Length *9'-0"* Material of shell plates *S* Thickness *3/8"* Range of tensile strength *27-32* Descrip. of riveting long. seams *Lap double* Dia. of rivet holes *13/16"* Whether punched or drilled *punched* Pitch of rivets *2 3/4"*
Lap of plating *4 1/2"* Per centage of strength of joint *70.5* Thickness of shell crown plates *1/2"* Radius of do. *5'-0"* No. of stays to do. *5*
Dia. of stays *1 5/8"* Diameter of furnace Top *4'-5 1/2"* Bottom *4'-10"* Length of furnace *4'-6"* Thickness of furnace plates *3/8"* Description of joint *Lap single* Thickness of furnace crown plates *1/2"* Stayed by *as shell crown* Working pressure of shell by rules *83*
Working pressure of furnace by rules *100 lbs* Diameter of uptake *12"* Thickness of uptake plates *3/8"* Thickness of water tubes *3/8"*

SPARE GEAR. State the articles supplied:— *Two top end & two bottom end con. rtd bolts and nuts. Two main bearing bolts. One 4t coupling bolts. One set feed & lift pump valves assorted bolts & nuts. Iron of various sizes.*

The foregoing is a correct description,

THE NORTH EASTERN MARINE ENGINEERING CO. LD

Manufacturer.

Dates
of Survey
while
building

During progress of
work in shops—
During erection on
board vessel—
Total No. of visits

May 9

18

1901 Dec. 13. 14. 1902 Jan. 9. 12. 21. 28. Feb. 5. 12. 17. Mch. 3. 10. 20. 26. Apr. 9. 17. 18

Is the approved plan of main boiler forwarded herewith *yes*

" " " donkey " " " *no*

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

Material of screw shaft *Iron* 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 *—*

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 *—* If two liners are fitted, is the shaft lapped or protected between the liners *—*

The machinery of this vessel has been constructed under special survey. The materials and workmanship are sound and good and under the vessel clings in my opinion to have record of L.M.C. 5.02.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 5.02. FD.

The amount of Entry Fee. £ *2*
Special £ *29 8*
Donkey Boiler Fee £
Travelling Expenses (if any) £

When applied for,
16 MAY 1902

When received,
23 15/10 02

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

Committee's Minute

TUES. 20 MAY 1902

Assigned

MACHINERY CERTIFICATE
WRITTEN.



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Lloyd's Register
Foundation