

4.

REPORT ON MACHINERY.

No. 25123

TUES. APR 16 1907

Port of Glasgow

Received at London Office

19

in Survey held at

Glasgow

Date, first Survey 25 July 06

Last Survey 1 April 1907

Book.

on the

S.S. "Volpone"

(Number of Visits)

Gross

Tons

Net

When built 1907

as made at

Glasgow

By whom made

R. Williamson & Son (12 206)

when made

1907

s made at

do

By whom made

do

(12 1102)

when made

1907

rated Horse Power

Owners

Rodgers & Bright

Port belonging to

Liverpool

Horse Power as per Section 28

100

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

NES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

of Cylinders

14", 22½", 37"

Length of Stroke

27"

Revs. per minute

92

Dia. of Screw shaft

as per rule 7.97

Material of

iron

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

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

in the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

✓

If two

are fitted, is the shaft lapped or protected between the liners

✓

Length of stern bush

33"

of Tunnel shaft

as per rule 6.95

Dia. of Crank shaft journals

as per rule 7.3

Dia. of Crank pin

7¾"

Size of Crank webs

10½" x 4½"

Dia. of thrust shaft under

s

7¾"

Dia. of screw

10'-0"

Pitch of Screw

13'-0"

No. of Blades

4

State whether moveable

yes

Total surface

40 sq

Feed pumps

2

Diameter of ditto

2½"

Stroke

13½"

Can one be overhauled while the other is at work

yes

Bilge pumps

2

Diameter of ditto

2¾"

Stroke

13½"

Can one be overhauled while the other is at work

yes

Donkey Engines

3

Sizes of Pumps

3 x 6" duplex

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

Engine Room

Bilge & Donkey pumps 2-2"

Bilge pump 1-2¼"

In Holds, &c.

Forward Hold 2-2"

Bilge Injections

1 sizes

¾"

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

yes

2"

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

✓

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

yes

Are they Valves or Cocks

both

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

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

pipes are carried through the bunkers

held & tank protection

How are they protected

with casing

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

yes

the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

yes

of examination of completion of fitting of Sea Connections

and

of Stern Tube

and

Screw shaft and Propeller at Workington

Screw Shaft Tunnel watertight

none

Is it fitted with a watertight door

✓

worked from

✓

ERS, &c.—(Letter for record

S)

Manufacturers of Steel

David Colville & Sons Ltd.

Heating Surface of Boilers

1898 sq

Is Forced Draft fitted

no

No. and Description of Boilers

one single ended

ing Pressure

170 lbs

Tested by hydraulic pressure to

340 lbs

Date of test

14.2.07

No. of Certificate

8755

each boiler be worked separately

✓

Area of fire grate in each boiler

5.3 sq

No. and Description of Safety Valves to

boiler

Pair spring loaded

Area of each valve

5.41 sq

Pressure to which they are adjusted

170 lbs

Are they fitted with easing gear

yes

test distance between boilers or uptakes and bunkers or woodwork

3'-0"

Mean dia. of boilers

14'-0"

Length

10'-0"

Material of shell plates

steel

ness

1¾"

Range of tensile strength

28/32 tons

Are the shell plates welded or flanged D.B.S. Descrip. of riveting: cir. seams D. Riv.

seams

T. R. D. B. S.

Diameter of rivet holes in long. seams

1½"

Pitch of rivets

7½"

Top of plates or width of butt straps

16¾"

entages of strength of longitudinal joint

rivets 90.3%

plate 85%

Working pressure of shell by rules

172 lbs

Size of manhole in shell

16" x 12"

of compensating ring

6¾" x 1¾"

No. and Description of Furnaces in each boiler

3 corrugated

Material

steel

Outside diameter

44¼"

h of plain part

top

bottom

Thickness of plates

crown ½"

bottom ½"

Description of longitudinal joint

weld

No. of strengthening rings

✓

ing pressure of furnace by the rules

170 lbs

Combustion chamber plates: Material

steel

Thickness: Sides

5/8"

Back

5/8"

Top

5/8"

Bottom

5/8"

of stays to ditto: Sides

9¼" x 8¼"

Back

9" x 8½"

Top

9" x 7¾"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

176 lbs

rial of stays

steel

Diameter at smallest part

1.76"

Area supported by each stay

76.5 sq

Working pressure by rules

184 lbs

End plates in steam space:

rial

steel

Thickness

1½"

Pitch of stays

19" x 17¼"

How are stays secured

D. nuts

Working pressure by rules

172 lbs

Material of stays

steel

ator at smallest part

5.69 sq

Area supported by each stay

327.75 sq

Working pressure by rules

180 lbs

Material of Front plates at bottom

steel

ness

5/16"

Material of Lower back plate

steel

Thickness

7/8"

Greatest pitch of stays

13¼" x 9"

Working pressure of plate by rules

206 lbs

eter of tubes

3½"

Pitch of tubes

4½" x 4½"

Material of tube plates

steel

Thickness: Front

5/16"

Back

¾"

Mean pitch of stays

9½"

across wide water spaces

14"

Working pressures by rules

172 lbs

Girders to Chamber tops: Material

iron

Depth and

ess of girder at centre

6¼" x 2"

Length as per rule

27½"

Distance apart

7¾"

Number and pitch of stays in each

2 @ 9"

ing pressure by rules

176 lbs

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

tely

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

fened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

ing pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Lloyd's Register Foundation

W377-0135

VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ Description _____

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure _____ tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____ Fire grate area _____ Description _____

Valves _____ No. of Safety Valves _____ Area of each _____ Pressure to which they are adjusted _____ Date of adjustment _____

If fitted with easing gear _____ If steam from main-boilers can enter the donkey boiler _____ Dia. of donkey boiler _____ Length _____

Material of shell plates _____ Thickness _____ Range of tensile strength _____ Descrip. of riveting long. seams _____

Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____ Lap of plating _____ Per centage of strength of joint _____

Working pressure of shell by rules _____ 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 _____

Working pressure of furnace by rules _____ Thickness of furnace crown plates _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— *As per rules, 1st safety valve springs; 2 propeller blades*

The foregoing is a correct description,

Ross Duncan Manufacturer.

Dates of Survey while building { During progress of work in shops - 1906 July 20 Aug 6 14 20 Sep 3 7 13 17 24 28 29 Nov 26 Dec 6 12 18 24 1907 Jan 2 Feb 6 4 11
During erection on board vessel - 1907 Mar 5 7 12 16 18 26 April 2
Total No. of visits 29

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

Dates of Examination of principal parts—Cylinders 26.11.06 Slides 26.11.06 Covers 26.11.06 Pistons 6.12.06 Rods 12.12.06
Connecting rods 18.12.06 Crank shaft 12.12.06 Thrust shaft 18.12.06 Tunnel shafts _____ Screw shaft 12.12.06 Propeller 16.12.06
Stern tube 27.12.06 Steam pipes tested 8.3.07 Engine and boiler seatings *Workington* Engines holding down bolts 18.3.07
Completion of pumping arrangements 2.4.07 Boilers fixed 5.3.07 Engines tried under steam 2.4.07
Main boiler safety valves adjusted 2.4.07 Thickness of adjusting washers *Port 5/16" Plate 5/16"*
Material of Crank shaft *iron* Identification Mark on Do. 692 Material of Thrust shaft *iron* Identification Mark on Do. 6
Material of Tunnel shafts _____ Identification Marks on Do. _____ Material of Screw shafts *iron* Identification Marks on Do. 6
Material of Steam Pipes *Copper* Test pressure *340 lbs per sq inch*

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

The machinery has been built under special survey: the material and workmanship being good; and satisfactorily tried under steam. It is submitted that above vessel will be eligible for a record of + L.M.C. 4.07 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. *L.M.C. 4107*

17/4/07

17.4.07

The amount of Entry Fee... £ 2.0.0
Special ... £ 15.0.0
Donkey Boiler Fee ... £
Travelling Expenses (if any) £

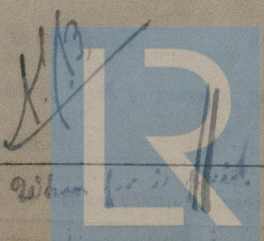
When applied for, 5 APR 1907
When received, 20 APR 1907

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

Committee's Minute *Glasgow* 15 APR 1907

Assigned *+ L.M.C. 4.07*
(Subject to classification of hull)

FRI. APR 19 1907



+ L.M.C. 4.07
Lloyd's Register
MACHINERY CERTIFICATE
WRITTEN

Certificate (if required) to be sent to
(The Surveyors are requested not to write on or below the space for Committee's Minute.)