

REPORT ON MACHINERY

JUL 14 AUG 1900

Received from

Surveyed
29 JUN 1900

Port of

Glasgow

Received at London Office

JUL 3 JUL 1900

No. in Survey held at
Reg. Book.

Glasgow

Date, first Survey

17 March

Last Survey

15 June 1900

(Number of Visits

5)

320 on the

SS "Jupiter"

Tons { Gross 4896.00
Net 3216.81

Master A. B. de. Ugarte.

Built at

Port: Glasgow

By whom built

Rusell & Co (No 453)

When built

1900

Engines made at

Grimock

By whom made

Rankin & Blackmore

when made

1900

Boilers made at

Glasgow

By whom made

Lindsay Burnett & Co

when made

1900

Registered Horse Power

Owners Francisco Martinez Rodas.

Port belonging to Bilbao.

Nom. Horse Power as per Section 28 403

Is Refrigerating Machinery fitted no.

Is Electric Light fitted no.

ENGINES, &c.—Description of Engines

No. of Cylinders

No. of Cranks

Dia. of Cylinders

Length of Stroke

Revs. per minute

Dia. of Screw shaft

as per rule

Lgth. of stern bush

Dia. of Tunnel shaft

as per rule

Dia. of Crank shaft journals

as per rule

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

collars

Dia. 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, &c.

No. of bilge injections

sizes

Connected to condenser, or to circulating pump

Is a separate donkey suction fitted in Engine room & 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, &c.—

(Letter for record

Total Heating Surface of Boilers

7824

Is forced draft fitted

no

No. and Description of Boilers

one single ended return tube

Working Pressure

80 lbs

Tested by hydraulic pressure to

160 lbs

Date of test

5/10/00

Can each boiler be worked separately

yes

Area of fire grate in each boiler

30.4

No. and Description of safety valves to

each boiler

Two direct spring

Area of each valve

7.06

Pressure to which they are adjusted

80 lbs

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

boiler on dock, 10" dia. of boilers

Length

9.0

Material of shell plates

steel

Thickness

9/16"

Range of tensile strength

27/32

Are they welded or flanged

no

Descrip. of riveting: cir. seams

top rings

long. seams

top tubes

Diameter of rivet holes in long. seams

2/8

Pitch of rivets

3 5/8"

Lap of plates

width of butt strap

6 1/8"

Per centages of strength of longitudinal joint

rivets 76.1

plate 76.8

Working pressure of shell by rules

84 lbs

Size of manhole in shell

16 x 12

Size of compensating ring

25 x 29 1/2

No. and Description of Furnaces in each boiler

2 plain

Material

steel

Outside diameter

35 3/4"

of plain part

top 35-6

bottom 35-6

Thickness of plates

crown 3/16"

bottom 3/16"

Description of longitudinal joint

welded

No. of strengthening rings

none

Working pressure of furnace by the rules

86

Combustion chamber plates: Material

steel

Thickness: Sides

1/2"

Back

3/32"

Top

3/16"

Bottom

1/2"

Pitch of stays to ditto: Sides

9 x 10"

Back

9 x 9"

Top

9 x 12"

If stays are fitted with nuts or riveted heads

nuts inside

Working pressure by rules

85 lbs

End plates in steam space:

Material of stays

steel

at smallest part

9/16"

Area supported by

each stay

90 1/2"

Working pressure by rules

85 lbs

End plates in steam space:

Material

steel

Thickness

9/8"

Pitch of stays

14 1/4 x 14 1/4"

How are stays secured

2 nuts

Working pressure by rules

80 lbs

Material of stays

steel

at smallest part

2.03

Area supported by

each stay

242"

Working pressure by rules

94 lbs

Material of Front plates at bottom

steel

Thickness

4/16"

Material of Lower back plate

steel

Thickness

9/16"

Greatest pitch of stays

9 x 9"

Working pressure of plate by rules

105 lbs

Diameter of tubes

3 1/2"

Pitch of tubes

4 1/8 x 4 3/4"

Material of tube plates

steel

Thickness: Front

4/16"

Pitch across wide water spaces

14"

Working pressures by rules

86 lbs + 100 lbs

Girders to Chamber tops: Material

steel

Depth and

Thickness of girder at centre

6 1/2 x 13

Length as per rule

26"

Distance apart

12"

Number and pitch of Stays in each

Two 9"

Working pressure by rules

98 lbs

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

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

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

Lloyd's Register

Foundation

GRK 352-0103

DONKEY BOILER— No. _____ 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 boilers can enter the donkey boiler *no.* _____

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 _____

Flap 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 :—

The foregoing is a correct description,

Rudray Burnett & Co Manufacturers.

Dates of Survey while building { During progress of work in shops - - 1900: March. 17. April. 20. May. 3. 16. June. 15.
During erection on board vessel - -
Total No. of visits *Five.*

Is the approved plan of main boiler forwarded herewith *Yes*
" " " donkey " " " *Yes*

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

This boiler has been constructed under special survey the materials and workmanship are of good description

The boiler has now been forwarded to Greenock where it is to be fitted on board

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

The amount of Entry Fee. . . £ : :
Special £ : :
Donkey Boiler Fee . . . £ 2 : 2 :
Travelling Expenses (if any) £ : :
When applied for, *25/6/900*
When received, *27/6/900*

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

Committee's Minute *Glasgow.* 2 JUL 1900

Assigned *Transmit - A. McLeod* Deferred for Completion