

## REPORT ON MACHINERY.

No. 13692

Port of Greenock

THUR. 6 AUG 1903

Received at London Office 19

No. in Survey held at GreenockDate, first Survey 27<sup>th</sup> JuneLast Survey 29<sup>th</sup> June 1903

Reg. Book.

(Number of Visits 2)

on the

Ship 'Alacrita'Tons } Gross  
NetWhen built 1902

Master

Built at Port Glasgow By whom built A. Rodgers & Co.

Engines made at

By whom made

when made

Boilers made at

Barrhead

By whom made

Wallace & Co.

when made

1902

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28

Is Refrigerating Machinery fitted

Is Electric Light fitted

## ENGINES, &amp;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

Material of

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

Is the after end of the liner made water tight

Is the propeller boss

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

Length 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

No. of

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, &amp;c.

No. of bilge injections

sizes

Connected to condenser, or to circulating pump

Is a separate donkey suction fitted in Engine room &amp; 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

That 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

Then 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, &amp;c.—

(Letter for record)

Total Heating Surface of Boilers

Is forced draft fitted

No. and Description of Boilers

Working Pressure

Tested by hydraulic pressure to

Date of test

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of safety valves to

Each boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are they welded or flanged

Descrip. of riveting: cir. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Percentage of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top

Thickness of plates

crown

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

Thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of Stays in each

Working pressure by rules

Superheater or Steam chest; how connected to boiler

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



**DONKEY BOILER—** No. 1 Description Vertical with cross tube  
 Made at Barrhead By whom made J. Wallace 16.7 When made 29/12/02 Where fixed on deck  
 Working pressure 80 lbs tested by hydraulic pressure to 160 lbs No. of Certificate 6539 Fire grate area 16 sq ft Description of safety valve Direct Spring  
 No. of safety valves 1 Area of each 4.9 sq in Pressure to which they are adjusted 80 lbs If fitted with easing gear Yes If steam from main boilers can enter the donkey boiler ✓ Dia. of donkey boiler 4' 6" Length 8' 6" Material of shell plates Steel Thickness 3/8" Range of tensile strength 24 tons Descrip. of riveting long. seams Lap down rivets Dia. of rivet holes 3/16" Whether punched or drilled Drilled Pitch of rivets 3"  
 Lap of plating 4' 8" Per centage of strength of joint 75 Rivets 75 Thickness of shell crown plates 7/16" Radius of do. 5 ft No. of Stays to do. none  
 Dia. of stays ✓ Diameter of furnace Top 46" Bottom 48" Length of furnace 50" Thickness of furnace plates 5/16" Description of joint Weld Thickness of furnace crown plates 1/2" Stayed by ✓ Working pressure of shell by rules 105 lbs  
 Working pressure of furnace by rules 95 lbs Diameter of uptake 18" Thickness of uptake plates 3/8" Thickness of water tubes 3/8"

**SPARE GEAR.** State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building  
 During progress of work in shops—  
 During erection on board vessel—  
 Total No. of

1902 June 27. 29.

2.

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

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

This Boiler has been fitted on board and examined under steam when its safety valve was adjusted to the working pressure above mentioned. It is now in good and efficient condition and eligible in my opinion to have the record & D.B. 7.03 marked in the Society's Register Book.

It is submitted that this vessel is eligible for THE RECORD. - D.B. 7.03.

Working pressure 80 lbs

Bel

6.8.03

Certificate (if required) to be sent to

The amount of Entry Fee..	£	:	:	When applied for,
Special .. .. .	£	:	:	19...
Donkey Boiler Fee .. .. .	£	:	:	When received,
Travelling Expenses (if any) £	:	:	:	19...

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

Committee's Minute Glasgow 5-AUG1903

Assigned - D.B. 7.03



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