

REPORT ON MACHINERY.

No. 12455

Port of *Leith*

Received at London Office **10 HUR. 29 OCT 1908**

No. in Survey held at *Grangemouth* Date, first Survey *9th Oct.* Last Survey *16th Oct 1908*

eg. Book. **SUPPLEMENT** 31 on the *SS "Caledonia Plata"* (Number of Visits *2*)

Master Built at *Grangemouth* By whom built *The Greenock & Grangemouth Dry Dock* Tons { Gross *2002* Net *1323* When built *1908*

Engines made at *Stockton* By whom made *Blair & Co. Ltd.* when made *1908*

Boilers made at *Stockton* By whom made *Blair & Co. Ltd.* when made *1908*

Registered Horse Power Owners *Ybarra & Co.* Port belonging to *Switzerland*

Dom. Horse Power as per Section 28 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Description of Engines

No. of Cylinders	No. of Cranks
<i>the screw shaft fitted with a continuous liner the whole length of the stern tube</i>	<i>Is the after end of the liner made water tight</i>
<i>the propeller boss</i>	<i>If the liner is in more than one length are the joints burned</i>
<i>When the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive</i>	<i>If the liner does not fit tightly at the part</i>
<i>When two bearings are fitted, is the shaft lapped or protected between the liners</i>	<i>Length of stern bush</i>
<i>Dia. of Tunnel shaft as per rule as fitted</i>	<i>Dia. of Crank shaft journals as per rule as fitted</i>
<i>Dia. of Crank pin</i>	<i>Size of Crank webs</i>
<i>Dia. of thrust shaft under</i>	<i>Dia. of thrust shaft under</i>
<i>Dia. of screw</i>	<i>Pitch of Screw</i>
<i>No. of Blades</i>	<i>State whether moceable</i>
<i>Total surface</i>	
<i>No. of Feed pumps</i>	<i>Diameter of ditto</i>
<i>Stroke</i>	<i>Can one be overhauled while the other is at work</i>
<i>No. of Bilge pumps</i>	<i>Diameter of ditto</i>
<i>Stroke</i>	<i>Can one be overhauled while the other is at work</i>
<i>No. of Donkey Engines</i>	<i>Sizes of Pumps</i>
	<i>No. and size of Suctions connected to both Bilge and Donkey pumps</i>
<i>Engine Room</i>	<i>In Holds, &c.</i>

Boilers, &c.—(Letter for record)

MANUFACTURERS OF STEEL

HEATING SURFACE OF BOILERS

Is Forced Draft fitted

No. and Description of Boilers

Working Pressure

Tested by hydraulic pressure to

Date of test

No. of Certificate

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 the shell plates 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

Percentages of strength of longitudinal joint

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

Thickness of plates

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

holes

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



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 of Safety 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 _____ Rivets _____ Plates _____

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:—

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building

During progress of work in shops - - } _____

During erection on board vessel - - } 1908 Oct 9. 16.

Total No. of visits _____ 2

Is the approved plan of main boiler forwarded herewith _____

_____ " " " donkey " " " yes

Dates of Examination of principal parts—Cylinders _____ Slides _____ Covers _____ Pistons _____ Rods _____

Connecting rods _____ Crank shaft _____ Thrust shaft _____ Tunnel shafts _____ Screw shaft _____ Propeller _____

Stern tube _____ Steam pipes tested _____ Engine and boiler seatings 7/9/08 ✓ Engines holding down bolts _____

Completion of pumping arrangements _____ Boilers fixed _____ Engines tried under steam _____

Main boiler safety valves adjusted _____ Thickness of adjusting washers _____

Material of Crank shaft _____ Identification Mark on Do. _____ Material of Thrust shaft _____ Identification Mark on Do. _____

Material of Tunnel shafts _____ Identification Marks on Do. _____ Material of Screw shafts _____ Identification Marks on Do. _____

Material of Steam Pipes _____ Test pressure _____

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

The engine & boiler seats, fitting of sea valves & cocks examined & found satisfactory. Donkey boiler fixed on board & safety valves adjusted as per Stockton report N^o 5574 returned herewith.

In my opinion these parts will be eligible to be classed with the remainder of the machinery when fitted.

Certificate (if required) to be sent to

The amount of Entry Fee. £	:	:	When applied for,
Special £	:	:	28.110/1908
Donkey Boiler Fee £	:	:	When received,
Travelling Expenses (if any) £	:	10 : 6	See sub. 5514

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

Committee's Minute FRI. 20 NOV 1908

Assigned



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