

REPORT ON MACHINERY.

No. 14099.

Port of Greenock

Received at London Office

TUES 1 NOV 1904

No. in Survey held at

Greenock

Date, first Survey

26th March 1904

Last Survey

15th Oct 1904

Reg. Book.

20 Suppl^{ts} on theSteel S.S. "Erny" (Russell & Co's 110530)(Number of Visits 51)

Gross

Net

Tons

When built

1904

Master

A. Bergich

Built at

Port Glasgow

By whom built

Russell & Co.

Engines made at

Greenock

By whom made

J. G. Kincaid & Co.

when made

1904

Boilers made at

Paisley

By whom made

A. F. Craig & Co.

when made

1904

Registered Horse Power

Owners

Fratelli Cosulich

Port belonging to

Trieste

Nom. Horse Power as per Section 28

295

Is Refrigerating Machinery fitted

No.

Is Electric Light fitted

Yes.ENGINES, &c.—Description of Engines Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

24"-40" & 65"

Length of Stroke

42"

Revs. per minute

Dia. of Screw shaft

as per rule 13.02

Material of

W. 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

Yes

If two

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

Length of stern bush

53"

Dia. of Tunnel shaft

as per rule 11.33

Dia. of Crank shaft journals

as per rule 12.42

Dia. of Crank pin

12 1/2

Size of Crank webs

18 1/2 x 8 1/2

Dia. of thrust shaft under

collars

12 1/2

Dia. of screw

15-6"

Pitch of screw

17'-0"

No. of blades

solid bronze

State whether moveable

No

Total surface

84 sq. ft.

No. of Feed pumps

2

Diameter of ditto

3 1/2"

Stroke

24"

Can one be overhauled while the other is at work

Yes.

No. of Bilge pumps

2

Diameter of ditto

4"

Stroke

24"

Can one be overhauled while the other is at work

Yes.

No. of Donkey Engines

2

Sizes of Pumps

10x10 1/4 7x5x6 Duplex

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

In Engine Room

Four - 3"In Holds, &c. Two - 3" in No 1 hold, Two - 3" in No 2 hold,Two - 3" in after hold and one - 2 1/2" in tunnel well.

No. of bilge injections

one size 6"

Connected to condenser, or to circulating pump

Cir. p.

Is a separate donkey suction fitted in Engine room & size

Yes - 3 1/2"

Are 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

None

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

Yes

Are they Valves or Cocks

both.

Are 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

Are 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.

What pipes are carried through the bunkers

None

How are they protected

Yes.

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

Yes.

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

Yes.

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

Before launching

Is the screw shaft tunnel watertight

Yes.

Is it fitted with a watertight door

Yes

worked from

upper deck

BOILERS, &c.—

(Letter for record

Total Heating Surface of Boilers

4530 sq. ft.

Is forced draft fitted

No.

No. and Description of Boilers

Two S.S. Multitubular.

Working Pressure

180 lbs.

Tested by hydraulic pressure to

Date of test

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

66 sq. ft.

No. and Description of safety valves to

each boiler

Two - Spring loaded

Area of each valve

7.06 sq. in.

Pressure to which they are adjusted

185 lbs.

Are they fitted with easing gear

Yes

Smallest distance between boilers on plates and bunkers or woodwork

48"

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

Per centages 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

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If 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

W1601-0144

DONKEY BOILER— No. *One* Description *S.E. Multitubular*
 Made at _____ By whom made _____ When made *1904* Where fixed *Stokehold*
 Working pressure *80 lbs.* tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area *22 1/2* Description of safety valves *Two - Spring loaded*
 No. of safety valves *2* 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 *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 _____
 Lap 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 _____ 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:— *1 Cast Iron propeller, 1 propeller shaft complete, 3 Cyl. escape valve + springs, 12 shaft coupling, 2 Con. rod, 2 piston rod, 2 mn. bearing, 6 holding down, 6 junk ring, 6 cyl. cover + 6 valve chest cover, bolts + nuts, 2 Feed and 2 Bilge pump valves, 1 feed escape valve spring, 12 boiler + 12 Condenser tubes, 120 Cond. ferrules. Assorted bolts, nuts + iron one set Mn. B. S. Valve springs + 1/2 set Mn. fire bar*
 The foregoing is a correct description,
John. G. Kincaid & Co. Manufacturer.
p. J. Kincaid

Dates of Survey while building { During progress of work in shops - - *1904. March 26. 30 April 4. 6. 12. 16. 20. 26. 29. May 3. 5. 7. 12. 16. 23. 28. 30 June 4. 7. 10. 15. 17. 24*
 { During erection on board vessel - - *29. July 6. 19. 22. 27. 29. Aug. 1. 3. 22. Sep. 2. 13. 22. 23. 24. 26. 27. 28. 29. 30. Oct 1. 3. 4. 5. 6. 8. 11. 13.*
 Total No. of visits *51.* Is the approved plan of main boiler forwarded herewith *No.*
 " " " donkey " " " *No.*

General Remarks (State quality of workmanship, opinions as to class, &c. *Workmanship + material good.*
The main steam pipes tested to 360 lbs. hyd. press. + found tight. The engines and Boilers efficiently fitted on board, tried under a full pressure of steam and worked satisfactorily.

The machinery + boilers are now in safe working condition and eligible, in my opinion, to have the notation of +L.M.C. 10.04 entered in the Register Book.

The main + donkey boilers were made in the Glasgow district but the reports or plans have not been forwarded to this office.

Since writing above the Glasgow report and plans of main + donkey boilers have been received and are herewith attached.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 10.04 FLECHT

2.11.04 *2.11.04*

The amount of Entry Fee. £ *2* : : : When applied for, *17/10/04*
 { Special *Glasgow* £ *23* : *3* : *4* { When received, *19/10/04*
 { Donkey Boiler Fee £ *11* : *11* : *8* {
 Travelling Expenses (if any) £ : : : *19/10/04*

Committee's Minute *Glasgow 31 OCT 1904*

Assigned

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

MACHINERY CERTIFICATE WRITTEN. *3.11.04*



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Lloyd's Register Foundation

Glasgow

Certificate (if required) to be sent to

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

Rpt. 13.

Port of

No. in Reg. Book

Owners

Yard No. 5

DESCRIPTION

Compo

Capacity of

Where is D.

Position of

Positions of

4 S

If cut outs a

circuits

If vessel is

Are the cut

Are all cut

are per

Are all swit

Total numb

A Eng. Rm

B Office

C 2

D

E

2

2

If are ligh

Where are

DESRIPT

Main cable

Branch cab

Branch cab

Leads to la

Cargo light

DESRIPT

Pure

Joints in

Are all th

made

Are there

How are

up n