

REPORT ON MACHINERY.

No. 23166

Port of Glasgow

Received at London Office 17 OCT 1905

19

No. in Survey held at
Reg. Book.

Date, first Survey 10th July Last Survey 11th Oct 1905

(Number of Visits 11)

on the

Master

Built at

By whom built

Tons
Gross
Net

When built

Engines made at

By whom made

when made

Boilers made at

By whom made

when made

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders

No. of Cranks

Dia. of Cylinders

Length of Stroke

Revs. per minute

Dia. of Screw shaft

Material of screw shaft

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

in 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

Dia. of Crank shaft journals

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 it fitted with a watertight door

worked from

BOILERS, &c.—No. of Certificate

7660 (Letter for record (S))

Total Heating Surface of Boilers

Is forced draft fitted

No. and Description of Boilers

One Single Ended

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

Per centages 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

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

002410-002417-0045

DONKEY BOILER— No. 1 Description Vertical, 2 cross tubes
 Made at Stockton By whom made Riley Bros. Date of test 1.9.05 Where fixed Stockton
 Working pressure 80 tested by hydraulic pressure to 1600 No. of Certificate 3504 Fire grate area 12 Description of safety valves Spring loaded
 No. of safety valves 1 Area of each 7 Pressure to which they are adjusted 83 lb If fitted with easing gear Yes If steam from main boilers can enter the donkey boiler No Dia. of donkey boiler 4'-9" Length 9'-6" Material of shell plates steel Thickness 3/8" Range of tensile strength 27/32 Descrip. of riveting long. seams R. R. Lap Dia. of rivet holes 13/16" Whether punched or drilled drilled Pitch of rivets 2 3/16"
 Lap of plating 4 1/4" Per centage of strength of joint 83.7 Rivets 83.7 Thickness of shell crown plates 19/32" Radius of do. 5 1/4" No. of Stays to do. 5
 Dia. of stays. 1 1/2" Diameter of furnace Top 3'-8 1/4" Bottom 4'-2 1/4" Length of furnace 4'-2 1/2" Thickness of furnace plates 1/2" Description of joint Riv. S. L. Thickness of furnace crown plates 19/32" Stayed by as above Working pressure of shell by rules 97 lb
 Working pressure of furnace by rules 99 lb Diameter of uptake 11" Thickness of uptake plates 17/16" Thickness of water tubes 3/8"
SPARE GEAR. State the articles supplied:— Propeller, propeller shaft, feed & bilge pump valves & the bolts & nuts required by the Rules.

The foregoing is a correct description,

Manufacturer.

Wm. Fairbairn.

Dates of Survey while building { During progress of work in shops - 1905 July 10 Aug 8 14 16 22 Sep 2 5
 { During erection on board vessel - 1905 Sept 18 28 29 Oct 11
 Total No. of visits 11

Is the approved plan of main boiler forwarded herewith Yes
 " " " donkey " " " No

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

The engines & boilers of this vessel have been constructed under Special Survey & are of good materials & workmanship. They have been securely fitted on board & satisfactorily tried under steam.

This vessel is in my opinion eligible for notation L M C 10.05 in the Register-Book.

It is submitted that this vessel is eligible for THE RECORD

L M C 10.05

18.10.05

Certificate (if required) to be sent to

The amount of Entry Fee. £ : : : When applied for, 16 OCT 1905
 Special £ 11 : : :
 Donkey Boiler Fee £ : : :
 Travelling Expenses (if any) £ : 0 : 6 : When received, 20 OCT 1905

H Gardner-Smith
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

Assigned

L M C 10.05
 (Subject to classification of hull)

TUES. 24 OCT 1905



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