

REPORT ON MACHINERY.

No. 14171.

Port of Greenock.

Received at London Office

TUES. 24 JAN 1905

No. in Survey held at Greenock.Date, first Survey 23rd Sept 1904Last Survey 16th July 1905

Reg. Book.

1070 on the His Majesty's Telegraph Steamer "Monarch"(Number of Visits 14)Gross 1122Net 751

Master

Built at Port Glasgow By whom built David J. Dunlop & Co.When built 1883Engines made at Port GlasgowBy whom made David J. Dunlop & Co.when made 1883Boilers made at Port GlasgowBy whom made David J. Dunlop & Co.when made 1904

Registered Horse Power

Owners H.M. Postmaster General

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

No. of Cylinders

No. of Cranks

Dia. of Cylinders

Length of Stroke

Revs. per minute

Dia. of Screw shaft

as per rule

Material of

as fitted

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

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 S.)Total Heating Surface of Boilers 3294 Sq. ft. Is forced draft fitted No.No. and Description of Boilers Two: Cylindrical: Single ended. Working Pressure 80 lbs. Tested by hydraulic pressure to 160 lbs.Date of test 13/12/04 Can each boiler be worked separately Yes.Area of fire grate in each boiler 54'6"

No. and Description of safety valves to

each boiler 2: Direct Spring.Area of each valve 15'9"Pressure to which they are adjusted 81 lbs.Are they fitted with easing gear Yes.Smallest distance between boilers or uptakes and bunkers or woodwork about 6 feet Mean dia. of boilers 14'0" Length 10'0" Material of shell plates SteelThickness 15/16"Range of tensile strength 28-31 tonsAre they welded or flanged No.Descrip. of riveting: cir. seams Lap double long. seams Double Butt StrapDiameter of rivet holes in long. seams 1 1/8"Pitch of rivets 5 1/2"Material SteelLap of plates or width of butt straps 14 1/4"

Per centages of strength of longitudinal joint

rivets 85.5-Working pressure of shell by rules 139 lbs.Size of manhole in shell 18" x 14"Size of compensating ring 35 x 32 x 1"No. and Description of Furnaces in each boiler 3: Deighton's Material Steel Outside diameter 42"

Length of plain part

top 5'9"

Thickness of plates

crown 1 1/4"bottom 1 1/4"Description of longitudinal joint Weld.No. of strengthening rings None.Working pressure of furnace by the rules 150 lbs. Combustion chamber plates: Material Steel Thickness: Sides 1 1/2" Back 1 1/2" Top 1 1/2" Bottom 3/4"Pitch of stays to ditto: Sides 7 1/2" x 8" Back 7 1/2" x 7 1/2" Top 7" x 7 1/2" If stays are fitted with nuts or riveted heads Nuts.Working pressure by rules 129 lbs.Material of stays SteelDiameter at smallest part 1 1/8"Area supported by each stay 60"Working pressure by rules 124 lbs. End plates in steam space:Material Steel Thickness 3/4"Pitch of stays 14" x 15" How are stays secured Double nutsWorking pressure by rules 124 lbs. Material of stays SteelDiameter at smallest part 2 3/8"Area supported by each stay 210 Sq. in.Working pressure by rules 210 lbs.Material of Front plates at bottom SteelThickness 3/4" Material of Lower back plate SteelThickness 1 1/8"Greatest pitch of stays 14 1/4"Working pressure of plate by rules 145 lbs.Diameter of tubes 3"Pitch of tubes 4 1/4" x 4 1/4"Material of tube plates Steel Thickness: Front 3/4" Back 3/4"Mean pitch of stays 10.6"Pitch across wide water spaces 14 1/4"Working pressures by rules 99 lbs.Girders to Chamber tops: Material Steel

Depth and

thickness of girder at centre 5 3/4" x 2"Length as per rule 34"Distance apart 7'Number and pitch of Stays in each 3: 7 1/2"Working pressure by rules 104 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

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

Lloyd's Register
Foundation

GRK355-0002

Certificate (if required) to be sent to

Assigned

Committee's Minute

Slackgore 23 JAN 1905

Revised N.B. 05

The amount of Entry Fee.	£	When applied for,	When received,
Special	8	18/11/1904	27/1/05
Donkey Boiler Fee	£		
Travelling Expenses (if any) £			

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

Frank Austin

As this is a record for
a standard record, it is
submitted for no further action
relating to this report, but the
second N.B. 05 might be made
in the future column

K.J. Smith
24.1.05
24.1.05

The record is not cleared in the Liverpool Register Book, but
the record N.B. 05 might be made.
The main boilers of this vessel have been built
under special survey and the materials and workmanship
are good. When completed and fitted on board they were
examined under steam and their capacities adjusted
to carry 80% per sq inch working pressure.

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

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

Dates	During progress of	work in shops -	During erection on	board vessel -	while building	Total No. of visits
1904. Dec 23.	13. - 1905. Jan 16	14.				

The foregoing is a correct description,
Dated 23. January 1905.
Manufacturer.

SPARE GEAR. State the articles supplied:—

Working pressure of furnace by rules	Thickness of furnace crown plates	Stayed by	Diameter of uptake	Thickness of uptake plates	Thickness of water tubes
joint	Thickness of furnace crown plates	Stayed by	Diameter of uptake	Thickness of uptake plates	Thickness of water tubes
Di. of stays.	Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates	Description of
Lap of plating	Per centage of strength of joint	Plates	Thickness of shell crown plates	Radius of do.	No. of Stays to do.
strength	Descrip. of riveting long. seams	Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Range of tensile
enter the donkey boiler	Dia. of donkey boiler	Length	Material of shell plates	Thickness	If steam from main boilers can
No. of safety valves	Area of each	Pressure to which they are adjusted	If fitted with easing gear	Description of safety valves	Where fixed
Working pressure	tested by hydraulic pressure to	No. of Certificate	Fire grate area		
Made at	By whom made	When made	Where fixed		

