

REPORT ON MACHINERY.

NEWCASTLE ON TYNE No 60254

No. 24800

WED. 19 APR 1911

WED. 24 MAY 1911

No. in Survey held at
Reg. Book.

on the

Port of

Date, first Survey

Last Survey

(Number of Visits)

Master

Built at

By whom built

Tons

Gross 4975

Net 2745

When built

Engines made at

By whom made

Boilers made at

By whom made

when made

when made

Registered Horse Power

Owners

Nom. Horse Power as per Section 28

Is Refrigerating Machinery fitted for cargo purposes

Port belonging to

Is Electric Light fitted

ENGINES, &c.—Description of Engines

Dia. of Cylinders

Length of Stroke

Revs. per minute

No. of Cylinders

No. of Cranks

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

Dia. of Screw shaft

Material of screw shaft

in the propeller boss

If the liner is in more than one length are the joints burned

Is the after end of the liner made water tight

between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

If the liner does not fit tightly at the part

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

Stroke

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

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room

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

Dates of examination of completion of fitting of Sea Connections

of Stern Tube

Screw shaft and Propeller

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

Total 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

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

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

Mean pitch of stays

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Girders to Chamber tops: Material

Depth and

Pitch across wide water spaces

Working pressures by rules

Distance apart

Number and pitch of stays in each

Can the superheater be shut off and the boiler worked

thickness of girder at centre

Length as per rule

Superheater or Steam chest; how connected to boiler

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

Working pressure by rules

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

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

VERTICAL DONKEY BOILER—Manufacturers of Steel

No. Description
Made at By whom made When made Where made
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
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:— 1 Propeller, 2 Bottom End bolts & nuts, 2 Cm rod top end bolts & nuts, 2 Main Bearing bolts & nuts, 1 set coupling bolts, 1 set feed & fulge pump washers & seats, 1/2 set check valves, 17 Lock tubes & 100 ferrules, 12 Piston Bolts & nuts, 1 Sail shaft, 1 pair Crank P. Brasses, 1 valve spindle, 1 set feed dky & ballast dky valves, 1 safety valve spring, Assorted bolts, nuts & iron.

The foregoing is a correct description,

FOR GEORGE CLARK, LIMITED

Manufacturer.

James C. Clark.

Dates of Survey while building During progress of work in shops - 1910 May 31 June 15 17 30 Jul 7 11 29 Aug 3 5 10 15 18 22 20 Sep 7 12 14 19 22 28 Oct 4 7 12 18 21 25
During erection on board vessel - Nov 2 11 15 21 29 Dec 1 8 12 15 21 1911 Jan 10 17 27 Feb 4 Mar 15 20 24 29 30 Apr 5 6 7 10
at New - Mar 24 Apr 6 20 May 5 10
Total No. of visits 50
Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 8-12-10 Slides 29-4-10 Covers 29-4-10 Pistons 29-4-10 Rods 10-8-10
Connecting rods 10-8-10 Crank shaft 10-8-10 Thrust shaft 10-1-11 Tunnel shafts 10-1-11 Screw shaft 14-2-11 Propeller 14-2-11
Stern tube 14-2-11 Steam pipes tested 11-3-11 15-4-11 Engine and boiler seatings 24/3/11 Engines holding down bolts 6-4-11
Completion of pumping arrangements 10-4-11 Boilers fixed 6-4-11 Engines tried under steam 10-4-11
Main boiler safety valves adjusted 10-4-11 Thickness of adjusting washers Port B. P 3/8 5 5/16; Cent B. P 5 3/8; Star B. P 3/8 5 3/16;
Material of Crank shaft Steel Identification Mark on Do. 3946 P.A. 2643 H.K. 2603 H.K. 2602 H.K. Material of Thrust shaft Steel Identification Mark on Do. 3947 P.A.
Material of Tunnel shafts Steel Identification Marks on Do. 2598 H.K. Material of Screw shafts Steel Identification Marks on Do. 6447 J.M.
Material of Steam Pipes 5 @ 5 1/4" p x 1/4" thk Lap W. West iron; 3 S.D. Copper 4 3/4" Test pressure West iron pipes 540 lbs, Copper 400 lbs. 2642 H.K.

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

The Machinery of this vessel has been built under special survey, the materials and workmanship are of good quality, the boilers were satisfactorily tested by hydraulic pressure. The whole of the machinery has been securely fitted on board & satisfactorily tried under steam.

The machinery of this vessel is in good & safe working condition & eligible in my opinion to be classed & have record **L.M.C. 4.11.** in the Register Book.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 5.11.

JUN 24/11 J.P.R.

The amount of Entry Fee.. £ 3 : 0 : 0 When applied for, 18 11 1911
Special .. £ 44 : 0 : 0
Donkey Boiler Fee .. : : :
Travelling Expenses (if any) £ : : :
When received, 27 5 11 1911

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

Committee's Minute
Assigned
TUE. 30 MAY 1911
+ L.M.C. 5.11

MACHINERY CERTIFICATE
WRITTEN.