

REPORT ON MACHINERY.

No. 5266

Received at London Office

PLYMOUTH.

SAT. 19 JUN 1909

Date of writing Report 18 June 1909 When handed in at Local Office

Port of

To. in Survey held at

Dartmouth

Date, First Survey 20 Oct 08

Last Survey 16 June 1909

Reg. Book.

on the

Steel Screw Yag "Vincia"

(Number of Visits 14)

Gross 150.08

Tons Net Nil

Master W. Anning

Built at Dartmouth

By whom built Philip & Son Ltd

When built 1909

Engines made at

Dartmouth

By whom made

Philip & Son Ltd

when made 1909

Boilers made at

Stockton-on-Tees

By whom made

Riley Bros

when made 1909

Registered Horse Power

Owners

W. Watkins

Port belonging to London

Com. Horse Power as per Section 28

48.84

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted No

ENGINES, &c.—Description of Engines Vert Inverted, Triple, Surface Ind. & Side Scavo. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders

13" x 21" x 34"

Length of Stroke

24"

Revs. per minute

Dia. of Screw shaft

as per rule 4 1/2"

Material of

Mild Steel

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

Yes

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

Painted

Length of stern bush 2'-6"

Dia. of Tunnel shaft

as per rule 6.38"

as fitted 6.34"

Dia. of Crank shaft journals

as per rule 6.4"

as fitted 6.34"

Dia. of Crank pin

6 3/4"

Size of Crank webs

4 1/2" x 1 1/4"

Dia. of thrust shaft under

rollers

6 3/4"

Dia. of screw

8-9"

Pitch of Screw

11 to 12 feet

No. of Blades

4

State whether moveable

No

Total surface 2809. feet

No. of Feed pumps

One

Diameter of ditto

2 1/2"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

One

Diameter of ditto

2 1/2"

Stroke

12"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

Two

Sizes of Pumps (Engines) 5 1/4" dia. 3 1/2" x 5"

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

In Engine Room

{suction to Bilge & Dry pumps and one separate}

In Holds, &c. One forward of W.T. Bulk fore end of

Boiler room,

and one abaft W.T. bulkhead after end of Eng. Room. Both 2" dia

No. of Bilge Injections

One

sizes 3 1/2" dia

connected to condenser, or to circulating pump

Condenser

Is a separate Donkey Suction fitted in Engine room & size

Yes 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

Yes

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 Main Steam, Aux. Steam & Exhaust, Voice pipes

How are they protected Sheet Iron box casing

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

Dates of examination of completion of fitting of Sea Connections

4 June 09

of Stern Tube

7 April 09

Screw shaft and Propeller

7 April 09

Is the Screw Shaft Tunnel watertight

Nil

Is it fitted with a watertight door

Yes

worked from

Yes

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

plate

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

bottom

Thickness of plates

crowd

bottom

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 of 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 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

008428-008433-0141

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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:—Cong Rod Bolts and nuts 2 Top 2 Bottom Main Bearing Studs 2 in No 1
Shaft Coupling bolts 1 set = 6 in No 1 Feed pump valves 1 set Bilge pump valves 1 set,
Springs for L.P. Piston 1 set, Boiler tubes 4 in No 1, Condensor tubes 6 in No 1 Iron of
various sizes Bolts & nuts of sizes assorted.

The foregoing is a correct description,
For PHILIP & SON, LIMITED.

Manufacturer.

Dates of Survey while building	During progress of work in shops—	1908 Oct 20	Nov 3	Jan 29	Feb 16	Mar 10	April 7-19.27	
		1909 May 13.21.27, April 4.10.16						
		Total No. of visits Fourteen						

Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—	Cylinders 1909 Feb 10 Mar 7 April 09	Slides 7 April 09	Covers 7 April 09	Pistons 7 April 09	Rods 16 Feb 10 Mar 7 April 09
Connecting rods 1908 Nov 3	Crank shaft 29 Jan 09	Thrust shaft 29 Jan 09	Tunnel shafts 29 Jan 09	Screw shaft 7 April 09	Propeller 7 April 09
Stern tube 7 April 09	Steam pipes tested 7 April 21 May 09	Engine and boiler seatings 19 April 09	Engines holding down bolts 27 May 09		
Completion of pumping arrangements 4 & 16 June 09	Boilers fixed 27 May 09	Engines tried under steam 16 June 09			
Main boiler safety valves adjusted 16 June 09	Thickness of adjusting washers	P+S 1 1/32"			
Material of Crank shaft Steel	Identification Mark on Do. 293	Material of Thrust shaft Steel	Identification Mark on Do. 529		
Material of Tunnel shafts Steel	Identification Marks on Do. 529	Material of Screw shafts Steel	Identification Marks on Do. 529		
Material of Steam Pipes Copper	Test pressure 330 lbs per sq in -				

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under special survey in accordance with approved drawings and in conformity with the Society's Rules.

The materials used and the workmanship are good
The main and aux'y machinery has been worked under steam at full pressure with satisfactory results

The boiler made at Stockton-on-Tees was examined under steam at working pressure and found to be tight

The machinery and boiler of this vessel are good and efficient and eligible in my opinion subject to the favourable consideration of the Committee, to be classed, and to receive the notation of **+ LMC 6-09**

Certificates of Shafting &c made elsewhere are attached

It is submitted that this vessel is eligible for THE RECORD. +LMC 6.09

The amount of Entry Fee.	£ 1 :	When applied for,	17 June 1909
Special	£ 11. 17 :	When received,	19 June 1909
Donkey Boiler Fee	£ :		
Travelling Expenses (if any)	£ 1 : 18 :		

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

Committee's Minute

Assigned

TUES. 22 JUN 1909

+ LMC 6.09

MACHINERY CERTIFICATE WRITTEN.



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Messrs Philip & Son Ltd Dartmouth.

Certificates (if required) to be sent to the space for Committee's Minute.