

REPORT ON MACHINERY

No. 28811.

W.H. 27 APL 1910

Received at London Office

Date of writing Report

19

When handed in at Local Office

21/4/

to 10 Port of

Glasgow

No. in Survey held at
Reg. Book.

44 on the

Parsley

S/S "Lock & Live"

Date, First Survey

19th Oct.

Last Survey

13th April 1910.

(Number of Visits 20)

Master

Built at

Birling

By whom built

Scott & Son

When built

1910

Engines made at

Parsley

By whom made

Fishers L^d (1905)

when made

1910

Boilers made at

Glasgow

By whom made

A & R Dalglisk

when made

1910

Registered Horse Power

63

Owners

J & Stewart

Port belonging to

Glasgow

Nom. Horse Power as per Section 28

54

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Compound Surface Condensing

No. of Cylinders

2

No. of Cranks

2

Dia. of Cylinders

14" x 30"

Length of Stroke

24"

Revs. per minute

100

Dia. of Screw shaft

as fitted 7 3/8

Material of

screw shaft

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

as approved

Length of stern bush

2-5 1/2"

Dia. of Tunnel shaft

as per rule

Dia. of Crank shaft journals

as per rule

as fitted

6 5/8

Dia. of Crank pin

6 5/8

Size of Crank webs

13 1/4 x 3 1/4"

Dia. of thrust shaft under

collars

6 1/16"

Dia. of screw

4-0"

Pitch of Screw

10-6"

No. of Blades

4

State whether moveable

No

Total surface

22-5 1/2"

No. of Feed pumps

1

Diameter of ditto

2 1/4"

Stroke

12

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

1

Diameter of ditto

2 1/4"

Stroke

12

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

one

Sizes of Pumps

5 1/4 x 3 1/2 x 6"

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

In Engine Room

2 at 2"

one at 3"

In Holds, &c.

2 at 2"

No. of Bilge Injections

1

sizes

3"

Connected to condenser or to circulating pump

Yes

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

2 Hold Suction

one Tank Suction

How are they protected

Wood 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

10-3-10

of Stern Tube

10-3-10

Screw shaft and Propeller

10-3-10

Is the Screw Shaft Tunnel watertight

None

Is it fitted with a watertight door

Yes

worked from

Yes

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

Total Heating Surface of Boilers

1308

Is Forced Draft fitted

No

No. and Description of Boilers

one Single Endid.

Working Pressure

135

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

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

crown

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 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

Lloyd's Register

002165 007173 0083

Foundation

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 Safe
 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:—

2 Connecting Rod bolts nuts for each end. 2 Main Bearing Bolts 1 Set of Coupling bolts. 1 Set of Feed & Bilge Pump Washers 1 Set of Piston Springs a quantity of assorted Iron Nuts & Bolts

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
 During progress of work in shops - 1909 Oct 19. 27. Nov 9. 15. Dec 3. 7. 16. 24 1910 Jan 4. 11. 18
 During erection on board vessel - Feb 4. 9. 18. March 1. 7. 10. 15. 30. April 1. 4. 8. 13
 Total No. of visits 22

Is the approved plan of main boiler forwarded herewith

Yes
 Done

Dates of Examination of principal parts—Cylinders 16. 12. 09 Slides 24. 12. 09 Covers 16. 12. 09 Pistons 24. 12. 09 Rods 4. 2. 10
 Connecting rods 4. 2. 10 Crank shaft 18. 2. 10 Thrust shaft 18. 2. 10 Tunnel shafts ✓ Screw shaft 4. 2. 10 Propeller 15. 3. 1
 Stern tube 18. 2. 10 Steam pipes tested 4. 4. 10 Engine and boiler seatings 10. 3. 10 Engines holding down bolts 8. 4. 10
 Completion of pumping arrangements 8. 4. 10 Boilers fixed 8. 4. 10 Engines tried under steam 13. 4. 10
 Main boiler safety valves adjusted 13. 4. 10 Thickness of adjusting washers 0. 2. 8 & 2. 8
 Material of Crank shaft Iron Identification Mark on Do. WDH 2395
 Material of Thrust shaft Iron Identification Mark on Do. WGM 195
 Material of Tunnel shafts Iron Identification Marks on Do.
 Material of Screw shafts Iron Identification Marks on Do.
 Material of Steam Pipes Copper Test pressure 240

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has built under Special Survey in accordance with the above plan & have been securely fitted on board The workmanship & material are of good quality The Machinery is eligible in my opinion for the record of LMC 4-10

It is submitted that this vessel is eligible for THE RECORD. + LMC 4, 10

JM

Head

28. 4. 10

The amount of Entry Fee .. £ 1 : - :
 Special .. £ 8 : 2 :
 Donkey Boiler Fee .. £ - : - :
 Travelling expenses (if any) £ - : - :
 When applied for, 19/4/10
 When received, 27/4/10

Committee's Minute GLASGOW 26 APR. 1910

Assigned + LMC 4, 10

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



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STRA

FLAT PLATE
 (If Bar Keel,
 GARBOARD O

State actual
 thickness in
 way of Doubl
 Bottom.

Shine

DOUBLING

Length

POOP SIDE

SHORT BR

FORECAST

Manu

manufact

Plates, Pl

Block

Belge

Has the S

FRAME

REVERS

Pol

lower

Bowpu

Topma

Riggin

Sails.

EQUI

Number

Certificat

12599

1260

6356

6356

Num

Certif

447

447

Iron

Chu

Ste

Boat

Pum

Win

Eng

Wha

Coa

Nun

Ceil

Car

Stat

Nun

Bu

Tha

Bu

Form No. 1A.

23-4-10.

23-4-10.

23-4-10.