

REPORT ON MACHINERY.

No. 6430

Port of

Delft

Received at London Office

MAR 3 1908

No. in Survey held at

Delft

Date, first Survey

Aug 23rd 1907

Last Survey

2 March

1908

Reg. Book.

on the

S.S. Ancona

(Number of Visits 50)

Master

Built at

Delft

By whom built

Wickman Clark & Co.

Tons

Gross 8885

Net

6020

When built

1908

Engines made at

Delft

By whom made

when made

1908

Boilers made at

By whom made

when made

Registered Horse Power

✓

Owners

Sigs. La Società di Navigazione

Port belonging to

Genoa

Nom. Horse Power as per Section 28

1221

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Twin Screw Triple Expansion

of Cylinders

6

No. of Cranks

2

Dia. of Cylinders

26"-43"-71"

Length of Stroke

48"

Revs. per minute

80

Dia. of Screw shaft

as per rule 14.4"

Material of

I. 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

✓

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

6'-3"

Dia. of Tunnel shaft

as per rule 13.5"

as fitted 13.5"

Dia. of Crank shaft journals

as per rule 14.1"

as fitted 14.1"

Dia. of Crank pin

14 1/2"

Size of Crank web

26 1/2" x 9 1/4"

collars

14 1/2"

Dia. of screw

16'-3"

Pitch of Screw

20'-6"

No. of Blades

3

State whether moveable

Yes

Total surface

70 sq. ft.

No. of Feed pumps

one

Diameter of ditto

4"

Stroke

27"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

one

Diameter of ditto

6 1/2"

Stroke

27"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

6

Sizes of Pumps

2

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

10 1/2" x 14 x 26

No. of Suctions

4

Size of Suctions

10 1/2" x 14 x 26

No. of Suctions

4

Size of Suctions

10 1/2" x 14 x 26

No. of Suctions

4

In Engine Room

4-3 1/2"

No. of Bilge Injections

2

sizes

9"

Connected to condenser, or to circulating pump

Pump

Is a separate Donkey Suction fitted in Engine room & size

Yes

4"

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

Both

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

Two hold suction

How are they protected

Wood casings

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

2-12-07

of Stern Tube

12-12-07

Screw shaft and Propeller

19-12-07

Is the Screw Shaft Tunnel watertight

Stated to be

Is it fitted with a watertight door

Yes

worked from

Upper deck

OILERS, &c.—(Letter for record)

5

Manufacturers of Steel

Bendmore & Co.

Glasgow

Total Heating Surface of Boilers

14493 sq. ft.

Draft fitted

Yes

No. and Description of Boilers

3

Description of Boilers

3

Description of Boilers

3

Description of Boilers

3

Description of Boilers

3

Description of Boilers

3

Working Pressure

200 lbs

Tested by hydraulic pressure to

400 lbs

Date of test

20-12-07

No. of Certificate

409

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

146 5/8 sq. ft.

No. and Description of Safety Valves to

each boiler

3

Description of Safety Valves to

each boiler

3

Description of Safety Valves to

each boiler

3

Description of Safety Valves to

each boiler

3

Smallest distance between boilers or uptakes and bunkers or woodwork

6 ft.

Mean dia. of boilers

16'-3"

Length

20'-6"

Material of shell plates

Steel

Thickness

1 1/4"

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

Lap

Lap

Lap

Lap

Lap

Lap

Lap

Lap

Lap

long. seams

Butt

Diameter of rivet holes in long. seams

1 1/4"

Pitch of rivets

9 1/2"

Lap of plates on width of butt straps

20 1/2"

Per centages of strength of longitudinal joint

rivets 88.8%

plate 85.0%

Working pressure of shell by rules

201 lbs

Size of manhole in shell

16" x 12"

Size of compensating ring

8" x 10"

No. and Description of Furnaces in each boiler

1

Description of Furnaces in each boiler

1

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1

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1

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1

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1

Description of Furnaces in each boiler

1

Length of plain part

top 10"

Thickness of plates

crown 3 1/2"

Description of longitudinal joint

Mild

No. of strengthening rings

3

Description of strengthening rings

3

Description of strengthening rings

3

Description of strengthening rings

3

Description of strengthening rings

3

Working pressure of furnace by the rules

224 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides

5"

Back

5"

Top

5"

Bottom

5"

Working pressure by rules

204 lbs

Pitch of stays to ditto: Sides

8 1/2" x 8 1/2"

Back

8 1/2" x 8 1/2"

Top

8 1/2" x 8 1/2"

Are stays fitted with nuts or riveted heads

Nuts

Working pressure by rules

204 lbs

Material of stays

Steel

Diameter at smallest part

1 1/2"

Area supported by each stay

66 sq. in.

Working pressure by rules

240 lbs

End plates in steam space:

Material

Steel

Thickness

1 1/4"

Pitch of stays

14" x 15"

Working pressure by rules

201 lbs

Diameter at smallest part

1 1/2"

Area supported by each stay

31 1/4 sq. in.

Working pressure by rules

236 lbs

Material of Front plates at bottom

Steel

Thickness

1"

Material of Lower back plate

Steel

Thickness

Greatest pitch of stays

✓

Working pressure of plate by rules

✓

Diameter of tubes

2 1/2"

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 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:— *Purpeller Shaft; 2 Haddes; 2 boxes; 2 pair of pin bushes; 2 pair Crosshead bushes; 2 thrust rollers; sets packing rings for H.P. 1. P. piston rods; set H.P. + 1. P. piston rings; barrel & condenser tubes Safety escape valve & pump; set piston valve (H.P. & 1. P.) pump; gun pump valve*

The foregoing is a correct description,

etc. all plan to Lloyd's Rules etc.

FOR WORKMAN, CLARK & CO., LIMITED

M. H. Bell

Manufacturer.

| | | |
|--------------------------------|--------------------------------------|---|
| Dates of Survey while building | During progress of work in shops - - | 1904: - Aug 23, Sept 29, 12, 26, Oct 4, 8, 14, 18, 25, 31 Nov. 4, 7, 8, 12, 13 |
| | During erection on board vessel - - | 15, 18, 20, 22, Dec. 2, 3, 4, 10, 12, 14, 17, 19, 23, 25, 27, 29, 31 Jan 3, 7, 10 |
| Total No. of visits | 50 | |

Is the approved plan of main boiler forwarded herewith

| | | | | |
|---|--------------------|--------------------------------|---------------|----------------------------|
| Dates of Examination of principal parts—Cylinders | 9 - 2-12-04 | Covers | Pistons | Rods |
| Connecting rods | 4 - 12-04 | Crank shaft | 4 - 12-04 | Tunnel shafts |
| Stern tube | 2-12-04 | Steam pipes tested | 20-1-08 | Engine and boiler seatings |
| Completion of pumping arrangements | 12-2-08 | Boilers fixed | 10-1-08 | Engines holding down bolts |
| Main boiler safety valves adjusted | 12-2-08 | Thickness of adjusting washers | 6-8" | |
| Material of Crank shaft | <i>I. Steel</i> | Identification Mark on Do. | <i>LLOYDS</i> | Material of Thrust shaft |
| Material of Tunnel shafts | <i>No</i> | Identification Marks on Do. | <i>No</i> | Material of Screw shafts |
| Material of Steam Pipes | <i>H. I. Steel</i> | Test pressure | 600 lbs. | |

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

The machinery of this vessel has been constructed under Special Survey, and in accordance with the Rules. The materials and the workmanship are of good description, and on trial at Belfast Lough, the machinery worked satisfactorily. In my opinion it is eligible to have record + L.M.C. 3-08 notation "Fuel Heavy & Electric Light"

It is submitted that
this vessel is eligible for
THE RECORD. *L.M.C. 3.08*
ELEC. LIGHT.
F. D.

Note T.H.S. = 19965 £.

Note Boiler plans to be returned for duplicate.

| | | |
|--------------------------------|------------|-------------------|
| The amount of Entry Fee.. | £ 3 : 0 : | When applied for, |
| Special | £ 81 : 1 : | 25-2-08 |
| Donkey Boiler Fee | £ : | When received, |
| Travelling Expenses (if any) £ | : | 29-2-08 |

Committee's Minute

Assigned

FRI. 6 MAR 1908

+ L.M.C. 3.08

F.D. Elec. light.

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

FRI. 20 MAR 1908

Lloyd's Register
Foundation