

REPORT ON MACHINERY.

No. 7024

Port of *Belfast*

Received at London Office

WED. DEC. 27. 1911

No. in Survey held at

*Belfast*Date, first Survey *23 March*Last Survey *21st Dec 1911*

Reg. Book.

on the

T. S. S. "Ekma"(Number of Visits *75*)

Master

Built at

Belfast

By whom built

Workman Clark & Co Ltd

Tons

Gross

Net

When built

1911

Engines made at

Belfast

By whom made

Workman Clark & Co Ltd (N^o 308)

when made

1911

Boilers made at

do

By whom made

*do**(N^o 308)*

when made

1911

Registered Horse Power

Owners *British India Steam Nav. Co*Port belonging to *Glasgow*

Nom. Horse Power as per Section 28

1062

Is Refrigerating Machinery fitted for cargo purposes

*no*Is Electric Light fitted *yes*

ENGINES, &c.—Description of Engines

Two Triple Expansion

No. of Cylinders

6

No. of Cranks

6

Dia. of Cylinders

24½", 41", 69"

Length of Stroke

48"

Revs. per minute

95

Dia. of Screw shaft

as per rule 13.95

Material of

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

yes

Length of stern bush

4' 8"

Dia. of Tunnel shaft

as per rule 13.04

Dia. of Crank shaft journals

as per rule 13.69

Dia. of Crank pin

13½"

Size of Crank webs

88" x 9½"

Dia. of thrust shaft under

collars

13½"

Dia. of screw

16' 0"

Pitch of Screw

20' 6"

No. of Blades

3

State whether moveable

yes

No. of Feed pumps

2

Diameter of ditto

14" x 10½"

Stroke

24"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

6" x 6"

Stroke

12"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

13

Sizes of Pumps

Please see over

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

In Engine Room & Blk Room 4-3½" & 4-3½" independent

In Engine Room & Blk Room

4-3½" & 4-3½" independent

In Holds, &c.

*N^o 1-2-3½": N^o 2-2-3½": Bunk 2-3½"**N^o 3-2-3½": Hold well 1-3½": Hold well 1-2½"*

No. of Bilge Injections

2

Connected to condenser, or to circulating pump

yes

Is a separate Donkey Suction fitted in Engine room & size

yes - 3½"

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

Hold 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. 10. 11

of Stern Tube

3. 10. 11

Screw shaft and Propeller

18. 10. 11

Is the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from

top platform

OILERS, &c.—(Letter for record

8.)

Manufacturers of Steel

W. Beardmore & The Steel Co of Scotland.

Total Heating Surface of Boilers

16,302

Is Forced Draft fitted

yes

No. and Description of Boilers

2 D.E. & 2 S.E.

Working Pressure

200 lbs

Tested by hydraulic pressure to

400 lbs

Date of test

28. 9. 11

No. of Certificate

445

Can each boiler be worked separately

yes

Area of fire grate in each boiler

130 sq ft

No. and Description of Safety Valves to

each boiler triple spring loaded

Area of each valve

12.56"

Pressure to which they are adjusted

205 lbs

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

14"

Mean dia. of boilers

15' 9"

Length

21' 0"

Material of shell plates

steel

Thickness

1 3/4"

Range of tensile strength

28/32 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

D, T. A.

long. seams

T. A. D. B. S.

Diameter of rivet holes in long. seams

1 5/8"

Pitch of rivets

10 1/2"

Lap of plates or width of butt straps

23 1/4"

Per centages of strength of longitudinal joint

91.5

Working pressure of shell by rules

233 lbs

Size of manhole in shell

17" x 13"

No. and Description of Furnaces in each boiler

8

Size of compensating ring

N^o 1

Material

steel

Outside diameter

43 1/4"

Length of plain part

top 39"

Thickness of plates

bottom 64"

Description of longitudinal joint

weld

No. of strengthening rings

yes

Working pressure of furnace by the rules

225

Combustion chamber plates: Material

steel

Thickness: Sides

5/8"

Back

5/8"

Pitch of stays to ditto: Sides

8 3/8" x 7 1/4"

Back

8 3/8" x 7 1/4"

If stays are fitted with nuts or riveted heads

yes

Working pressure by rules

207

Material of stays

steel

Diameter at smallest part

1 7/8"

Area supported by each stay

64.9"

Working pressure by rules

217

Material

steel

Thickness

1 3/8"

Pitch of stays

19 1/2" x 15 1/4"

How are stays secured

D. N. & M. L.

Working pressure by rules

201

Material of stays

steel

Diameter at smallest part

6 1/8"

Area supported by each stay

307"

Working pressure by rules

225

Material of Front plates at bottom

steel

Thickness

1"

Material of Lower back plate

yes

Thickness

yes

Greatest pitch of stays

yes

Working pressure of plate by rules

yes

Diameter of tubes

2 1/2"

Pitch of tubes

3 3/4" x 3 5/8"

Material of tube plates

steel

Thickness: Front

6 3/4"

Back

13 1/16"

Mean pitch of stays

9 1/4"

Pitch across wide water spaces

13 1/2"

Working pressures by rules

204 lbs

Girders to Chamber tops: Material

steel

Depth and

*thickness of girder at centre**8 1/4" x 20 3/4"*

Length as per rule

4' 8 3/8"

Distance apart

8 1/4"

Number and pitch of stays in each

*60 1/8" x 7 1/4"**yes*

Working pressure by rules

200

Superheater or Steam chest; how connected to boiler

yes

Can the superheater be shut off and the boiler worked

*separately**yes**yes*

Manufacturers of Steel

It is submitted that above vessel is eligible for a record of + L.M.C. 12.
in the Register Book ✓

MACHINERY CERTIFICATE
WRITTEN.

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

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