

Rpt. 4.

Els No. 18293
Ems - 774

REPORT ON MACHINERY.

Received from
Surveyor

13 SEP. 1900

Port of Glasgow & Grimsby

Received at London Office TUES. SEP 18 1900

No. in Survey held at

Glasgow & Grimsby

Date, first Survey

4 June

Last Survey

31 July

1900

Reg. Book.

270 on the

S.S. "KING EDWARD"

Master A. J. J. J.

Built at

Grimsby

By whom built

H. Schofield, Glasgow & Grimsby

When built

1900

Engines made at

Glasgow

By whom made

Muir & Houston Ltd.

when made

1900

Boilers made at

Grimsby

By whom made

Schofield, Glasgow & Grimsby

when made

1900

Registered Horse Power

Owners

Monarch Steam Fishing Co. Ltd.

Port belonging to

Grimsby

Nom. Horse Power as per Section 28

46

Is Refrigerating Machinery fitted

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Triple expansion, screw

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

11. 14. 28"

Length of Stroke

20"

Revs. per minute

5.68

Dia. of Screw shaft

5.68

Lgth. of stern bush

1. 11"

Dia. of Tunnel shaft

as per rule

none

Dia. of Crank shaft journals

as per rule

5.4

Dia. of Crank pin

5.68

Size of Crank webs

3 7/8 x 1 1/2

Dia. of thrust shaft under

collars

5 7/8"

Dia. of screw

8 - 0"

Pitch of screw

9 - 0 to 10 - 0"

No. of blades

4

State whether moveable

No

Total surface

21 sq. ft.

No. of Feed pumps

1

Diameter of ditto

2"

Stroke

10"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

1

Diameter of ditto

2 1/4"

Stroke

10"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

One

Sizes of Pumps

5 x 2 1/2 x 5"

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

In Engine Room

2" - Sea - Bilge - Botwell

In Holds, &c.

2" - Fish Hold

No. of bilge injections

one

sizes

2 1/2"

Connected to condenser, or to circulating pump

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

None - 2"

Are all connections with the sea direct on the skin of the ship

Yes

Are they Valves or Cocks

Valves & Cocks

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

Aunt

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

Fish Hold Suction

How are they protected

Work 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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock

How new

Is the screw shaft tunnel watertight

None

Is it fitted with a watertight door

Yes

worked from

Yes

BOILERS, &c.—

(Letter for record

S)

Total Heating Surface of Boilers

936 sq. ft.

Is forced draft fitted

No

No. and Description of Boilers

One - Cylindrical Multitubular

Working Pressure

180 lb

Tested by hydraulic pressure to

360 lb

Date of test

3/1/00

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

28 sq. ft.

No. and Description of safety valves to

each boiler

2 Direct Spring

Area of each valve

3 1/4 sq. in.

Smallest distance between boilers or uptakes and bunkers or woodwork

7 1/2"

Mean dia. of boilers

10' 6"

Length

9' 0"

Material of shell plates

Steel

Thickness

2 1/2"

Range of tensile strength

28/32 tons

Are they welded or flanged

Neither

Descrip. of riveting: cir. seams

DR - Lap

long. seams

TR - Double strap

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

7 1/2"

Lap of plates or width of butt straps

17"

Per centages of strength of longitudinal joint

rivets

87

plate

95

Working pressure of shell by rules

183 lb per sq. in.

Size of manhole in shell

16" x 12"

Size of compensating ring

Patent ring

No. and Description of Furnaces in each boiler

2 - Plain

Material

Steel

Outside diameter

3' 3"

Length of plain part

top

5' 10"

Thickness of plates

crown

3 1/4"

Description of longitudinal joint

Weld

No. of strengthening rings

None

Working pressure of furnace by the rules

198 lb

Combustion chamber plates: Material

Steel

Thickness: Sides

9/16"

Back

9/16"

Top

9/16"

Bottom

7/8"

Pitch of stays to ditto: Sides

7 3/4" x 7 3/4"

Back

7 3/4" x 7 3/4"

Top

7 3/4" x 7 3/4"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

182 lb

Material of stays

Steel

Diameter at smallest part

1 1/4"

Area supported by each stay

60.26 sq. in.

Working pressure by rules

192 lb

End plates in steam space:

Material

Steel

Thickness

1 1/16"

Material

Steel

Pitch of stays

15" x 15"

How are stays secured

Nuts

Working pressure by rules

185 lb

Material of stays

Steel

Diameter at smallest part

4 3/4"

Area supported by each stay

2.25 sq. in.

Working pressure by rules

194 lb

Material of Front plates at bottom

Steel

Thickness

7/8"

Material of Lower back plate

Steel

Thickness

5/8"

Greatest pitch of stays

9 1/2"

Working pressure of plate by rules

188 lb

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/2"

Material of tube plates

Steel

Thickness: Front

1/16"

Back

1/16"

Mean pitch of stays

9"

Pitch across wide water spaces

14"

Working pressures by rules

182 lb

Girders to Chamber tops: Material

Iron

Depth and

thickness of girder at centre

2 - 7 1/2"

Length as per rule

27"

Distance apart

7 1/2"

Number and pitch of Stays in each

2 - 7 3/4"

Working pressure by rules

197 lb

Superheater or Steam chest; how connected to boiler

None

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



DONKEY BOILER— No. Description

Made at By whom made When made Where fixed

Working pressure tested by hydraulic pressure to No. of Certificate Fire grate area Description of safety valves

No. of safety valves Area of each Pressure to which they are adjusted 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 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

Thickness of furnace crown plates Stayed by Working pressure of shell by rules

Working pressure of furnace by rules Diameter of uptake Thickness of uptake plates Thickness of water tubes

SPARE GEAR. State the articles supplied:— 2 each top & bottom end & main bearing bolts & nuts; 6 piston bolts; 1 set of coupling bolts & nuts; complete set of pump valves; assorted bolts & nuts; iron (various sizes) escape valve spring; 6 stuffing box studs & nuts; 6 cylinder cover studs & nuts; condenser to & ferrules; tube stoppers &c.

The foregoing is a correct description,

For **Muir & Houston, Limited,**

Manufacturer.

ER PRO. SCHOFIELD, HAGERUP AND DOUGHTY, LTD.

Boiler
Maker

Secretary.

Dates of Survey
During progress of work in shops -
During erection on board vessel -
while building -
Total No. of visits 3, 3, 17

1900:- June 4, 11, July 31
1899:- June 14, Aug 10, 21, Sep 1, 11, 14, Oct 3, 12, 17, Nov 1, 21, Dec 4, 15
1900:- Jan 2, 3, July 16, Sept 5, 9

Is the approved plan of main boiler forwarded herewith No

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

The Engines of this vessel have been constructed under Special Survey, the material and workmanship being of good quality.

In my opinion they are eligible to be classed in the Register Book when satisfactorily fitted on board at Grimsby.

The Boiler of this vessel has been constructed under Special Survey. The steel has been tested as required by the Rules. The workmanship is good.

The Engines and Boiler have been satisfactorily fitted on board and tried under steam. They are eligible, in my opinion, to be classed in the Register Book with record of LMC 9.00

The Boiler is in accordance with the approved plan and The Secretary's letter (E) 13/5/98.

It is submitted that this vessel is eligible for THE RECORD. L.M.C. 9.00.

25.9.00

25.9.00

The amount of Entry Fee £ 5 :
Special £ 3 :
Donkey Boiler Fee £ :
Treating Expenses (if any) £ :

When applied for.

14/9/200 96

When received.

25.9.00

J. W. Dinmuck R. G. Oxford.
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute **Glasgow. 17 SEP 1900**

Assigned

Deferred for Completion

TUES. 25 SEP 1900

+ LMC 9.00

6MS357/144

