

REPORT ON MACHINERY.

Port of Glasgow & Grimsby

Received at London Office

THUR. 7 JUN 1900

No. in Survey held at Glasgow
Reg. Book.

Date, first Survey 24 May 1899 Last Survey 20 April 1900

47 in. Lugs on the

S.S. "KING STEPHEN"

Master P. Whincop

Built at Grimsby

By whom built

Schopfield, Hagerup & Doughty, L^{ts}
Hagerup, Doughty & Schopfield

Engines made at

Glasgow

By whom made

Muir & Houston L^{ts}

when made

1900

Boilers made at

Grimsby

By whom made

Schopfield, Hagerup & Doughty, L^{ts}

when made

1900

Registered Horse Power

Owners

Monarch Steam Fishing Co. L^{ts}

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 30 Revs. per minute 5.4 Dia. of Screw shaft 5.68" Lath. 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 5.78" Size of Crank webs 3.78" Dia. of thrust shaft under collars 5.78" 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 ✓
 No. of Bilge pumps 1 Diameter of ditto 2 1/4" Stroke 10" Can one be overhauled while the other is at work ✓
 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 & Hotwell In Holds, &c. 2" Fish Hold

No. of bilge injections one sizes 2 1/2" Connected to condenser, or to circulating pump are pumps a separate donkey suction fitted in Engine room & size 2-2" also steam ejector 2 1/2"
 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 none
 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 awash
 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 One suction - Fish Hold 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
 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 ✓ worked from ✓

BOILERS, &c. — (Letter for record S) Total Heating Surface of Boilers 836 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 5/10/99 Can each boiler be worked separately ✓ 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 3.14 sq. in Pressure to which they are adjusted 180 lb per sq. in Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 7 1/2 in Mean dia. of boilers 10' 6" Length 9' 0" Material of shell plates Steel
 Thickness 29/32 Range of tensile strength 25/32 Are they welded or flanged No Descrip. of riveting: cir. seams DR - Lap long. seams TR - Double Straps
 Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 7 1/2 in Lap of plates or width of butt straps 17 in
 Per centages of strength of longitudinal joint rivets 87 plate 85 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' 6" bottom 5' 10" Thickness of plates crown 3/4" bottom 3/4" 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 3/8" x 7 1/2" Back 7 3/8" x 7 1/2" Top 7 3/8" x 7 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 182 lb
 Material of stays Steel Area at smallest part 1.45 sq. in Area supported by each stay 60.06 sq. in Working pressure by rules 192 lb End plates in steam space:
 Material Steel Thickness 5/16" Pitch of stays 15" x 15" How are stays secured Nuts Working pressure by rules 185 lb Material of stays Steel
 Area at smallest part 4.37 sq. in Area supported by each stay 22.5 sq. in Working pressure by rules 194 lb Material of Front plates at bottom Steel
 Thickness 11/16" 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 1/2" Pitch of tubes 4 1/2" Material of tube plates Steel Thickness: Front 11/16" Back 11/16" 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" x 7 1/2" Length as per rule 27" Distance apart 7 1/2" Number and pitch of Stays in each 2-7 1/2"
 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 of connecting rod top & bottom end bolts & nuts - 2 main bearing bolts & nuts - 1 set of coupling bolts & nuts - 6 cylinder cover studs & nuts - 6 piston bolts - 6 gland studs & nuts - complete set of pump valves - safety & escape valve springs - condenser tubes & ferrules - tube stoppers - bolts, nuts, stud iron &c.

The foregoing is a correct description,
Manufacturer.

PER PRO. SCHOFIELD, HAGERUP AND DOUGHTY, LTD.
Secretary.

Dates of Survey while building

During progress of work in shop
During erection on board vessel
Total No. of visits

1899: May 24, Oct. 6, 20, Nov. 2, 7, 12
1900: Feb. 28, Mar. 26, Apr. 3, 10, 17, 22, 25, 30, May 9, 17, 22, 25

Is the approved plan of main boiler forwarded herewith ☒

General Remarks (State quality of workmanship, opinions as to class, &c.) The Engines of this vessel have been constructed under Special Survey, the material & workmanship are of good quality. In my opinion they are eligible to be classed in the Register Book. The boiler has been constructed under Special Survey to the approved plan and the Secretary's letter (E) of 13/5/98. The steel has been tested as required by the Rules. The Engines and Boiler have been satisfactorily fitted on board and tried under steam. They are in good and safe working condition and eligible, in my opinion, to be classed in the Register Book with record of

✱ LMC 5.00

It is submitted that this vessel is eligible for THE RECORD ✱ LMC 5.00

Cmb.
7.6.00

J.S.
7.6.00

The amount of Entry Fee. 6 : : : When applied for.
Special 3 : : : 5/6/1900 Fully paid
Donkey Boiler Fee : : : 5/6/1900
Travelling Expenses (if any) £ : : : 15-8-1900

When received, 15-8-1900

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

Committee's Minute

FRI. 8 JUN 1900

Assigned

+ 2 mc 5.00

GMS 357/118

MACHINERY CERTIFICATE WRITTEN.