

Gls. No. 18486
Gms. 889.874

Received from
Surveyor
3 NOV. 1900

REPORT ON MACHINERY.

THUR. 29 NOV. 1900

Port of *Glasgow & Grimsby*
Date, first Survey *4 June 1899* Last Survey *10 Oct 1900*
(Number of Visits *5*)
No. in Survey held at *Glasgow & Grimsby*
Reg. Book.
in Sps. on the *S.S. "KING JAMES."*
Master *E. Kuse* Built at *Grimsby* By whom built *Hagerup Doughty & Schofield* When built *1900*
Engines made at *Glasgow* By whom made *Muir & Houston Ltd* when made *1900*
Boilers made at *Grimsby* By whom made *Girdfield, Hagerup & Doughty Ltd* when made *1900*
Registered Horse Power
Owners *Monarch Steam Fishing Co. Ltd.* Port belonging to *Grimsby*
Horse Power as per Section 28 *46* Is Refrigerating Machinery fitted *No* Is Electric Light fitted *No*

GINES, &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 *5.68* Dia. of Screw shaft *5 1/4"* Length of stern bush *1' 11"*
Dia. of Tunnel shaft *as per rule* Dia. of Crank shaft journals *as per rule* *5 1/4"* Dia. of Crank pin *5 1/8"* Size of Crank webs *3 5/8"* Dia. of thrust shaft under
flars *5 5/8"* Dia. of screw *8' 0"* Pitch of screw *9' 0" to 10' 0"* No. of blades *14* 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 *7/4"* 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
Engine Room *2" Sea, Bilge, Botwell.* In Holds, &c. *2" Botwell.*
No. of bilge injections *one* sizes *2 1/2"* Connected to condenser, or to circulating pumps *separate donkey suction fitted in Engine room & size 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*
Are the pipes carried through the bunkers *Fish 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*
When were stern tube, propeller, screw shaft, and all connections examined in dry dock *Nov 1900* 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 - SE cylindrical multitubular* Working Pressure *180 lb* Tested by hydraulic pressure to *360 lb*
Date of test *29/1/1900* 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 - Spring loaded* Area of each valve *3 1/4 sq. in.* Pressure to which they are adjusted *180 lb per sq. in.* Are they fitted with easing gear *Yes*
Greatest 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 *3 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 1/8"* Pitch of rivets *7 1/2"* Lap of plates or width of butt straps *17"*
Percentages of strength of longitudinal joint: rivets *87* plate *85* Working pressure of shell by rules *183 lb* Size of manhole in shell *16" x 12"*
No. of compensating rings *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"* Thickness of plates *bottom 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 1/4"* Back *7 3/4" x 7 3/4"* Top *7 3/4" x 7 1/2"* If stays are fitted with nuts or riveted heads *None* Working pressure by rules *182 lb*
Material of stays *Steel* Diameter at smallest part *1 1/2"* Area supported by each stay *60.06 sq. in.* Working pressure by rules *192 lb* End plates in steam space:
Material *Steel* Thickness *1 1/16"* Pitch of stays *15" x 15"* How are stays secured *None* Working pressure by rules *185 lb* Material of stays *Steel*
Diameter at smallest part *4' 37/64"* Area supported by each stay *225 sq. in.* Working pressure by rules *194 lb* Material of Front plates at bottom *Steel*
Thickness *1 1/16"* Material of Lower back plate *Steel* Thickness *7/8"* 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 1/16"* Back *1 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" x 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
Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
Fitted 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, top end, bottom end & main bearing bolts & nuts. - 6 piston bolts, 1 set of coupling bolts & nuts, - complete set of pump valves, - assorted bolts & nuts. - iron of various sizes. - 1 escape valve spring. - 6 stuffing box studs & nuts. - 6 cylinder cover studs & nuts. - condenser tubes & ferrules. - tube stoppers. - tools &c.

The foregoing is a correct description.

PER PRO. SCHOFFIELD, HAGERUP AND DOUGHTY, LTD.

For **MUIR & HOUSTON, LIMITED.**

Manufacturer.

Dates During progress of work in shops -
of Survey while building

During erection on board vessel -
Total No. of visits

Elts 5. Ems 14

Is the approved plan of main boiler forwarded herewith to

donkey

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

These engines have been constructed under Special Survey, the material & workmanship are of good quality, & are in my opinion eligible to be classed in the Register Book, when they have been fitted aboard the vessel, with the boiler, &c. 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 11.00

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

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 11.00.

29.11.00.

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

26/11/1900 Gme

When applied for,

24/11/1900 Gme

When received,

£3.0.0 to 30.11.00

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

Committee's Minute

Glasgow. 26 NOV. 1900

Assigned

Deferred for completion.

FRI 30 NOV 1900 MACHINERY CERTIFICATE WRITTEN.

+ LMC 11.00

GMS357/182

