

# REPORT ON MACHINERY.

No. 21953

Port of Glasgow

Received at London Office TUES. 26 JULY 1904

No. in Survey held at Glasgow

Date, first Survey 10th Nov 1903 Last Survey 13th July 1904

Reg. Book.

10 on the S.S. "G. PLAYER"

(Number of Visits 33)

Master N. George Built at Troon

By whom built Ailsa S. B. Co.

Tons { Gross 667

Engines made at Glasgow

By whom made Muir & Houston Ltd.

Net 243

Boilers made at Glasgow

By whom made Muir & Houston Ltd.

When built 1904

Registered Horse Power

Owners Player & Co. Ltd. (S. Player)

when made 1904

Nom. Horse Power as per Section 28 185

Is Refrigerating Machinery fitted No.

Port belonging to Lignmouth

Is Electric Light fitted No.

## ENGINES, &c.—Description of Engines Compound - Screw No. of Cylinders 2 No. of Cranks 2

Dia. of Cylinders 21" x 45" Length of Stroke 30" Revs. per minute 98 Dia. of Screw shaft as per rule 9.49 Material of screw shaft iron

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 ✓ If two liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 3. 3/2"

Dia. of Tunnel shaft as per rule 8.87 Dia. of Crank shaft journals as per rule 9.31 Dia. of Crank pin 9 5/8" Size of Crank webs 5 3/4" Dia. of thrust shaft under collars 9 5/8" Dia. of screw 10.6" Pitch of screw 13.6" No. of blades 4 State whether moveable no Total surface 38 sq. ft.

No. of Feed pumps 2 Diameter of ditto 2 3/4" Stroke 15" Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 3" Stroke 15" Can one be overhauled while the other is at work yes

No. of Donkey Engines 3 Sizes of Pumps 6 x 4 1/4 x 6 - 4 x 2 3/4 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Two 2 1/2" dia. In Holds, &c. Two 2" dia.

No. of bilge injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump jump Is a separate donkey suction fitted in Engine room & size yes 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 above

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: none How are they protected ✓

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 before launch Is the screw shaft tunnel watertight none

Is it fitted with a watertight door ✓ worked from ✓

## BOILERS, &c.— (Letter for record 15) Total Heating Surface of Boilers 2240 sq. ft. Is forced draft fitted no.

No. and Description of Boilers One single ended Working Pressure 140 lbs Tested by hydraulic pressure to 280 lbs

Date of test 16/5/04 Can each boiler be worked separately ✓ Area of fire grate in each boiler 68 sq. ft. No. and Description of safety valves to each boiler 2 patent spring Area of each valve 8.29" Pressure to which they are adjusted 144 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 3.6" Mean dia. of boilers 15.3" Length 11.0" Material of shell plates steel

Thickness 1" Range of tensile strength 28 to 32 Are they welded or flanged no Descrip. of riveting: cir. seams double long. seams treble

Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 7/8" Lap of plates on width of butt straps 1.5"

Per centages of strength of longitudinal joint rivets 98 Working pressure of shell by rules 141 lbs Size of manhole in shell 16" x 12"

Size of compensating ring M. Heils No. and Description of Furnaces in each boiler 3 plain Material steel Outside diameter 3.11"

Length of plain part top 6.6" bottom 6.0" Thickness of plates crown 3/32" bottom 2/32" Description of longitudinal joint welded No. of strengthening rings 4 partial

Working pressure of furnace by the rules 160 lbs Combustion chamber plates: Material steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 2/32"

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 7 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 151 lbs

Material of stays steel Diameter at smallest part 1.45" Area supported by each stay 72.2" Working pressure by rules 160 lbs End plates in steam space: Material steel Thickness 29/32" Pitch of stays 15 x 15 How are stays secured nuts Working pressure by rules 173 lbs Material of stays steel

Diameter at smallest part 3.26" Area supported by each stay 225" Working pressure by rules 145 lbs Material of Front plates at bottom steel

Thickness 3/4" Material of Lower back plate steel Thickness 3/4" Greatest pitch of stays 13 x 8 1/2" Working pressure of plate by rules 160 lbs

Diameter of tubes 3 1/2" Pitch of tubes 4 3/4" x 4 3/4" Material of tube plates steel Thickness: Front 29/32" Back 1/16" Mean pitch of stays 9 1/2"

Pitch across wide water spaces 14 1/2" Working pressures by rules 140 lbs Girders to Chamber tops: Material steel Depth and thickness of girder at centre 8 x 2 - 7/8" Length as per rule 36" Distance apart 7 1/2" Number and pitch of Stays in each 3 - 8 1/2"

Working pressure by rules 230 lbs 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 not, state whether, and when, one will be sent?

Is a Report also sent on the Hull of the Ship?

00222-00228-0225

Lloyd's Register Foundation

**DONKEY BOILER**— No. *One* Description *Ordinary Vertical.*  
 Made at *Glasgow* By whom made *Muir Houston & Co* When made *1904* Where fixed *in stokehold*  
 Working pressure *70 lbs* tested by hydraulic pressure to *140 lbs* No. of Certificate *7040* Fire grate area *17 1/2* Description of safety valves *patent spring*  
 No. of safety valves *One* Area of each *8.95* Pressure to which they are adjusted *70 lbs* If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *no* Dia. of donkey boiler *5.6* Length *10.6* Material of shell plates *steel* Thickness *3/8* Range of tensile strength *27 to 32* Descrip. of riveting long seams *double (lap)* Dia. of rivet holes *5/16* Whether punched or drilled *drilled* Pitch of rivets *3 1/4*  
 Lap of plating *5* Per centage of strength of joint Rivets *96.5* Thickness of shell crown plates *5/8* Radius of do. *4.6* No. of Stays to do. *none*  
 Dia. of stays. *✓* Diameter of furnace Top *4.6* Bottom *5.0* Length of furnace *5.7* Thickness of furnace plates *1/2* Description of joint *welded* Thickness of furnace crown plates *5/8* Stayed by *none* Working pressure of shell by rules *84 lbs*  
 Working pressure of furnace by rules *76 lbs* Diameter of uptake *14* Thickness of uptake plates *1/2* Thickness of water tubes *7/16*

**SPARE GEAR.** State the articles supplied:— *Two top end + two bottom end connecting rod bolts; two main bearing bolts; one set of coupling bolts; + one set of feed + bilge pump valves; Ek.*

The foregoing is a correct description,

*James Stuart* Manufacturer.

Dates of Survey while building	During progress of work in shops - -	1903	Nov. 10.	Dec. 1. 7. 15. 30.	1904	Jan. 6. 11. 20. 31.	Feb. 4.
		During erection on board vessel - -	34. 39.	March 3. 7. 10. 18. 23. 31.	April. 1. 5. 20. 23.		
			Total No. of visits	33 -	May 4. 5. 13. 16. 18. 23. 28.	June 1. 15. July 6. 13.	As the approved plan of main boiler forwarded herewith. <i>yes.</i>

**General Remarks** (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has been constructed under special survey, the materials + workmanship are of good quality, it has been securely fitted on board, tried under steam and found satisfactory.*  
*In my opinion, it is eligible to be classed in the Register Book with the record of L.M.C. 7.04.*

It is submitted that this vessel is eligible for THE RECORD. L.M.C. 7.04

*W. J. Dimmock*  
 27.7.04  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Certificate (if required) to be sent to Glasgow

The amount of Entry Fee..	£ 3 : : :	When applied for,	25 JUL 1904
Special .. .. .	£ 18 : 15 : :	When received,	3. 8. 04
Donkey Boiler Fee .. .	£ : : : :		
Travelling Expenses (if any)	£ : : : :		

Committee's Minute *Glasgow 25 JUL 1904*  
 Assigned *+ LMC 7.04*

