

REPORT ON MACHINERY.

6893

No. 6893

Received at London Office THURS 26 MARCH 1885

No. in Survey held at Glasgow Date, first Survey 9th Dec. 1884 Last Survey 16th March 1885

Reg. Book. on the Screw Lighter "John Strachan" (Number of Visits 8) Tons 43.40
42.84

Master John Johnstone Built at Glasgow By whom built H. Swan & Coy When built 1884-5

Engines made at Glasgow By whom made Clarkson & Beckett when made " "

Boilers made at " " By whom made Lerguson & Son when made " "

Registered Horse Power 22½ N.H.P. Owners Kirkcaldy Leith Glasgow Steam Packet Co. Port belonging to Kirkcaldy

ENGINES, &c.—

Description of Engines High pressure

Diameter of Cylinders 15" Length of Stroke 15" No. of Rev. per minute — Point of Cut off, High Pressure ·6 Low Pressure —

Diameter of Screw shaft 4¼" Diam. of Tunnel shaft 4¼" Diam. of Crank shaft journals 4¼" Diam. of Crank pin 4¼" size of Crank webs 5¼" x 2½"

Diameter of screw 5.6" Pitch of screw 8.6" No. of blades 3 state whether moveable — total surface —

No. of Feed pumps One diameter of ditto 1 5/8" Stroke 15" Can one be overhauled while the other is at work —

No. of Bilge pumps One diameter of ditto 1 5/8" Stroke 16" Can one be overhauled while the other is at work —

Where do they pump from Engine Room

No. of Donkey Engines One Size of Pumps 2½" x 4" stroke Where do they pump from Sea & Bilge

Are all the bilge suction pipes fitted with roses yes Are the roses always accessible yes Are the sluices on Engine room bulkheads always accessible yes

No. of bilge injections none and sizes — Are they connected to condenser, or to circulating pump —

How are the pumps worked Direct Spring

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 Above

Are they each fitted with a discharge valve always accessible on the plating of the vessel — Are the blow off cocks fitted with a spigot and brass covering plate yes

What pipes are carried through the bunkers pipes to sea peak tank How are they protected Wood casing

Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times yes

Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges yes

When were stern tube, propeller, screw shaft, and all connections examined in dry dock On Slip before launching

Is the screw shaft tunnel watertight no Tunnel fitted with a sluice door — worked from —

BOILERS, &c.— For particulars of Boilers see other side

Number of Boilers	Description	Whether Steel or Iron
Working Pressure	Tested by hydraulic pressure to	Date of test
Description of superheating apparatus or steam chest		
Can each boiler be worked separately	Can the superheater be shut off and the boiler worked separately	
No. of square feet of fire grate surface in each boiler	Description of safety valves	No. to each boiler
Area of each valve	Are they fitted with easing gear	No. of safety valves to superheater
Are they fitted with easing gear	Smallest distance between boilers and bunkers or woodwork	
Length of boilers	description of riveting of shell long. seams	circum. seams
Diameter of rivet holes	whether punched or drilled	pitch of rivets
Per centage of strength of longitudinal joint	working pressure of shell by rules	size of manholes in shell
Size of compensating rings	No. of Furnaces in each boiler	
Outside diameter	length, top	bottom
Greatest length between rings	working pressure of furnace by the rules	combustion chamber plating, thickness, sides
Pitch of stays to ditto, sides	back	top
rules	Diameter of stays at smallest part	working pressure of ditto by rules
Pitch of stays to ditto	how stays are secured	working pressure by rules
smallest part	working pressure by rules	Front plates at bottom, thickness
Greatest pitch of stays	working pressure by rules	Diameter of tubes
plates, front	back	pitch of tubes
Diameter of Superheater or Steam chest	length	thickness of plates
Pitch of rivets	working pressure of shell by rules	diameter of flue
Distance between rings	working pressure by rules	end plates of superheater, or steam chest; thickness
Superheater or steam chest; how connected to boiler		

[Form No. 8-100-27/84.]



6893 gls

Main
DONKEY BOILER — Description *Vertical with crossstubs (steel.)*
 Made at *Glasgow* by whom made *Ferguson & Son* when made *1884* where fixed *stake hold.*
 Working pressure *70 lbs* tested by hydraulic pressure to *140 lbs* No. of Certificate *1539* fire grate area *19.6 sq ft* description of safety valves *direct spring* No. of safety valves *one* area of each *9.6* if fitted with easing gear *yes* if steam from main boilers can enter the donkey boiler *no* diameter of donkey boiler *6'-0"* length *12'-0"* description of riveting *double lap*
 Thickness of shell plates *3/16"* diameter of rivet holes *3/4"* whether punched or drilled *rim.* pitch of rivets *2 1/4"* lap of plating *3 1/2"* per centage of strength of joint *72* thickness of crown plates *1/2"* stayed by *6 stays 1 3/4" diameter*
 Diameter of furnace, top *4'-6"* bottom *5'-0"* length of furnace *5'-0"* thickness of plates *3/16"* description of joint *single lap*
 Thickness of furnace crown plates *1/2"* stayed by *as above* working pressure of shell by rules *92 lb.*
 Working pressure of furnace by rules *70 lb with stay* diameter of uptake *18"* thickness of plates *3/16"* thickness of water tubes *3/8"*

SPARE GEAR. State the articles supplied: — *One propeller*

The foregoing is a correct description,
Clarkson & Beckett Manufacturer.

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

The Engine & Boiler of this vessel are of good workmanship and materials and are now in good order and safe working condition and eligible in our opinion to be noted in the Register Book

Lloyds M.C. 3/85

It is submitted that this vessel is eligible to have the notification + L.M.C. 3. 85. recorded.
D.P.
26/3/85

The amount of Entry Fee .. £ 1 : : received by me,
 Special .. £ 8 : :
 Donkey Boiler Fee .. £ : :
 Certificate (if required) .. £ : : *19/3/1885*
 To be sent as per margin.
 (Travelling Expenses, if any, £)

John Anderson
James Morrison
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
Clyde District

Committee's Minute *FRIDAY 27 MARCH 1885*
+ L.M.C. 3. 85

