

REPORT ON MACHINERY.

Port of *Glasgow*

TUES. 17 MAR 1891

Received at London Office

No. in Survey held at *Glasgow*

Date, first Survey *19th Sept 1890* Last Survey *12th March 1891*

Book.

on the

ster *Thomson*

Built at *Newcastle*

By whom built *C. Mitchell & Co*

Tons { Gross *1230*
Net *761*
When built *1875*

ines made at *Glasgow*

By whom made *Kincaid & Co (Linn)*

when made *1891*

ers made at *Glasgow*

By whom made *H. Wallace & Co*

when made *1891*

istered Horse Power *130*

er Rule *128*

Owners *Companhia de Navegacao Caracao* Port belonging to *Rio de Janeiro*

INES, &c.—

ription of Engines *See Greenock Report attached*

No. of Cylinders

a. of Cylinders Length of Stroke Rev. per minute Point of Cut off, High Pressure Low Pressure

eter of Screw shaft Diam. of Tunnel shaft Diam. of Crank shaft journals Diam. of Crank pin size of Crank webs

eter of screw Pitch of screw No. of blades state whether moveable total surface

of Feed pumps diameter of ditto Stroke Can one be overhauled while the other is at work

of Bilge pumps diameter of ditto Stroke Can one be overhauled while the other is at work

re do they pump from

of Donkey Engines Size of Pumps Where do they pump from

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

of bilge injections and sizes Are they connected to condenser, or to circulating pump

are the pumps worked

all connections with the sea direct on the skin of the ship Are they Valves or Cocks

they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the discharge pipes above or below the deep water line

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

pipes are carried through the bunkers How are they protected

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

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

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

screw shaft tunnel watertight and fitted with a sluice door worked from

ERS, &c.—

Boilers *One* Description *Forced draught multitubular* Material *Steel* Letter (for record) *S*

ing Pressure *160 lbs.* Tested by hydraulic pressure to *320 lbs* Date of test *17th February 1891*

ption of superheating apparatus or steam chest *none*

ach boiler be worked separately Can the superheater be shut off and the boiler worked separately

square feet of fire grate surface in each boiler *50* Description of safety valves *direct spring* No. to each boiler *two*

of each valve *9.62* Are they fitted with easing gear *yes* No. of safety valves to superheater area of each valve

ey fitted with easing gear Smallest distance between boilers and bunkers or woodwork *9"* Diameter of boilers *14'-0"*

of boilers *11'-2"* description of riveting of shell long. seams *d. butt str.* circum. seams *lap* Thickness of shell plates *1 1/4"*

ter of rivet holes *1 7/16* whether punched or drilled *drilled* pitch of rivets *7 1/2" x 3 7/8"* Lap of plating *18"*

tage of strength of longitudinal joint *83.1%* working pressure of shell by rules *160 lbs* size of manholes in shell *12" x 16"*

compensating rings *d. riv. ring* No. of Furnaces in each boiler *three* Description of Furnaces *plain with flanges*

diameter *42"* length *23" each piece* thickness of plates *9/16* description of joint *welded* if rings are fitted *yes*

t length between rings *23"* working pressure of furnace by the rules *167 lbs* combustion chamber plating, thickness, sides *7/16* back *7/32* top *19/32*

f stays to ditto, sides *7 1/2"* back *7 3/8"* top *8 x 7 3/8"* If stays are fitted with nuts or riveted heads *nuts* working pressure of plating by

160 lbs Diameter of stays at smallest part *1 1/2 x 1 3/8* working pressure of ditto by rules *165 lbs* end plates in steam space, thickness *13/16 x 7/8 d. b. pl.*

f stays to ditto *7 1/2" x 16"* how stays are secured *d. nuts* working pressure by rules *160 lbs* diameter of stays at

llest part *2 3/4" bars* working pressure by rules *170 lbs* Front plates at bottom, thickness *13/16* Back plates, thickness *13/16*

t pitch of stays working pressure by rules Diameter of tubes *2 1/2"* pitch of tubes *3 5/8"* thickness of tube

es, front *13/16* back *3/4"* how stayed *stubs* pitch of stays *7 1/2" x 10 7/8"* width of water spaces *6"*

er of Superheater or Steam chest length thickness of plates description of longitudinal joint diam. of rivet holes

f rivets working pressure of shell by rules diameter of flue thickness of plates If stiffened with rings

e between rings working pressure by rules end plates of superheater, or steam chest; thickness how stayed

Superheater or steam chest; how connected to boiler

GRK315-0159

DONKEY BOILER— Description *See Greenock Report attached*
Made at _____ by whom made _____ when made _____ where fixed _____
Working pressure _____ tested by hydraulic pressure to _____ No. of Certificate _____ fire grate area _____ description of _____
valves _____ No. of safety valves _____ area of each _____ if fitted with easing gear _____ if steam from main boiler _____
enter the donkey boiler _____ diameter of donkey boiler _____ length _____ description of riveting _____
Thickenss of shell plates _____ diameter of rivet holes _____ whether punched or drilled _____ pitch of rivets _____ lap of plating _____
per centage of strength of joint _____ thickness of crown plates _____ stayed by _____
Diameter of furnace, top _____ bottom _____ length of furnace _____ thickness of plates _____ description of joint _____
Thickenss of furnace crown plates _____ stayed by _____ working pressure of shell by rules _____
Working pressure of furnace by rules _____ diameter of uptake _____ thickness of plates _____ thickness of water tubes _____

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

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

The above mentioned boiler, which has been built under Special Survey, has been fitted outboard the vessel in an efficient manner. The main and donkey boiler safety valves have been adjusted under steam to working pressures. The engines have been tried under steam and worked in a satisfactory manner.

The above completes the conditions for the recommendation made in Greenock Report No 10169 attached
viz: *L.M.C. 3. 91.*

It is submitted that this vessel is eligible to have +L.M.C. 3. 91 and +N.E.+B. 91 recorded

W.A.

17. 3. 91

The amount of Entry Fee £ : : received by me,
Special £ 6 : 8 : per Greenock
Donkey Boiler Fee £ : :
Certificate (if required) .. £ : : 16/3/1891
To be sent as per margin.

(Travelling Expenses, if any, £)

Committee's Minute TUES. 17 MAR 1891

+ L.M.C. 3. 91 + N.E.+B. 3. 91

Engineer Surveyor to Lloyd's Register of British & Foreign Ships

Glasgow
Lloyd's Register
Foundation