

REPORT ON MACHINERY.

8575

No. *8575*

Received at London Office **TUESDAY 9 OCT 1883**

No. in Survey held at *Glasgow.*

Date, first Survey *6th Feb. 1883* Last Survey *4th Oct. 1883.*

Reg. Book. *S. S. Progress.*

(Number of Visits *10*) Tons *444.95*

on the *S. S. Progress.*

Tons *271.47*

Master *Dana Wilson* Built at *Glasgow* By whom built *Murdoch & Murray* When built *1883.*

Engines made at *Glasgow* By whom made *Muir & Houston* when made *1883.*

Boilers made at *do* By whom made *do* when made *do.*

Registered Horse Power *65.* Owners *J. & J. Macfarlane* Port belonging to *Glasgow.*

ENGINES, &c.—
Description of Engines *Compound Inverted Direct Acting.*

Diameter of Cylinders *20" & 40"* Length of Stroke *27"* No. of Rev. per minute *90.* Point of Cut off, High Pressure *var.* Low Pressure *—*

Diameter of Screw shaft *7"* Diam. of Tunnel shaft *6 3/4"* Diam. of Crank shaft journals *7"* Diam. of Crank pin *7"* size of Crank webs *5" x 8 1/2"*

Diameter of screw *9'-6"* Pitch of screw *13'-0"* No. of blades *4* state whether moveable *no* total surface *25 sq. ft.*

No. of Feed pumps *One* diameter of ditto *2 3/4"* Stroke *15"* Can one be overhauled while the other is at work *—*

No. of Bilge pumps *One* diameter of ditto *2 3/4"* Stroke *15"* Can one be overhauled while the other is at work *—*

Where do they pump from *All Compartments.*

No. of Donkey Engines *One* Size of Pumps *5" Cyl. 3" x 6" Stroke* Where do they pump from *Sea, holds & Tanks.*

shotwell.

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 *One* and sizes *2 3/4"* Are they connected to condenser, or to circulating pump *Cir. pump.*

How are the pumps worked *by levers.*

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 *on line*

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 *Bilge & Tank Suctions* 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 *before launching.*

Is the screw shaft tunnel watertight *yes* and fitted with a sluice door *yes* worked from *Upper platform.*

BOILERS, &c.—
Number of Boilers *One* Description *Round Multitubular* Whether Steel or Iron *Steel*

Working Pressure *80 lbs.* Tested by hydraulic pressure to *100 lbs.* Date of test *1st August 1883.*

Description of superheating apparatus or steam chest *Vertical None.*

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 *40.* Description of safety valves *Direct Spring* No. to each boiler *two*

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

Are they fitted with easing gear *—* Smallest distance between boilers and bunkers or woodwork *13" to bunker* Diameter of boilers *12'-0"*

Length of boilers *9'-6"* description of riveting of shell long. seams *Prob. Lap.* circum. seams *Double Lap.* Thickness of shell plates *7/8"*

Diameter of rivet holes *1 1/4"* whether punched or drilled *rim.* pitch of rivets *5"* Lap of plating *9"*

Percentage of strength of longitudinal joint *76.* working pressure of shell by rules *82.5 lbs.* size of manholes in shell *12" x 16"*

Size of compensating rings *7/8" male 5" broad.* No. of Furnaces in each boiler *Two.*

Outside diameter *3'-7"* length, top *6'-3"* bottom *9'-0"* thickness of plates *15/32"* description of joint *Butt* if rings are fitted *no*

Greatest length between rings *—* working pressure of furnace by the rules *83 lbs* combustion chamber plating, thickness, sides *7/16"* back *7/16"* top *7/16"*

Pitch of stays to ditto, sides *7/2"* back *7/2"* top *1/2" x 8"* If stays are fitted with nuts or riveted heads *Nuts.* working pressure of plating by rules *96 lbs.*

Diameter of stays at smallest part *1 1/8"* working pressure of ditto by rules *110 lbs* end plates in steam space, thickness *3/4"*

Pitch of stays to ditto *14" x 15"* how stays are secured *Nuts.* working pressure by rules *89 lbs.* diameter of stays at smallest part *2"* working pressure by rules *89.7 lbs.* Front plates at bottom, thickness *9/16"* Back plates, thickness *9/16"*

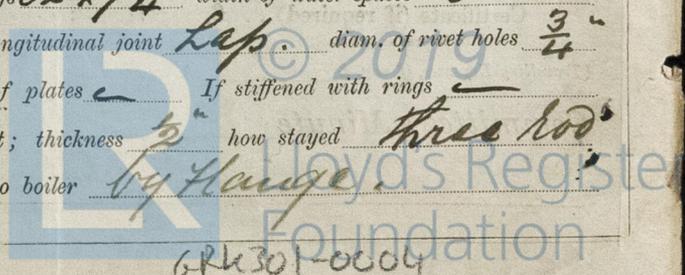
Greatest pitch of stays *—* working pressure by rules *—* Diameter of tubes *3 1/4"* pitch of tubes *4 1/2"* thickness of tube plates, front *5/8"* back *5/8"* how stayed *Staves* pitch of stays *6 1/2" x 9 3/4"* width of water spaces *6"*

Diameter of Superheater or Steam chest *3'-0"* length *3'-0"* thickness of plates *7/16"* description of longitudinal joint *Lap* diam. of rivet holes *3/4"*

Pitch of rivets *2 1/4"* working pressure of shell by rules *127 lbs* diameter of flue *—* thickness of plates *—* If stiffened with rings *—*

Distance between rings *—* working pressure by rules *—* end plates of superheater, or steam chest; thickness *3"* how stayed *three rod*

Stays & double Nuts Superheater or steam chest; how connected to boiler *by flange*



624301-0004

DONKEY BOILER— Description *Vertical two Cross Tubes.*
 Made at *Glasgow* by whom made *Muir & Houston* when made *1883* where fixed *Stoke hold.*
 Working pressure *60 lbs.* tested by hydraulic pressure to *120 lbs.* No. of Certificate *1145.* fire grate area *10- $\frac{3}{4}$* sq. ft. description of safety valves *direct Spring* No. of safety valves *One* area of each *7.* if fitted with easing gear *yes.* if steam from main boilers can enter the donkey boiler *No.* diameter of donkey boiler *4'-3"* length *9'* high description of riveting *single & double*
 Thickness of shell plates *$\frac{3}{8}$ "* diameter of rivet holes *$\frac{3}{4}$ "* whether punched or drilled *punch* pitch of rivets *$3\frac{1}{2}$ "* lap of plating *$3\frac{3}{4}$ "*
 per centage of strength of joint *74.* thickness of crown plates *$\frac{7}{16}$ "* stayed by *3 palm stays attached to shell.*
 Diameter of furnace, top *3'-4"* bottom *3'-9"* length of furnace *4'-6"* thickness of plates *$\frac{3}{8}$ "* description of joint *Lap.*
 Thickness of furnace crown plates *$\frac{7}{16}$ "* stayed by *Uptake.* working pressure of shell by rules *82 lbs.*
 Working pressure of furnace by rules *3 Cross tubes* diameter of uptake *10"* thickness of plates *$\frac{3}{8}$ "* thickness of water tubes *$\frac{5}{16}$ "*

SPARE GEAR. State the articles supplied:— *One set Top and Bottom End Bolts. 1 set Coupling Bolts. 2 Main Bearing Bolts. 1 set of Feed and Bilge pump valves. Bolts & nuts assorted Iron of various sizes.*

The foregoing is a correct description,
Muir & Houston Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *The above mentioned Engines and Boilers are now completed on board of good workmanship and material and the Machinery is now in my opinion in a safe and good working condition and eligible to be noted in the Society's Register Book: *L.M.C.10.83.*

It is submitted that this vessel is eligible to have the notation + L.M.C. 10.83 recorded

11/10/83

The amount of Entry Fee .. £ *1: 0: 0* received by me,
 Special £ *9: 15: 0 at Glasgow* (M)
 Donkey Boiler Fee £ *0: 0: 0*
 Certificate (if required) .. £ *0: 0: 0* *5/10/1883*
 To be sent as per margin.
 (Travelling Expenses, if any, £ — *$\frac{4}{16}$*)

Committee's Minute

+ Dupl

John Sanderford
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Glasgow District

Lloyd's Register Foundation