

9043
Received 16th December, 1885.

REPORT ON MACHINERY.

No. 9043

No. in Survey held at *Greenock & Port Glasgow* Date, first Survey *1st May 1885* Last Survey *14th Decr. 1885*
eg. Book.

on the

S. S. "Maule"

Tons *202.01*
80.26

Master *MacDougal* Built at *Port Glasgow* By whom built *J. Reid & Co.* When built *1885*

Engines made at *Greenock* By whom made *Kincaid & Co.* when made *1885*

Motors made at *Glasgow* By whom made *H. Wallace & Co.* when made *1885*

Registered Horse Power *43* Owners *Compania sud Americana de Vapores* Port belonging to *Valparaiso*

ENGINES, &c.—

Description of Engines *Compound Inverted Direct Acting.*

Diameter of Cylinders *16" & 32"* Length of Stroke *20"* No. of Rev. per minute *112* Point of Cut off, High Pressure *12 1/2"* Low Pressure *12 1/2"*

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

Diameter of screw *4 1/2"* Pitch of screw *10" 3"* No. of blades *four* state whether moveable *no* total surface *19.20 feet*

No. of Feed pumps *one* diameter of ditto *2 1/2"* Stroke *10"* Can one be overhauled while the other is at work *—*

No. of Bilge pumps *one* diameter of ditto *2 1/2"* Stroke *10"* Can one be overhauled while the other is at work *—*

Where do they pump from *Engine room. Cargo Holds. well abaft tunnel. peak tanks & sea.*

No. of Donkey Engines *one* Size of Pumps *13 1/2" x 6" Stroke* Where do they pump from *Sea. Hot well. Bilges & Peak tanks.*

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 *3"* Are they connected to condenser, or to circulating pump *circulating 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 *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 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 vessel was launched.*

Is the screw shaft tunnel watertight *yes* and fitted with a sluice door *yes* worked from *Engine room Main.*

BOILERS, &c.—

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 *—* area of each valve *—*

Are they fitted with easing gear *—* Smallest distance between boilers and bunkers or woodwork *—* Diameter of boilers *—*

Length of boilers *—* description of riveting of shell long. seams *—* circum. seams *—* Thickness of shell plates *—*

Diameter of rivet holes *—* whether punched or drilled *—* pitch of rivets *—* Lap of plating *—*

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 *—* thickness of plates *—* description of joint *—* if rings are fitted *—*

Greatest length between rings *—* working pressure of furnace by the rules *—* combustion chamber plating, thickness, sides *—* back *—* top *—*

Pitch of stays to ditto, sides *—* back *—* top *—* If stays are fitted with nuts or riveted heads *—* working pressure of plating by rules *—*

Diameter of stays at smallest part *—* working pressure of ditto by rules *—* end plates in steam space, thickness *—*

Pitch of stays to ditto *—* how stays are secured *—* working pressure by rules *—* diameter of stays at smallest part *—*

Greatest pitch of stays *—* working pressure by rules *—* Diameter of tubes *—* pitch of tubes *—* thickness of tube plates, front *—* back *—* how stayed *—* pitch of stays *—* width of water spaces *—*

Diameter of Superheater or Steam chest *—* length *—* thickness of plates *—* description of longitudinal joint *—* diam. of rivet holes *—*

Pitch of rivets *—* working pressure of shell by rules *—* 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 *—* how stayed *—*

Superheater or steam chest; how connected to boiler *—*

DONKEY BOILER— 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 _____ if fitted with easing gear _____ if steam from main boilers can
 enter the donkey boiler _____ diameter of donkey boiler _____ length _____ description of riveting _____
 Thickness 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 _____
 Thickness 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:— *2 Connecting rod bolts & nuts top end, and 2 for bottom end. 2 Main bearing bolts. 1 set of Coupling bolts. 1 set of feed & bilge pump valves. 1 set of piston springs. a pair of crank pin brasses. a spare screw shaft. a spare propeller. 8 tubes for main boiler. 12 tubes for Condenser. 1 set of fire bars. a quantity of bolts, nuts, and iron assorted.*
 The foregoing is a correct description,
Arnold & Co Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *The Engines have been specially surveyed during construction. Workmanship of good quality. Shafts examined when being rough turned and found satisfactory. Machinery & Boilers satisfactorily fitted on board and tested under full steam. They are now in good order and safe working condition. and are in my opinion eligible to be noted in the Register Book.*
 L.M.C. 12.85.

It is submitted that this vessel is eligible to have the notation + LMC 12.85 recorded

B.F. 17/12/85

The amount of Entry Fee £ 1 : 0 : 0 received by me,
 * Special .. £ 8 : 0 : 0
 * Donkey Boiler Fee .. £ 2 : 2 : 0
 Certificate (if required) £ gratis 12th Decr. 1885
 To be sent as per margin.
 (Travelling Expenses, if any, £ Nil)

Committee's Minute

FRIDAY 18 DEC 1885

A. C. Heron
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
 Greenock District