

REPORT ON MACHINERY.

TUES. SEP 18 1900

Port of *Greenock.*

Received at London Office 18

No. in Survey held at *Greenock & Port Glasgow.* Date, first Survey *8th Nov. 1899.* Last Survey *5th Sept. 1900*
 Reg. Book. *Greenock* (Number of Visits *9th*)
 Master *G. Naecari* Built at *Port Glasgow* By whom built *Russell & Co.* Tons } Gross *3315*
 Net *2159*
 Engines made at *Greenock* By whom made *John G. Kincaid & Co.* when made *1900.*
 Boilers made at *Glasgow* By whom made *Lindsay Burnet & Co.* when made *1900.*
 Registered Horse Power Owners *E. G. bar. Goralimich & Co.* Port belonging to *Luninpicola*
 Nom. Hors. Power as per Section 28 *291* Is Refrigerating Machinery fitted *No.* Is Electric Light fitted *No.*

ENGINES, &c.—Description of Engines *Inverted Direct acting Triple expansion* No. of Cylinders *Three* No. of Cranks *Three*
 Dia. of Cylinders *24" 10" 6 1/2"* Length of Stroke *42"* Revs. per minute *as per rule 12.41* Dia. of Screw shaft *as fitted 12 1/2"* Lgth. of stern bush *50"*
 Dia. of Tunnel shaft *as per rule 11.22* Dia. of Crank shaft journals *as per rule 11.82* Dia. of Crank pins *12"* Size of Crank webs *15 1/4 x 8 1/2"* Dia. of thrust shaft under collars *11 1/8"* Dia. of screw *16" 0"* Pitch of screw *17" 0"* No. of blades *Four* State whether moveable *No.* Total surface *81.5 sq ft*
 No. of Feed pumps *Two* Diameter of ditto *4"* Stroke *24"* Can one be overhauled while the other is at work *yes*
 No. of Bilge pumps *Two* Diameter of ditto *4"* Stroke *24"* Can one be overhauled while the other is at work *yes*
 No. of Donkey Engines *Two* Sizes of Pumps *10 x 10 & Duplex 4 x 6* No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room *Four 3 1/2"* In Holds, &c. *Six 3 1/2 in holds & one 2 1/2 in tunnel well.*
 No. of bilge injections *one* sizes *6"* Connected to condenser, or to circulating pump *pump* Is a separate donkey suction fitted in Engine room & size *yes 3 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 *yes*
 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 *awash.*
 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 pipes* How are they protected *wood casing.*
 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 launching* Is the screw shaft tunnel watertight *yes.*
 Is it fitted with a watertight door *yes* worked from *top platform.*

BOILERS, &c.— (Letter for record) Total Heating Surface of Boilers *4400 sq ft* Is forced draft fitted *no.*
 No. and Description of Boilers *see Glasgow report attached no 18218.* Working Pressure Tested by hydraulic pressure to
 Date of test Can each boiler be worked separately Area of fire grate in each boiler No. and Description of safety valves to
 each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
 Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates
 Thickness Range of tensile strength Are they welded or flanged Descrip. of riveting: cir. seams long. seams
 Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
 Percentages of strength of longitudinal joint rivets: Working pressure of shell by rules Size of manhole in shell
 plate: Description of longitudinal joint No. of strengthening rings
 Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
 Length of plain part top: Thickness of plates crown: Description of longitudinal joint No. of strengthening rings
 bottom: bottom: Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
 Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules
 Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space:
 Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
 Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom
 Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
 Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
 Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
 Thickness of girder at centre Length as per rule Distance apart Number and pitch of Stays in each
 Working pressure by rules Superheater or Steam chest; how connected to boiler 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
 plates Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
 Stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed
 Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

GRK 352-0233

DONKEY BOILER— No. *one* Description *Cylindrical Multitubular, see Glasgow report attached 18/18.*
 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 _____ Pressure to which they are adjusted _____ If fitted with easing gear _____ If steam from main boilers _____
 enter the donkey boiler *no.* Dia. of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____ Range of tens _____
 strength _____ Descrip. of riveting long seams _____ Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____
 Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Thickness of shell crown plates _____ Radius of do. _____ No. of Stays to do. _____
 Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description _____
 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 uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:— *a propeller & screw shaft, 12 shaft coupling bolts & nuts, 2 do for top & 2 do for bottom ends, 2 do for main bearings, 6 do for holding down, 6 junked pins, 6 studs & nuts for cylinder covers, 6 do for valve chest covers, 2 feed & 2 bilge pump valves, 3 cylinder escape valves & springs, 1 do for feed pump, 1 safety valve spring, 12 condenser tubes & 120 packing ferrules, 12 boiler tubes & 1/2 set fire bars, and assorted bolts & nuts & iron plates*
 The foregoing is a correct description,

John G. Kincaid & Co Manufacturer.
per Bill

Dates { During progress of work in shops - - - 1899. Nov 9. 14. 15. 22. 25. 28. Dec 1. 8. 11. 20. 1900 Jan 10. 16. 19. 22. 24. 26. 29. 31. Feb. 2. 6. 12. 15. 17. 20. 23. 24. 27. Mar 1. 3. 6. 8. 13. 15. 17. 21. 24. 28. 30. April 3. 10. 16. 18. 23. 24. 28. 30. May 2. 4. 7. 9. 11. 14. 17. 21. 23. 25. June 14. 18. 21. 22. 25. 27. 29. July 2. 3. 17. 19. 21. 23. 30. Aug 6. 9. 10. 13. 13. 18. 20. 22. 25. 24. 28. 27. 28. 29. 30. 31. Sep. 1. 3. 5.
 During erection on board vessel - - -
 Total No. of visits *9*
 Is the approved plan of main boiler forwarded herewith *yes.*
 " " " donkey " " " *yes.*

General Remarks (State quality of workmanship, opinions as to class, &c.)
These Engines have been specially surveyed during construction, workmanship good. Main steam pipes tested by hydraulic pressure to 400 lbs, tests satisfactory. The Engines and Boilers are satisfactorily fitted in vessel, and have been tested under steam. They are now in good order & safe working condition, and are our opinion eligible to be noted in Register Book. L.M.C. 9.00.

It is submitted that this vessel is eligible for THE RECORD. L.M.C. 9.00.

EL 19.9.00
LD. 19.9.00

Greenock

Certificate (if required) to be sent to _____
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee... £ 2 : : : When applied for, *11.9.1900*
 3 Special... £ 23 : : :
 Donkey Boiler Fee... £ 11 : 10 : :
 Travelling Expenses (if any) £ : : :
 When received, *11.9.1900*

Committee's Minute *Glasgow. 17 SEP. 1900*
 Assigned *L.M.C. 9.00.*

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



MECHANICAL CERTIFICATE
 WRITTEN 19/9/00