

REPORT ON MACHINERY.

Port of *Greenock*

Received at London Office **TUES. 5 DEC 1893**

No. in Survey held at *Greenock*
Reg. Book. Supplement

Date, first Survey *5th May*

Last Survey *30th Nov*, 1893
(Number of Visits *82*)

9 on the *Screw Steamer "Glen Park"*

Tons { Gross *859.71*
Net *526.31*

Master *D. Carter* Built at *Greenock* By whom built *Scott & Coy.*

When built *1893*

Engines made at *Greenock* By whom made *Scott & Coy.*

when made *1893*

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

when made *1893*

Registered Horse Power *99* Owners *Glen Park S. & Coy. (Lim^d)* Port belonging to *Greenock.*

Nom. Horse Power as per Section 28 *112*

ENGINES, &c.— Description of Engines *Inverted Direct Acting Triple Expansion* No. of Cylinders *Three*
 Diameter of Cylinders *16" 26" & 44"* Length of Stroke *33"* Revolutions per minute *90* Diameter of Screw shaft *as per rule 8"*
 Diameter of Tunnel shaft *as fitted 8"* Diameter of Crank shaft journals *8 1/4"* Diameter of Crank pin *8 1/4"* Size of Crank webs *10 1/2" x 5 1/2"*
 Diameter of screw *11.9"* Pitch of screw *13.9"* No. of blades *Four* State whether moveable *no* Total surface *38 square feet*
 No. of Feed pumps *Two* Diameter of ditto *3"* Stroke *16"* Can one be overhauled while the other is at work *yes*
 No. of Bilge pumps *Two* Diameter of ditto *3"* Stroke *16"* Can one be overhauled while the other is at work *yes*
 No. of Donkey Engines *Two Duplex* Sizes of Pumps *3 1/2" x 6" & 5 1/2" x 6"* No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room & Stokhold, *Three 2 1/4"* In Holds, &c. *Three 2 1/4" & one in tunnel well 2 1/4"*

No. of bilge injections *one* sizes *3 1/2"* Connected to condenser, or to circulating pump's *Pumps a separate donkey suction fitted in Engine room & size yes 2 1/4"*
 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 stokhold 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 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 *on slip before* Is the screw shaft tunnel watertight *yes*
 Is it fitted with a watertight door *yes* worked from *Engine Room top platform*

BOILERS, &c.— (Letter for record *S.*) Total Heating Surface of Boilers *1702 square feet*
 No. and Description of Boilers *one round Horizontal Multitubular* Working Pressure *160 lbs* Tested by hydraulic pressure to *320 lbs*
 Date of test *25.10.93* Can each boiler be worked separately *—* Area of fire grate in each boiler *57 1/4 sq ft* No. and Description of safety valves to
 each boiler *Two direct spring* Area of each valve *7 inches* Pressure to which they are adjusted *16.5 lbs* Are they fitted
 with casing gear *yes* Smallest distance between boilers or uptakes and bunkers or woodwork *8 1/2"* Mean diameter of boilers *14.6"*
 Length *10.6"* Material of shell plates *Steel* Thickness *1 3/32"* Description of riveting: circum. seams *Lap double long seams 2 B strap treble*
 Diameter of rivet holes in long. seams *1 3/16"* Pitch of rivets *7 1/8" & 3 1/16"* Lap of plates or width of butt straps *17 3/4" straps*
 Per centages of strength of longitudinal joint *riquets 20 plate 84.9* Working pressure of shell by rules *160 lbs* Size of manhole in shell *15 3/4" x 11 3/4"*
 Size of compensating ring *38" x 28" x 1 1/4"* No. and Description of Furnaces in each boiler *Three Corrugated* Material *Steel* Outside diameter *44 1/2"*
 Length of plain part *top 2 1/2" crown 2 1/2" bottom 2 1/2"* Thickness of plates *bottom 2 1/2"* Description of longitudinal joint *welded* No. of strengthening rings *none*
 Working pressure of furnace by the rules *168 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *7/16"* Back *1 1/32"* Top *9/16"* Bottom *1 1/16"*
 Pitch of stays to ditto: Sides *8 1/4" x 7 1/2"* Back *7 1/4" x 7 1/2"* Top *7 1/4" x 7 1/2"* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *160 lbs*
 Material of stays *Steel* Diameter at smallest part *1 1/4" & 7/8"* Area supported by each stay *51.59 sq ft* Working pressure by rules *161 lbs* End plates in steam space:
 Material *Steel* Thickness *1 5/16"* Pitch of stays *15 1/2" x 15 1/2"* How are stays secured *Double nuts* Working pressure by rules *163 lbs* Material of stays *Steel*
 Diameter at smallest part *2 3/8"* Area supported by each stay *240 sq ft* Working pressure by rules *163 lbs* Material of Front plates at bottom *Steel*
 Thickness *1 3/16"* Material of Lower back plate *Steel* Thickness *3 1/8"* Greatest pitch of stays *12 1/2"* Working pressure of plate by rules *249 lbs*
 Diameter of tubes *3 1/2"* Pitch of tubes *5" x 4 3/4"* Material of tube plates *Steel* Thickness: Front *1 3/16"* Back *1 3/16"* Mean pitch of stays *9 7/8"*
 Pitch across wide water spaces *15 1/2"* Working pressures by rules *189 lbs* Girders to Chamber tops: Material *Iron* Depth and
 thickness of girder at centre *8" x 3" double* Length as per rule *31"* Distance apart *7 1/8"* Number and pitch of Stays in each *Three 7 1/4"*
 Working pressure by rules *167 lbs* 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
 holes *—* Pitch of rivets *—* Working pressure of shell by rules *—* Diameter of flue *—* Material of flue plates *—* Thickness *—*
 If 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 casing gear *—*



DONKEY BOILER— Description *Round Upright*
 Made at *Greenock* By whom made *Scott & Coy.* When made *1893* Where fixed *Stokehold reefer*
 Working pressure *80 lbs* tested by hydraulic pressure to *160 lbs* No. of Certificate *388*, Fire grate area *21.5 sq ft* Description of safety valves *Direct spring*
 No. of safety valves *two* Area of each *4.9 sq ft* Pressure to which they are adjusted *80 lbs* 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"* Material of shell plates *Steel* Thickness *7/16"*
 Description of riveting long seams *Lap double* Diameter of rivet holes *13/16"* Whether punched or drilled *drilled* Pitch of rivets *2 3/8"*
 Lap of plating *4 1/2"* Per centage of strength of joint Rivets *61* Thickness of shell crown plates *5/8"* Radius of do. *6' 0"* No. of Stays to do. *Five*
 Dia. of stays *1 1/2" bare* Diameter of furnace Top *4' 9"* Bottom *5' 4"* Length of furnace *5' 8"* Thickness of furnace plates *9/16"* Description of
 joint *Lap single* Thickness of furnace crown plates *9/16"* Stayed by *as above* Working pressure of shell by rules *90 lbs*
 Working pressure of furnace by rules *80 lbs* Diameter of uptake *16"* Thickness of uptake plates *1/2"* Thickness of water tubes *1/2"*

SPARE GEAR. State the articles supplied:— *2 top end & 2 bottom end bolts & nuts, 2 main bearings, a set of coupling bolts, a set of feed & bilge pump valves, piston & rings, 1/2 set of fire bars, 12 tubes & 24 screwed ferrules for surface condenser, a quantity of bolts nuts & iron assorted.*

The foregoing is a correct description,

Manufacturer. *Scott & Coy.*

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

These Engines and Boilers have been specially surveyed during Construction, workmanship good, shafts examined when being turned and found apparently sound, main steam pipes test by hydraulic pressure to 320 lbs per square inch, test satisfactory. The Engines and Boilers are satisfactorily fitted on board and have been tested under full steam, they are now in good and safe working condition, and are in my opinion eligible to be noted in Register Book. L.M.C. 11.93.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 11.93 -

Pub
5/12/93 -

Large handwritten signature in blue ink.

Certificate (if required) to be sent to *Greenock office*

The amount of Entry Fee..	£	2:	:	When applied for,
Special	£	16:	16:	2/12/93
Donkey Boiler Fee .. .	£	✓:	:	When received,
Travelling Expenses (if any) £		✓:	:	4/12/93

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

Greenock District.

FR: 8 DEC 1893

+ L.M.C. 11.93



© 2020
Lloyd's Register
Foundation

Committee's Minute
Assigned

The Surveyors are requested not to write on or below the space for Committee's Minute.