

REPORT ON MACHINERY.

Port of *Dundee*Received at London Office *MUN. 22 SEP 1902*To. in Survey held at *Dundee*Date, first Survey *20th Nov. 1901* Last Survey *19th Aft 1902*

Book.

(Number of Visits *105*)18 on the *Steel Screw Steamer "Victoria"*Gross *2969*
Tons Net *1870*ter *T. Free*Built at *Dundee*By whom built *Messrs Gourlay Bros & Co* When built *1902*ines made at *Dundee*By whom made *Messrs Gourlay Bros & Co*when made *1902*lers made at *Dundee*By whom made *Messrs Gourlay Bros & Co*when made *1902*istered Horse Power *521*Owners *Huddart Parker & Co*Port belonging to *Hullbourne*n. Horse Power as per Section 28 *521*Is Refrigerating Machinery fitted *yes*Is Electric Light fitted *yes*GINES, & Co.—Description of Engines *Inverted Direct Acting Triple Expansion* No. of Cylinders *three* No. of Cranks *three*No. of Cylinders *27½"-45"-74"* Length of Stroke *48* Revs. per minute *80* Dia. of Screw shaft *14.78* as per rule *15.74* as fitted *15.74* Lgth. of stern bush *61"*No. of Tunnel shaft *as per rule 13.56* Dia. of Crank shaft journals *as per rule 14.24* as fitted *14.78* Dia. of Crank pin *14.78* Size of Crank webs *30"x10"* Dia. of thrust shaft underbars *15"* Dia. of screw *17-8"* Pitch of screw *17-9"* No. of blades *4* State whether moveable *yes* Total surface *90 sq*No. of Feed pumps *2* Diameter of ditto *4"* Stroke *33"* Can one be overhauled while the other is at work *yes*No. of Bilge pumps *2* Diameter of ditto *4"* Stroke *33"* Can one be overhauled while the other is at work *yes*No. of Donkey Engines *3* Sizes of Pumps *Feed - 8x10 26 gals/hr* No. and size of Suctions connected to both Bilge and Donkey pumpsEngine Room *four at 3½" diam* Ballast - *9x8½x10* In Holds &c. *No. 1 hold 2@3½"; No. 2 hold 2@3½";**No. 3 hold (cross bunker) 2@3½"; No. 4 hold 2@3½"; No. 5 hold 2@3½"; Tunnel one at 3½"*No. of bilge injections *1* sizes *8½"* Connected to *condenser, etc.* circulating pump *yes* Is a separate donkey suction fitted in Engine room & size *yes-3½"*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 *none*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 *below*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*That pipes are carried through the bunkers *suctions to forward holds* How are they protected *wood ceiling*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 *24/6/02* Is the screw shaft tunnel watertight *yes*Is it fitted with a watertight door *yes* worked from *top platform*MILERS, & Co.— (Letter for record *(S)*) Total Heating Surface of Boilers *9550 sq* Is forced draft fitted *no*No. and Description of Boilers *Two Double Ended & One Single Ended* Working Pressure *180* Tested by hydraulic pressure to *360*Date of test *13.6.02* Can each boiler be worked separately *yes* Area of fire grate in each boiler *139 sq = DB* No. and Description of safety valves toeach boiler *2 Spring* Area of each valve *14.2 = DB* Pressure to which they are adjusted *185 lbs* Are they fitted with easing gear *yes*Smallest distance between boilers *on uptakes* and bunkers *on woodwork* *12"* Mean dia. of boilers *15-3"* Length *17-0"* Material of shell plates *steel*Thickness *1½"* Range of tensile strength *29-32* Are they welded or flanged *no* Descrip. of riveting: cir. seams *Triple Riv² long. seams D.B.-J. Riv²*Diameter of rivet holes in long. seams *17/16* Pitch of rivets *9¾"* Lap of plates *width of butt straps 21½"*Percentage of strength of longitudinal joint *85.3* Working pressure of shell by rules *210 lbs* Size of manhole in shell *16"x12"*Size of compensating ring *8"x13/8"* No. and Description of Furnaces in each boiler *6 corrug² = DB* Material *steel* Outside diameter *49"*Length of plain part *top 5/8"* Thickness of plates *bottom 5/8"* Description of longitudinal joint *Welded* No. of strengthening rings *11*Working pressure of furnace by the rules *200* Combustion chamber plates: Material *steel* Thickness: Sides *5/8"* Back *5/8"* Top *5/8"* Bottom *7/8"*Pitch of stays to ditto: Sides *8¾x8* Back *8¾x8* Top *8¾x8* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *198 lbs*Material of stays *steel* Diameter at smallest part *1½"* Area supported by each stay *67* Working pressure by rules *210* End plates in steam space:Material *steel* Thickness *29/32* Pitch of stays *16½x15¾"* How are stays secured *Riv² Washers* Working pressure by rules *182* Material of stays *steel*Diameter at smallest part *2-86* Area supported by each stay *254* Working pressure by rules *252* Material of Front plates at bottom *steel*Thickness *29/32* Material of Lower back plate *Steel* Thickness *29/32* Greatest pitch of stays *13"* Working pressure of plate by rules *242*Diameter of tubes *3½"* Pitch of tubes *4¾x4¾"* Material of tube plates *steel* Thickness: Front *15/16* Back *7/8"* Mean pitch of stays *9½"*Pitch across wide water spaces *14½"* Working pressures by rules *304* Girders to Chamber tops: Material *steel* Depth andthickness of girder at centre *12x1¾"* Length as per rule *45"* Distance apart *8"* Number and pitch of Stays in each *4 = 8¾"*Working pressure by rules *212* Superheater or Steam chest; how connected to boiler *none* Can the superheater be shut off and the boiler workedseparately *yes* Diameter *yes* Length *yes* Thickness of shell plates *yes* Material *yes* Description of longitudinal joint *yes* Diam. of rivetholes *yes* Pitch of rivets *yes* Working pressure of shell by rules *yes* Diameter of flue *yes* Material of flue plates *yes* Thickness *yes*If stiffened with rings *yes* Distance between rings *yes* Working pressure by rules *yes* End plates: Thickness *yes* How stayed *yes*Working pressure of end plates *yes* Area of safety valves to superheater *yes* Are they fitted with easing gear *yes*

009401 - 009408 - 0146

SPARE GEAR. State the articles supplied:— Two top end bolts & nuts: 2 bottom end bolts & nuts; 2 main bearing bolts and nuts: 1½ sets coupling bolts & nuts: 1 set of feed & bilge pump valves: assorted bolts nuts & iron 1 pair bottom end brasses: 1 pair top end brasses; 1 tail end shaft: 1 length crank shaft: 1 valve spindle: 1 piston rings & spring: 1 centrifugal engine crank shaft, piston rod, ecc. rod & strap, & 1 pair crank brasses: 1 belt strap 4 Propeller blades (cast steel)

The foregoing is a correct description,
Gawley Brothers & Co., Manufacturer.
1901

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

The machinery of this vessel has been built under special survey in accordance with the approved plans and Secretary's letters and in general conformity with the Rules. The materials and workmanship are sound and good. The Boilers have been tested by hydraulic pressure and the engines and boilers examined under steam and found satisfactory.

The machinery of this vessel is now in a good and safe working condition and renders her eligible in my opinion to have the notation of ∇ L.M.C. 9.02 in the Register Book.

The amount of Entry Fee..	£	3	:	0	:	0	When applied for,
Special	£	46	:	1	:	0	20 th Sept 1902
Donkey Boiler Fee	£		:	✓	:		When received,
Travelling Expenses (if any) £			:	✓	:		75-9-0

It is submitted that
this vessel is eligible for
THE RECORD. + CNC 9-22-20 the light
141562

TUES. 23 SEP 1902

TUES. 13 JAN 1963

Assigned

MINISTRY CERTIFICATE
WRITTEN.

J.S.
C.H.
22-9-02
25.9.02