

REPORT ON MACHINERY.

Port of *Glasgow*

Received at London **MON. JAN 22 1900**

To, in Survey held at *Glasgow*
Rg. Bqk.
on the *S.S. "Gresham"*

Date, first Survey *17 January '99* Last Survey *4 January 1900*
(Number of Visits *44*)

Tons { Gross
Net
When built *1899-00*

Master Built at *Gumock* By whom built *Taylor & Mitchell*
Engines made at *Glasgow* By whom made *McKie & Baster* when made *1900*
Boilers made at *Glasgow* By whom made *Dr. Henderson & Co* when made *1900*
Registered Horse Power Owners Port belonging to
Nom. Hors: Power as per Section 28 *91* Is Refrigerating Machinery fitted *no* Is Electric Light fitted *no*

ENGINES, &c.—Description of Engines *Triple expansion* No. of Cylinders *three* No. of Cranks *three*
Dia. of Cylinders *15" 25" 40"* Length of Stroke *27* Revs. per minute *90* Dia. of Screw shaft as per rule *7.5* as fitted *7.5* Lgth. of stern bush *3"*
Dia. of Tunnel shaft as per rule *6.5* as fitted *6.75* Dia. of Crank shaft journals as per rule *7.16* as fitted *7.4* Dia. of Crank pin *7 1/4* Size of Crank webs *11 x 4 3/4* Dia. of thrust shaft under collars *7 1/4* Dia. of screw *10.6* Pitch of screw *11-6"* No. of blades *4* State whether moceable *no* Total surface *36 sq ft*
No. of Feed pumps *two* Diameter of ditto *2 1/2"* Stroke *13 1/2"* Can one be overhauled while the other is at work *yes*
No. of Bilge pumps *two* Diameter of ditto *3"* Stroke *13 1/2"* Can one be overhauled while the other is at work *yes*
No. of Donkey Engines *two* Sizes of Pumps *6x4x6 & 2x5x5* Submarine No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room *three 2" and one 2 1/4"* In Holds, &c. *one 2 1/2" and two 2"*
No. of bilge injections *one* sizes *3 1/2"* Connected to condenser, or to circulating pump *pump* Is 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
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*
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 *before launch* Is the screw shaft tunnel watertight *yes*
Is it fitted with a watertight door *yes* worked from *top platform in engine room*

BOILERS, &c.— (Letter for record *S*) Total Heating Surface of Boilers *1490* Is forced draft fitted *no*
No. and Description of Boilers *One, Single Ended* Working Pressure *160 lb* Tested by hydraulic pressure to *320 lb*
Date of test *19/9/99* Can each boiler be worked separately *yes* Area of fire grate in each boiler *56* No. and Description of safety valves to each boiler *one pair direct spring* Area of each valve *5.90* Pressure to which they are adjusted *165* Are they fitted with easing gear *yes*
Smallest distance between boilers or uptakes and bunkers or woodwork *5'* Mean dia. of boilers *13-7"* Length *10-0"* Material of shell plates *Steel*
Thickness *1"* Range of tensile strength *28/32* Are they welded or flanged *neither* Descrip. of riveting: cir. seam *Double Lap* long. seam *Double R. Butt*
Diameter of rivet holes in long. seams *1 1/8"* Pitch of rivets *7/2"* Lap of plates or width of butt straps *17" x 29/32"*
Per centages of strength of longitudinal joint rivets *98.3* Working pressure of shell by rules *160 lb* Size of manhole in shell *16" x 12"* plate *85.0*
Size of compensating ring *28 x 24 x 1 1/8"* No. and Description of Furnaces in each boiler *3. Plain* Material *Steel* Outside diameter *43 7/16"*
Length of plain part top *6-3"* bottom *8-9"* Thickness of plates crown *23/32* bottom *1/32* Description of longitudinal joint *Welded* No. of strengthening rings *none*
Working pressure of furnace by the rules *163 lb* Combustion chamber plates: Material *Steel* Thickness: Sides *9/16"* Back *9/16"* Top *9/16"* Bottom *1/32"*
Pitch of stays to ditto: Sides *8 1/8"* Back *8 1/4"* Top *8 1/8" x 7 3/8"* If stays are fitted with nuts or riveted heads *nuts inside* Working pressure by rules *160 lb*
Material of stays *Steel* Diameter at smallest part *1.41"* Area supported by each stay *68 0"* Working pressure by rules *165* End plates in steam space: *area* Diameter at smallest part *5.26* Area supported by each stay *320 0"* Working pressure by rules *164* Material of Front plates at bottom *Steel*
Thickness *7/8"* Material of Lower back plate *Steel* Thickness *13/16"* Greatest pitch of stays *14"* Working pressure of plate by rules *170*
Diameter of tubes *3 1/2"* Pitch of tubes *4 3/4"* Material of tube plates *Steel* Thickness: Front *15/16"* Back *23/32"* Mean pitch of stays *9 1/2"*
Pitch across wide water spaces *14 1/4"* Working pressures by rules *166 lb* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *7" x 2"* Length as per rule *29 1/2"* Distance apart *8 15/16"* Number and pitch of Stays in each *three, 7 3/8"*
Working pressure by rules *180 lb* Superheater or Steam chest; how connected to boiler *None* 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 easing gear

If not stated otherwise, when one of the hull of the ship? Is it safe?



