

REPORT ON MACHINERY.

Port of Glasgow

Received at London Office

1100 21 SEP 1905

No. in Survey held at Glasgow
Reg. Book.

Date, first Survey 6th Dec^r 04 Last Survey 7th Sep. 1905.

on the S.S. "GUARDSMAN."

(Number of Visits)

Tons }
Gross }
Net }

Master _____ Built at Ayr By whom built _____

When built 1905

Engines made at Glasgow By whom made J. Ritchie when made 1905.

Boilers made at Glasgow By whom made Barclay Curle & Co. when made 1905.

Registered Horse Power _____ Owners _____ Port belonging to Hull

Nom. Horse Power as per Section 28 59 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted No.

ENGINES, &c. — Description of Engines Compound - Screw No. of Cylinders 2 No. of Cranks 2

Dia. of Cylinders 15" & 32" Length of Stroke 24" Revs. per minute 130 Dia. of Screw shaft as per rule 7.22" Material of screw shaft steel
as fitted 7.5"

Is the screw shaft fitted with a continuous liner the whole length of the stern tube no. Is the after end of the liner made water tight

in the propeller boss yes If the liner is in more than one length are the joints burned ✓ If the liner does not fit tightly at the part

between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive ✓ If two

liners are fitted, is the shaft lapped or protected between the liners no. Length of stern bush 2.6"

Dia. of Tunnel shaft as per rule 6.43" Dia. of Crank shaft journals as per rule 6.75" Dia. of Crank pin 7" Size of Crank webs 5th Dia. of thrust shaft under

collars 7" Dia. of screw 7.9" Pitch of screw 9.6 No. of blades 4 State whether moveable no Total surface 25 sq. ft.

No. of Feed pumps 1 Diameter of ditto 3" Stroke 18" Can one be overhauled while the other is at work ✓

No. of Bilge pumps 1 Diameter of ditto 3" Stroke 18" Can one be overhauled while the other is at work ✓

No. of Donkey Engines One Sizes of Pumps 6" x 4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Two 2" dia. 5' In Holds, &c. One 2" dia. in forward &

after compartments.

No. of bilge injections 1 sizes 2 1/2" Connected to condenser, or to circulating pump pumps a separate donkey suction fitted in Engine room & size yes 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 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 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 main steam &c. How are they protected iron tube.

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 ✓

Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c. — (Letter for record (S)) Total Heating Surface of Boilers 1136 sq. ft. Is forced draft fitted no

No. and Description of Boilers One single ended. Working Pressure 130 lbs Tested by hydraulic pressure to 260 lbs.

Date of test 7.4.05 Can each boiler be worked separately ✓ Area of fire grate in each boiler 34.8 sq. ft. No. and Description of safety valves to

each boiler 2 Saknt Spring Area of each valve 9.6" Pressure to which they are adjusted 135 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 24" Mean dia. of boilers 11.0" Length 10.0" Material of shell plates steel

Thickness 3/4" Range of tensile strength 28 1/2 - 32 Are they welded or flanged no Descrip. of riveting: cir. seams double long. seams double

Diameter of rivet holes in long. seams 15/16" Pitch of rivets 4 7/8" Lap of plates width of butt straps 10 1/4"

Per centages of strength of longitudinal joint rivets 84 Working pressure of shell by rules 135 lbs Size of manhole in shell 16" x 12"

Size of compensating ring 28 1/2" x 2 1/2" x 7/8" No. and Description of Furnaces in each boiler 2 plain Material steel Outside diameter 39 1/2"

Length of plain part top 7 1/2" Thickness of plates crown 2 3/32" Description of longitudinal joint welded No. of strengthening rings none

bottom 10 1/4" bottom 3 1/2" Working pressure of furnace by the rules 134 lbs Combustion chamber plates: Material steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 2 3/32"

Pitch of stays to ditto: Sides 9" x 8" Back 7 3/4" x 8" Top 9" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 150 lbs

Material of stays steel Diameter at smallest part 1.19" Area supported by each stay 72" Working pressure by rules 132 lbs End plates in steam space:

Material steel Thickness 7/8" Pitch of stays 15 1/2" How are stays secured nuts Working pressure by rules 143 lbs Material of stays steel

Area at smallest part 3.76 Area supported by each stay 240" Working pressure by rules 114 lbs Material of Front plates at bottom steel

Thickness 1/16" Material of Lower back plate steel Thickness 5/8" Greatest pitch of stays 14" Working pressure of plate by rules 170 lbs

Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" Material of tube plates steel Thickness: Front 1/16" + 1/32" doubling Back 1/16" Mean pitch of stays 11"

Pitch across wide water spaces 14 1/4" Working pressures by rules 140 lbs Girders to Chamber tops: Material steel Depth and

thickness of girder at centre 2-6 1/2" x 1/16" Length as per rule 26 1/4" Distance apart 8" Number and pitch of Stays in each 2-9"

Working pressure by rules 150 lbs 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 ✓



