

REPORT ON MACHINERY.

Port of Glasgow

Received at London Office 18 **100** 30 **OCT** 1900

No. in Survey held at Penrhu Date, first Survey 12 January Last Survey 22 October 1900.
 Reg. Book. on the Hopper Barge "Crown" (Number of Visits 34) Tons { Gross 491.19 Net 267.55
 Master Built at Penrhu By whom built Tom Simons & Co When built 1900
 Engines made at Penrhu By whom made Tom Simons & Co when made 1900
 Boilers made at Glasgow By whom made R Napier & Sons when made 1900
 Registered Horse Power _____ Owners Bristol Corporation Port belonging to Bristol
 Nom. Horse Power as per Section 28 90 Is Refrigerating Machinery fitted no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Twin triple Expansion No. of Cylinders six No. of Cranks six
 Dia. of Cylinders 11. 17. 25 Length of Stroke 21 Revs. per minute 150 Dia. of Screw shaft as per rule 5 1/2 Lgth. of stern bush 25"
 Dia. of Tunnel shaft as per rule none Dia. of Crank shaft journals as per rule 8 3/4 Dia. of Crank pin 8 3/4 Size of Crank webs 4 1/2 x 11 1/2 Dia. of thrust shaft under collars 5 1/2 Dia. of screw 6-6" Pitch of screw 9-6" No. of blades 4 State whether moveable no Total surface 24 sq ft each
 No. of Feed pumps 10 each Diameter of ditto 2 1/4" Stroke 12" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 10 each Diameter of ditto 2 1/4" Stroke 12" Can one be overhauled while the other is at work yes
 No. of Donkey Engines 10 Sizes of Pumps 5 x 6 x 8 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room three 2 1/2" In Holds, &c. five 2 1/2"
 No. of bilge injections two sizes 3" Connected to condenser, or to circulating pump pump Is a separate donkey suction fitted in Engine room & size yes 3"
 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 ford bilge suction and steam pipes for ford cranks How are they protected with wood casings
 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 bilge yes
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock before launch Is the screw shaft tunnel watertight none
 Is it fitted with a watertight door worked from _____

BOILERS, &c.— (Letter for record B) Total Heating Surface of Boilers 1636 sq ft Is forced draft fitted no
 No. and Description of Boilers one single ended return tube Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs
 Date of test 19/6/00 Can each boiler be worked separately Area of fire grate in each boiler 84.6 sq ft No. and Description of safety valves to each boiler pair direct opening Area of each valve 7.07 sq in Pressure to which they are adjusted 165 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork about 5-6" Mean dia. of boilers 13-0 Length 10-6 Material of shell plates steel
 Thickness 1/8" Range of tensile strength 27-32 Are they welded or flanged no Descrip. of riveting: cir. seams double lap long. seams triple butt
 Diameter of rivet holes in long. seams 1 3/16 Pitch of rivets 8 1/4" Lap of plates or width of butt straps 17 1/2"
 Per centages of strength of longitudinal joint: rivets 89.0 plate 85.6 Working pressure of shell by rules 154 lbs Size of manhole in shell 16 x 12
 Size of compensating ring 7 in 7 in No. and Description of Furnaces in each boiler 3 Morrison's Material steel Outside diameter 42 1/2"
 Length of plain part top 0 bottom 0 Thickness of plates top 10 bottom 8 1/2 Description of longitudinal joint welded No. of strengthening rings _____
 Working pressure of furnace by the rules 163 lbs Combustion chamber plates: Material steel Thickness: Sides 9/16 Back 9/16 Top 9/16 Bottom 3/4"
 Pitch of stays to ditto: Sides 8 1/4 x 8" Back 8 1/4 x 8" Top 8 x 7 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 166.182
 Material of stays steel at smallest part 1.45" Area supported by each stay 66 sq in Working pressure by rules 176 lbs End plates in steam space: Material steel Thickness 1" Pitch of stays 10 1/2 x 14 1/2" How are stays secured 2 nuts to Working pressure by rules 167 lbs Material of stays steel
 Diameter at smallest part 4.1" Area supported by each stay 228 1/2 sq in Working pressure by rules 220 lbs Material of Front plates at bottom steel
 Thickness 3/4" Material of Lower back plate steel Thickness 3/4" Greatest pitch of stays 13 1/2" Working pressure of plate by rules 250 lbs
 Diameter of tubes 3 1/2" Pitch of tubes 4 1/2 x 4 1/2" Material of tube plates steel Thickness: Front 13/16 Back 13/16 Mean pitch of stays 10 1/2"
 Pitch across wide water spaces 4 1/2 Working pressures by rules 237 & 225 lbs Girders to Chamber tops: Material steel Depth and thickness of girder at centre 9 x 10 Length as per rule 34 3/8 Distance apart 7 1/2 Number and pitch of Stays in each three 8"
 Working pressure by rules 160 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 easing gear _____



