

REPORT ON MACHINERY.

No. 3377 Continued.

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No. in Survey held at Belfast Date, first Survey _____ Last Survey _____
 Reg. Book. _____ (Number of Visits _____)
 Quin sup on the Auxiliary Boiler of S.S. "Minnesota" Tons _____
 Master _____ Built at Belfast By whom built Victor Coates & Co When built 1887
 Engines made at _____ By whom made _____ when made _____
 Boilers made at _____ By whom made _____ when made _____
 Registered Horse Power _____ Owners _____ Port belonging to _____

ENGINES, &c.—

Description of Engines All the material for this Boiler was supplied & partly worked by
 Diameter of Cylinders _____ Length of Stroke 11.5 No. of Rev. per minute 44 Point of Cut off, High Pressure _____ Low Pressure _____
 Diameter of Screw shaft _____ Diam. of Tunnel shaft _____ Diam. of Crank shaft journals _____ Diam. of Crank pin _____ size of Crank webs _____
 Diameter of screw _____ Pitch of screw _____ No. of blades _____ state whether moveable _____ total surface _____
 No. of Feed pumps _____ diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____
 No. of Bilge pumps _____ diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____
 Where do they pump from _____
 No. of Donkey Engines _____ Size of Pumps _____ Where do they pump from _____
 Are all the bilge suction pipes fitted with roses _____ Are the roses always accessible _____ Are the sluices on Engine room bulkheads always accessible _____
 No. of bilge injections _____ and sizes _____ Are they connected to condenser, or to circulating pump _____
 How are the pumps worked _____
 Are all connections with the sea direct on the skin of the ship _____ Are they Valves or Cocks _____
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates _____ Are the discharge pipes above or below the deep water line _____
 Are they each fitted with a discharge valve always accessible on the plating of the vessel _____ Are the blow off cocks fitted with a spigot and brass covering plate _____
 What pipes are carried through the bunkers _____ How are they protected _____
 Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times _____
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges _____
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock _____
 Is the screw shaft tunnel watertight _____ and fitted with a sluice door _____ worked from _____

BOILERS, &c.—

Number of Boilers One Description Cyl. Multitubular Whether Steel or Iron Steel
 Working Pressure 60 lbs. Tested by hydraulic pressure to 120 lbs. Date of test 9th Sept. 1887
 Description of superheating apparatus or steam chest None fitted
 Can each boiler be worked separately Can the superheater be shut off and the boiler worked separately
 No. of square feet of fire grate surface in each boiler 233 1/4 Description of safety valves Cockburns Spring to each boiler Two
 Area of each valve 4.07 Are they fitted with easing gear yes No. of safety valves to superheater area of each valve
 Are they fitted with easing gear Smallest distance between boilers and bunkers or woodwork Diameter of boilers 8'-6"
 Length of boilers 9'-0" description of riveting of shell long. seams Lap & Riv. circum. seams Lap with Riv. Thickness of shell plates 5/8"
 Diameter of rivet holes 3/8" whether punched or drilled drilled pitch of rivets 3.02" Lap of plating 4 1/4"
 Per centage of strength of longitudinal joint 68 working pressure of shell by rules 71.6 lbs size of manholes in shell 12 x 15"
 Size of compensating rings Rect. plate 24" x 27" x 3/8" Steel No. of Furnaces in each boiler Two
 Outside diameter 30 3/8" length, top 5'-9" bottom 8'-0" thickness of plates 7/16" description of joint butt strap S.P.S.F. rings are fitted no
 Greatest length between rings working pressure of furnace by the rules 69.4 lbs combustion chamber plating, thickness, sides 7/16" back 7/16" top 7/16"
 Pitch of stays to ditto, sides 9 1/4" x 9 1/4" back 9 1/4" x 8 1/2" top 9 1/4" x 9 1/4" stays are fitted with nuts or riveted heads nutted working pressure of plating by rules 63 Diameter of stays at smallest part 1.23" working pressure of ditto by rules 89 lbs end plates in steam space, thickness 5/8"
 Pitch of stays to ditto 16 1/2" x 16 1/2" how stays are secured butt nuts & washers riv to plate working pressure by rules 70 lbs with 190 C diameter of stays at smallest part 2 1/4" Iron working pressure by rules 89 lbs Front plates at bottom, thickness 7/16" Back plates, thickness 5/8"
 Greatest pitch of stays 9 1/4" working pressure by rules 141 lbs Diameter of tubes 3 1/4" 9 S.W.C. pitch of tubes 4 1/2" thickness of tube plates, front 5/8" back 5/8" how stayed stay tub pitch of stays 15 x 9" width of water spaces 1 1/2" between tubes 1 1/2" between plates 4 1/2" at boxes.
 Diameter of Superheater or Steam chest length thickness of plates description of longitudinal joint diam. of rivet holes _____
 Pitch of rivets working pressure of shell by rules diameter of flue thickness of plates If stiffened with rings
 Distance between rings working pressure by rules end plates of superheater, or steam chest; thickness how stayed _____
 Superheater or steam chest; how connected to boiler _____

Abland & Co. Manufacturers James Elliston's Register
 Surveyor
 BELSH 0154 Foundation

