

REPORT ON MACHINERY. 3423

No. 3423 Port of Belfast Received at London Office 17 MAY. 88
 No. in Survey held at Belfast Date, first Survey 20th July 1886 Last Survey 12th May 1888
 Reg. Book. Belfast (Number of Visits 85) Net 2102
14 Tons Gross 3223
 Master C. Hoaseason Built at Belfast By whom built Harland & Wolff When built 1887-8
 Engines made at Belfast By whom made Harland & Wolff when made 1887-8
 Boilers made at Belfast By whom made Harland & Wolff when made 1887-8
 Registered Horse Power 320 Owners City of Liverpool S.N.C. Port belonging to Liverpool

ENGINES, &c.—

Description of Engines Triple Expansion 3 cyls + 3 cranks
 Diameter of Cylinders 24 1/2, 37, 64 Length of Stroke 48 No. of Rev. per minute 65 Point of Cut off, High Pressure 35% Low Pressure 27%
 Diameter of Screw shaft 13 1/2 Diam. of Tunnel shaft 12 1/4 Diam. of Crank shaft journals 13 1/4 Diam. of Crank pin 13 1/4 size of Crank webs 18 1/2 x 10
 Diameter of screw 16-9 Pitch of screw 16-3 to 19-0 No. of blades four state whether moveable yes total surface 71.2 Sq. ft.
 No. of Feed pumps Two diameter of ditto 3 1/2 Stroke 28 Can one be overhauled while the other is at work yes
 No. of Bilge pumps Two diameter of ditto 4 Stroke 28 Can one be overhauled while the other is at work yes
 Where do they pump from Feed from hotwell + Bilge from all bilges in holds + Machinery spaces
 No. of Donkey Engines Three Size of Pump Small 3 1/2 inch piston 1 cyl. 6 x 5 - 1/2 - 1/2 Where do they pump from Sea ballast tanks, hotwell all bilges, distiller, boilers & exhaust tank.
 Are all the bilge suction pipes fitted with roses yes Are the roses always accessible yes Are the sluices on Engine room bulkheads always accessible yes
 No. of bilge injections One and sizes 5" Are they connected to condenser, or to circulating pump Circulating suction pipe.
 How are the pumps worked by levers & links from the two after engines
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Cocks & valves
 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 deck discharge How are they protected boxed in with wood.
 Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times yes
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges yes
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock 3rd November 1887 before launching.
 Is the screw shaft tunnel watertight yes and fitted with a sluice door yes worked from upper deck

OILERS, &c.—

Number of Boilers Two Description circ. double ended, multitubular Whether Steel or Iron Steel
 Working Pressure 155 lbs. Tested by hydraulic pressure to 320 lbs. Date of test 19th March 1888.
 Description of superheating apparatus or steam chest None fitted.
 Can each boiler be worked separately yes Can the superheater be shut off and the boiler worked separately yes
 Total area of square feet of fire grate surface in each boiler 74.25 Description of safety valves Cockburn's Sp. 7 No. to each boiler Two
 Area of each valve 9.62 Are they fitted with easing gear yes No. of safety valves to superheater and are screen fitted on bunker walls area of each valve yes
 Are they fitted with easing gear yes Smallest distance between boilers and bunkers or woodwork 12 1/2 Diameter of boilers 11-9"
 Length of boilers 17-0" description of riveting of shell long. seams Double & triple circum. seams Double & triple Thickness of shell plates 1 1/16"
 Diameter of rivet holes 1 1/8" whether punched or drilled drilled pitch of rivets 6 3/4" Lap of plating 18 1/2 x 1 1/2" B. traps
 Percentage of strength of longitudinal joint 83 % working pressure of shell by rules 163 lbs size of manholes in shell 15 x 12"
 Size of compensating rings Rect. plate steel 27 x 24 1/2 x 1" No. of Furnaces in each boiler four
 Outside diameter 3-7" length, top 6-11" bottom 6-11" thickness of plates 9/16" description of joint Barrow's Patent if rings are fitted yes
 Greatest length between rings yes working pressure of furnace by the rules 163 lbs combustion chamber plating, thickness, sides 9/16" bottom 5/8" top 9/16"
 Pitch of stays to ditto, sides 7 1/2 x 7 1/4" back 7 1/4 x 7 1/4" If stays are fitted with nuts or riveted heads Nutted working pressure of plating by rules 162
 Diameter of stays at smallest part 1 1/4" working pressure of ditto by rules 176 lbs and plates in steam space, thickness 7/8"
 Pitch of stays to ditto 16 x 14" how stays are secured double nuts & washers riveted to plate. working pressure by rules 184 lbs with 240 lb diameter of stays at smallest part 2 3/4" Iron working pressure by rules 160 lbs Front plates at bottom, thickness 1 1/16" Back plates, thickness yes
 Greatest pitch of stays yes working pressure by rules yes Diameter of tubes 3 1/4" S.W.C. pitch of tubes 4 7/16 x 4 1/2" thickness of tube 6" bit boxes & shell
 Plates, front 7/8" back 25" how stayed Stay tubes & pitch of stays width of water spaces 1 1/2" bit tube nests
 Diameter of Superheater or Steam chest yes length 32" thickness of plates yes description of longitudinal joint yes diam. of rivet holes 1 1/2"
 Pitch of rivets yes working pressure of shell by rules yes diameter of flue yes thickness of plates yes If stiffened with rings yes
 Distance between rings yes working pressure by rules yes end plates of superheater, or steam chest; thickness yes how stayed yes
 Superheater or steam chest; how connected to boiler yes



