

# REPORT ON MACHINERY.

No. 2636 Port of Newcastle Received at London Office 26 Sept 1891  
 No. in Survey held at Newcastle Date, first Survey 14 Jan 1891 Last Survey 17 Sept 1891  
 reg. Book. Newcastle (Number of Visits 25)  
 on the S.S. Silvio Spaventa Tons Gross 2578 Net 1650  
 Master J. Felugo Built at Newcastle By whom built Palmer & Co When built 1891  
 Engines made at Newcastle By whom made Palmer & Co when made 1891  
 Boilers made at Newcastle By whom made do when made 1891  
 Registered Horse Power 400 Owners Imperial British Royal Mail Steam Navigation Co Port belonging to London

**ENGINES, &c.—**  
 Description of Engines Triple expansion No. of Cylinders 3  
 Diam. of Cylinders 28-45-74 Length of Stroke 48 Rev. per minute 70 Point of Cut off, High Pressure .77 Low Pressure .66  
 Diameter of Screw shaft 13 1/2 Diam. of Tunnel shaft 13 1/2 Diam. of Crank shaft journals 14 Diam. of Crank pin 14 size of Crank webs 18 1/2 x 9 1/4  
 Diameter of screw 16-9 Pitch of screw 19-9 No. of blades 4 state whether moveable Y total surface 75 sq  
 No. of Feed pumps 2 diameter of ditto 4 Stroke 27 Can one be overhauled while the other is at work Y  
 No. of Bilge pumps 2 diameter of ditto 4 1/2 Stroke 27 Can one be overhauled while the other is at work Y  
 Where do they pump from From holds with suction belts  
 No. of Donkey Engines 2 Size of Pumps 11x11x12 and 7 1/2 x 4 1/2 x 10 Where do they pump from Ballast from all holds  
Tanks & separate suction: feed from all holds that will: hand pumps from hold sea  
 Are all the bilge suction pipes fitted with roses Y Are the roses always accessible Y Are the sluices on Engine room bulkheads always accessible Y  
 No. of bilge injections 1 and sizes 6 1/2 Are they connected to condenser or to circulating pump Y  
 How are the pumps worked by levers over condenser from after engine  
 Are all connections with the sea direct on the skin of the ship Y Are they Valves or Cocks both  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Y Are the discharge pipes above or below the deep water line Y  
 Are they each fitted with a discharge valve always accessible on the plating of the vessel Y Are the blow off cocks fitted with a spigot and brass covering plate Y  
 What pipes are carried through the bunkers none How are they protected Y  
 Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times Y  
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges Y  
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock new vessel  
 Is the screw shaft tunnel watertight Y and fitted with a sluice door Y worked from top platform

**BOILERS, &c.—**  
 No. of Boilers four Description 2 of these boilers fitted 18/25 on "RONALD" Galo. 3240a Material steel Letter (for record) S  
 Working Pressure 160lb Tested by hydraulic pressure to 320lb Date of test July 13th 1891 No 3641  
 Description of superheating apparatus or steam chest none  
 Can each boiler be worked separately Y Can the superheater be shut off and the boiler worked separately Y  
 No. of square feet of fire grate surface in each boiler 62.5 sq Description of safety valves spring No. to each boiler two  
 Area of each valve 7.070 Are they fitted with easing gear Y No. of safety valves to superheater Y area of each valve Y  
 Are they fitted with easing gear Y Smallest distance between boilers and bunkers or woodwork two feet Diameter of boilers 15.0  
 Length of boilers 10.6 description of riveting of shell long. seams d & b & c circum. seams d & d lap Thickness of shell plates 19/16  
 Diameter of rivet holes 19/16 whether punched or drilled d pitch of rivets 8 1/2 Lap of plating 19 x 1 1/2  
 Percentage of strength of longitudinal joint 84.5 working pressure of shell by rules 160 size of manholes in shell 12 x 16  
 Size of compensating rings Y No. of Furnaces in each boiler three Description of Furnaces Fire flues  
 Outside diameter 3.10 length Y thickness of plates 19/32 description of joint Y if rings are fitted Y  
 Greatest length between rings Y working pressure of furnace by the rules 160 combustion chamber plating, thickness, sides 9/16 back 9/16 top 9/16  
 Pitch of stays to ditto, sides 7/4 back 7/4 top 2 1/4 If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 160 Diameter of stays at smallest part 1 1/4 working pressure of ditto by rules 165 end plates in steam space, thickness 19/16  
 Pitch of stays to ditto as per plan how stays are secured d & u riv working pressure by rules 160 diameter of stays at smallest part 2.5/8 working pressure by rules 160 Front plates at bottom, thickness 3/4 Back plates, thickness 19/16  
 Greatest pitch of stays 1/2 working pressure by rules 160 Diameter of tubes 3 1/2 pitch of tubes 4 3/4 thickness of tube plates, front 7/8 back 13/16 how stayed tubes pitch of stays as per plan width of water spaces 6  
 Diameter of Superheater or Steam chest Y length Y thickness of plates Y description of longitudinal joint Y diam. of rivet holes Y  
 Pitch of rivets Y working pressure of shell by rules Y diameter of flue Y thickness of plates Y If stiffened with rings Y  
 Distance between rings Y working pressure by rules Y end plates of superheater, or steam chest; thickness Y how stayed Y  
 Superheater or steam chest; how connected to boiler Y

BOILER— Description *Cyl. Simple ended*

*Stockton* by whom made *Ludlow No* when made *14.6.91* where fixed *on deck*

Working pressure *90* tested by hydraulic pressure to *180* No. of Certificate *277* fire grate area *27.50* description of safety valves *sprung* No. of safety valves *two* area of each *5.94* if fitted with easing gear *is* if steam from main boilers can enter the donkey boiler *no* diameter of donkey boiler *9.0* length *9.0* description of riveting *d & s*. Thickness of shell plates *9/16* diameter of rivet holes *13/16* whether punched or drilled *p* pitch of rivets *3 1/2* lap of plating *4* per centage of strength of joint *76.7* thickness of crown plates *3/32* stayed by *1 1/8 stays 13" pitch* Diameter of furnace, top *2.10* bottom *✓* length of furnace *6.0* thickness of plates *15/32* description of joint *dots* Thickness of furnace crown plates *7/16* stayed by *1 1/8 stays 7 1/2" pitch* working pressure of shell by rules *92* Working pressure of furnace by rules *102* diameter of uptake *3* thickness of plates *9/16* thickness of water tubes *✓*

SPARE GEAR. State the articles supplied:— *Crank shaft, piston rod, 3 cyl cones, pair top & pair bottom end brasses, eccentric strap & sheave, screw shaft, 2 blades, lathe, air pump rod, air do, lead top end, bottom end main bearing bolts, 12 coupling bolts, feed pump ram + 1 rod for same, piston springs, fuel & oil pump valves, &c &c*  
The foregoing is a correct description, *and ordinary engine room outfit*  
*Palmer's Shipbuilding & Iron Co. Ltd.* Manufacturers.

General Remarks (State quality of workmanship, opinions as to class, &c.) *The machinery of this vessel has been constructed under special survey the materials and workmanship are sound and good and eligible in my opinion to be classed + L.M.C. 9.91 in the Society Register Book.*

*The vessel is fitted with the electric light by Messrs Holmes & Co of Newcastle and the report will be forwarded on completion.*

Heating surface *8800*  
H.P. *449*

Machinery Certificate Written

Certificate (if required) to be sent to  
The amount of Entry Fee .. £ 3 : : received by me,  
Special .. .. £ 42 : 9 :  
Donkey Boiler Fee .. .. £ : : :  
*12.11.1891*

*John Swallow*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

Committee's Minute *TUES. 29 SEP 1891*  
*+ L.M.C. 9.91*

