

Title (en)
COMBUSTION REGULATOR

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Application
EP 81103517 A 19810508

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• DE 3048745 A 19801223

Abstract (en)
[origin: US4375273A] The invention is with respect to a fail-safe system for stopping damage to water boilers, whose thermostats are not in working order. In an automatic combustion control system of the sort having an elastic thermostat bellows element placed within an outer shell within the water space of a boiler and joined by a chain or the like with the air door for controlling the air inlet rate at some point in the connection between the thermostat element and the door, there is a temperature-sensitive part, for example in the form of a plug of fusible metal or collapsing material, or in the form of a soldered join using a special fusible solder. In one form of the invention, this temperature-sensitive part may take the form of a ring of temperature-sensitive material placed at one end of a spring which is forced together on the temperature increasing. On damage to the thermostat element, the one end of the spring will no longer be supported so that the spring will no longer take effect and so let the air door be moved down under its own weight into the shut position. In a further form of the invention, a body of temperature-sensitive material is placed between a rod, acting on one end of the thermostat element and a turning head which is used for making adjustment in the desired temperature. In a further form of the invention, the temperature-sensitive part takes the form of a plug of temperature-sensitive material between the end of a gripping screw in a jointpiece and a turning rod acted upon by said screw. In a still further form of the invention, the temperature-sensitive part takes the form of a bimetallic wing, which is unhooked from a jointpiece on being heated to a limit temperature. As part of a still further form of the invention, a guide roller for a chain joining the thermostat with the air door is fixed to the side of the boiler by way of fusible solder, this taking the form of the temperature-sensitive part.

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Cited by
EP0079024A1; US6497200B2; WO8701916A3; US6957628B2; US6964248B2; US6893253B2; US6776125B2; US6814031B2; US6715451B2

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