

Title (en)

A method for regulating the combustion process in solid fuel central heating boilers

Title (de)

Verfahren zur Regulierung des Verbrennungsprozesses in Festbrennstoffzentralheizkesseln

Title (fr)

Procédé de régulation du procédé de combustion dans des chaudières de chauffage central à combustion solide

Publication

**EP 2385321 A2 20111109 (EN)**

Application

**EP 11162931 A 20110419**

Priority

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- PL 39211810 A 20100812

Abstract (en)

The method for regulating the combustion processes in solid fuel central heating boilers, whereby the energy parameters of the combustion are set at the level relevant for the type of solid fuel and the type of boiler and the combustion process is regulated by changing the amount of solid fuel and air introduced on the basis of temperature measurements, consists in that the temperature  $t_{mg}$  of the heating medium is measured as well as temperature  $t_{sp}$  of the combustion product in at least one place in the bottom layer of the solid fuel aftercombustion zone or additionally temperature  $t_p$  of the combustion product in the ash zone is measured and then the temperature  $t_{mg}$  of the heating medium is compared with the preset temperature, and that the amount of primary air  $p_p$  introduced into the process is measured or additionally also the amount of secondary air  $p_w$  and then the amount of primary air  $p_p$  or the total amount of primary  $p_p$  and secondary air  $p_w$  is compared with the preset amount and subsequently, based on the algorithm appropriate for the given boiler, it is converted into an impulse for adjusting the settings of solid fuel and/or air inflow, whereby the algorithm takes into account a relevant deviation of the primary air  $\#p_p$  or primary and secondary air  $\#p_w$  and the known deviation of temperature  $\#t_{mg}$  of the heating medium and temperature  $t_{sp}$  of the combustion product or additionally also the corresponding in time temperature  $t_p$  of the combustion product in the ash zone.

IPC 8 full level

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Citation (applicant)

PL 175985 B1 19990331 - MARTIN UMWELT & ENERGIETECH [DE]

Cited by

CN103629821A; CN103486735A; CN103528179A; CN103486733A; CN103486734A; CN117029012A

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