

Title (en)
THE AERATION MECHANISM OF THE COMBUSTION CHAMBER IN A PELLET BURNER

Title (de)
BELÜFTUNGSMECHANISMUS EINER BRENNKAMMER IN EINEM PELLETBRENNER

Title (fr)
MÉCANISME D'AÉRATION DE LA CHAMBRE DE COMBUSTION DE BRÛLEUR DE PASTILLES

Publication
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Application
EP 15460041 A 20150813

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PL 40918614 A 20140814

Abstract (en)
An aeration mechanism of a combustion chamber in a pellet burner concerns a burner comprising a steel body (1) with an inlet hole (2) for pellets and a rotary combustion chamber (3), surrounded by a cylindrical, fixed cover (4) permanently connected with the body , in addition, a space between the combustion chamber and the cover is a ring-shaped duct (conduit) (5) supplying air to the combustion chamber throughout the inlet holes (6) and/or inflating nozzles placed on its circumference. In a solution according to the invention the rotary combustion chamber has several longitudinal diaphragms (7) arranged in a form of shutters swingably mounted on the outer surface of the combustion chamber and obscuring the inlet holes of air, working together with a fixed control ring (8) situated perpendicularly to the longitudinal axis of the chamber around its rear part, in addition, an inner surface (9) of the control ring has a shape of arcs of two radius (R, r) connected with each other by short, straight segments and functions as a cam pressing the diaphragms to the combustion chamber surface or releasing them in accordance with a sequence of the preset phases. The combustion chamber has a form of a prism or a truncated pyramid a base of which is a regular polygon. The diaphragms are arranged in twos on either side wall (10) of the combustion chamber .

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Citation (applicant)
• PL 400056 A1 20140203 - KARLYK ROMUALD [PL]
• PL 66962 Y1 20140131 - PANCERPOL GALEWSKI [PL]
• EP 1359372 B1 20080326 - TERMOCABI S R L [IT]

Citation (search report)
• [Y] WO 2008141594 A2 20081127 - PETRO JAN [CZ]
• [Y] US 3822651 A 19740709 - HARRIS D, et al
• [A] US 3380407 A 19680430 - FREDRIK NILSSON NILS
• [A] EP 2762819 A1 20140806 - KEIML OTTO [AT]

Cited by
EP3376105A1

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