

Title (en)

Process for the production of form coke in a shaft furnace, and shaft furnace for carrying out the process.

Title (de)

Verfahren zur Herstellung von Formkoks in einem Schachtofen und Schachtofen zur Durchführung des Verfahrens.

Title (fr)

Procédé de fabrication de coke moulé dans un four à cuve et four à cuve correspondant.

Publication

EP 0098771 A1 19840118 (FR)

Application

EP 83401306 A 19830623

Priority

FR 8211540 A 19820623

Abstract (en)

1. Process for producing moulded coke in a shaft oven with a vertical axis (1), which is supplied in its upper part (3) with a burden of coal for coking in the form of ovoids, forming a movable bed descending in the shaft (1) in counter flow to gas circulating from the bottom upwards and passing successively from the top downwards through a preheating zone, a coking zone and a cooling zone, the rising stream of gas being formed by the gases released by the coal during its heating and coking and by some of the gases recovered in the upper part of the oven and recycled in the lower part after washing and dust extraction, heat being supplied by circulation of electrical current through the bed of solid materials between electrodes (8) located on two opposite sides of the wall (2) of the oven (1), characterized in that the electrical heating is carried out in a controlled way over a specific height in the middle part (C) of the oven (1), electric currents, the intensities of which can be regulated, being passed through the burden in several staggered horizontal planes, and in that, by adjustment of the circulation of the gases and of the electrical power distributed to the various levels of electrodes according to the heat requirements and the electrical resistance of the burden, a progressive and uniform heating of the latter is controlled during its descent in the oven according to a law of heating selected as a function of the type of coal, to preserve the shape of the ovoids, in such a way that the temperature of the bed of solid material is between 600 degrees C and 850 degrees C at the entrance of the middle zone (C) of electrical heating and that coking is carried out completely in this zone (C) at a temperature remaining between 950 degrees C and 1150 degrees C, the coke ovoids subsequently being cooled in the lower part of the oven (1).

Abstract (fr)

L'invention a pour objet un procédé de fabrication de coke moulé dans un four à cuve à axe vertical (1) alimenté à sa partie supérieure (3) par une charge de charbon à cokéfier sous forme de boulets, formant un lit mobile descendant dans la cuve (1) à contre-courant de gaz remontant de bas en haut, un apport de chaleur étant effectué par passage de courants électrique dans le lit de matière solide. Selon l'invention, on réalise le chauffage électrique de façon contrôlée sur une hauteur déterminée dans la zone médiane (C) du four (1) en faisant passer dans plusieurs plans horizontaux échelonnées de la charge des courants électriques dont on peut régler individuellement les intensités et que, par réglage des échanges thermiques entre la charge solide et les gaz et de l'apport de chaleur dans la zone (C) de chauffage électrique, on contrôle l'échauffement de la charge suivant une loi de chauffe choisie en fonction de la nature du charbon, de telle sorte que la température du lit de matière solide soit comprise entre 600° et 850°C à l'entrée de la zone (C) de chauffage électrique et atteigne dans cette zone (C) une valeur restant comprise entre 950° et 1,150°C. L'invention couvre également le four à cuve perfectionné pour la mise en oeuvre du procédé.

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C10B 53/08; **C10B 19/00**

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CPC (source: EP)

C10B 19/00 (2013.01); **C10B 53/08** (2013.01)

Citation (search report)

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