

Title (en)
METHOD AND APPARATUS FOR GASIFYING SOLID FUEL

Title (de)
VERFAHREN UND VORRICHTUNG ZUR VERGASUNG VON FESTSTOFFBRENNSTOFF

Title (fr)
PROCÉDÉ ET APPAREIL POUR GAZÉIFIER UN COMBUSTIBLE SOLIDE

Publication
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Application
EP 11795245 A 20110617

Priority
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• FI 2011050581 W 20110617

Abstract (en)
[origin: WO2011157903A1] In the method the gasification of solid fuel, such as wood chips, occurs with a co-current gasifier, which has a fuel silo (14), a combustion chamber (32) and a liquid channel (19) for circulating cooling liquid. The fuel is dispensed into the fuel silo, from where it flows into the combustion chamber, where combustion of the fuel occurs. The cooling liquid circulating in the liquid channel is used to limit the transfer of heat from the combustion chamber to the fuel silo and to thus prevent the heating and drying of the fuel in the fuel silo. The cooling liquid is led from the liquid channel to the bottom of the combustion chamber and from the bottom of the combustion chamber onwards out of the combustion chamber. At the bottom of the combustion chamber there is during the gasification continuously a layer of cooling liquid, in which the ash and coal particles generated in the combustion are mixed. The product gas generated in the gasification is led out of the combustion chamber along a flow duct (74b) of the cooling liquid and contaminants are removed from the product gas in a product gas washer (100). Also the ash and coal particles generated in the gasification are led out of the combustion chamber with the cooling liquid along the flow duct. The ash is removed from the cooling liquid in a coal separator (200) and the temperature of the cooling liquid is lowered with a condenser (300), after which the liquid is directed back into the liquid channel of the co-current gasifier.

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Citation (search report)
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