

Title (en)

Device for generating combustion gas for driving a gas turbine.

Title (de)

Vorrichtung zum Erzeugen von Rauchgas zum Antreiben einer Gasturbine.

Title (fr)

Dispositif pour la production des gaz de combustion pour actionner une turbine à gaz.

Publication

EP 0278357 A2 19880817 (DE)

Application

EP 88101404 A 19880201

Priority

- DE 3703945 A 19870209
- DE 3741196 A 19871204

Abstract (en)

[origin: US4841727A] A device for generating flue gas for driving a gas turbine includes a stack in a closed hollow cylindrical housing having a stack wall spaced from the housing. One of the ends of the stack has a combustion chamber, a closure element, as well as an inlet opening for combustion air discharging into the combustion chamber and a supply opening for fine grained coal together forming a pulverized coal burner. The inlet opening generates a spin of the combustion air in a given rotational direction. A first auxiliary inlet for combustion air discharges in the combustion chamber. A second auxiliary inlet for fine grained coal is disposed in the stack wall and discharges into the combustion chamber at a distance from the closure element. A flue gas outlet connector is disposed in and spaced from an air inlet connector of the housing at the other end of the stack. An air nozzle is disposed in the stack wall at a distance from the first auxiliary inlet and discharges tangentially into the stack creating a spin in supplied air having the given rotational direction and ending in the stack in a direction toward the lower end of the stack. A helically shaped guide plate for flue gas is disposed on the stack wall inside the stack between the first auxiliary inlet and the air nozzle. The guide plate imparts a spin to the flue gas having the given rotational direction. The stack wall has a step formed therein defining a change in cross section of the stack and having an outlet opening for ash disposed therein.

Abstract (de)

Eine Vorrichtung zum Erzeugen von Rauchgas mit erhöhtem Wirkungsgrad und unterdrückter Bildung von Stickoxiden hat einen Schacht (3), in dem als Kohlenstaubbrenner eine Eintrittsöffnung (12) für Verbrennungsluft und eine Zuführöffnung (11) für feinkörnige Kohle münden; die Eintrittsöffnung (12) mündet tangential in eine Brennkammer (5) an einem Schachtende oder enthält Leitschaufeln (16), während eine in der Brennkammer (5) mündende Zusatzeintrittsöffnung (13) für Verbrennungsluft und mit Abstand von einem Abschlußteil (10) an dem Schachtende eine ebenfalls in die Brennkammer (5) mündende Zusatzeintrittsöffnung (14) für feinkörnige Kohle vorgesehen sind.

IPC 1-7

F01K 23/06; **F22B 31/00**; **F23C 3/00**; **F23C 7/02**; **F23L 5/02**; **F23M 9/00**

IPC 8 full level

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CPC (source: EP US)

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EP 0278357 A2 19880817; **EP 0278357 A3 19890802**; **EP 0278357 B1 19930908**; CA 1287498 C 19910813; DE 3883795 D1 19931014; DK 58188 A 19880810; DK 58188 D0 19880205; US 4841727 A 19890627

DOCDB simple family (application)

EP 88101404 A 19880201; CA 558248 A 19880205; DE 3883795 T 19880201; DK 58188 A 19880205; US 15407188 A 19880209