

Title (en)

Fluidized-bed combustion with immersion heating surfaces.

Title (de)

Wirbelschichtfeuerung mit Tauchheizflächen.

Title (fr)

Combustion en lit fluidisé avec des surfaces de chauffe immergées.

Publication

EP 0186756 A1 19860709 (DE)

Application

EP 85114126 A 19851106

Priority

DE 3447186 A 19841222

Abstract (en)

[origin: US4715809A] Heat exchanger tubes which are immersed in a fluidized bed of a combustion fluidized bed installation are provided with flow deflectors which reduce erosion of the fluidized materials in the bed on the tubes. The flow deflectors are preferably fins or pins, which protrude from the surface of the tubes and which disturb the erosive flow against the outer walls of the tubes. The flow deflectors also increase the surface areas of the tubes and thereby improve heat transfer from the combustion in the fluidized bed to a fluid heat exchanging medium within the tubes.

Abstract (de)

Nach der Erfindung wird ein Erosionsschutz von Tauchheizflächen, die in das Wirbelbett von Wirbelschichtfeuerungen eingetaucht sind, durch strömungsbrechende Schikanen an den Tauchheizflächen erreicht.

IPC 1-7

F22B 31/00; **F22B 37/10**; **F23C 11/02**

IPC 8 full level

F22B 1/02 (2006.01); **F22B 31/00** (2006.01); **F22B 37/10** (2006.01)

CPC (source: EP US)

F22B 31/0061 (2013.01 - EP US); **F22B 37/101** (2013.01 - EP US); **F22B 37/106** (2013.01 - EP US)

Citation (search report)

- [X] US 4124068 A 19781107 - THOMPSON GREGORY J
- [X] US 4226584 A 19801007 - ISHIKAWA TOKIHIKO
- [A] US 3375089 A 19680326 - WERNER OEHLER, et al
- [A] DE 2724336 B1 19780727 - DIDIER WERKE AG
- [A] DE 2003062 A1 19700730 - ASAHI GLASS CO LTD
- [A] US 3310037 A 19670321 - COYKENDALL LEON H
- [XE] US 4554967 A 19851126 - JOHNSON RICHARD C [US], et al
- [XP] DE 3347083 A1 19850704 - VER KESSELWERKE AG [DE]

Cited by

AU639685B2; EP0263651A3; AU597426B2

Designated contracting state (EPC)

BE DE FR GB NL

DOCDB simple family (publication)

EP 0186756 A1 19860709; **EP 0186756 B1 19890405**; AU 5076085 A 19860626; AU 580118 B2 19890105; BR 8506385 A 19860902; CA 1265390 A 19900206; DE 3447186 A1 19860703; DE 3569283 D1 19890511; JP S61159002 A 19860718; PL 256476 A1 19860923; US 4715809 A 19871229; ZA 859803 B 19861126

DOCDB simple family (application)

EP 85114126 A 19851106; AU 5076085 A 19851204; BR 8506385 A 19851219; CA 498238 A 19851220; DE 3447186 A 19841222; DE 3569283 T 19851106; JP 28320185 A 19851218; PL 25647685 A 19851127; US 81192085 A 19851220; ZA 859803 A 19851223