

Title (en)

Heat exchanger for cooling a particle laden hot gas

Title (de)

Wärmetauscher zum Kühlen eines Feststoffpartikel enthaltenden heißen Gases

Title (fr)

Echangeur de chaleur pour le refroidissement de gaz chargés de particules

Publication

EP 1674815 A1 20060628 (DE)

Application

EP 04030220 A 20041221

Priority

EP 04030220 A 20041221

Abstract (en)

The exchanger has tube plates disposed at ends of a casing. A hot gas flows through heat exchanger tubes surrounded by the casing. Ends of the tubes are welded into bores of the plates via weld seams. A protective layer has a metal layer disposed between an adhesive layer (9) and a ceramic layer. The adhesive layer is applied to surfaces of the plates and to the seam at inner edges and inner sides of the tubes, respectively.

IPC 8 full level

F28F 19/02 (2006.01); **C23C 28/00** (2006.01); **F28F 9/18** (2006.01)

CPC (source: EP US)

F28F 9/18 (2013.01 - EP US); **F28F 19/02** (2013.01 - EP US)

Citation (search report)

- [DA] EP 0567674 A1 19931103 - BORSIG BABCOCK AG [DE]
- [A] FR 2795748 A1 20010105 - ELECTRICITE DE FRANCE [FR]
- [A] US 6093454 A 20000725 - BRINDLEY WILLIAM J [US], et al
- [A] PATENT ABSTRACTS OF JAPAN vol. 018, no. 517 (C - 1254) 29 September 1994 (1994-09-29)

Cited by

US11143465B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 1674815 A1 20060628; **EP 1674815 B1 20070307**; AT E356330 T1 20070315; DE 502004003178 D1 20070419; DK 1674815 T3 20070702; ES 2281744 T3 20071001; US 2006131005 A1 20060622; US 7237601 B2 20070703

DOCDB simple family (application)

EP 04030220 A 20041221; AT 04030220 T 20041221; DE 502004003178 T 20041221; DK 04030220 T 20041221; ES 04030220 T 20041221; US 25400005 A 20051019