

Title (en)

HEAT EXCHANGER WITH A GAS PASS

Publication

**EP 0135668 A3 19851211 (DE)**

Application

**EP 84105684 A 19840518**

Priority

CH 477483 A 19830831

Abstract (en)

[origin: US4546731A] The heat exchanger has a cover which is formed by parallel groups of terminal tubes which connect with at least 80% of the wall tubes of the flue. In one embodiment, the terminal tubes of adjacent groups meet in a common zone and extend upwardly into a common header. In another embodiment, the terminal tubes of alternating groups are disposed in different layers with one layer covering over open triangular areas defined between adjacent tube groups of the other layer.

IPC 1-7

**F22B 37/14**

IPC 8 full level

**F22B 37/20** (2006.01); **F22B 37/10** (2006.01); **F22B 37/14** (2006.01); **F22B 37/22** (2006.01)

CPC (source: EP US)

**F22B 37/14** (2013.01 - EP US); **F22B 37/148** (2013.01 - EP US)

Citation (search report)

- [A] DE 2238240 A1 19730607 - WAAGNER BIRO AG
- [A] US 2871832 A 19590203 - EPLEY FREDERIC I
- [A] US 3511217 A 19700512 - LORENZINI ROBERT A, et al

Cited by

EP0288686A3

Designated contracting state (EPC)

DE FR IT

DOCDB simple family (publication)

**EP 0135668 A2 19850403**; **EP 0135668 A3 19851211**; **EP 0135668 B1 19880824**; CA 1247479 A 19881228; DE 3473636 D1 19880929; JP H0585803 B2 19931208; JP S6060404 A 19850408; PL 248386 A1 19850409; US 4546731 A 19851015

DOCDB simple family (application)

**EP 84105684 A 19840518**; CA 458156 A 19840705; DE 3473636 T 19840518; JP 14590084 A 19840713; PL 24838684 A 19840625; US 64344984 A 19840823