

Title (en)  
ONCE-THROUGH EVAPORATOR FOR A STEAM GENERATOR

Title (de)  
ZWANGDURCHLAUFVERDAMPFER FÜR EINEN DAMPFERZEUGER

Title (fr)  
EVAPORATEUR A PASSAGE UNIQUE POUR GENERATEUR DE VAPEUR

Publication  
**EP 1546607 A4 20060503 (EN)**

Application  
**EP 03759654 A 20031002**

Priority

- US 0331174 W 20031002
- US 41608302 P 20021004

Abstract (en)  
[origin: US2004069244A1] A steam generator has a once-through evaporator which converts liquid water into steam in tubes over which hot gases flow. Each tube contains a metal tape which is twisted into a helical configuration to induce turbulence in the mist produced by the boiling, and the turbulence insures that the mist wets the inside surfaces of the tubes, thus producing good heat transfer and moderate temperatures in the tubes.

IPC 1-7  
**F22B 1/00**

IPC 8 full level  
**F22B 1/18** (2006.01); **F22B 29/06** (2006.01); **F22B 37/18** (2006.01)

CPC (source: EP KR US)  
**F22B 1/1815** (2013.01 - EP US); **F22B 15/00** (2013.01 - KR); **F22B 29/06** (2013.01 - EP US); **F22B 37/18** (2013.01 - EP US)

Citation (search report)

- [X] US 5799622 A 19980901 - WALDNER CLARENCE [CA]
- [X] DE 19929088 C1 20000824 - SIEMENS AG [DE]
- [X] WO 9218807 A1 19921029 - SIEMENS AG [DE]
- [X] JUZI H ET AL: "ZWANGDURCHLAUFKESSEL FUER GLEITDRUCKBETRIEB MIT VERTIKALER BRENNKAMMERBEROHRUNG", VGB KRAFTWERKTECHNIK, VGB KRAFTWERKTECHNIK GMBH, ESSEN, DE, no. 4, April 1984 (1984-04-01), pages 292 - 302, XP002054983, ISSN: 0372-5715
- See references of WO 2004033962A2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)  
**US 2004069244 A1 20040415**; AU 2003275378 A1 20040504; AU 2003275378 A8 20040504; CA 2501086 A1 20040422; CN 1703599 A 20051130; EP 1546607 A2 20050629; EP 1546607 A4 20060503; KR 20050086420 A 20050830; MX PA05003380 A 20050622; WO 2004033962 A2 20040422; WO 2004033962 A3 20040603

DOCDB simple family (application)  
**US 67744303 A 20031002**; AU 2003275378 A 20031002; CA 2501086 A 20031002; CN 200380100921 A 20031002; EP 03759654 A 20031002; KR 20057005565 A 20050330; MX PA05003380 A 20031002; US 0331174 W 20031002