

Title (en)  
Film cooled turbine blade

Title (de)  
Filmgekühlte Turbinenschaufel

Title (fr)  
Aube de turbine refroidie par couche d'air

Publication  
**EP 1614859 A1 20060111 (DE)**

Application  
**EP 04015805 A 20040705**

Priority  
EP 04015805 A 20040705

Abstract (en)  
The turbine blade (2) has a blade leaf (12) with ducts (22) for passing coolant (K), outlet ports (24) which are arranged parallel to a leading edge (14), and outlet duct which is oblique with respect to longitudinal direction (L) of blade. The transitional points at which the orientation of the outlet ducts changes, are offset relative to one another in the longitudinal direction for two adjacent rows. An independent claim is also included for gas turbine.

IPC 8 full level  
**F01D 5/18** (2006.01); **F01D 9/04** (2006.01)

CPC (source: EP US)  
**F01D 5/186** (2013.01 - EP US); **F05D 2250/314** (2013.01 - EP US); **F05D 2250/34** (2013.01 - EP US); **F05D 2260/202** (2013.01 - EP US)

Citation (search report)

- [A] US 5779437 A 19980714 - ABDEL-MESSEH WILLIAM [CA], et al
- [A] GB 2310896 A 19970910 - ROLLS ROYCE PLC [GB]
- [A] EP 0894946 A1 19990203 - MITSUBISHI HEAVY IND LTD [JP]
- [A] US 5496151 A 19960305 - COUDRAY XAVIER G A [FR], et al
- [A] US 6176676 B1 20010123 - IKEDA KAZUTAKA [JP], et al
- [A] PATENT ABSTRACTS OF JAPAN vol. 0071, no. 37 (M - 222) 15 June 1983 (1983-06-15)

Cited by  
EP1927726A1; EP3056675A1; US8011890B2

Designated contracting state (EPC)  
CH DE ES GB IT LI

DOCDB simple family (publication)  
**EP 1614859 A1 20060111**; **EP 1614859 B1 20070411**; CN 100350132 C 20071121; CN 1724849 A 20060125; DE 502004003477 D1 20070524; ES 2282763 T3 20071016; US 2006002796 A1 20060105; US 7500823 B2 20090310

DOCDB simple family (application)  
**EP 04015805 A 20040705**; CN 200510082051 A 20050705; DE 502004003477 T 20040705; ES 04015805 T 20040705; US 17427505 A 20050701