

Title (en)
Gas turbine blade

Title (de)
Turbinenschaufel einer Gasturbine

Title (fr)
Aube pour une turbine à gaz

Publication
EP 0899425 A3 20000705 (DE)

Application
EP 98810770 A 19980811

Priority
DE 19738065 A 19970901

Abstract (en)
[origin: EP0899425A2] A cooling system for a gas turbine blade has two sets of cooling ducts; a closed set of ducts (10) which cools the rear part of the blade and an open set of ducts (11) which cools the leading part of the blade. The closed ducts are supplied with a cooling fluid, which can be steam. The open ducts are supplied with air or steam, and the cooling flow is guided over the suction side (4) of the blade via tangential exit vents (22). Other cooling vents (25) are on the leading edge of the blade. The closed ducts are linked at set points, to maintain a good circulation, even with part of a duct blocked. Likewise the two ducts of the open cooling system are linked by connecting ducts (18) spaced along the blade.

IPC 1-7
F01D 5/18; **F02C 7/16**

IPC 8 full level
F01D 5/18 (2006.01); **F02C 7/16** (2006.01)

CPC (source: EP US)
F01D 5/187 (2013.01 - EP US)

Citation (search report)

- [Y] US 5603606 A 19970218 - GLEZER BORIS [US], et al
- [A] US 3051439 A 19620828 - DAVID HILTON KENNETH
- [A] US 5253976 A 19931019 - CUNHA FRANCISCO J [US]
- [A] GB 2202907 A 19881005 - SECR DEFENCE
- [T] WO 9845577 A1 19981015 - SIEMENS AG [DE], et al
- [DA] US 5634766 A 19970603 - CUNHA FRANCISCO J [US], et al
- [XPY] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 08 30 June 1998 (1998-06-30)

Cited by
DE102012011294B4; CN103806951A; EP1600605A3; US7263834B2; EP1162355A2; US6532744B1; EP1605136A3; EP3425165A1;
DE102012011294A1; US9145774B2; EP1605136A2; US10612396B2; EP2828484B1

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DE 19738065 A1 19990304; DE 59810315 D1 20040115; JP H11132003 A 19990518; US 6033181 A 20000307

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EP 98810770 A 19980811; CN 98116951 A 19980828; DE 19738065 A 19970901; DE 59810315 T 19980811; JP 24503898 A 19980831;
US 14158698 A 19980828