

Title (en)  
Turbine blade cooling

Title (de)  
Turbinenschaufelkühlung

Title (fr)  
Refroidissement d'une aube de turbine

Publication  
**EP 0913556 A2 19990506 (EN)**

Application  
**EP 98308829 A 19981028**

Priority  
US 96212897 A 19971031

Abstract (en)  
A blade (10) for a gas turbine engine is disclosed having several improved cooling features. The blade has a plurality of internal cooling passages. The blade has a tip cap aperture (46) and film cooling holes (20), arranged such that the rearmost cooling passage in the blade receives sufficient cooling in all areas to control local heating of the blade. The blade also has angled turbulence promoters to improve internal cooling and a specially shaped platform (14) to avoid heating of the blade platform edges. <IMAGE>

IPC 1-7  
**F01D 5/18**

IPC 8 full level  
**F01D 5/18** (2006.01); **F01D 5/20** (2006.01); **F01D 5/30** (2006.01)

CPC (source: EP)  
**F01D 5/186** (2013.01); **F01D 5/187** (2013.01); **F01D 5/20** (2013.01)

Cited by  
EP1279796A3; EP1111190A1; EP1760267A3; EP1731710A1; CN104420893A; US7121802B2; US6672832B2; US6579061B1; EP1760267A2; US7249934B2; US7097429B2; US7377747B2

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