

Title (en)  
Cooled rotor blade

Title (de)  
Gekühlte Rotorschaukel

Title (fr)  
Aube de rotor refroidie

Publication  
**EP 1605136 A3 20090121 (EN)**

Application  
**EP 05253258 A 20050527**

Priority  
US 85504904 A 20040527

Abstract (en)  
[origin: EP1605136A2] A rotor blade (14) is provided that includes a root (20) and a hollow airfoil (22). The hollow airfoil has a cavity, a leading edge (32), and a tip (30). An internal passage configuration is disposed within the cavity that includes a first radial passage (92), a second radial passage (94), and a rib (96) disposed between the passages (92,94). The passages (92,94) and the rib (96) are contiguous with a tip endwall (98). The first radial passage (92) is disposed contiguous with the leading edge (32). A plurality of crossover apertures (74) are disposed in the rib (96). One of the crossover apertures (100) is disposed flush with the tip endwall (98). A conduit (42) is disposed within the root (20) that is operable to permit airflow through the root and into the passages. In some embodiments, an aperture (62,76) is disposed within the tip endwall (98) aligned with the first radial passage (92).

IPC 8 full level  
**F01D 5/18** (2006.01); **B63H 1/14** (2006.01); **F01D 5/20** (2006.01); **F02C 7/18** (2006.01)

CPC (source: EP US)  
**F01D 5/187** (2013.01 - EP US); **F01D 5/20** (2013.01 - EP US); **F05D 2260/202** (2013.01 - EP US)

Citation (search report)

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