

Title (en)  
Axial blade cascade with blades of arrowed leading edge

Title (de)  
Axial-Schaufelgitter mit gepfeilten Schaufelvorderkanten

Title (fr)  
Grill d'aubes avec bord d'attaque sous la forme de flèche

Publication  
**EP 0661413 B1 19980826 (DE)**

Application  
**EP 94119705 A 19941214**

Priority  
DE 4344189 A 19931223

Abstract (en)  
[origin: EP0661413A1] A blade cascade (turbine cascade) 2, 3 for axial fluid-flow engines (turbo engines) has blades 4, 5 which are positively arrowed (swept-back) in the axial direction in the region of the blade tips 17, 13 and of the blade root. The blade leading edges 11 have a rectilinearly extending section in the region of the blade tip 17 and of the blade root 13, and, adjacent thereto, towards the middle of the blade, a section which extends in a curved fashion. A curvature of the blades 4, 5 in the circumferential direction . PHI .. can be superimposed on the sweeping in the axial direction Z. By virtue of the rectilinear, arrowed profile of the blade leading edges 11 in the region of the blade tip 17 and of the blade root 13, an influence is exerted on the secondary flow which permits an improvement in the stage efficiency both during running and in the case of guide-vane devices (vaned guiding devices) 2 and 3, respectively. <IMAGE>

IPC 1-7  
**F01D 5/14**

IPC 8 full level  
**F01D 5/14** (2006.01)

CPC (source: EP)  
**F01D 5/141** (2013.01); **F01D 5/142** (2013.01)

Cited by  
EP1111188A3; EP2824277A1; EP1985802A3; EP0957236A1; EP1927724A3; US7726937B2; EP1905952A3; EP0916812A1; US6099248A; CN105089709A; FR2828709A1; AU701429B2; US6079948A; CN1100194C; EP0833060A3; EP3108109A4; EP1731733A3; CN105121787A; JP2016505754A; EP3163019A1; EP1710397A3; EP1731716A3; EP3816397A1; US10550852B2; US10393139B2; WO0061918A3; EP1905952A2; US8152473B2; US9617863B2; US10309414B2; US10605259B2; US11193497B2; US10557477B2; US11391294B2; EP1995469A4; EP3108115A4; US11220910B2; EP4279747A3; US6491493B1; US8047802B2; US10590775B2; EP1798375A2; WO2015126941A1; US10358925B2; EP1710397A2; US8382438B2; US10385866B2; WO9913199A1; WO2014090907A1; WO2006059996A1; WO9964725A1; EP1760321A2; US7419353B2; US10519971B2; US10584715B2; US11209013B2; US11767856B2; EP2218874B1; US9441502B2; US9777580B2; US9988908B2; US10352331B2; US10570915B2; US11193496B2; US9752439B2; US10036257B2; US10184483B2; US10370974B2; US10465702B2; US10495106B2; US10890195B2; US11041507B2; US6354798B1; US10267157B2; US10502229B2; US10914315B2; WO2015175051A2; US10422226B2; US10570916B2; US11408436B2; US11867195B2; EP3816397B1

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