

Title (en)  
TURBINE BLADE

Title (de)  
TURBINENSCHAUFEL

Title (fr)  
AUBE DE TURBINE

Publication  
**EP 2828484 B1 20190508 (DE)**

Application  
**EP 13714573 A 20130321**

Priority  

- EP 12160893 A 20120322
- EP 2013055965 W 20130321
- EP 13714573 A 20130321

Abstract (en)  
[origin: WO2013139926A1] A turbine vane for a rotary turbomachine is described having a turbine blade (4) which is delimited by a concave pressure-side wall (6) and a convex suction-side wall (7) which are connected in the region of a vane front edge (5) which can be assigned to the turbine blade (4) and enclose a cavity (9) which extends in the longitudinal extent of the vane front edge (5) and is delimited on the inner wall by the pressure-side wall (6) and the suction-side wall (7) in the region of the vane front edge (5) and by an intermediate wall (8) which extends in the longitudinal direction to the vane front edge (5) and connects the suction-side wall (7) and the pressure-side wall (6) on the inner wall. The disclosed vane is distinguished by the fact that the intermediate wall (8) has a perforation (16) at least in sections in the connecting region to the suction-side wall (7) and/or pressure-side wall (6), in order to increase the elasticity of the intermediate wall (8).

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

CPC (source: EP US)  
**F01D 5/186** (2013.01 - EP US); **F01D 5/187** (2013.01 - EP US); **F05C 2251/02** (2013.01 - EP US); **F05D 2250/71** (2013.01 - EP US); **F05D 2300/501** (2013.01 - EP US)

Citation (examination)  

- EP 2258925 A2 20101208 - ROLLS ROYCE PLC [GB]
- US 3191908 A 19650629 - BOWEN POWELL FREDERICK, et al
- US 5246340 A 19930921 - WINSTANLEY DAVID K [US], et al

Citation (opposition)  
Opponent : Siemens Gas and Power GmbH & Co.KG,  

- EP 1197635 A2 20020417 - SOLAR TURBINES INC [US]
- US 2002106275 A1 20020808 - HARVEY NEIL W [GB]
- GB 2395232 A 20040519 - ROLLS ROYCE PLC [GB]
- US 5246340 A 19930921 - WINSTANLEY DAVID K [US], et al
- EP 0899425 A2 19990303 - ASEA BROWN BOVERI [CH]
- WO 0012868 A1 20000309 - SIEMENS AG [DE], et al
- EP 1895102 A1 20080305 - SIEMENS AG [DE]
- EP 2136034 A2 20091223 - ROLLS ROYCE PLC [GB]
- US 2006280607 A1 20061214 - HARVEY NEIL W [GB], et al
- EP 1314855 A2 20030528 - ROLLS ROYCE PLC [GB]
- JP H1073004 A 19980317 - TOSHIBA CORP
- US 5660524 A 19970826 - LEE CHING-PANG [US], et al
- DE 69718673 T2 20030522 - UNITED TECHNOLOGIES CORP [US]

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