

Title (en)

TURBINE BLADE HAVING HEAT SINKS THAT HAVE THE SHAPE OF AN AEROFOIL PROFILE

Title (de)

TURBINENSCHAUFEL MIT TRAGFLÄCHENPROFILFÖRMIGEN KÜHLKÖRPERN

Title (fr)

PALE DE TURBINE COMPRENANT DES CORPS DE REFROIDISSEMENT PRÉSENTANT UNE FORME DE PROFIL DE FACE PORTANTE

Publication

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Application

**EP 14739716 A 20140704**

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Abstract (en)

[origin: WO2015014566A1] The invention relates to a turbine blade (120, 130), which has a pressure side (148), a suction side (150), and a cooling air channel (152), which is arranged between the pressure side and the suction side and which is bounded by inner surfaces of the pressure side and of the suction side. A cylindrical heat sink (158) having a base surface, which has the shape of an aerofoil profile and has a profile top side (164) and a profile bottom side (166), is arranged in the cooling air channel, which heat sink extends from the pressure side to the suction side. Turbulators (162), which enable an improved cooling air effect and thus higher operating temperatures and a higher efficiency of the turbine, are arranged on the inner surface of the pressure side and/or of the suction side in a region adjacent to the heat sink. For this purpose, the turbulators are arranged in such a way that lower air turbulence is produced in a region adjacent to the profile top side than in a region adjacent to the profile bottom side.

IPC 8 full level

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