Title (en)

COOLED BLADE FOR A GAS TURBINE

Title (de)

GEKÜHLTE SCHAUFEL FÜR EINE GASTURBINE

Title (fr)

AUBE REFROIDIE POUR UNE TURBINE A GAZ

Publication

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Application

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Abstract (en)

[origin: WO2005005785A1] The invention relates to a cooled blade (10) for a gas turbine. Said blade comprises a paddle (11) leading from a blade root (12) and a blade shaft (25), said paddle having a leading edge (19) and a trailing edge (20), in addition to a plurality of radially extending cooling channels (13, 14, 15) in its interior that are fluidically connected in sequence. A first cooling channel (13) is traversed along the leading edge (19) and a second cooling channel (15) is traversed along the trailing edge (20), from the blade root (12) to the tip of the paddle (11), by a primary stream of coolant and the outlet of the first cooling channel (13) is connected to the inlet of the second cooling channel (15) via a first deviation zone (17), a third cooling channel (14) that is situated between the first and the second cooling channels (13, 15) and a second deviation zone (18). The blade is provided with elements (22, 23, 24), by means of which a supplementary stream of cooler coolant is added externally to the heated primary stream of coolant that flows from the third cooling channel (14) into the second cooling channel (15). Bores in the vicinity of the blade root constitute said elements.

IPC 8 full level

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