

Title (en)

HOLLOW TURBINE BLADE WITH REDUCED COOLING AIR CONSUMPTION

Title (de)

HOHLE TURBINENSCHAUFEL MIT REDUZIERTEM KÜHLUFTVERBRAUCH

Title (fr)

AUBE DE TURBINE CREUSE À PRÉLÈVEMENT D'AIR DE REFROIDISSEMENT RÉDUIT

Publication

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Application

EP 18799584 A 20181011

Priority

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Abstract (en)

[origin: WO2019077237A1] Turbomachine hollow turbine blade comprising a plurality of rising cavities (23, 25, 29, 31) communicating with a channel (18) of the blade via a plurality of standard dust-removal holes (21A, 21B, 21C) intended for the removal of dust, and via a plurality of inclined cooling bores (20A, 20B, 20C, 20D) intended for cooling a low wall (18B) of the channel, opening on a lower face (12C) of the blade, at least one rising cavity (25) having an apex that has no dust-removal hole, and an inclined cooling bore produced in its side wall and intended to cool the low wall of the channel is enlarged in order to have a diameter at least equal to the standard diameter of a dust-removal hole and to thus also serve as a dust-removal hole (51), such that the flow of air taken in for the cooling of the blade is reduced, at least one of the cavities of the blade arranged opposite the top of one of the rising cavities having an increased volume corresponding at least to a volume subtracted at the top of the rising cavity.

IPC 8 full level

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