

Title (en)
Guide vanes for turbine

Title (de)
Turbinenleitschaufeln

Title (fr)
Aubes de guidage pour turbine

Publication
EP 1522679 A2 20050413 (EN)

Application
EP 04255388 A 20040904

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Abstract (en)
In turbine blades used as nozzle guide vanes 2, 12, 22, 31 for turbine stages of an engine there is a problem with respect to high lift vanes in that there may be significant stagnation point migration about the pressure surface 13, 21, 32 of that vane. In such circumstances, appropriate positioning of coolant flow apertures 11, 24, 34 for coolant film cooling of the vane is difficult. The present invention provides on the leading edge a bulge ridge 37 which limits the range of potential movement for the stagnation point 30 whilst retaining improved lift for higher engine performance. The present invention has particular applicability with flows directed to the turbine NGV which have a significantly variable swirl angle and therefore presentation to the vane 31.

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