

Title (en)

A gas turbine blade tip comprising a metallic foam material

Title (de)

Eine Gasturbinenschaufelspitze, welche einen metallischen Schaumstoff beinhaltet

Title (fr)

Une aube de turbine à gaz comprenant un matériau en mousse métallique

Publication

**EP 2703605 A3 20170614 (EN)**

Application

**EP 13179761 A 20130808**

Priority

GB 201215299 A 20120829

Abstract (en)

[origin: EP2703605A2] Tip rub in gas turbine engines is a well-known phenomenon, and may lead to increased tip clearances, with consequent detrimental effects on the engine's performance and blade flutter margins. Heavy or repeated rubbing may cause blade tip over temperature leading to cracking and fatigue failure. The invention provides a tip for a gas turbine engine rotor blade, which under contact with the casing surface interacts with the casing surface so as to reduce the contact force and thereby reduce the energy transferred to the blade. The tip may be designed to ablate under contact with the casing surface, or to cut or abrade the casing surface, or to crush or compress or deflect under contact with the casing surface. In a preferred embodiment, the tip comprises fibre-reinforced metallic foam material.

IPC 8 full level

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Citation (search report)

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