

Title (en)

Rotor blade with tear-drop shaped part-span shroud

Title (de)

Rotorschaukel mit einem Tränenförmig geformten Dämpfer in einer Teilhöhe des Schaufelblatts

Title (fr)

Aube de turbine avec amortisseur de vibrations en forme de goutte d'eau localisée sur la hauteur de l'aube

Publication

EP 2738351 A1 20140604 (EN)

Application

EP 13193148 A 20131115

Priority

US 201213691478 A 20121130

Abstract (en)

A rotatable blade 20 for use in a turbomachine 10 includes an airfoil portion 32 having a leading edge 40, a trailing edge 42 a radially-inner end and a radially-outer end; a root section 34 affixed to the radially-inner end of the airfoil portion 32. A part-span shroud 48 is located on the airfoil portion 32 between the root section and the radially-outer end. The part-span shroud 48 is substantially tear-drop shaped such that its cross-sectional shape has a maximum thickness located within 20 to 40% of a chord length extending between leading 40 and trailing edges 42 of the part-span shroud 48, as measured from the leading edge 40 of the part-span shroud 48.

IPC 8 full level

F01D 5/22 (2006.01)

CPC (source: EP US)

F01D 5/22 (2013.01 - EP US); **F01D 5/225** (2013.01 - US); **F05D 2250/74** (2013.01 - EP US)

Citation (applicant)

US 5695323 A 19971209 - PFEIFER NATHAN R [US], et al

Citation (search report)

- [XY] US 2011158810 A1 20110630 - SHIBUKAWA NAOKI [JP], et al
- [XY] US 8105038 B2 20120131 - OOTOMO FUMIO [JP], et al
- [Y] US 5257908 A 19931102 - ORTOLANO RALPH J [US]
- [YD] US 5695323 A 19971209 - PFEIFER NATHAN R [US], et al

Cited by

EP3379033A1; EP4112884A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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DOCDB simple family (application)

EP 13193148 A 20131115; CN 201310627609 A 20131129; JP 2013243435 A 20131126; US 201213691478 A 20121130