

Title (en)

Shrouded turbine blade with cooling air outlet port on the blade tip and corresponding manufacturing method

Title (de)

Turbinenschaufel mit Deckband und Kühlluftauslassöffnung an der Schaufelspitze und zugehöriges Herstellungsverfahren

Title (fr)

Aube de turbine caréné dotée d'un port de sortie d'air de refroidissement en bout d'aube et procédé associé de fabrication

Publication

**EP 2607629 A1 20130626 (EN)**

Application

**EP 11195390 A 20111222**

Priority

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Abstract (en)

The present invention relates to a turbine blade (1) for an axial turbo-machine having a blade body (10), extending in a radial direction (11) between a blade root (12) and a blade tip (13), wherein the blade body (10) is provided with at least one inner passage (15) for a cooling medium and at least one outlet port (16) to exhaust the cooling medium from the inner passage (15) to the outer side of the blade tip (13). According to the invention, the outlet port (16) comprises a port axis (17), which is inclined to the radial direction (11).

IPC 8 full level

**F01D 5/22** (2006.01)

CPC (source: EP)

**F01D 5/225** (2013.01)

Citation (applicant)

WO 2005106206 A1 20051110 - ALSTOM TECHNOLOGY LTD [CH], et al

Citation (search report)

- [XY] EP 2149675 A2 20100203 - GEN ELECTRIC [US]
- [XYI] EP 1219781 A2 20020703 - ALSTOM POWER NV [NL]
- [XYI] DE 19904229 A1 20000810 - ASEA BROWN BOVERI [CH]
- [XYI] JP S5847104 A 19830318 - KOGYO GIJUTSUIN
- [XYI] GB 1605335 A 19911218 - ROLLS ROYCE
- [XYI] US 2007065283 A1 20070322 - SEKIHARA MASARU [US], et al
- [XY] GB 2384275 A 20030723 - ROLLS ROYCE PLC [GB]
- [XY] EP 1041247 A2 20001004 - GEN ELECTRIC [US]
- [Y] EP 1749967 A2 20070207 - ROLLS ROYCE PLC [GB]

Cited by

EP3034789A1; EP3329099A4; US10502069B2; WO2017020178A1; US10590777B2; US10184342B2; US11060407B2; US10301943B2; US10577945B2; JP2017198202A; EP3244011A3; CN107435561A; US10036284B2

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