

Title (en)

Gas turbine, gas turbine blade used therefor and manufacturing method for gas turbine blade.

Title (de)

Gasturbine, für diese Gasturbine verwendete Schaufel und Verfahren zur Herstellung dieser Schaufel.

Title (fr)

Turbine à gaz, aube pour cette turbine à gaz et méthode de fabrication de l'aube.

Publication

EP 0475428 A1 19920318 (EN)

Application

EP 91115542 A 19910913

Priority

JP 24521090 A 19900914

Abstract (en)

A heavy-duty gas turbine includes a compressor; a combustion liner; a turbine blade (7) in a single stage or multi-stages; and a turbine nozzle provided in correspondence to the turbine blade (7). The turbine blade (7) has a dovetail (10) secured to a turbine disk and has an overall length of not less than 180 mm, and it is made of a single-crystal Ni-base alloy whose gamma phase is a single crystal. Operating gas temperature is not less than 1400 DEG C, and metal temperature of a first blade is not less than 1000 DEG C under working stress. <IMAGE>

IPC 1-7

F01D 5/28

IPC 8 full level

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CPC (source: EP KR)

B22D 3/00 (2013.01 - KR); **F01D 5/28** (2013.01 - EP); **F05D 2300/607** (2013.01 - EP)

Citation (search report)

- [A] US 3315941 A 19670425 - TWISTON DAVIES GLYN
- [A] US 4371404 A 19830201 - DUHL DAVID N, et al
- [A] PATENT ABSTRACTS OF JAPAN vol. 12, no. 365 (C-532)29 September 1988 & JP-A-63 118 037 (NATL RES INST FOR METALS) 23 May 1988
- [A] REVUE TECHNIQUE SULZER. vol. 70, no. 3, 1988, WINTERTHUR CH pages 11 - 16; STAUB: 'AN ALTERNATIVE PROCESS FOR THE MANUFACTURE OF SINGLE CRYSTAL GAS TURBINE BLADES'
- [A] PATENT ABSTRACTS OF JAPAN vol. 10, no. 23 (C-325)29 January 1986 & JP-A-60 177 160 (KAGAKUGIJUTSUCHO KINZOKU ZAIRYO) 11 September 1985

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EP0637476A1; US5611670A; EP3085902A1; US10287897B2; US10648352B2; US10202853B2; US10830357B2

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DOCDB simple family (application)

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