

Title (en)

Double injector arrangement for cooling of the sideplate of a high pressure turbine

Title (de)

Doppeldüsenanordnung zur Kühlung der Seitenplatte einer Hochdruckturbine

Title (fr)

Système à double injecteurs fond de chambre pour le refroidissement du flasque amont d'une turbine à haute pression

Publication

**EP 1367221 B1 20060726 (FR)**

Application

**EP 03291258 A 20030527**

Priority

FR 0206600 A 20020530

Abstract (en)

[origin: EP1367221A1] The ventilation system for a turbine high-pressure rotor situated after a combustion chamber and having a forward turbine (3) flange (5) has a first cooling circuit delivering an air flow (C1) through main injectors (15) and apertures (11) in the flange. A second cooling circuit delivers a cooling air flow through a discharge labyrinth situated after the compressor, and a portion (C2c) of this second flow serves to cool the upper forward flange face through a second labyrinth situated beneath the main injectors. There is a branch between the first circuit and the cavity (23) located after the second labyrinth to deliver a third pre-rotated air flow through additional injectors (30) in the form of inclined channels.

IPC 8 full level

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CPC (source: EP US)

**F01D 5/081** (2013.01 - EP US); **F01D 5/3015** (2013.01 - EP US); **F01D 11/02** (2013.01 - EP US)

Cited by

EP1736635A3; EP2942483A1; US10697321B2; US10920611B2

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**EP 1367221 A1 20031203**; **EP 1367221 B1 20060726**; CA 2430143 A1 20031130; CA 2430143 C 20101005; DE 60306990 D1 20060907; DE 60306990 T2 20070308; FR 2840351 A1 20031205; FR 2840351 B1 20051216; JP 2004132352 A 20040430; JP 3940377 B2 20070704; RU 2003116095 A 20050127; RU 2318120 C2 20080227; US 2003223893 A1 20031204; US 6787947 B2 20040907

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