Title (en)

Multifunctional support disc for a labyrinth seal of a turbo machine rotor.

Title (de)

Mehrzweck-Labyrinthträgerscheibe für einen Turbomaschinenrotor.

Title (fr)

Disque porte labyrinthe multifonction pour rotor de turbomachine.

Publication

EP 0214876 A1 19870318 (FR)

Application

EP 86401519 A 19860709

Priority

FR 8512142 A 19850808

Abstract (en)

[origin: US4668167A] A multifunctional labyrinth seal support disk for a turbojet engine rotor is disclosed which also serves to axially lock the rotor blades onto the rotor wheel. A radial support disk has a generally conical, labyrinth seal means extending from the disk in an upstream direction and a conical collar extending from the disk in a downstream direction. The collar has a generally annular bearing surface which bears against an upstream side of the rotor blade roots. Several blade-retaining teeth extend from the collar in a downstream direction and are dimensioned so as to fit within axial grooves between the blade root and the rotor blade wheel. Radially extending spurs bear against the downstream portion of the rotor blade root to axially lock the rotor blade onto the disk. An attaching ring is interposed between the blade retaining teeth and the rotor blade wheel so as to axially lock the multifunctional disk with respect to the rotor blade wheel.

Abstract (fr)

Disque porte-labyrinthe constitué d'un disque radial (13) comportant à sa périphérie : en amont un anneau porte-labyrinthe (14) conique portant des léchettes (10, 11, 12); en aval : une collerette conique (15) munie d'une portée annulaire (16) disposée à sa périphérie et sur son bord aval, des dents de retenue des aubes (17) disposées axialement sur la face aval de la collerette (15) et portant à leur extrémité un talon (23) radial dirigé vers la périphérie et une encoche annulaire (19) dans laquelle vient se loger partiellement un segment d'arrêt (18) dont l'autre partie se loge dans une gorge annulaire (19) prévue dans le disque de rotor. Le disque est formé d'une seule pièce obtenue par moulage et/ou usinage.

IPC 1-7

F01D 5/30; F01D 11/00; F01D 5/26

IPC 8 full level

F01D 5/30 (2006.01); **F01D 11/00** (2006.01)

CPC (source: EP US)

F01D 5/3015 (2013.01 - EP US); **F01D 5/323** (2013.01 - EP US); **F01D 11/001** (2013.01 - EP US); **F01D 11/006** (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

DE FR GB

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DOCDB simple family (application)

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