

Title (en)
Support disc with stiffening element for the labyrinth seal of a turbo machine rotor

Title (de)
Labyrinthträgerscheibe mit einer eingebauten Versteifung für Turbomaschinenrotor

Title (fr)
Disque labyrinthe avec raidisseur incorpore pour rotor de turbomachine

Publication
EP 0789133 A1 19970813 (FR)

Application
EP 97400211 A 19970130

Priority
FR 9601527 A 19960208

Abstract (en)
The labyrinth seal disc (12) consists of a main rim (13) incorporating labyrinth seals (10). An arched section (14) presses against the forward surface (19) of the rotor disc (8). Fixing bolts (6) are located between the two discs. The seal disc incorporates a main radial stiffener (23) just inside the labyrinth seal. The arched section of the disc is formed in the upper part of the rim (13), is elongated in a radial direction and slightly convex. The rear edge (22) of the disc is on a level with the rear portion of the stiffener. Additional fixings between the two discs are provided by teeth (24) on the back of the seal disc engaging with slots in the rotor disc. The arched section is reinforced by ribs (26) extending from the teeth.

Abstract (fr)
Le disque labyrinthe possède un raidisseur principal (23) placé au milieu de la jante (13), juste en dessous des éléments labyrinthe (10). Les moyens de fixation sont de préférence un système de fixation à baïonnette par des dents (24) fixées sur la voûte (14) du disque labyrinthe et des dents (25) fixées sur le rotor (8). D'autres moyens de fixation par boulonnage (6) peuvent éventuellement compléter ceux-ci. Application aux turboréacteurs, sur le circuit froid, en amont de la turbine haute pression. <IMAGE>

IPC 1-7
F01D 11/00; **F01D 5/06**

IPC 8 full level
F01D 5/06 (2006.01); **F01D 11/00** (2006.01)

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F01D 5/066 (2013.01 - EP US); **F01D 5/081** (2013.01 - US); **F01D 5/3015** (2013.01 - EP); **F01D 11/001** (2013.01 - EP US)

Citation (search report)

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EP 97400211 A 19970130; CA 2196642 A 19970203; DE 69701332 T 19970130; FR 9601527 A 19960208; US 79105197 A 19970128