

Title (en)

Coolant recovery type gas turbine

Title (de)

Gasturbine mit Kühlflüssigkeiten-Rückgewinnungssystem

Title (fr)

Turbine à gaz avec système de récupération du réfrigérant

Publication

EP 1335111 B1 20050413 (EN)

Application

EP 03004315 A 19961129

Priority

- EP 03004315 A 19961129
- EP 96940152 A 19961129

Abstract (en)

[origin: EP1335111A2] A gas turbine includes a rotor shaft comprising a plurality of discs (8, 9, 10, 11, 12a). Each disc (8, 9, 10, 11, 12a) has a plurality of moving blades (4, 5, 6, 7, 7a) driven by combustion gas and arranged annularly on the peripheral portion. Spacers (11a, 13, 14, 15) are arranged between the discs (8, 9, 10, 11, 12a), the respective discs (8, 9, 10, 11, 12a) and the spacers (11a, 13, 14, 15) being arranged in the axial direction. The moving blades (4, 5, 6, 7, 7a) are provided with flow paths (8a, 9a) for introducing coolant for cooling and discharging the coolant heated by the combustion gas. Contact surfaces (16a, 31, 32, 33, 34, 35, 36) contacting both the discs (8, 9, 10, 11, 12a) in rotor peripheral side regions and adjacent spacers (11a, 13, 14, 15) are formed therebetween. A supply flow path (8a) passes through the discs (8, 9, 10, 11, 12a) and the spacers (11a, 13, 14, 15) in the regions forming the contact surfaces (16a, 31, 32, 33, 34, 35, 36) and supply the coolant for cooling the moving blades (4, 5, 6, 7, 7a). A recovery flow path (9a) recovers the coolant which is heated by the moving blades (4, 5, 6, 7, 7a). <IMAGE>

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