Title (en)

SEAL RING MEANS FOR A BLADED ROTOR ASSEMBLY

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Application

EP 86901729 A 19851206

Priority

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Abstract (en)

[origin: WO8701761A1] Bladed rotor assemblies having removable blades are used with gas turbines to reduce costs and increase serviceability. Complex structures were used in the past to retain the blades within the rotor and seal the space therebetween. Complex tooling and methods were required for replacement of worn or damaged blades. Replacement of such blades by using the present invention reduces the complexity of the service required and reduces maintenance costs. The bladed rotor assembly (10) of the present invention has a rotor (14) with slots (40), an outward facing groove (62) and an opening (23) in the rotor (14). The blades (16) are mounted in the slots (40) and have an inward facing groove (64) therein. The grooves (62, 64) form an annular T-slot (20). A ring segment (74) and a spacer (82) are rotatably trapped in the T-slot (20) and a device (26) prevents relative rotation between the ring segment (74) and/or the spacer (82), and the rotor (14). The rotor assembly (10) enables replacement of damaged blade (16) on an individual basis by a simple disassembly-assembly technique which is inexpensive and requires low cost tooling. The device (26) preventing rotation is removed from the rotor (14) and the ring segment (74) and the spacer (82) are rotated to align the opening (23) and the spacer (82). The spacer (82) is slipped from the T-slot (20). The ring segment (74) is aligned so that each damaged blade (16) is replaced. After all the damaged blades (16) are replaced, the ring segment (74) is aligned with the opening (23), the spacer (82) reinserted and the ring segment (74) and spacer (82) rotated to a position where prevention device (26) is fixedly attached to the rotor (14).

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