Title (en)

Rotor for a turbomachine

Title (de)

Rotor für eine Strömungsmaschine

Title (fr)

Rotor pour une turbomachine

Publication

EP 1911933 A1 20080416 (DE)

Application

EP 06021139 A 20061009

Priority

EP 06021139 A 20061009

Abstract (en)

The turbine (1) has a housing (39) provided with a feedthrough (20) for feeding an external cooling agent (21), and a rotor (5) that is partly formed in a hollow shape. The rotor includes a supply line (23) for feeding the external cooling agent into a hollow space (22) of the rotor via rotor cooling lines (24). The supply line is arranged adjacent to a balance piston (4). The rotor includes rotor blades allowing the flow of the cooling agent. The rotor blades are cooled by film cooling.

Abstract (de)

Die Erfindung betrifft eine Dampfturbine, umfassend ein Gehäuse (2, 3, 39) und einen Rotor (5), wobei die Dampfturbine derart ausgeführt wird, dass ein externes Kühlmedium (21) in die Dampfturbine durch das Gehäuse (2, 3, 39) in einen Hohlraum (22) des Rotors (5) zugeführt wird, wobei das Kühlmedium (21) thermisch belastete Stellen des Rotors (5) kühlt und anschließend mit der Hauptströmung vermischbar ist.

IPC 8 full level

F01D 5/08 (2006.01)

CPC (source: EP)

F01D 5/085 (2013.01); **F01D 5/088** (2013.01); F05D 2220/31 (2013.01); F05D 2260/205 (2013.01); F05D 2260/2322 (2013.01)

Citation (search report)

- [YD] EP 0991850 B1 20020213 - SIEMENS AG [DE]
- [Y] EP 1674669 A1 20060628 - SIEMENS AG [DE]
- [A] JP H11257007 A 19990921 - HITACHI LTD
- [A] JP S5857007 A 19830405 - HITACHI LTD
- [A] EP 1536102 A2 20050601 - ALSTOM TECHNOLOGY LTD [CH]
- [A] EP 1369554 A1 20031210 - GEN ELECTRIC [US]
- [A] DE 4239710 A1 19940601 - ABB PATENT GMBH [DE]

Cited by

CH699978A1; CN109356663A; CN109236378A; EP2998506A1; EP3879071A1; US8454306B2; US11686201B2

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DOCDB simple family (publication)

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