

Title (en)
Internally cooled rotor of a turbomachine

Title (de)
Innengekühlter Rotor einer Strömungsmaschine

Title (fr)
Rotor de turbomachine à refroidissement interne

Publication
EP 1785587 A1 20070516 (DE)

Application
EP 05024742 A 20051111

Priority
EP 05024742 A 20051111

Abstract (en)
Rotor (1) of turbo machine e.g. steam or gas turbine has rotor shaft (2) supporting rotor blades. Rotor shaft has hollow space (9), which is closed to atmosphere surrounding rotor shaft whereby hollow space extends in the axial direction (8) of the rotor shaft, within an area, which has axial temperature gradient during the specified normal application of rotor. The hollow space is filled with fluid serving as a cooling medium, which has a high thermal capacity than air.

IPC 8 full level
F01D 5/08 (2006.01)

CPC (source: EP)
F01D 5/088 (2013.01); **F05D 2260/207** (2013.01); **F05D 2260/232** (2013.01); **F05D 2260/2322** (2013.01); **F05D 2300/502** (2013.01)

Citation (applicant)
EP 0926311 A1 19990630 - ASEA BROWN BOVERI [CH]

Citation (search report)

- [XY] NL 80867 C
- [X] US 2635805 A 19530421 - HANS BAUMANN
- [X] EP 0500972 A1 19920902 - ASEA BROWN BOVERI [CH]
- [X] US 5954478 A 19990921 - STICKLER DAVID B [US], et al
- [X] DE 863391 C 19530115 - DAIMLER BENZ AG
- [X] DE 333211 C 19210219 - BBC BROWN BOVERI & CIE
- [X] DE 865839 C 19530205 - SCHMIDT ERNST DR-ING
- [X] GB 628228 A 19490824 - BBC BROWN BOVERI & CIE
- [Y] FR 1117699 A 19560525 - PARSONS & MARINE ENG TURBINE
- [Y] DE 1038839 B 19580911 - BASF AG
- [A] FR 897710 A 19450329
- [A] US 3842596 A 19741022 - GRAY V

Cited by
EP2045442A1; US10041400B2; WO2017200828A1

Designated contracting state (EPC)
CH DE FR GB IT LI

Designated extension state (EPC)
AL BA HR MK YU

DOCDB simple family (publication)
EP 1785587 A1 20070516

DOCDB simple family (application)
EP 05024742 A 20051111