

Title (en)  
Axial flow gas turbine.

Title (de)  
Axialdurchströmte Gasturbine.

Title (fr)  
Turbine à gaz avec flux axiale.

Publication  
**EP 0447886 B1 19940713 (DE)**

Application  
**EP 91103525 A 19910307**

Priority  
CH 96390 A 19900323

Abstract (en)  
[origin: EP0447886A1] In a single-shaft, axial-flow gas turbine, the shaft section located between the turbine and compressor is a drum (12) which is surrounded by a drum cover (13). The annular channel (18) formed between the drum and the drum cover carries out the guidance of all the rotor cooling air, which is removed on the hub side behind the final compressor rotor stage, towards the front (16) of the turbine and, subsequently thereto, to its cooling channels on the rotor side. The cooling air is deflected within the annular channel in a twisting grid (25) and is accelerated to the maximum possible tangential speed. This measure allows, on the one hand, the axial thrust of the gas turbine to be reduced and, on the other hand, the previously normal heat exchanger for the cooling air to be dispensed with. <IMAGE>

IPC 1-7  
**F01D 5/08**; **F02C 7/18**

IPC 8 full level  
**F02C 3/045** (2006.01); **F01D 3/04** (2006.01); **F01D 5/08** (2006.01); **F02C 7/18** (2006.01)

CPC (source: EP US)  
**F01D 3/04** (2013.01 - EP US); **F01D 5/081** (2013.01 - EP US); **F01D 5/084** (2013.01 - EP US)

Cited by  
EP2011963A1; EP1736635A3; US5575617A; CN1056909C; EP0702129A3; EP0636765A1; FR2707698A1; US5440874A; US10794290B2; US10731560B2; US10794288B2; US7334412B2; US10371055B2; US10830149B2; US10221862B2; US11215197B2; US10550768B2; US10961911B2; US10100739B2; US10738703B2; US10914235B2; DE102013220844A1; DE102013220844B4; US10711640B2; US10830148B2; US10480419B2; US10577964B2; US10830145B2; US11773742B2; US10669940B2; US11236675B2; US11255268B2; US11773780B2; US10443508B2; US11002195B2; US11512651B2; US8092150B2; US10718233B2; US11808210B2; EP0702129A2; US10808619B2; US10995673B2

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**EP 91103525 A 19910307**; DE 59102139 T 19910307; JP 5871191 A 19910322; US 67927491 A 19910402