

Title (en)  
Turbine disc cooling device

Title (de)  
Kühleinrichtung für eine Turbinenscheibe

Title (fr)  
Dispositif de refroidissement d'un disque de turbine

Publication  
**EP 0785338 A1 19970723 (FR)**

Application  
**EP 97400078 A 19970116**

Priority  
FR 9600521 A 19960118

Abstract (en)  
The cooler is for a turbine disc (2) covered by a flange (13). The cooler comprises first and second ventilation circuits (I,II) for air. Both circuits issue from a stator and discharge respectively before an inner crown of the disc and an outer crown (22) of the flange. The first circuit branches towards a seal situated between the flange and the stator, and is parallel to the flange towards the outer crown. The cooler has a component (30) situated in front of the outer crown and having first and second channels (31,32) passing through it. The first channels (31) lie parallel to one surface of the flange, extending the first ventilation circuit. The second channels (32) extend the second circuit, crossing the first channels without intersecting them and ending before the outer crown.

Abstract (fr)  
Dispositif de refroidissement de la partie externe d'un disque de turbine (2) au moyen d'un courant d'air frais externe (circuit II) sans mélange avec la ventilation plus chaude du centre du disque (circuit I). Une pièce (30) traversée de canaux (31, 32) qui se croisent sans se couper permet d'éviter le mélange de courants sensiblement perpendiculaires devant une partie (22) du disque (2) et un mélange qui réduit l'efficacité du refroidissement.  
<IMAGE>

IPC 1-7  
**F01D 5/08**

IPC 8 full level  
**F01D 5/08** (2006.01)

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**F01D 5/081** (2013.01 - EP US)

Citation (search report)

- [X] GB 2135394 A 19840830 - GEN ELECTRIC
- [X] GB 2184167 A 19870617 - GEN ELECTRIC
- [X] FR 2292868 A1 19760625 - GEN ELECTRIC [US]
- [A] US 5402636 A 19950404 - MIZE CHRISTOPHER D [US], et al
- [A] GB 2266345 A 19931027 - SNECMA [FR]
- [A] GB 2042643 A 19800924 - ROLLS ROYCE
- [A] FR 2439872 A1 19800523 - ROLLS ROYCE [GB]

Cited by  
EP1367225A3; KR101232609B1; EP1741874A3; RU178381U1; EP1911937A3; EP2942483A1; RU2474697C2; FR3054606A1; EP2048324A1; FR2922263A1; EP1367225A2; WO2019168590A1; WO2018020131A1; US10697321B2; US10920611B2; US8133010B2; US10808537B2

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