

Title (en)
Side plate

Title (de)
Seitenplatte

Title (fr)
Plaque latérale

Publication
EP 1703081 A1 20060920 (EN)

Application
EP 06250365 A 20060124

Priority
GB 0503676 A 20050223

Abstract (en)
In gas turbine engines it is found that leaked coolant flow through the lock plates 28, 29, 50, 60 can be used to insulate the rotor surfaces 33, 34 from the effects of hot gas ingestion. In order to enhance this effect chutes 39, 59, 69 are provided to guide the leakage airflow adjacent to the lock plate such that the ingested hot gas flow is prevented from coming into contact with the surfaces of the lock plate and other cavity surfaces 33, 34 to improve cooling effect. The chutes 39, 59, 69 create apertures 40, 53 which can be of dimensions to ensure that there is a high ratio between width and depth of the coolant flow 32 again facilitating heat exchange and cooling efficiency.

IPC 8 full level
F01D 5/30 (2006.01); **F01D 5/08** (2006.01)

CPC (source: EP US)
F01D 5/081 (2013.01 - EP US); **F01D 5/3015** (2013.01 - EP US)

Citation (applicant)
• US 6290464 B1 20010918 - NEGULESCU DIMITRIE [DE], et al
• US 629464 A 18990725 - PAUL ROBERT M [US]

Citation (search report)
• [X] EP 0916808 A2 19990519 - ROLLS ROYCE PLC [GB]
• [X] US 6416282 B1 20020709 - BEECK ALEXANDER [DE], et al
• [X] FR 1426933 A 19660204 - GEN ELECTRIC
• [DX] US 6290464 B1 20010918 - NEGULESCU DIMITRIE [DE], et al
• [X] US 5941687 A 19990824 - TUBBS HENRY [GB]
• [X] GB 1209419 A 19701021 - WESTINGHOUSE ELECTRIC CORP [US]
• [A] EP 1284338 A2 20030219 - GEN ELECTRIC [US]

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Designated contracting state (EPC)
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