

Title (en)  
High pressure turbine stator of a turbo-engine and his assembling process

Title (de)  
Hochdruckturbinenstator einer Strömungsmaschine und deren Zusammenbauverfahren

Title (fr)  
Stator de turbine haute-pressure de turbomachine et procédé d'assemblage

Publication  
**EP 1577501 A1 20050921 (FR)**

Application  
**EP 05290319 A 20050214**

Priority  
FR 0402825 A 20040318

Abstract (en)  
The method involves defining an angular distribution pattern of units of a stator (10) on a predetermined angular sector. The pattern is repeated on entire circumference of the stator so that temperature is distributed symmetrically on entire circumference of a casing (12) of the stator. A set of angular sectors of a case (24) is placed around the casing, to discharge air from the casing. The pattern is defined to avoid radial alignment between inter-spacer zones (14a), defined between two adjacent spacers (14), and inter-sector zones (24a) defined between two adjacent sectors of the case (24). An independent claim is also included for a stator of a high-pressure turbine of a turbomachine.

Abstract (fr)  
Procédé d'assemblage d'éléments sectorisés (14, 24) d'un stator annulaire (10) d'une turbine haute-pressure de turbomachine autour d'un axe longitudinal (X-X) de ladite turbine, procédé selon lequel, on définit un motif de répartition angulaire des éléments du stator pour un secteur angulaire prédéterminé ( $\Psi$ ), le motif de répartition étant défini de façon à éviter un alignement radial entre des zones inter-secteurs (14a, 24a) des éléments du stator (14, 24) définies entre deux secteurs adjacents d'un même élément du stator, et à répéter ledit motif de répartition sur toute la circonférence du stator. <IMAGE>

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IPC 8 full level  
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Citation (search report)

- [A] EP 1258599 A2 20021120 - GEN ELECTRIC [US]
- [A] US 2004018084 A1 20040129 - HALLIWELL MARK A [GB], et al
- [A] EP 0892153 A1 19990120 - SNECMA [FR]
- [A] EP 1205637 A1 20020515 - SNECMA MOTEURS [FR]
- [A] EP 0892152 A1 19990120 - SNECMA [FR]
- [A] US 3146992 A 19640901 - MILLER FARRELL WILLIAM

Cited by  
EP2182175A3

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