

Title (en)  
Rootconfiguration for turbomachineblades

Title (de)  
Fussform für Turbomaschinenschaufeln

Title (fr)  
Configuration du pied d'aube de turbomachine

Publication  
**EP 0705959 A3 19980107 (DE)**

Application  
**EP 95810586 A 19950920**

Priority  
DE 4435268 A 19941001

Abstract (en)  
[origin: EP0705959A2] The bladed rotor (1) has blade roots (3) and corresponding blade root cavities (2) are christmas tree shaped. The free shape gives rise to multiple teeth (10, 20) and matching cavities (11, 21). The combination produces multiple load bearing surfaces (F) that are angled. Each of the teeth and cavities can be described in terms of a large (R2) and small (R1) constant radius curve, joined together by the load bearing surface. The angle (W) between a tangent (T) to the curve at the point (A, B) where it joins the load surface, and the surface itself is at least 40 degrees. The profile of the teeth and cavities is a combination of the curves (22, 24) and the adjoining flats (23, 25).

IPC 1-7  
**F01D 5/30**

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

CPC (source: EP US)  
**F01D 5/3007** (2013.01 - EP US)

Citation (search report)  
• [XY] DE 859838 C 19521215 - MASCHF AUGSBURG NUERNBERG AG  
• [XY] EP 0478234 A1 19920401 - GEN ELECTRIC [US]  
• [Y] WO 8700778 A1 19870212 - WESTINGHOUSE ELECTRIC CORP [US]  
• [Y] US 5176500 A 19930105 - HEINIG ROGER W [US]  
• [A] EP 0291725 A1 19881123 - WESTINGHOUSE ELECTRIC CORP [US]  
• [A] GB 2011552 A 19790711 - UNITED TECHNOLOGIES CORP  
• [XY] PATENT ABSTRACTS OF JAPAN vol. 008, no. 005 (M - 267) 11 January 1984 (1984-01-11)

Cited by  
EP0889202A3

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**DE 4435268 A 19941001**; EP 95810586 A 19950920; JP 25134495 A 19950928; US 51077695 A 19950803