

Title (en)

Rotor assembly with rotor discs connected by both non-positive interlocking and interpenetrating or positive interlocking means

Title (de)

Rotorzusammenbau mit kraftschlüssig und gleichzeitig form- bzw. materialschlüssig verbundenen Rotorscheiben

Title (fr)

Assemblage de rotor composé de disques unis à la fois par une liaison de force et par une liaison de forme ou de masse

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Application

EP 97810852 A 19971111

Priority

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Abstract (en)

The assembly comprises individual rotor discs (1.i) which are positioned concentrically and axially in a row, and are non-positively connected by tension rods (2), to form a compact unit. Neighbouring rotor discs are additionally connected via a further positive and-or material connection (3,4). This is a weld joint, located between neighbouring discs on a larger diameter than the graduated rotor circle (2.1) of the tension rods. The additional connection may be a conical centering, formed by a positive/negative ring cone or double ring cone on each rotor disc.

Abstract (de)

Rotor für Turbomaschinen, dessen einzelne Rotorscheiben 1.i, welche die Turbinen- oder Verdichterschaufeln tragen oder schaufellose Zwischenscheiben sind, axial aneinandergereiht und mit Zugankern (2) verbunden sind. Durch die Zuganker werden die Rotorscheiben gegeneinander gepresst und zur Verhinderung von Relativbewegungen gegeneinander zusätzlich zur kraftschlüssigen Verbindung miteinander wenigstens durch eine weitere Verbindung (3,4), welche form- und/oder materialschlüssig ist, mitsammen verbunden. <IMAGE>

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F01D 5/06 (2006.01)

CPC (source: EP)

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Citation (search report)

- [XY] US 5414929 A 19950516 - FLOESER BERNHARD [DE], et al
- [Y] US 3850546 A 19741126 - MASON G
- [X] US 3625634 A 19711207 - STEDFELD ROWLAND L
- [X] US 3610772 A 19711005 - WAGLE JOSEPH A
- [X] US 4086690 A 19780502 - BERNASCONI FELIX
- [X] US 2492833 A 19491227 - KARL BAUMANN
- [X] GB 2059819 A 19810429 - GEN MOTORS CORP
- [X] US 3617150 A 19711102 - WAGLE JOSEPH A

Cited by

US7568886B2; RU2496007C2; EP2708697A1; EP2586971A3; GB2514693A; GB2514693B; EP2025867A1; US8459951B2; WO2008143932A3; US7192244B2; US9790792B2; WO2013110922A1; WO2009021927A1

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