

Title (en)

ROTOR WITH CENTRIFUGALLY OPTIMIZED CONTACT FACES

Title (de)

ROTOR MIT FLIEHKRAFT-OPTIMISIERTEN KONTAKTFLÄCHEN

Title (fr)

ROTOR COMPORTANT DES SURFACES DE CONTACT OPTIMISÉES POUR LA FORCE CENTRIFUGE

Publication

EP 3724456 A1 20201021 (DE)

Application

EP 19720467 A 20190416

Priority

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- EP 2019059727 W 20190416

Abstract (en)

[origin: WO2019211091A1] The invention relates to a rotor for a gas turbine having a rotor disk (01) on which there are a plurality of rotor components (11) distributed around the circumference. The rotor disk (11) has a circumferential securing shoulder (04) with a contact face (05). Retaining faces (16) come to bear against the contact face (06), each of said retaining faces consisting of a retaining shoulder (15) of the respective rotor component (11) and being designed with a form that complements the contact face. In order to optimize the bearing stresses between the retaining shoulder (15) and the securing shoulder (05), the retaining face (16) has a smaller radius than the contact face (06), namely the retaining radius is at least 0.99 times and at most 0.995 times the contact radius. Also provided is an axially extending aperture (12) in the rotor component (11), the width of which in the circumferential direction is 25% to 75% of the rotor component width in the circumferential direction.

IPC 8 full level

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CPC (source: EP KR US)

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