

Title (en)

Method for increasing the service life of rotor blade locking means

Title (de)

Verfahren zur Verlängerung der Lebensdauer der Laufschaufelbefestigung auf einem Rotor

Title (fr)

Procédé pour augmenter la durée de vie des attaches d'aubes sur un rotor

Publication

EP 1207013 A1 20020522 (FR)

Application

EP 01402916 A 20011114

Priority

FR 0014767 A 20001116

Abstract (en)

The rotor comprises a rim (10) on the periphery (12) of which several removable blades are fastened. The blade fasteners comprise a dovetailed groove (14) and a foot fitted in the groove. The groove is shot blasted by projecting balls (1) in order to create a pre-stressed compression in its surface. The shot blasting is carried out by ultrasonics, the balls being projected by the percussion of a vibrating sonotrode (30). The balls are contained in an enclosure (40) in which they form a mist.

Abstract (fr)

L'invention propose un procédé pour augmenter la durée de vie des attaches d'aubes (26) sur les rotors notamment de turboréacteurs d'avions. Un tel procédé est remarquable en ce qu'il met en oeuvre un grenaillage fort par ultrasons des rainures (14) et des pieds (23) des aubes (20), ce grenaillage étant effectué avec un indice Almen au moins égal à F8A, afin d'augmenter la précontrainte de compression des surfaces en contact sans augmenter la rugosité de ces surfaces. <IMAGE>

IPC 1-7

B24B 39/00; **B24B 1/04**; **C21D 7/06**; **B24C 1/10**; **B24C 5/08**; **F01D 5/28**

IPC 8 full level

B24B 1/04 (2006.01); **B24B 39/00** (2006.01); **B24B 39/02** (2006.01); **B24C 1/10** (2006.01); **C21D 7/06** (2006.01); **F01D 5/28** (2006.01); **F01D 5/30** (2006.01); **F02C 7/00** (2006.01)

CPC (source: EP US)

B24B 1/04 (2013.01 - EP US); **B24B 39/00** (2013.01 - EP US); **B24B 39/026** (2013.01 - EP US); **B24C 1/10** (2013.01 - EP US); **B24C 5/005** (2013.01 - EP US); **C21D 7/06** (2013.01 - EP US); **F01D 5/286** (2013.01 - EP US); **F05D 2200/24** (2013.01 - EP US); **Y10T 29/479** (2015.01 - EP US); **Y10T 29/49318** (2015.01 - EP US); **Y10T 29/4932** (2015.01 - EP US); **Y10T 29/49321** (2015.01 - EP US); **Y10T 29/49323** (2015.01 - EP US)

Citation (applicant)

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Designated contracting state (EPC)

DE FR GB IE IT NL

DOCDB simple family (publication)

EP 1207013 A1 20020522; **EP 1207013 B1 20120111**; CA 2363306 A1 20020516; CA 2363306 C 20080401; FR 2816538 A1 20020517; FR 2816538 B1 20030117; JP 2002200562 A 20020716; JP 3974385 B2 20070912; SG 114512 A1 20050928; US 2002124402 A1 20020912; US 6536109 B2 20030325

DOCDB simple family (application)

EP 01402916 A 20011114; CA 2363306 A 20011113; FR 0014767 A 20001116; JP 2001350517 A 20011115; SG 200107171 A 20011116; US 98786001 A 20011116