Title (en)

PROCESS FOR COATING IMPELLER BLADES

Publication

EP 0451512 B1 19930804 (DE)

Application

EP 91103660 A 19910311

Priority

CH 123790 A 19900411

Abstract (en)

[origin: EP0451512A1] In a process for coating the impeller blades of a rotating heat engine, the said blades are subjected in the operating state of the engine, i.e. "on line", to a first cleaning process, the appropriate agent for this, which depends on whether the blades are uncoated or coated, being mixed in the air stream to the compressor. After switching off the engine and opening it, the impeller blades are subjected in the stationary state, that is in the bladed state of the corresponding rotor or stator, to a preparation process for the following treatment stage. This preparation process may, for example, comprise, if required, dipping the blades into an oscillating erosive bath. The actual coating of the blades is performed by means of a high-speed flame spraying process, in which the protective layer is sprayed onto the surface of the base material at a particle speed of at least 300 m/s. After this, the blades are also subjected to a post-treatment, which if required serves to reduce the surface roughness and/or is provided for applying a top layer. <IMAGE>

IPC 1-7

C23C 4/02; C23C 4/06; F01D 5/28

IPC 8 full level

B05D 1/08 (2006.01); **C23C 4/00** (2006.01); **C23C 4/02** (2006.01); **C23C 4/06** (2006.01); **C23C 4/067** (2016.01); **C23C 4/12** (2006.01); **C23C 4/18** (2006.01); **F01D 5/02** (2006.01); **F01D 5/28** (2006.01); **F01D 25/00** (2006.01)

CPC (source: EP)

C23C 4/02 (2013.01); **C23C 4/067** (2016.01); **F01D 5/288** (2013.01); **F01D 25/002** (2013.01)

Cited by

EP1553203A1; CN110420769A; AT403059B; US5855963A; AT402943B; US5968603A; EP2752559A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

EP 0451512 A1 19911016; **EP 0451512 B1 19930804**; CA 2039944 A1 19911012; CA 2039944 C 20010102; DE 59100238 D1 19930909; DK 0451512 T3 19931227; ES 2044634 T3 19940101; JP 3027214 B2 20000327; JP H04225865 A 19920814; PL 165873 B1 19950228; PL 289795 A1 19911202; RU 2062303 C1 19960620; UA 27027 A1 20000228

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EP 91103660 A 19910311; CA 2039944 A 19910408; DE 59100238 T 19910311; DK 91103660 T 19910311; ES 91103660 T 19910311; JP 7490291 A 19910408; PL 28979591 A 19910409; SU 4895114 A 19910410; UA 4895114 A 19910410