Title (en)

PROCESS FOR PRODUCING TURBO-ROTORS

Publication

EP 0036202 B1 19840613 (DE)

Application

EP 81101907 A 19810314

Priority

DE 3010299 A 19800318

Abstract (en)

[origin: US4383809A] A capsule for use in hot isostatic pressing of a complex-shape workpiece, comprising a ceramic core formed with a cavity having the negative contour of the workpiece, the cavity being open on one side of the core. A metal skin encloses the core, the skin being spaced from the side of the core having the cavity opening and snugly fitting all the remaining sides of the core. The skin has a port through which metal powder can be introduced into the cavity and the space between the skin and core. Where the capsule is used to make a turbomachine rotor having centrifugal blading, the spacing between the skin and core side corresponds to the thickness of the rotor disk. The manufacturing method includes inserting blades of sheet metal into the blade matrices of the cavity, followed by filling the remainder of the cavity with metal powder and then isostatically hot pressing the powder.

IPC 1-7

B22F 5/04; F01D 5/34

IPC 8 full level

B22F 3/12 (2006.01); **B22F 3/14** (2006.01); **B22F 5/04** (2006.01); **F01D 5/28** (2006.01)

CPC (source: EP US)

B22F 3/1291 (2013.01 - EP US); **B22F 3/14** (2013.01 - EP US); **B22F 5/04** (2013.01 - EP US); **F01D 5/28** (2013.01 - EP US)

Cited by

EP1547707A3; EP0133515A3; US4855103A; EP0086417A3; WO9006827A1; WO8705241A1

Designated contracting state (EPC)

BE FR GB IT NL SE

DOCDB simple family (publication)

DE 3010299 B1 19801113; **DE 3010299 C2 19810730**; EP 0036202 A2 19810923; EP 0036202 A3 19811007; EP 0036202 B1 19840613; US 4383809 A 19830517

DOCDB simple family (application)

DE 3010299 A 19800318; EP 81101907 A 19810314; US 24064381 A 19810305