

Title (en)

High temperature composite material impellor, particularly of small diameter, and its manufacturing method

Title (de)

Rotor aus hochtemperaturbeständige Verbundwerkstoff, insbesondere mit kleinem Diameter und sein Herstellungsverfahren

Title (fr)

Turbine en matériau composite thermostuctural, en particulier à petit diamètre, et procédé pour sa fabrication

Publication

**EP 0761977 B1 20010117 (FR)**

Application

**EP 96401835 A 19960828**

Priority

FR 9510205 A 19950830

Abstract (en)

[origin: EP0761977A1] The turbine (10) consists of a number of blades (22) disposed between two flanges (24,30), the blades and the flanges being made out of a composite material of a carbon fibre in a matrix of carbon or ceramic. The first piece (20) is made as a single mono-bloc piece from a composite material forming the first flange (24) and the blades (22). It is first consolidated in a mould and then machined. The second piece forming the second flange (30) is machined from a composite material formed in a mould and consolidated. The two parts (20,30) are then assembled with the blades (22) in contact with the second flange (30) and clamped up centrally.

IPC 1-7

**F04D 29/02**; F04D 29/28; F01D 5/34

IPC 8 full level

**F01D 1/06** (2006.01); **F01D 5/04** (2006.01); **F01D 5/28** (2006.01); **F01D 5/34** (2006.01); **F01D 25/00** (2006.01); **F02C 7/00** (2006.01); **F04D 29/02** (2006.01); **F04D 29/28** (2006.01)

CPC (source: EP US)

**F01D 5/04** (2013.01 - EP US); **F01D 5/282** (2013.01 - EP US); **F01D 5/34** (2013.01 - EP US); **F04D 29/023** (2013.01 - EP US); **F04D 29/284** (2013.01 - EP US); **F05D 2230/53** (2013.01 - EP US); **F05D 2300/20** (2013.01 - EP US); **F05D 2300/224** (2013.01 - EP US); **F05D 2300/6033** (2013.01 - EP US); **Y10T 29/49318** (2015.01 - EP US); **Y10T 29/49321** (2015.01 - EP US); **Y10T 29/49325** (2015.01 - EP US)

Cited by

EP1384516A3; EP2426313A1; CN103008990A; US7322793B2; WO2015122799A1

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

**EP 0761977 A1 19970312**; **EP 0761977 B1 20010117**; DE 69611582 D1 20010222; DE 69611582 T2 20010823; ES 2155178 T3 20010501; FR 2738303 A1 19970307; FR 2738303 B1 19971128; JP 3484299 B2 20040106; JP H09125901 A 19970513; RU 2141564 C1 19991120; UA 28036 C2 20001016; US 5775878 A 19980707; US 6029347 A 20000229

DOCDB simple family (application)

**EP 96401835 A 19960828**; DE 69611582 T 19960828; ES 96401835 T 19960828; FR 9510205 A 19950830; JP 22987596 A 19960830; RU 96117115 A 19960829; UA 96083395 A 19960829; US 5993598 A 19980414; US 68973596 A 19960813