

Title (en)

FAN WITH INTEGRAL SHROUD

Title (de)

LÜFTER MIT INTEGRIERTEM MANTEL

Title (fr)

VENTILATEUR À TUYÈRE INTÉGRÉE

Publication

**EP 2932039 A1 20151021 (EN)**

Application

**EP 13863829 A 20131204**

Priority

- US 201213716959 A 20121217
- US 2013072993 W 20131204

Abstract (en)

[origin: US2014169972A1] An integrally bladed rotor for use in a gas turbine engine includes a central hub; a plurality of airfoils extending from the central hub, each airfoil with a tip, a leading edge and a trailing edge; and a shroud with a metallic portion connecting to the tip of each airfoil to rotate with the airfoils.

IPC 8 full level

**F01D 5/22** (2006.01); **B23P 15/00** (2006.01); **F01D 5/34** (2006.01)

CPC (source: EP US)

**F01D 5/225** (2013.01 - EP US); **F01D 5/34** (2013.01 - EP US); **F01D 21/045** (2013.01 - EP US); **F04D 29/023** (2013.01 - EP US);  
**F04D 29/321** (2013.01 - EP US); **F05D 2220/36** (2013.01 - EP US); **F05D 2230/53** (2013.01 - EP US); **F05D 2260/96** (2013.01 - EP US);  
**F05D 2300/121** (2013.01 - EP US); **F05D 2300/133** (2013.01 - EP US); **F05D 2300/173** (2013.01 - EP US); **F05D 2300/174** (2013.01 - EP US);  
**F05D 2300/603** (2013.01 - EP US); **F05D 2300/614** (2013.01 - EP US); **Y02T 50/60** (2013.01 - EP US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**US 2014169972 A1 20140619**; EP 2932039 A1 20151021; EP 2932039 A4 20151223; WO 2014099365 A1 20140626

DOCDB simple family (application)

**US 201213716959 A 20121217**; EP 13863829 A 20131204; US 2013072993 W 20131204