

Title (en)

Flow work machine with groove on a running gap of a blade end

Title (de)

Strömungsarbeitsmaschine mit Nut an einem Laufspalt eines Schaufelendes

Title (fr)

Machine de traitement des écoulements dotée d'une rainure sur la trajectoire d'une extrémité d'aube

Publication

EP 2143956 A3 20150318 (DE)

Application

EP 09007629 A 20090609

Priority

DE 102008031982 A 20080707

Abstract (en)

[origin: EP2143956A2] The machine has a row of blades (5) arranged in a main flow path. An annular groove (7) runs in a circumferential direction of the machine. An extension of the groove in the circumferential direction is large as compared to an extension of the groove in a meridional flow direction. A cross-sectional area of the groove departs from a parallelogrammic shape in a meridional view of the machine, and is inclined in an upstream direction due to a contour. A centroid of the cross-sectional area of the groove is positioned upstream of a center of a groove aperture (12) on the path.

IPC 8 full level

F04D 27/02 (2006.01); **F04D 29/52** (2006.01); **F04D 29/68** (2006.01)

CPC (source: EP US)

F04D 29/526 (2013.01 - EP US); **F04D 29/685** (2013.01 - EP US); **F04D 29/321** (2013.01 - EP)

Citation (search report)

[X1] EP 1008758 A2 20000614 - UNITED TECHNOLOGIES CORP [US], et al

Cited by

FR2989742A1; DE102018203304A1; US10539154B2; WO2013156726A3; WO2016093811A1; US9638213B2; US11686207B2

Designated contracting state (EPC)

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 SE SI SK TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

EP 2143956 A2 20100113; **EP 2143956 A3 20150318**; DE 102008031982 A1 20100114; US 2010014956 A1 20100121; US 8257022 B2 20120904

DOCDB simple family (application)

EP 09007629 A 20090609; DE 102008031982 A 20080707; US 49805009 A 20090706