

Title (en)

Turbo machine with fluid re-injection to influence the boundary layer

Title (de)

Strömungsmaschine mit Fluidrückfuhr zur Grenzschichtbeeinflussung

Title (fr)

Turbomachine avec réinjection de fluide pour influencer la couche limite

Publication

**EP 2110559 B1 20181212 (DE)**

Application

**EP 09003693 A 20090313**

Priority

DE 102008019603 A 20080418

Abstract (en)

[origin: EP2110559A2] The machine has a main flow path confined by a wall, and a row of blades e.g. rotor blades or stator vanes, fixedly mounted on the wall. A fluid intake opening (9) and fluid supply opening (10) are located in the wall in an area of the blades, where the openings are connected by a fluid return path (11). A circumferential extension of the supply opening is less than distance between two adjacent blades. One blade has a blade section with a profile camber comprising an angular difference of 35 degrees of tangents drawn on a profile skeleton line at leading and trailing edges of the blade.

IPC 8 full level

**F04D 29/52** (2006.01); **F04D 29/32** (2006.01); **F04D 29/68** (2006.01)

CPC (source: EP US)

**F04D 29/321** (2013.01 - EP US); **F04D 29/542** (2013.01 - EP US); **F04D 29/563** (2013.01 - EP US); **F04D 29/681** (2013.01 - EP US); **F04D 29/682** (2013.01 - EP US); **F04D 29/684** (2013.01 - EP US); **F01D 17/162** (2013.01 - EP US)

Cited by

EP2871368A1; FR3107917A1; US11326619B2; US10066633B2; US10047619B2; WO2010015241A3; WO2019034740A1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**EP 2110559 A2 20091021**; **EP 2110559 A3 20150325**; **EP 2110559 B1 20181212**; DE 102008019603 A1 20091022; US 2009263233 A1 20091022; US 8043046 B2 20111025

DOCDB simple family (application)

**EP 09003693 A 20090313**; DE 102008019603 A 20080418; US 38576709 A 20090417