

Title (en)

METHOD FOR INFLUENCING SECONDARY FLOWS IN A TURBOMACHINE AND TURBOMACHINE

Title (de)

VERFAHREN ZUR BEEINFLUSSUNG VON SEKUNDÄRSTRÖMUNGEN BEI EINER TURBOMASCHINE SOWIE TURBOMASCHINE

Title (fr)

PROCÉDÉ PERMETTANT D'INFLUENCER DES FLUX SECONDAIRES DANS UNE TURBOMACHINE ET TURBOMACHINE

Publication

EP 2304183 A2 20110406 (DE)

Application

EP 09772488 A 20090701

Priority

- EP 2009058290 W 20090701
- DE 102008031789 A 20080704

Abstract (en)

[origin: WO2010000788A2] The invention relates to a method for influencing secondary flows in a passage (20) between two adjacent rotating blades and guide vanes (14) of a turbomachine. Said blades project respectively from a lateral wall (12) of a hub or a housing of the turbomachine, and a fluid flows through the passage (20) in a main flow direction (23). According to the method, the following step is carried out in order to reduce internal losses: a stable auxiliary fluid whirl (36) is generated, said whirl rotating in the passage, perpendicular to the main flow direction (23) and in the opposite direction to a secondary whirl (28), using a whirl channel (30) formed in the lateral wall (12) of the hub or housing. Said channel is not rotationally symmetrical in relation to the hub axis.

IPC 8 full level

F01D 5/14 (2006.01)

CPC (source: EP)

F01D 5/143 (2013.01); **F01D 5/145** (2013.01)

Citation (search report)

See references of WO 2010000788A2

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 SM TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

DE 102008031789 A1 20100107; EP 2304183 A2 20110406; WO 2010000788 A2 20100107; WO 2010000788 A3 20110120

DOCDB simple family (application)

DE 102008031789 A 20080704; EP 09772488 A 20090701; EP 2009058290 W 20090701